

# Unlocking the Potential of Digital Payments in Africa:

A Comparative Analysis of Regulatory  
Sandboxes and Payment Service  
Providers

SEPTEMBER 2023



Research  
Partner



---

# Table of Contents

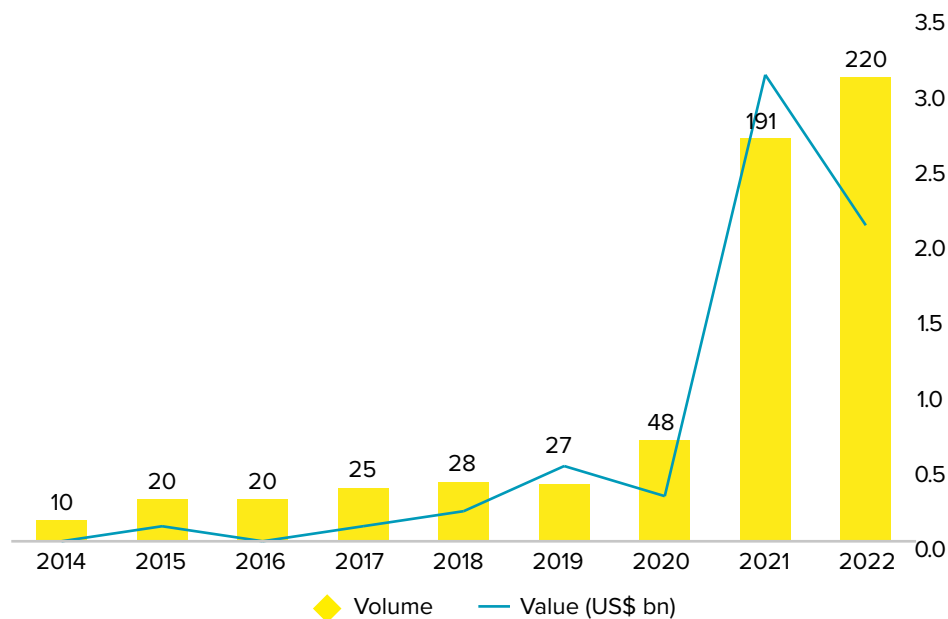
<b>An Introduction to the Payments Industry in Africa</b>	<b>3</b>	<b>Regulation of Payment Service Providers in Africa</b>	<b>21</b>
Growth Drivers of Digital Payments in Africa	4	1) Regulatory Framework	21
Challenges Facing Digital Payments in Africa	7	2) Licencing Framework	22
		3) Permissible Activities	26
		4) Benchmark Summary	27
<b>FinTech Regulatory Sandboxes in Africa: An Overview</b>	<b>9</b>		
		<b>The Practitioner Perspective</b>	<b>28</b>
<b>Regulation of FinTech Sandboxes in Africa</b>	<b>13</b>	An Interview with Chipper Cash	28
1) Regulatory Framework	13	An Interview with Centrika	31
2) Eligibility Criteria	13		
3) Access & Application Criteria	15	<b>The Policy Perspective</b>	<b>34</b>
4) Key Features	16	An Interview with the Monetary Authority of Singapore	34
5) Benchmark Summary	17		
		<b>Policy Recommendations</b>	<b>37</b>
<b>Payment Service Providers in Africa: An Overview</b>	<b>19</b>	Creating a Framework for Responsible and Innovative FinTech Services: Recommendations for Regulatory Sandboxes	37
		Creating a Framework for Responsible and Innovative FinTech Services: Recommendations for Payment Service Provider Licensing	39

# An Introduction to the Payments Industry in Africa

The environment within which African financial systems operate has undergone radical changes since the turn of the century. Once chronically on the fringes of the global arena for traditional finance, a deepening of financial systems can be observed in almost every country across the continent - bringing banking, insurance and credit services to more households and enterprises than ever before. The African Union's *Digital Transformation Strategy For Africa* recognises digital trade and financial services as critical sectors that will drive the continent's digital transformation between 2020 and 2030. Bringing about this transition are new players and new products, often enabled by new technologies, that are broadening access to financial services in Africa. In this environment, competition and innovation have come to dominate African financial systems, cutting across all facets of the payments industry including channels, methods and value chains to reach previously unbanked vestiges of the population.

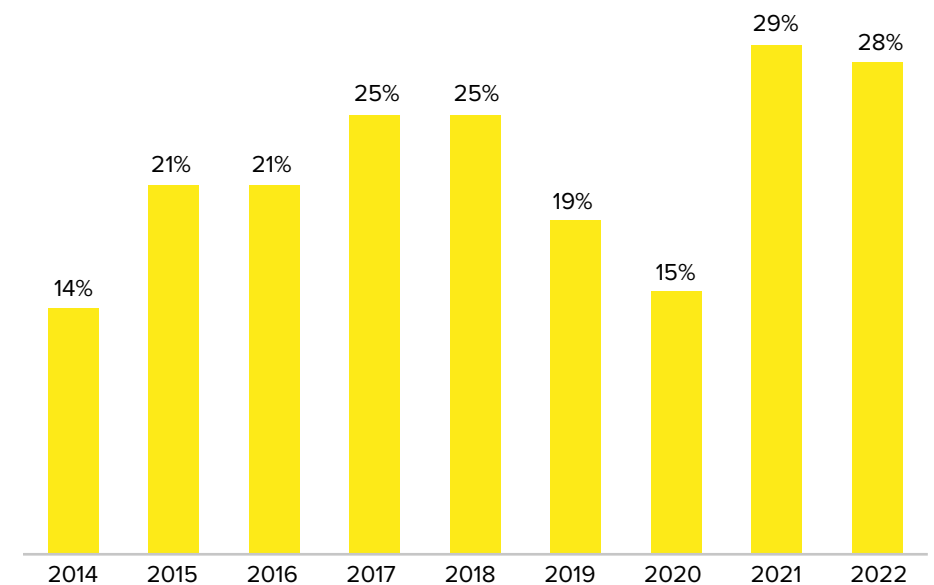
Technology has emerged as a silver bullet in Africa, enabling the continent to keep pace with the changing landscape of payments for goods and services globally. Africans are adopting electronic payments and emerging alternatives such as cryptocurrency and digital currencies as a complement to traditional cash-based payments. These shifts towards electronic payments and the surge of alternative conceptions of money has precipitated an influx of new investments and supportive regulatory changes that are redefining Africa's payment landscape. Notably, the value of venture capital investments to FinTech companies in Africa has grown at a Compound Annual Growth Rate (CAGR) of 60% between 2014 and 2022, climbing from US\$30 million to 9 unique companies in 2014 to US\$2.1 billion allocated to 200 unique companies in 2022.

**FIGURE 1: Volume and Value (US\$bn) of FinTech Venture Capital Deals in Africa, 2014-2022**



Source: AVCA

**FIGURE 2: Contribution of FinTech Deals to Total Volume of Venture Capital Deals in Africa, 2014-2022**



Source: AVCA

Nonetheless, the majority of monetary transactions in Africa remain cash-based, with less than 10% of all payment transactions made via electronic or digital channels<sup>1</sup>. This is significantly below the number of electronic or digital payments made in Latin America, for example, which stands at 64%<sup>2</sup>, as well as the Middle East (30%)<sup>3</sup>. While cash is still King in Africa, there are a number of growth drivers fuelling the penetration of digital and mobile based payments, with the potential to drive both social and economic gains.



## Growth Drivers of Digital Payments in Africa

Digital payments are changing the mode of everyday functions, including how Africans bank, shop, and do business. While there are several push factors for the growth in digital payments in Africa, there are four key drivers accelerating the shift to cashless economies on the continent.

Africa is anticipated to surpass half a billion e-commerce users with an e-commerce penetration rate of 40% by 2025



**A continuous growth in e-commerce** both globally and in Africa has supported the adoption of digital payment methods. Global e-commerce volumes increased by 25% between 2019 and 2020 and are further expected to display annual growth averaging 12-15% until 2025<sup>2</sup>, thus driving innovation in and uptake of digital payments<sup>4</sup>. Digital commerce is also on an upward trajectory in Africa, revolutionising how individuals buy and behave online. Africa is anticipated to surpass half a billion e-commerce users with an e-commerce penetration rate of 40% by 2025, in what would be a 17% CAGR of online consumers for the market<sup>5</sup>. As in other parts of the world, the COVID-19 pandemic (discussed later in this chapter) magnified the growth of e-commerce and digital trade. A unique feature of e-commerce in Africa is the presence of small businesses leveraging



**The COVID-19 pandemic and resulting containment measures** accelerated the growth of digital payments in Africa, resulting in a consumer shift from cash to contactless digital payments. While this upward trend towards digital payments was not unique to Africa in the aftermath of the pandemic, its adoption on the continent in particular grew by leaps and bounds. For example, mobile-money transaction volumes in Nigeria more than doubled from 377 million to around 800 million in 2020 according to the Central Bank of Nigeria<sup>6</sup>, while data from South Africa shows a 40% growth in online commerce during lockdowns in 2020 and 2021<sup>7</sup>. A recent study by the United Nations Economic Commission for Africa on the impact of COVID-19 on e-commerce in Africa highlights how consumers in Egypt, Nigeria, South Africa and Kenya flocked to the internet during the pandemic. In each of these countries, 40% of respondents reported being more likely to maintain or increase the levels of digital payment transactions they typically made before the pandemic<sup>8</sup>. Although the uptake of e-payments on the continent has gained momentum since 2000, many African countries saw hitherto unprecedented growth in e-payments between 2020-2022.



**Government led efforts to promote cashless payments** are another growth driver of new digital payment systems across Africa. This has had the benefit of facilitating interoperability, plugging tax leakages, and ensuring the effective distribution of aid<sup>9</sup>. Furthermore, policy and regulatory changes in key markets have played an important role in driving digital payment growth in Africa in the last few years, with examples as follows:



### Nigeria

Following the rapid transformation of the national payments system driven by financial technology and digital innovation, in 2013 the Nigerian Central Bank reviewed, updated and extended their existing strategy (Vision 2020) to become the *Payments System Vision 2025*. The 2025 iteration of this strategy placed particular emphasis on digitalising the country's national payment system and also introduced the Cashless Nigeria Policy to promote the uptake of digital payments<sup>10</sup>.



## Ghana

In 2020 the Ministry of Finance launched three policy initiatives including the Digital Financial Services Policy and the Cash-Lite Roadmap designed to deepen financial inclusion and accelerate the shift to digital payments in Ghana<sup>11</sup>.



## Rwanda

The National Bank of Rwanda launched the *Twagiye Kashiresi* campaign in May 2022 to accelerate the adoption and use of responsible digital payments to every household, as part of the wider Rwanda Payment System Strategy to achieve a Cashless Rwanda by 2024<sup>12</sup>.



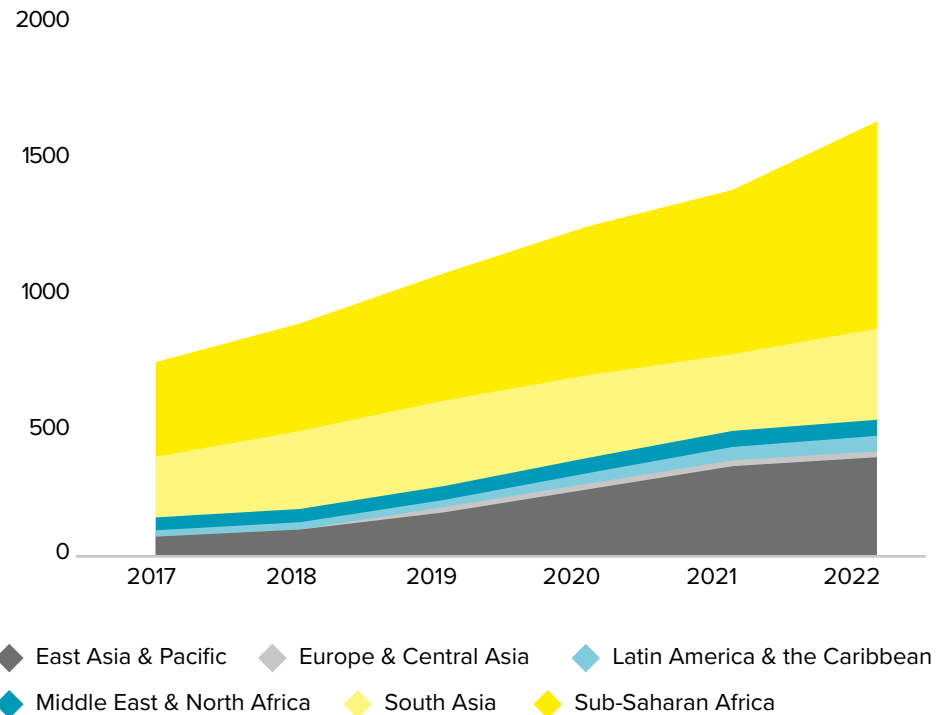
## South Africa

In March 2023 The South African Reserve Bank launched *payshap*, South Africa's first rapid payments programme, as part of the Bank's wider bid to modernise the country's payment system under the National Payment System Framework and Strategy: Vision 2025<sup>13</sup>.



**The rapid adoption of mobile technology in Africa**, amplified by a growing middle class in urban areas using mobile money to make purchases, has accelerated the number of mobile transactions<sup>14</sup>. According to data from the Global System for Mobile Communications (GSMA), sub-Saharan Africa has consistently assumed the largest volume and value of annual mobile money transactions globally since 2017. More recently, Africa contributed 68% (US\$836.5 billion) of the global value of mobile transactions in 2022 and was also the region with the biggest rise in adoption and active usage of mobile money between 2021 and 2022<sup>15</sup>. The proliferation of mobile money across multiple use-cases has established Africa as the world's mobile money frontrunner. Successes in key markets on the continent has encouraged similar adoption in other low-and middle-income countries, elevating mobile money from a niche offering to an important part of mainstream financial services.

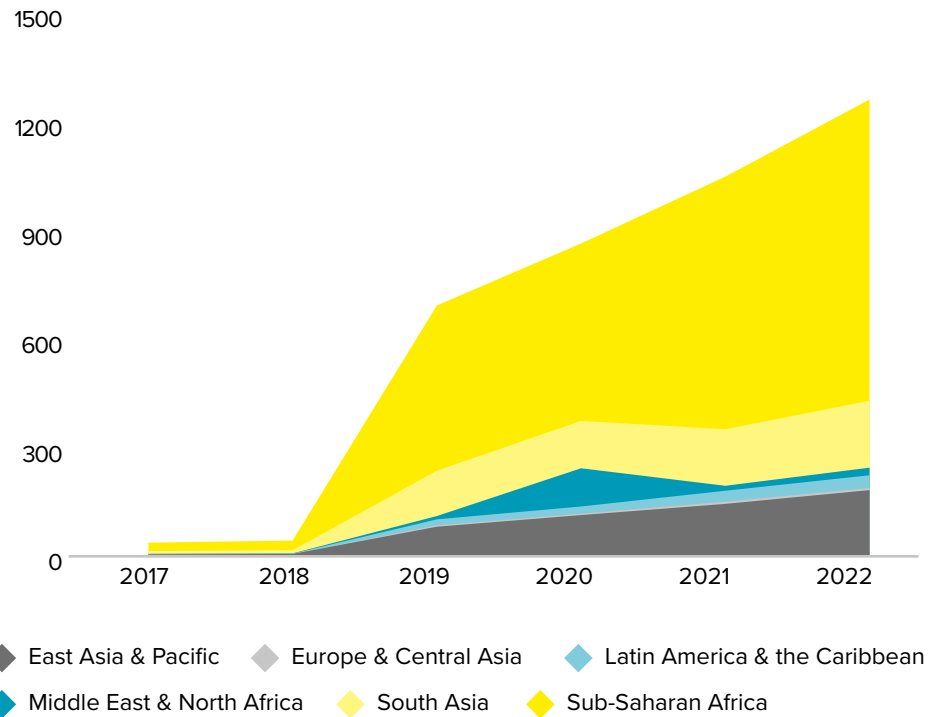
FIGURE 3: **Volume (millions) of Registered Mobile Money Accounts Globally, 2017-2022**



Source: GSMA

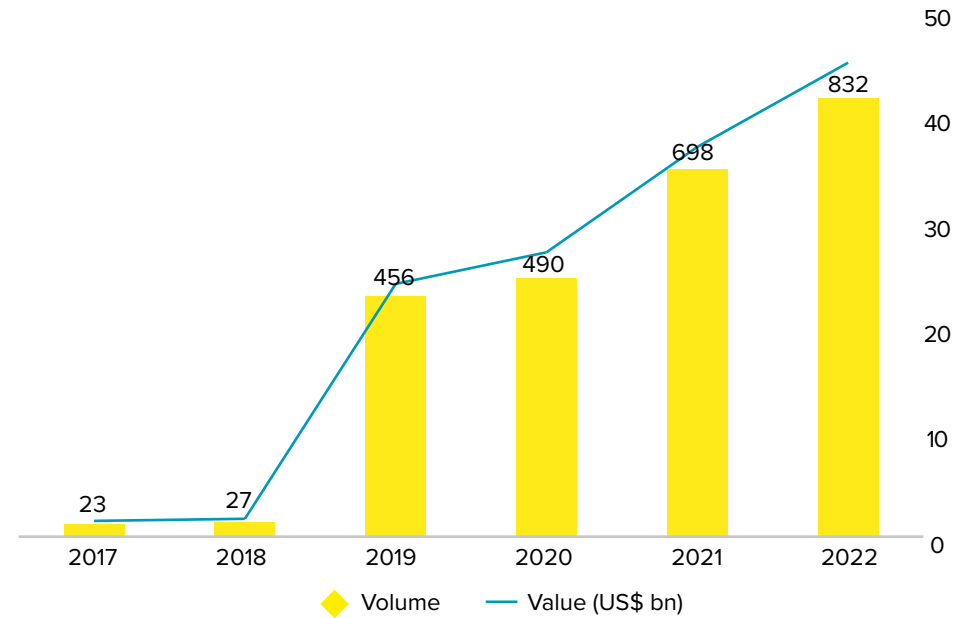
Africa contributed **68%** (US\$836.5 billion) of the global value of mobile transactions in 2022

FIGURE 4: **Value (US\$bn) of Mobile Money Transactions Globally, 2017-2022**



Source: GSMA

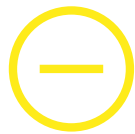
FIGURE 5: **Volume (billions) and Value (US\$bn) of Mobile Money Transactions in Sub-Saharan Africa, 2017-2022**



Source: GSMA

Africa was also the region with the biggest rise in adoption and active usage of mobile money between 2021 and 2022

However, the impact of these growth drivers has not been uniform across the continent. Their effect on the development of sophisticated electronic systems will depend on each market's infrastructure readiness, regulatory environment and consumer trust and sensitisation, which each serve as enablers of a seamless digital transition. The proceeding section highlights some of the challenges impeding the development, convenience and scalability of digital payments in Africa.

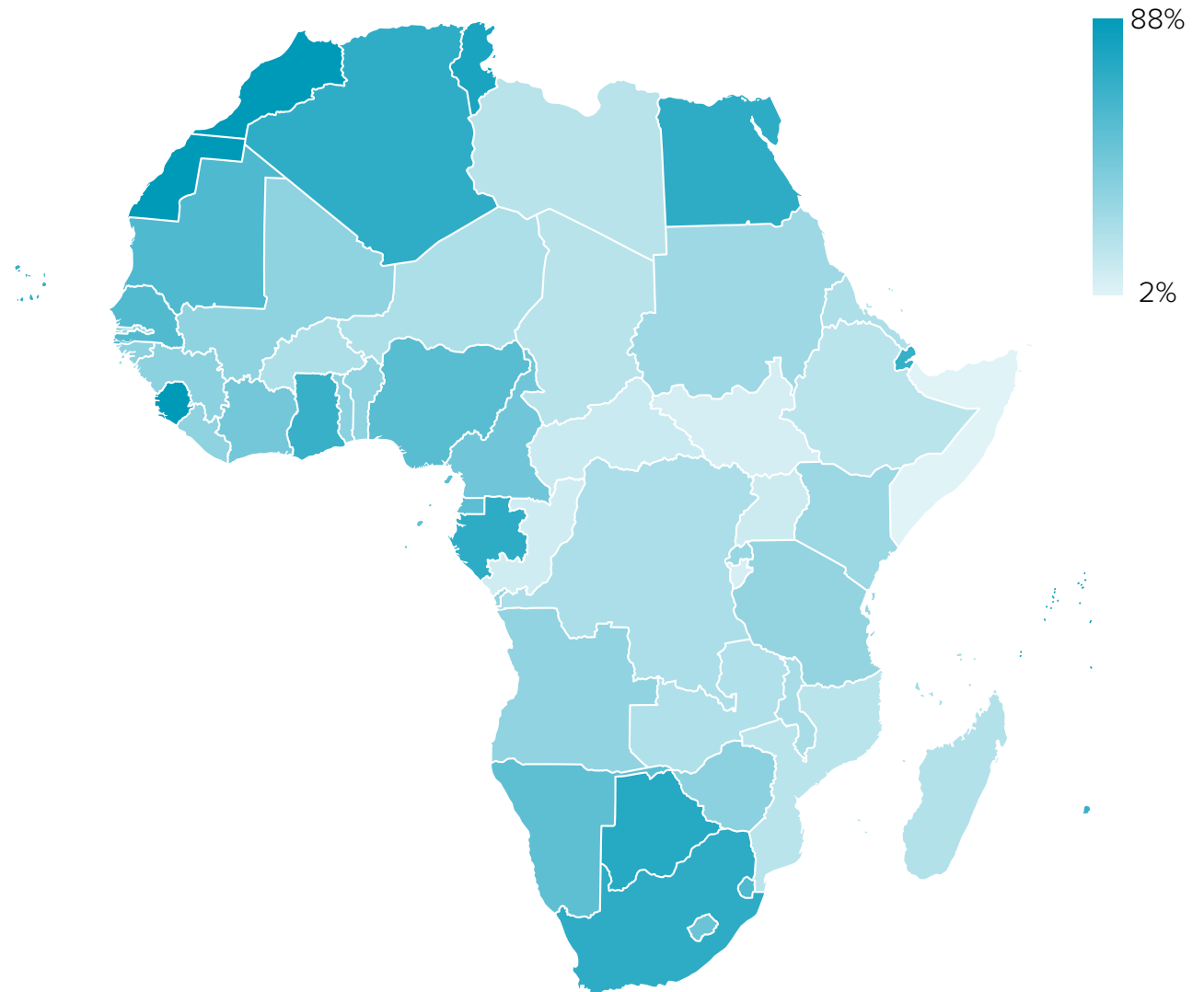


## Challenges Facing Digital Payments in Africa



**Connectivity and Digital Infrastructure** are twin challenges affecting the growth of digital payments in Africa. Despite an increase in internet and mobile phone penetration across the continent, access to reliable internet remains limited and Africa lags behind every other region globally. An average 40% of Africans had access to the internet in 2022, well below the global average of 66%<sup>16</sup>. Internet penetration in Africa is significantly lower than the near-universal access in North America (95%); and stands at roughly half of the 75% recorded in Latin America & the Caribbean, the second lowest region in the world (outside of Africa)<sup>17</sup>. This belies significant cross-country disparities, however, illustrated in Figure 4. Nevertheless, limited internet connectivity, coupled with high connectivity costs in some countries, make it more challenging for businesses to conduct online transactions and for customers to access digital payment solutions. Beyond affordability, inadequate digital and real-time payments infrastructure make it more challenging to deploy certain payment technologies such as NFC-enabled devices or QR codes. The absence of the requisite infrastructure to support these alternative payment mechanisms necessitates the presence of cash in national payment systems.

FIGURE 6: **Internet Penetration in Africa, 2021**



Source: United Nations International Telecommunication Union (ITU)



Secondly, **regulatory requirements for real-time and digital payments** in many African countries are complex and evolving. Regulatory uncertainties and a lack of comprehensive, appropriate, and enabling regulatory frameworks for payments (and FinTech more generally) are hindering the increased adoption of cashless forms of payment. Governments and central banks with a strong focus on open, competitive, and innovative payments ecosystems are proving to be successful in driving growth and expansion of their digital economies, as illustrated in the preceding section. However, an unsupportive or outdated regulatory environment can also slow the pace of change, including the ability of industry players to offer innovative payment solutions.



**User confidence and the perceived utility of digital payments** by consumers and small businesses in Africa lags behind other parts of the world and is another bottleneck to its increased adoption. This lack of awareness and faith in digital payment methods appears to be most prevalent in rural regions. For example, a 2022 study of digital payments ecosystems in South African townships found that cash remains the payment option of choice in township communities, despite its higher risk profile<sup>18</sup>. Additionally, 33% of respondents in a study of rural participation in mobile and digital financial services in 10 African countries cited a lack of trust / high-risk perception as their reason for not making use of mobile money technology<sup>19</sup>. This relative lack of confidence in the security of online payment methods, coupled with negative perceptions of formal financial services, has a significant impact on digital payment adoption and means cash still reigns supreme in peripheral regions of the continent.



**High digital transaction costs** are another challenge facing the competitiveness and convenience of cash alternatives in Africa. Given the relatively low average income per capita and purchasing power of most of

Africa's population, values of individual customer transactions are often lower than more developed economies. Processing costs per dollar for instant payments are therefore more expensive on behalf of the service provider. However, transaction costs are equally high on behalf of the customer, and can prove prohibitive. Notably, Africa's mobile money landscape is dominated by the slab-based pricing model due to its perceived user-friendliness, where transactions within a predefined range are charged a flat transaction fee<sup>20</sup>. However, a compromise for this accessibility is its value, as the slab approach is also among the most expensive pricing models (on a percentage basis) for small value transactions, with fees ranging from 1-3% of the transaction value. These high digital transaction costs are amplified by stiff tariffs on digital transactions by governments, further affecting mass adoption. Examples include the 2% tax for local currency electronic transfers in Zimbabwe (which rises to 4% for domestic foreign currency transactions), the 1.75% levy on mobile money transactions of GHS100 (US\$16) or more in Ghana, and 0.2% tax on mobile money transactions in Cameroon, to name a few<sup>21</sup>.

Although not without its challenges, the growth and opportunities for digital payments in Africa are limitless. However, a supportive policy and regulatory frameworks are necessary to create an environment where the innovators improving the convenience and scalability of payment methods on the continent are able to nurture and develop their products, services and solutions.

To that end, the next chapter of the report examines the legal and regulatory environment underpinning the metamorphosis of payment systems in Africa. Focusing on Egypt, Ghana, Kenya, Nigeria, Rwanda, South Africa, and the West African Economic and Monetary Union (WAEMU), Section 2 provides a comparative analysis of the key features of regulatory sandboxes and payment service licenses in these jurisdictions.





# FinTech Regulatory Sandboxes in Africa: An Overview

## Key Definition:

### Regulatory Sandbox

“A regulatory sandbox is a regulatory approach, typically summarized in writing and published, that allows live, time-bound testing of innovations under a regulator’s oversight. Novel financial products, technologies, and business models can be tested under a set of rules, supervision requirements, and appropriate safeguards.”

- *United Nations Secretary-General’s Special Advocate for Inclusive Finance for Development\**

\* UNSGSA, 2020. [Briefing on Regulatory Sandboxes](#)

The current landscape of payments and financial services globally is virtually unrecognisable from what it was even twenty years ago. Advancements in technology (including biometric technologies, cloud computing, contactless technologies, digital identification, distributed ledger technologies and the internet of things) are being applied to payments, enabling the delivery of new products, services, and access modes<sup>22</sup>. Examples of new tech-enabled products include instant payments, digital currencies and stablecoins. Technology has not only enabled the diversification of product offering in the payments and financial services landscape, but it has also transformed how both traditional and emerging financial products are accessed with the introduction of electronic wallets, super apps and open banking interfaces.

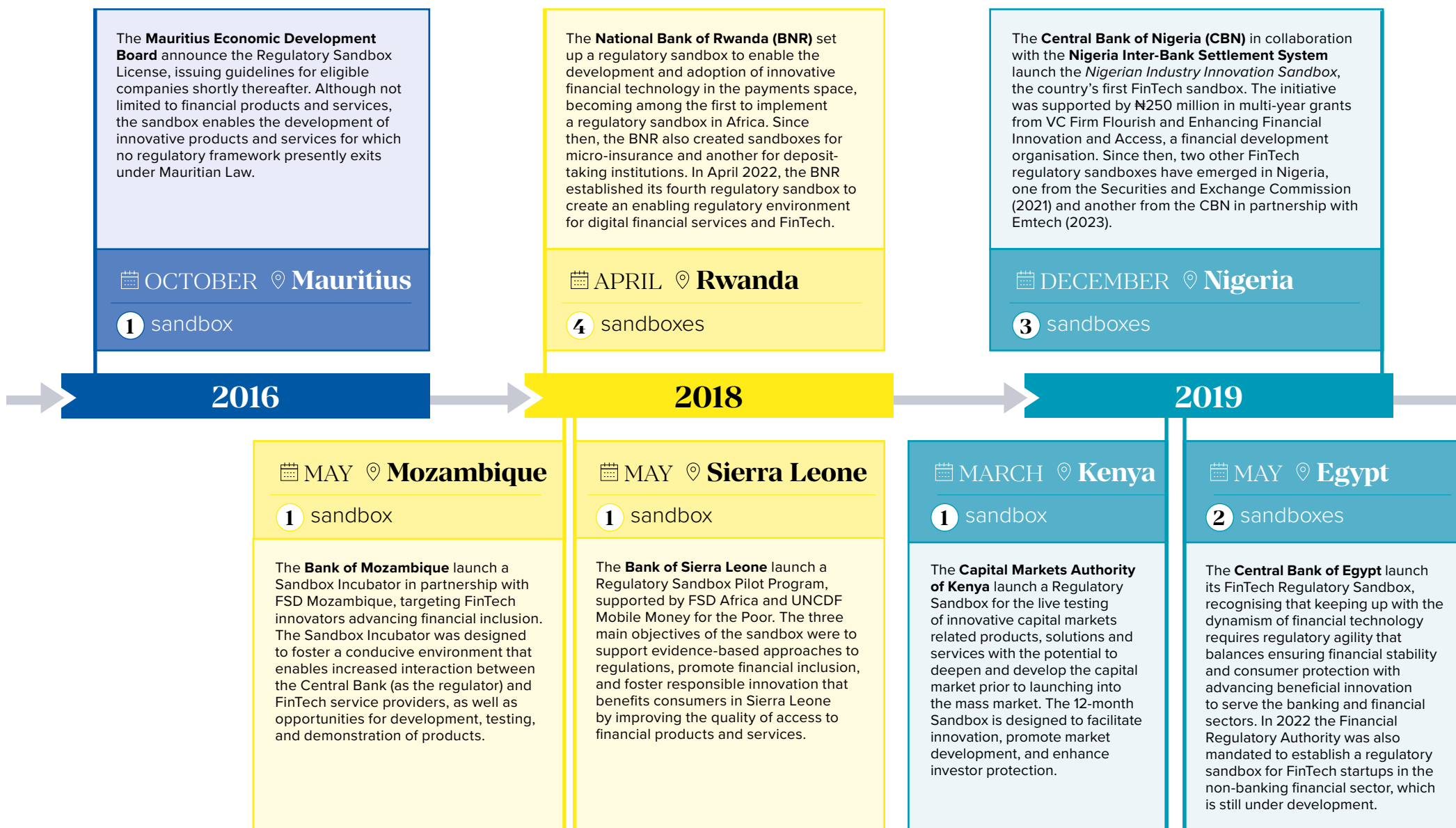
However, these new or emerging financial products, services, or delivery channels may not be fully compliant or compatible with existing regulatory requirements. One way governments and regulators are responding to the rapidly evolving landscape of financial technology and the shift towards an online, digital, and application-based financial ecosystem is by instituting regulatory sandboxes. Sandboxes allow regulators to gain insight into the advantages and risks of newly developing technologies, the results of which are used to inform evidence-based regulation<sup>23</sup>. Policymakers are therefore armed with the necessary information to adapt their regulatory

environments and re-engineer internal structures or systems to foster innovation and cater for these market introductions. The world’s first regulatory sandbox was established in the United Kingdom by the Financial Conduct Authority in November 2015. Since then, over 70 sandboxes across 57 jurisdictions around the world have emerged (as of November 2020) to stimulate innovation in financial markets and facilitate the entry of new players, according to a study by the World Bank<sup>24</sup>.

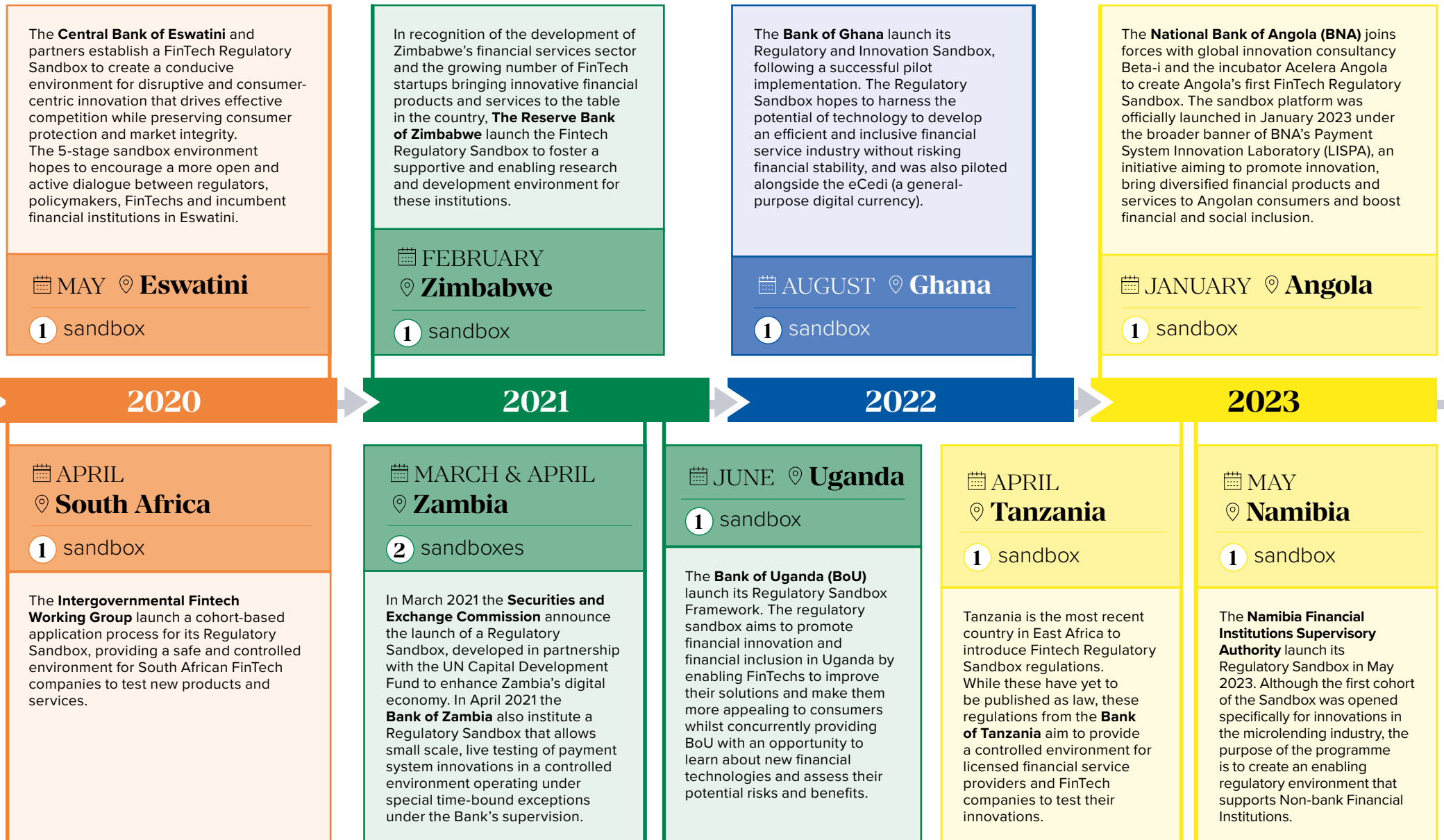
Regulatory sandboxes have evolved from mechanisms for regulators to understand emerging technologies to increasingly sophisticated controlled environments for innovators (both incumbents and established) to live test products and services to determine the attractiveness of their business models to consumers, how a particular technology will operate and be received in the market, and what consumer protection safeguards may need to be built in before public release to the market.

Figure 7 chronologises the advent of regulatory sandboxes in the African context, as more regulators across the continent recognise how digital technology has changed the way the financial service industry offers products and services to consumers, and therefore make the necessary steps to better understand, supervise and regulate the new services and providers reaching the marketplace.

FIGURE 7: **Timeline of Regulatory Sandboxes in Africa**

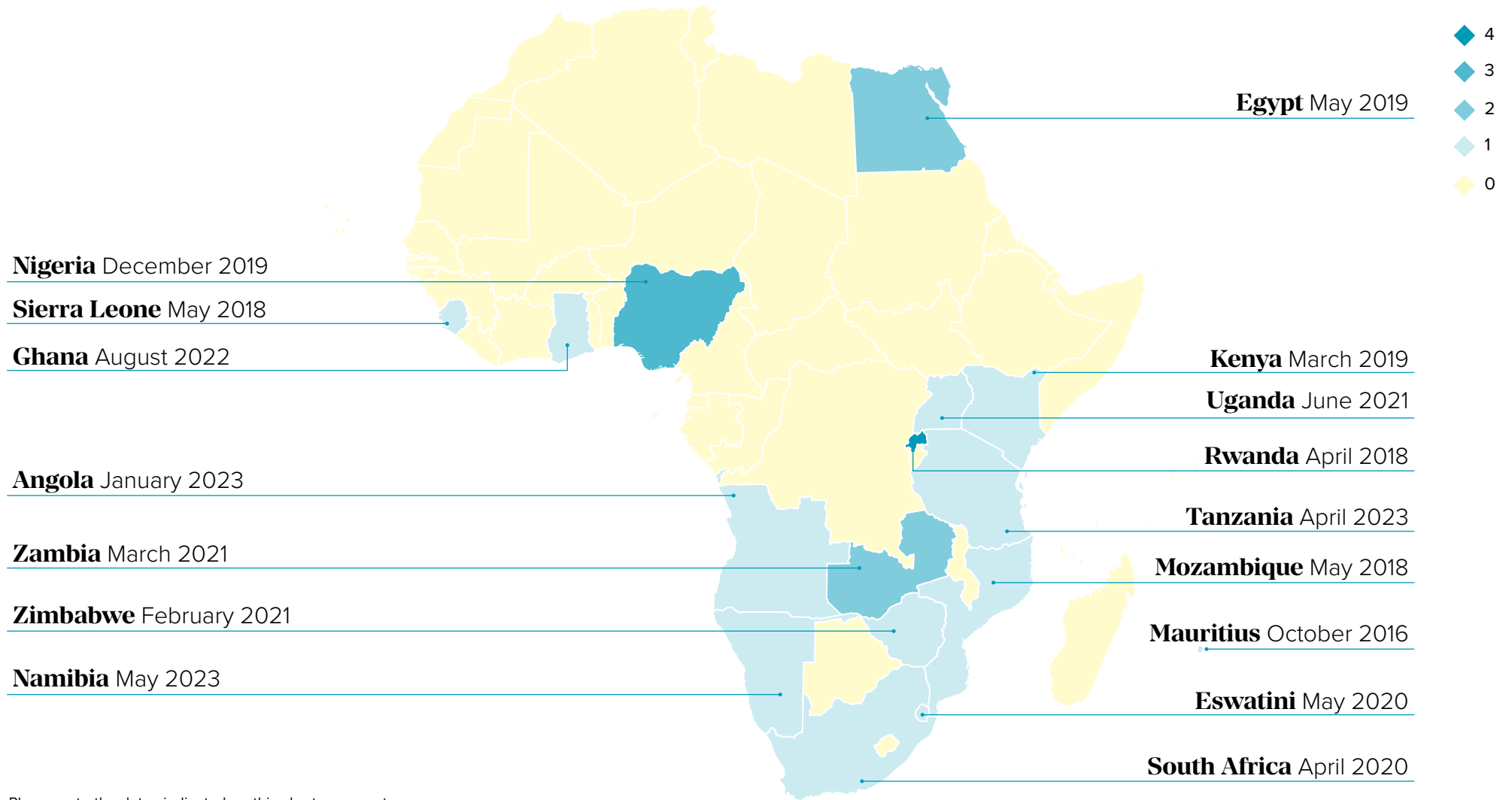


...CONTINUED FIGURE 7: **Timeline of Regulatory Sandboxes in Africa**



**FIGURE 8: Sandboxes by Country**

Worth noting, Africa had the third highest number of sandboxes worldwide in 2020, after East Asia & the Pacific and Europe & Central Asia<sup>25</sup>. Presently, there are a total of 23 FinTech regulatory sandboxes across 16 countries in Africa, illustrated below:



Please note the dates indicated on this chart represent when each country launched their first Sandbox.

# Regulation of FinTech Sandboxes in Africa

## 1) Regulatory Framework

Regulatory Framework		
Country	Regulator	Licencing Requirement
Egypt	Central Bank of Egypt (CBE)	No
Ghana	Bank of Ghana (BoG)	No
Kenya	Capital Market Authority (CMA)	Yes
Nigeria	Central Bank of Nigeria (CBN)	No
Rwanda	National Bank of Rwanda (BNR)	Yes
South Africa	Intergovernmental Fintech Working Group (IFWG) <sup>26</sup>	Yes
West African Economic and Monetary Union (WAEMU) <sup>27</sup>	Central Bank of West African States (BCEAO)	No

## 2) Eligibility Criteria

Eligibility Criteria	
Egypt	<p><b>The Regulatory Sandbox is available to applicants that:</b></p> <ul style="list-style-type: none"> <li>• Are commercially registered FinTech providers or licensed financial institutions (either local, regional, or international) developing an innovative product, service or solution intended for deployment in the Egyptian market<sup>28</sup>.</li> <li>• Demonstrate the product, service or solution is genuinely innovative with clear potential to improve accessibility, efficiency, in the provision of financial services.</li> <li>• Demonstrate the utility of the proposed solution and how it either conflicts or does not clearly fit within the existing regulatory framework.</li> <li>• Offer a good prospect of identifiable benefit to customers, support digital transformation and financial inclusion in Egypt.</li> <li>• Present a proposed project that is ready for experimentation with a realistic and well-developed business plan to be deployed on a commercial scale in the Egyptian market after the successful exit from the Regulatory Sandbox.</li> <li>• Have necessary resources to support testing.</li> </ul>

## Eligibility Criteria

<p><b>Ghana</b></p>	<p><b>The Regulatory Sandbox is available to applicants that:</b></p> <ul style="list-style-type: none"> <li>• Are entities licensed under the Banks and Specialized Deposit-Taking Institutions Act (2016), the Payment Systems and Services Act (2019), and other Non-Bank Financial Institutions<sup>29</sup>.</li> <li>• Utilise new and immature digital financial service technology.</li> </ul>	<ul style="list-style-type: none"> <li>• Present new digital business models not currently covered explicitly or implicitly under any regulation.</li> <li>• Provide innovative digital financial services products with demonstrable potential to address persistent financial inclusion challenges.</li> </ul>
<p><b>Kenya</b></p>	<p><b>The Regulatory Sandbox is available to applicants that:</b></p> <ul style="list-style-type: none"> <li>• Have their company incorporated in Kenya or are licensed by a securities market regulator in an equivalent jurisdiction.</li> </ul>	<ul style="list-style-type: none"> <li>• Intend to offer an innovative product, solutions or service in Kenya following a successful exit from the Regulatory Sandbox.</li> </ul>
<p><b>Nigeria</b></p>	<p><b>The Regulatory Sandbox is available to applicants that:</b></p> <ul style="list-style-type: none"> <li>• Have a product, service or solution that is innovative with clear potential to improve the accessibility, efficiency and quality in the provision of financial services and address gaps in or new opportunities for financial benefits or investments in the Nigerian economy.</li> <li>• Provide a proposed project timeline within a limited transaction (value and volume).</li> </ul>	<ul style="list-style-type: none"> <li>• Have conducted an adequate and appropriate assessment to demonstrate the usefulness and functionality of the product, service or solution.</li> <li>• Have the necessary resources to support testing in the sandbox, including the required resources and expertise to mitigate and control potential risks and losses arising from offering of the product, service, or solution.</li> <li>• Have a business plan to show that the product, service, or solution can be successfully deployed after exit from the sandbox.</li> </ul>
<p><b>Rwanda</b></p>	<p><b>The Regulatory Sandbox is available to applicants that:</b></p> <ul style="list-style-type: none"> <li>• Demonstrate the financial product, service or solution is genuinely innovative with clear potential to improve the accessibility, efficiency and quality of the provision of innovative services, address gaps in or open up new opportunities for financing or investments in Rwanda and benefit financial consumers or the financial industry.</li> <li>• Demonstrate the financial product, service or solution does not clearly correspond to products or services currently regulated under existing laws and regulations, including hybrid products or services.</li> <li>• Demonstrate the financial product, service or solution will likely fall under the supervisory scope or regulation of the Central Bank.</li> </ul>	<ul style="list-style-type: none"> <li>• Have conducted an adequate and appropriate assessment to prove the usefulness and functionality of the product, service or solution and identified any associated risks.</li> <li>• Have necessary resources to support testing.</li> <li>• Have a clear solution to deploy the product, service or solution on commercial scale after a successful testing phase.</li> <li>• Have a proposed technical architecture and solution, detailing the specific technology and innovative ways in which the technology will be applied.</li> </ul>
<p><b>South Africa</b></p>	<p><b>The Regulatory Sandbox is available to applicants or innovations that:</b></p> <ul style="list-style-type: none"> <li>• Are intended for deployment in the South African market.</li> <li>• Either explicitly challenges or does not clearly fit within the existing regulatory framework.</li> <li>• Are beneficial to South African consumers or the South African market at large<sup>30</sup>.</li> <li>• Are significantly different from other offerings in the market.</li> </ul>	<ul style="list-style-type: none"> <li>• Are ready to be tested with fully developed technology and in possession of sufficient funding to cover the full testing period.</li> <li>• Are licensed and in good standing in the other jurisdiction (for cross-border testing).</li> <li>• Have obtained approval from the applicable regulator in the other jurisdiction to participate in an RSB test in South Africa (for cross-border testing).</li> </ul>

## Eligibility Criteria

### WAEMU

**The Regulatory Sandbox is available to applicants that:**

- Are startups or small businesses developing a new financial technology product or service, with a sound business plan and demonstrable ability to execute their business model.
- Are a legal entity incorporated in one of the eight member states of the WAEMU.
- Have a product or service that is innovative with the potential to improve financial inclusion in the WAEMU.
- Can demonstrate they have the necessary resources and expertise to develop and launch the product or service.
- Are willing to work with the BCEAO to ensure that their product or service complies with all applicable regulations.

## 3) Access & Application Criteria

### Access & Application Criteria

Country	Application Mode	Application Fees	Cohort Per Year	Application Processing Time
Egypt	Online	No application, administration, or participation fees	Two – Three cohorts per year	21 working days
Ghana	Online	No application, administration, or participation fees	Hybrid Model <sup>31</sup>	21 working days
Kenya	Online	Kenya Shillings Ten Thousand (KES 10,000)	Applications reviewed on a rolling basis	14 working days
Nigeria	Online	No application, administration, or participation fees	One cohort per year	60 working days
Rwanda	Online	No application, administration, or participation fees	Three cohorts per year	10 working days
South Africa	Online	No application, administration, or participation fees	Applications reviewed on a rolling basis	Timeline dependant on the complexity of the application
WAEMU	Online or In Person	Fifty Thousand West African Francs (CFA 50,000)	Two cohorts per year	Not Disclosed

## 4) Key Features

Key Features									
Country	Testing Period, Extension & Exit			Customer Safeguard & Protection Requirements				Filing & Reporting Requirements	
	Initial Testing Period	Ability to Extend Testing Period <sup>32</sup>	Exit Strategy	Risk Assessment	Safeguard Plan	Data Protection & Confidentiality	Consumer Redress Mechanisms	Interim or Final Reporting	Records Maintenance
<b>Egypt</b>	6 Months	✓	✓	✓	✓	✓		Both	
<b>Ghana</b>	6 Months	✓	✓	✓	✓		✓	Both	✓
<b>Kenya</b>	Up to 12 Months	✓	✓	✓	✓			Both	✓
<b>Nigeria</b>	6 Months	✓	✓	✓	✓	✓		Both	✓
<b>Rwanda</b>	Up to 12 Months	✓	✓	✓	✓	✓	✓	Both	✓
<b>South Africa</b>	6 Months	✓	✓	✓				Both	
<b>WAEMU</b>	6 Months	✓		✓		✓		Interim	



## 5) Benchmark Summary

Characteristics shared by all the sandboxes surveyed include:



**An emphasis on innovation.** Each sandbox aims to create a regulatory framework that maintains and enables a globally competitive financial sector, and thus eligibility criteria screens for dynamic, high-potential companies with novel and unique technologies, products or services.



**Potential to improve financial inclusion.** While the digitalization of financial services has significantly increased the accessibility of financial services in Africa, more than 40% of the continent remains unbanked, while around 90% of financial transactions are still cash-based<sup>33</sup>. Accordingly, each sandbox has eligibility requirements related to the product or service's ability to make financial services more accessible to those currently underserved by the financial system.



**Collaboration with the Regulator.** Each sandbox system aims to remove communication and logistical barriers between innovators and regulators to enable a mutual exchange of information. Accordingly, in addition to legal and regulatory compliance, eligibility criteria for each sandbox requires applicants to be willing to work with the regulator and provide key decision makers with an overview of their testing outcomes and innovative capabilities in the relaxed regulatory environment.



**Resource availability.** Applicants are also selected based on their resource capacity, both material and technical. This includes having the necessary finances to develop and launch the product or service, as well as the expertise to do so.



**Online Access.** Each sandbox system has enabled electronic access for sandbox applications, with varying degrees of sophistication. In Kenya, Rwanda, South Africa and WAEMU, this is in the form of downloadable application forms to be submitted to the relevant authority via email. In Egypt, Ghana, and Nigeria, applications are submitted to relevant authorities through bespoke online platforms.



**Ability to Extend:** Sandbox guidelines in each country enable participants to extend the initial testing period by 3-12 months, with variations in the burden of proof required to justify the additional testing time requested.



**Interim Reporting:** Although the frequency and scope vary across jurisdictions, sandbox guidelines in each jurisdiction mandate continual monitoring and evaluation of testing progress, with outcomes extracted into interim reports to be submitted to the relevant authority.

Characteristics shared by multiple sandboxes surveyed include:



**Free Access:** There are no application, administration, or participation fees in five of the seven sandboxes surveyed, reducing barriers to entry for prospective applicants.



**Exit Strategy:** Six of the seven countries surveyed require participants to have an exit strategy in place outlining how the firm will transition out of the Sandbox upon the conclusion of the testing period. This ranges from what participants will do should the test fail (Nigeria) to more detailed requirements for participants to cover both successful and unsuccessful testing outcomes (South Africa and Kenya).



**Data Protection:** While every sandbox surveyed makes assurances that individual application materials, test plans and test results submitted to the regulator will be treated as confidential, only the Central Banks of Egypt, Nigeria and Rwanda place similar data security and confidentiality requirements on sandbox applicants. In each case, prospective applicants are expected to integrate safeguarding mechanisms specifically related to the protection of customers' personal data or information for the duration of the testing process.



**Integration of customer redress mechanisms,** as with the Egyptian and Rwandese regulatory sandboxes. While each sandbox has requirements related to customer safeguarding and protection, participants in these programmes are further required to integrate mechanisms that provide financial compensation claimable by the customer if necessary. These robust customer protections ensure that risks are not only pre-assessed and mitigated to the extent possible, but customers are never adversely affected in the event of negative testing outcomes.



**Multiple cohorts per year,** as with the sandboxes by the National Bank of Rwanda, the Central Bank of Egypt and the Central Bank of West African States. Regulators running multiple cohorts can increase competition in the financial services market, sharpen the learning curve of new technologies and the consumer protections needed for their implementation, build relationships with a broader range of FinTech companies and improve the efficiency of the regulatory process.

Unique competitive advantages by individual sandboxes include:



**Multi-lingual repository of relevant sandbox guidelines and regulations**, as with the National Bank of Rwanda's regulatory sandbox, which offers translations in English, French and Kinyarwanda. Having multiple translations of seminal legislation promotes international cooperation, particularly for inter-African FinTech companies that may be looking to test their product or service in a new jurisdiction. Eliminating language barriers also has the advantage of reducing the risk of regulatory violations by ensuring maximum accessibility and comprehension of relevant regulation.



**Public disclosure of lessons learned and testing outcomes**, as with the Intergovernmental Fintech Working Group's (IFWG) regulatory sandbox in South Africa. The IFWG published a *Regulatory Sandbox Report* in October 2022 that gave an overview of participant experiences and highlighted insights gained and next steps from the sandbox's first cohort. Retrospective analysis provides learning opportunities for future applicants, ensures that regulators are publicly accountable to self-imposed performance objectives, and enables them to regularly improve their processes and approaches.



**Robust records maintenance**, as with the Central Bank of Nigeria's (CBN) regulatory sandbox. Kenya, Nigeria and Rwanda all require participants to ensure records from the regulatory sandbox are properly stored or maintained. Participants in the CBN regulatory sandbox are required to ensure proper maintenance of records not just during the testing period, but for a period of up to 5 years thereafter. This practice enables both current and reflective reviews of testing by the Bank, and also supports the construction of a robust historical database of testing outcomes for regulators to draw on.



**Expedient application processing**, as with the National Bank of Rwanda and the Capital Market Authority of Kenya. Rwanda serves as best-in-class in this regard with a commitment to an application processing time of 10 working days, while Kenya follows with a commitment of 14 working days for applicants to receive a decision on the outcome of their application.



# Payment Service Providers in Africa: An Overview

Improvements in, and surging adoption of, technology has shifted the landscape of payment systems in Africa, necessitating Payment Service Providers (PSPs) to concomitantly expand their service offering within the remit of permissible activities stipulated by regulators. While the service offering for PSPs varies geographically depending on regulation (discussed further in Section 2), there are common services offered by most PSPs that distinguish them from other FinTech players. Before delving into what PSPs are, it is important to contextualise the wider payment systems they are embedded in, which provide the platform within which PSPs operate.

## Contextualising Payment Systems

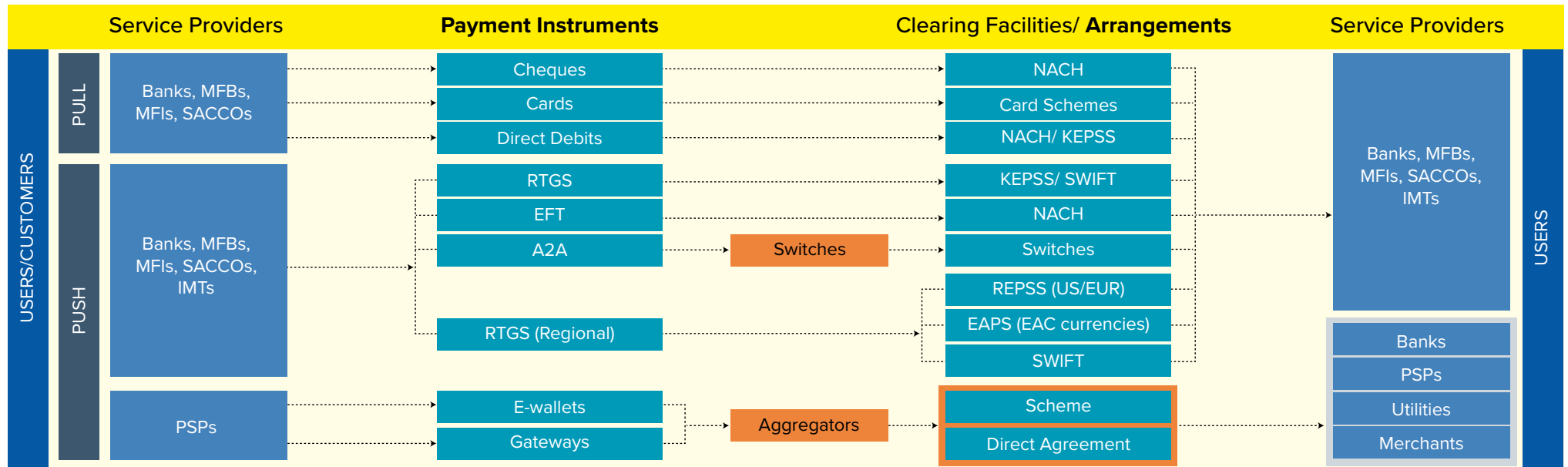
A payment system is a process that includes all the tools, systems, mechanisms, institutions, agreements, procedures, rules, or laws applied or utilised to effect payment. Payment systems enable transacting parties (e.g. a payer and a beneficiary) to exchange value – simply put, they enable the circulation of money<sup>34</sup>. Included in the umbrella of payments systems are any instruments or procedures that facilitate the circulation of money or relate to the system<sup>35</sup>. On a macro level, a national payment system encompasses all payment-related activities, processes, mechanisms, infrastructure, institutions, and users in a particular country<sup>36</sup>. The figure below illustrates the typical structure of a national payment system in Africa, using the Kenyan context as an exemplar.

### Key Definition:

### Payment System

A payment system is a process that includes all the tools, systems, mechanisms, institutions, agreements, procedures, rules, or laws applied or utilised to effect payment.

FIGURE 9: Structure of National Payments Systems in Africa



Source: [Central Bank of Kenya](#)

## Key Definition: Payment Service Provider

“Any person, payment and credit institution, or electronic money issuer with access to a regulated payment system that provides services to consumers or businesses who are not participants in a regulated payment system, for the purposes of enabling the transfer of funds using that regulated payment system”

- United Kingdom Financial Conduct Authority\*

\* Financial Conduct Authority, 2023. *FCA Handbook*

## Payment Service Providers (PSPs)

For the purpose of this report, PSPs are defined as third-party intermediaries that enable the sending, receiving, storing or processing of electronic payments (such as credit or debit card transactions, e-wallets and mobile money) between two parties. Another definition of PSPs that aligns with our scope includes the one offered by the UK’s Financial Conduct Authority, which enumerates the types of entities that can be classified as PSPs. Worth noting, PSPs can also be categorised as those offering consumer-facing or retail services at the “front end”, and those that play the role of clearing, settling, and processing at the “back end”. Some payment service providers operate closed-loop systems which combine both front-end and back-end arrangements under one roof<sup>37</sup>.

## How Payment Service Providers (PSPs) Work

Having defined payment systems and PSPs, it is important to highlight how the latter work and some of the key benefits they offer. PSPs facilitate transactions on a payment system through the interaction of instruments such as cards, electronic transfer, cash, cheques and channels like paper, point of-sale, internet, ATM, mobile phone, and personal computers<sup>38</sup>. Players in the payment industry can be loosely categorised as follows (although they are often involved in more than one role in the payment transaction model):

- a. **Gateway Providers** - collectively referred to as PSPs
  - b. **Acquirers/Processors**
  - c. **Networks**
- collectively referred to as payment providers

PSPs can be solely distributing, in which case they operate solely as gateway providers, but never come into possession of the funds. However, PSPs can also perform collecting services, in which case they also collect and transfer funds and thus also act as acquirers/processors.

Mobile wallets, such as M-Pesa (Kenya), OPay (Nigeria) and M-Wallet (Morocco) can also act as the network for consumer transactions, replacing card networks. In this case, merchants can also connect directly to the wallet provider rather than going through a processor. In so doing, the gateway and acquirer/processor roles are also performed by the digital wallet<sup>39</sup>.

## Benefits Provided by Payment Service Providers (PSPs)

Payment Service Providers have continued to play important roles in supporting economic activities in a country. They provide benefit to different economic agents (such as retail merchants, customers and suppliers) who use the payments system for their day-to-day economic activities. The benefits of PSPs can be summarised as follows<sup>40</sup>:

- **Retail Merchants:** PSPs provide transaction security and minimise the stress and risk of keeping or carrying cash. PSP platforms also enable retail merchants to easily assess the health of their business operation through synergies with e-payments.
- **Customers:** PSPs simplify transfer of funds, give access to quick credit (via credit cards) and enhance customers’ ability to assess spending patterns and manage finances.
- **Suppliers:** PSPs lower operational costs and risks from cash collection by providing an online platform for settlements.
- **Government:** PSPs can generate data that policymakers and regulators can deploy to monitor market trends in the retail sector, consumer spending and purchasing power. When used for reporting purposes, this data can also provide insights on national levels of financial inclusion as well as provide guidance for high-level decision making related to taxation.

Having mapped the payment system landscape in Africa, and the range of actors therein, the next section of this report proceeds to identify the licencing requirements for PSPs in select African countries transitioning quickly towards digital payments. Specifically, this study will focus on Egypt, Ghana, Kenya, Nigeria, Rwanda, South Africa and the WAEMU, examining the licensing requirements for payment service providers in these countries. This provides the basis for a comparative analysis of the same to identify countries with particularly favourable licencing requirements for PSPs and thereafter highlight regulatory gaps preventing the realisation of a harmonised framework for PSP licencing in Africa.

# Regulation of Payment Service Providers in Africa

## 1) Regulatory Framework

Regulatory Framework			
Country	Regulator	Law	Licencing Requirement (Yes / No)
Egypt	Central Bank of Egypt	Central Bank and Banking Sector Law No. 194/2020	Yes
Ghana	Bank of Ghana	Payment Systems and Services Act, 2019 (Act 987)	Yes
Kenya	Central Bank of Kenya	The National Payment Act 2011	Yes
		National Payment System Regulation 2014	
Nigeria	Central Bank of Nigeria	Central Bank of Nigeria (Establishment) Act 2007	Yes
		Banks and Other Financial Institutions Act (BOFIA)	
Rwanda	National Bank of Rwanda	Law N°061/2021 of 14/10/2021 Governing The Payment System	Yes
South Africa	South African Reserve Bank	National Payment System Act 78 of 1998 (NPS Act)	Yes
		National Payment System Amendment Act (N°22 of 2004)	
WAEMU	The Central Bank of West African States (BCEAO)	Regulation N°15/2002	Yes

## 2) Licencing Framework

### a) Eligibility Criteria

#### Licencing Framework 1: Eligibility Criteria

<b>Egypt</b>	<ul style="list-style-type: none"><li>• Applicants must either operate in Egypt (natural) or be a foreign entity targeting Egyptian residents (juristic).</li><li>• Juristic applicants are eligible to operate through agents, provided these agents have a physical presence in Egypt and are registered in a special register of the Central Bank.</li><li>• Applicants must agree to provide a monetary guarantee to ensure their compliance with licensing conditions, the amount and nature of which will be specified by the CBE Board of Directors.</li></ul>
<b>Ghana</b>	<ul style="list-style-type: none"><li>• Applicants must have at least a thirty percent equity participation of a Ghanaian<sup>41</sup>.</li><li>• Applicants must have a physical presence in Ghana in the form of a lease, tenancy agreement or similar.</li></ul>
<b>Kenya</b>	<ul style="list-style-type: none"><li>• Applicants must be a legal person incorporated in Kenya.</li><li>• Applicants must meet all the conditions listed in National Payment System Act (2011) and the National Payment System Regulation (2014).</li></ul>
<b>Nigeria</b>	<ul style="list-style-type: none"><li>• Applicants must be a corporate entity registered by the Corporate Affairs Commission (CAC).</li></ul>
<b>Rwanda</b>	<ul style="list-style-type: none"><li>• Applicants must have a permanent place of business or a registered office in Rwanda.</li><li>• Applicants must appoint at least one person to be present at the place of business or registered office to address any queries or complaints from a user or a customer of the payment services.</li></ul>
<b>South Africa</b>	<ul style="list-style-type: none"><li>• Applicants must be accepted as a member of Payment Association of South Africa (PASA).</li><li>• Applicants must sign the various agreements relating to Payment Clearing House (PCHs) in which it wishes to participate.</li><li>• Applicants must operate systems with volumes exceeding ten thousand transactions or payment instructions per month, and/or values exceeding ZAR10 million per month.</li></ul>
<b>WAEMU</b>	<ul style="list-style-type: none"><li>• Applicants must be a legal person incorporated in one of the member states of the West African Economic and Monetary Union (WAEMU).</li></ul>

## b) Documentary Requirements

A selection of documents required across all, or multiple jurisdictions include:

### Licencing Framework 2a: General Documentary Requirements

Country	Application			Company Profile					Governance			Systems & Technology		Enterprise Risk Management			Customer Protections	
	Application Form / Letter of Application	Proof of Application Fee Payment	Evidence of Initial Capital	Memorandum and Articles of Association	Certificate of Incorporation	Registered Place of Business	Business Plan	Company Profile <sup>42</sup>	Audited Financial Statements	Tax Identification Number & Compliance Certificate	“Fit & Proper” Form for Senior Management	Proposed Infrastructure & Internal Controls	Information Technology Policy	Risk Assessment and Management Framework	Letter of No Objection	AML / CFT Policy	Customer Protection Measures / Policy	Data Protection Measures / Policy
<b>Egypt</b>	✓	✓	✓	✓	✓				✓	✓ <sup>43</sup>	✓		✓					✓
<b>Ghana</b>	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓		✓	✓	✓	✓
<b>Kenya</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓			
<b>Nigeria</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓					✓
<b>Rwanda</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ <sup>44</sup>	✓	✓	✓	✓	✓	✓
<b>South Africa</b>	✓	✓		✓	✓				✓					✓	✓			
<b>WAEMU</b>	✓	✓		✓	✓				✓					✓				

In addition to the preceding, the following jurisdictions also require:

## Licencing Framework 2b: Specific Documentary Requirements

Kenya	Nigeria	Rwanda	Ghana
<ul style="list-style-type: none"> <li>• Certified copy of a valid license from the Communication Authority Kenya.</li> <li>• Certified copy of the management agreement (for mobile payment service providers).</li> <li>• Latest report from the Credit Reference Bureau.</li> <li>• Description of how the payment service provider shall settle the payment obligations arising from its provision of electronic retail transfers.</li> <li>• Terms and conditions that will apply to its customers, agents, and cash merchants.</li> </ul>	<ul style="list-style-type: none"> <li>• Form CAC 2A (Return on Allotment of shares).</li> <li>• Form CAC 7A (Particulars of Directors).</li> <li>• Details of ownership and any significant changes in ownership in the last two years.</li> <li>• Board Structure.</li> <li>• Organisational Chart.</li> <li>• Dispute resolution framework.</li> <li>• Necessary certifications where applicable, such as: a Payment Card Industry Data Security Standard (PCIDSS) Certification; a Payment Application Data Security Standard (PADSS) Certification; and/or a Payment Terminal Service Aggregator (PTSA) Certification.</li> </ul>	<ul style="list-style-type: none"> <li>• List of products and services to be provided with a breakdown of commissions/ prices to be charged to the customer.</li> <li>• Governance arrangements.</li> <li>• Selection criteria for agents and/or the outsourcing of parts of the activities<sup>45</sup>.</li> <li>• Signed document describing contingency and disaster recovery plans for electronic payment facilities.</li> <li>• Float management guidelines and measures.</li> <li>• Measures for protecting beneficiaries' funds against insolvency or closure.</li> <li>• Proof of existence of a trust account with a licensed commercial bank in Rwanda.</li> <li>• List of the owners and the percentages of shares owned by each.</li> </ul>	<ul style="list-style-type: none"> <li>• Profile of shareholders indicating respective percentage shareholding and nationality.</li> <li>• Number and profile of Board of Directors and Key Management Personnel.</li> <li>• Organisational Chart.</li> <li>• Copies of Service Level Agreements (SLA) with all partnering institutions and third-party service providers.</li> <li>• Necessary certifications such as the Payment Card Industry Data Security Standard (PCI-DSS), the ISO 27001 Certification and Compliance, and the EV-SSL Tool, where applicable.</li> </ul>



### c) Access and Application Criteria

#### Licencing Framework 3: Application Procedure

Country	Application Channel (Online / In Person)	Application Fees	Minimum Capital Requirement <sup>46</sup>	Licence Validity Period
<b>Egypt</b>	Online / In Person	<b>Application Fee:</b> EGP 100,000 <b>Inspection Fee:</b> EGP 200,000	Not Disclosed <sup>47</sup>	Not Disclosed
<b>Ghana<sup>48</sup></b>	Online	<b>Processing Fee:</b> GHS 12,000 <b>Licencing Fee:</b> GHS 40,000	GHS 2 million <sup>49</sup>	5 years
<b>Kenya</b>	In Person	<b>Application Fees:</b> KES 5,000 <b>Authorization Fees:</b> KES 100,000	KES 5 million	12 Months
<b>Nigeria</b>	In Person	<b>Preliminary Licensing Fees:</b> NGN 100,000 <b>Successful Licensing Fees:</b> NGN 1,000,000	NGN 100 million	Approval-in-Principle for 6 months <sup>50</sup>
<b>Rwanda</b>	Online	RWF 5,000,000 <sup>51</sup>	RWF 50 million	Indefinite <sup>52</sup>
<b>South Africa</b>	Both	ZAR 10,000	ZAR 10 million	12 Months
<b>WAEMU</b>	Both	CFA 100,000	CFA 100 million	5 Years

### 3) Permissible Activities

Permissible Activities											
Country	Account Issuance Services	Payment Initiation Services	Issuing Payment Instruments	Acquiring Payment Instruments	Funds Transfer	Money Business Services	E-Money Issuance Services	Merchant Acquisition Services	Payment Services to Third Persons	Payment Processing	Payment Solution / Application Development
Egypt				✓				✓	✓	✓	
Ghana			✓	✓		✓		✓	✓	✓	✓
Kenya				✓			✓	✓	✓	✓	
Nigeria								✓		✓	✓
Rwanda	✓	✓	✓		✓	✓	✓	✓		✓	
South Africa			✓						✓	✓	
WAEMU	✓	✓	✓		✓					✓	

#### Summary of Permissible Activities:

**Account Issuance Services** - services enabling cash to be placed in or withdrawn from a payment account as well as the management of payment accounts.

**Payment Initiation Services** - services facilitating the authorisation and/or execution of electronic fund transfers from a customer's bank account.

**Issuing Payment Instruments** - provide customers with various payments methods (such as credit cards, debit cards, or prepaid cards).

**Acquiring Payment Instruments** - own, possess, operate, manage, or control infrastructure for the provision of payment services.

**Funds Transfer** - services facilitating the transfer of funds from one account to another, either domestically or internationally.

**Money Business Services** - services enabling money remittances and money exchange.

**E-Money Issuance Services** - services related to the issuance and management of e-money for the purpose of providing payment services.

**Merchant Acquisition Services** - service enabling the aggregation and processing of payments for merchants.

**Payment Services to Third Persons** - services facilitating the acceptance or processing of payments for single or multiple third-party beneficiaries (such as utilities, informal financial groups, and banks).

**Payment Solution/App Development** - develop payment solutions and applications.

**Payment Processing** - provide payment processing services through gateways and portals, including services such as credit or debit card processing and online payments.

## 4) Benchmark Summary

Characteristics shared by all licensing requirements for PSPs include:



**A minimum capital requirement**, ranging from approximately US\$35,000 at the lowest end of the spectrum (Kenya) to approximately US\$550,000 at the highest end (South Africa). While stringent, the imposition of a minimum capital requirement helps to ensure that PSPs have the financial resources to meet their obligations to consumers and to cover any losses that may occur.

Characteristics shared by multiple licensing requirements for PSPs include:



**Time bracketed license validity**, five of the seven payment service provider regulators surveyed impose a maximum tenure of the validity of licenses once issued, requiring renewal upon the conclusion of these time horizons. These range from 12 months (Kenya, South Africa) to 5 years (Ghana and the WAEMU), with Rwanda as the only exception. The National Bank of Rwanda offers indefinite validity to PSP licenses once granted, unless revoked or suspended.



**Straightforward application processes**, either online or in person. The only exception is Nigeria, which has a staged / staggered application process where the Central Bank of Nigeria first issues an Approval-in-Principal before granting a commercial license.



**A letter of no objection** for foreign entities from their home regulatory authority, allowing the applicant to provide payment services in another jurisdiction. This is only a requirement in Kenya and Rwanda, which are also the only two jurisdictions surveyed that permit licensed PSPs to provide money remittances or exchange services.



**Merchant acquisition services**, allowing licensed PSPs to aggregate merchant services (i.e. act as an intermediary between the customer and the merchant) and collect payments (i.e. process credit and debit card transactions) on behalf of merchants. However, only Ghana, Rwanda and Nigeria enable this physically (at the point-of-sale) as well as digitally.



**Issuing Payment Instruments**, allowing PSPs to not only process payments, but also create and distribute payment cards (i.e. credit, debit, and prepaid cards). Historically a permissible activity typically reserved for banks, licensed PSPs in Ghana, Rwanda, South Africa and the WAEMU can also issue payment instruments to clients.



**Account management**, allowing PSPs to not only process payments, but also issue and manage payment accounts. In Rwanda and the WAEMU region, licensed PSPs are permitted to place, hold or withdraw cash from a payment account, as well as engage in account management services. However, this is only to the extent these activities are in relation to any of the operations required for operating a payment transaction.

Unique competitive advantages by individual PSP regulators include:



**The right to provide e-money issuances services**, as in Kenya and Rwanda where licensed PSPs may issue, process, store, send and facilitate e-money or mobile money payments. 41 million new mobile money accounts were registered in East Africa in 2022, alongside 28 billion mobile money transactions worth about US\$491 billion<sup>53</sup>. Given the penetration of mobile money in East Africa, this endowment for PSPs is likely a function of market dynamics and demand.



**The ability to process payments on behalf of informal financial groups**, as in Kenya which permits licensed PSPs to provide payment platforms for Savings and Credit Co-Operative Societies (SACCOs). Informal and semi-formal finance (including micro-finance) sources have demonstrable capacity to accelerate private sector development in Africa. Given the prevalence of rotating savings and credit associations (ROSCAs) and accumulating savings and credit associations (ASCAs) in the African context, enabling PSPs to cater to these non-banking financial institutions is also a catalyst for financial inclusion.



**An emphasis on customer protection and security**, as in Rwanda. Although regulators in each jurisdiction require applicants to present a risk management framework, the customer safeguard protections mandated by the National Bank of Rwanda place the consumer first. These include a requirement for a disaster recovery plan, consumer recourse mechanisms, a consumer awareness program and measures for protecting beneficiaries' funds against insolvency or closure. The preceding therefore create a payment system landscape that is compliant with international standards.



# The Practitioner Perspective

An Interview with **Chipper Cash**

**Jovani Ntagoba**, Rwanda Country Director, Chipper Cash



## 1. How has Chipper Cash's service and product offering evolved since you started the company?

Chipper Cash began with a few markets almost five years ago, including Ghana and Uganda. Our product and service offering in these countries continuously evolved, depending on customer needs. We realised that our customers not only wanted to send money to places such as the US, but also to several African countries. Our coverage has expanded one country at a time, and we now have capabilities allowing our customers to send money to over 21 African countries. Chipper's growth has always been driven by consumer demand, which is part of our core value proposition.

Our service offering has also developed, moving from money transfers to also providing services like access to fractional stocks. The demand came from users in Africa that wanted to invest in the international brands that they consume. Chipper stepped in to address this demand, launching services in a selection of our markets for customers to invest in stocks like Tesla, Google, or Facebook. We are among the first to introduce this service in several of the markets where we operate.

Finally, we also introduced Chipper for Business – financial service products for people with business interests who require increased transaction limits and diversified distribution channels for recipients.

## 2. Chipper Cash is an Africa-focused platform but headquartered in San Francisco. What was the rationale behind setting up the company in Silicon Valley, despite its explicitly pan-African remit?

Chipper decided to operate in Silicon Valley for ease of access to capital, and access to talent was another consideration. Certainly capital was easier to access in Silicon Valley than in most other markets. Today, however, we have arms across the continent and employees in several African countries including South Africa, Ghana, Nigeria, Rwanda, Uganda and Zambia. But capital considerations ultimately played a large role in the choice to start the company abroad.

## 3. While Chipper Cash is now operational in 21 countries, its African operations began in only a few African countries. From a regulatory and legal environment perspective, what pull factors made these jurisdictions attractive?

Rwanda tops the list among countries regarding the ease of doing business on the World Bank listings. It also has a population that has high digital and literacy skills. Rwandese are already used to digital services like e-government, mobile banking, transport tickets, tax and more, so introducing Chipper services to Rwanda was an obvious move.

Other pull factors that attracted us include the demand for the type of services that Chipper offers. Rwanda, Ghana and Uganda have particularly large numbers of people in the diaspora who remit to their home countries, and each also has a relatively advanced FinTech ecosystem. Another reason we chose these countries has to do with where we thought it would be the easiest to begin operations from. Our plan was always to start from



somewhere and expand to other countries, so after these first countries we then moved to South Africa and now into Rwanda. We see all 54 African countries as our target market, given the penetration of mobile money or mobile banking across the continent. However, the initial three countries were chosen for their ease of market entry.

Rwanda has a population that has high digital and literacy skills. Rwandese are already used to digital services like e-government, mobile banking, transport tickets, tax and more, so introducing Chipper services to Rwanda was an obvious move.

**4. Financial Services was the most active sector by volume and value in Africa's venture capital industry in 2022, attracting US\$2.2 billion of the total deal value the ecosystem saw that year. What are some of the drivers fuelling the growth of FinTech and digital payments in Africa?**

There are a number of drivers that are fuelling the growth in FinTech and digital payments. One is the general growth of African economies and supportive infrastructure. GDP growth rate per country has consistently hovered between 4% to 8% among several African countries, including the larger economies. Another driver is the growth in population and literacy rates, which subsequently support the payments business.

Another factor is the improvement in the regulatory environment across several African countries that target FinTech investment. In Rwanda, for example, there are robust policies that support the FinTech sector. A key feature of Rwanda's regulatory environment is the continuous review of the licencing requirements and the layers involved in FinTech regulation. For example, Chipper got licensed in 2022 based on a 2016 regulation, but as of today, there is an updated regulation of 2023 that has several great improvements.

**5. In the Rwandese context specifically, are these regulatory updates a response to the dynamism of the industry to try and keep up with / meet the needs of the changing FinTech ecosystem?**

To my surprise, the new regulatory changes were *more* than what the FinTech ecosystem would demand for. For instance, the regulation in 2016 placed the maximum daily transfer amount at about US\$500. However, users expressed dissatisfaction with this threshold, and wanted to transfer more than this amount. Chipper Cash is now structured to accommodate up to \$10,000 per day in Rwanda – but the new regulation allows customers to transfer up to US\$50,000 per day. However, given that our current risk appetite is below this amount, we maintain maximum transfer per day at US\$10,000 a day per customer. This transfer limit shows how Rwanda's regulations are at par with, and at times even a few steps ahead of, the needs of the FinTech ecosystem.

Rwanda's regulations are at par with, and at times even a few steps ahead of, the needs of the FinTech ecosystem.



## 6. How else can payments regulation in Rwanda be updated to keep pace with rapidly evolving technology and business models, so as to be an attractive domicile for FinTech startups in Africa?

There is definitely room for improvement. Cryptocurrency has gained a lot of attention, not just in Rwanda, but across the continent. However, there is no regulation around cryptocurrency, and it is still prohibited for locally-licensed entities to deal in cryptocurrency. The result is that entities engaging in cryptocurrency, of which there are several, are not even licenced.

Another area that needs improvement is the Regulatory Sandbox, which is a very useful tool for innovators. However, comparing the eligibility requirements for a few sandboxes in Africa reveals the requirements for admission are very similar or close to the requirements for getting licenced. Given that they function specifically as a relaxed testing ground, requirements for sandbox entry should be significantly lower than the standard requirements for licencing. However, this is contrary to what is currently commonplace in the market, where the overlap between the requirements for sandbox participation and licensing is 80-100%.

Another area that needs improvement is the ease of accessing capital. Capital is still very expensive in African countries, especially in industries like FinTech. It would be helpful if more incentives could be put in place to attract capital and further investment into the FinTech sector, such as income tax breaks, among others. Rwanda has done particularly well in this regard, as there is no VAT on the transfer of money within the payments system. If this were to be implemented in other countries, it would be of great benefit to payment service providers.

Finally, processing times for licencing is another area that can be improved. Our experience within the African ecosystem is that it may take between one and three years for a startup to get a licence from the regulator. Business models are continually evolving, and both investor interest and startup business plans often change significantly in the extended period between the application stage and the approval stage. If possible, regulators should work towards streamlining and hastening approval processes.

## 7. Chipper Cash has tailored its service offering to the needs of its customers. What are the regulations surrounding customer protections in Rwanda, and how do variations in the same across Africa affect your ability to roll out new products and services?

Customer protection is a key aspect of our business as we deal with personal information and financial data of customers. Several African countries have introduced data protection policies, including Rwanda. To a large extent, there are lots of similarities between data protection policies in the African countries we operate in, and this has made compliance in the African context relatively straightforward for Chipper. In Rwanda, efforts should be made to ensure that users understand their rights. While there are differences between the two, Rwanda has a robust data protection policy, but people are not aware of the depth of Rwanda's data protection laws, which benefit both the user and us as a company. While we do our best to educate Chipper customers, it's possible more could be done by other organizations.

## 8. Opportunities for FinTech startups and service providers to scale are growing exponentially in an increasingly interconnected global marketplace, which is also seeing a rise in borderless transactions. From an entrepreneurial perspective, what are the key challenges facing cross-border payment service providers in the current regulatory landscape, and how can policymakers help address them?

The main challenge is on the effects of fluctuating exchange rates. Exchange rates are unstable even across different African currencies, notwithstanding global currencies. Coupled with variations across market and off-market exchange rates, cross-border businesses are in constant flux as the value or exchange rate prescribed for transactions changes almost immediately. Harmonisation of exchange rates would go a long way in helping to manage currency volatility challenges in Africa.

This can also be applied to regulation as whole, such that entities can get licences to operate in each region, instead of separate applications for each country. African economies still operate along regional blocs – with notable 'corridors' in each such as Nigeria-Ghana-Senegal in the Western Region and Kenya-Uganda-Tanzania-Rwanda in the East African bloc. Existing similarities in regulation makes the concept of regional harmonization and integration comparatively easier and would have a tremendous effect on the interoperability of PSPs operating in each region or trade zones.



# The Practitioner Perspective

An Interview with **Centrika**

**Yvon Gilbert Nishimwe**, Chief Executive Officer, Centrika



## 1. What was the rationale behind Centrika's inception, and what market need were you responding to at the time? How has your service provision and use of financial technology across each product evolved since you started the company?

Centrika is a FinTech company that started in 2016 to provide technology solutions to customers in Rwanda. Our first use case was in Transport. We saw an opportunity to digitise the transport system in Rwanda, which at the time operated in the traditional way – there was no technology used. Later in 2019, we also thought about digitisation of payments in the Transport industry and rolled out our SafariBus Card product to meet this need.

Centrika also provide Event Ticketing & Management solutions. We saw opportunities arise from the different sports events and concerts in Rwanda, which historically utilised purely paper-based ticketing methods. We introduced TICQet as an event ticketing solution - a mobile app, which also has a web-based interface that allows people to purchase and receive tickets in electronic format. We also introduced digital payments for those tickets, with the option to pay using a Visa card, MasterCard, or using any of the two mobile money options that are widely available in Rwanda – MTN Momo and Airtel Money.

Finally, another product that we are investing in and perceive wide utility of is KeyKiosk, a self-service payments machine for customers. One of the services the kiosks offer, for example, is the payment of utilities including electricity and water. We're hoping to improve our service provision in the near future by integrating the KeyKiosk platform with IremboGov - Rwanda's government service portal. By doing so, individuals can use our kiosks to

apply, pay for and instantly receive a given service offered by IremboGov. We are working on partnership with different banks, and the kiosks also will serve as an agent to access banking services.

## 2. You mentioned integrating KeyKiosk within the IremboGov interface. What has the response been from institutions or organisations you've approached for product integration on the KeyKiosk product?

There has been enthusiasm from different institutions, both public and private, towards integrating our respective systems. Integration enables organisations to collect digital payments for goods and services through KeyKiosk, which eases their administrative workload while providing convenience and efficiency to their customers. Government institutions in particular have been very receptive and are eager to digitise public services. The IremboGov team has been doing great work - most of their services are now digitized, and that is why we want to plug into them and also use our channels to avail their services to the mass market.

## 3. Developmentally, is Rwanda in a place (from the perspective of mobile / internet penetration and underlying digital infrastructure) where fully digital service provision for users is possible?

Absolutely, infrastructure in Rwanda is in place to allow digitization of different services. As an industry, we could see that the infrastructure was there, but the uptake of digital products by customers was low. This was the impetus for government initiatives to encourage a cashless transition and address how to promote the adoption of digital payments amongst



the general population. An example was the cashless campaign run by the Central Bank of Rwanda alongside different stakeholders including Banks, Telecom Operators, and other FinTechs. It targeted people not only in Kigali city but also in remote areas to showcase digital products, raise awareness of their benefits and educate about their use. The support of the government in this digital transition has been very helpful. For example, FinTechs such as us get a lot of incentives. Imported material meant to accelerate the adoption of digital payment is now not taxed, where previously we used to pay a half. These incentives play a big role in supporting financial service providers to deploy FinTech solutions cheaply, which of course has a positive effect on the end user who are able to access the service at a reasonable fee.

As things stand today, the underlying infrastructure is ready and capable to enable the provision of fully digital services in Rwanda. A good example is a friend who recently informed me they have gone over six months without touching cash. So, whatever it is in Rwanda - be it paying for goods, services, transport – there is the capability for everything to be paid digitally. If one or two people can do so, it is something which can certainly be adapted in the mass market.

#### **4. Centrika holds an E-Money License from the National Bank of Rwanda. What permissible activities does this license permit you to engage in?**

We applied for our E-Money License in 2019, and that was issued around the first quarter of 2020. This license allows us to provide e-money services (issue, redeem and transfer mobile money), or basically operate a mobile wallet. It also allows us to operate a trust account, which is a central account where all the money in the mobile wallet is held.

#### **5. Please walk us through your experience with the process of obtaining and maintaining licencing from the Central Bank.**

Overall, the process of obtaining the licence was smooth. The requirements for obtaining the E-Money issuer license were very clear, and the Central Bank has a dedicated department to support FinTechs, or any other institution looking to apply. We had regular engagement with them, they guided us through the application process and how to prepare the required documents for the E-Money License.

As things stand today, the underlying infrastructure is ready and capable to enable the provision of fully digital services in Rwanda.

However, we encountered some delay receiving feedback. I think when the National Bank of Rwanda initially developed this license, they were expecting applications from large, well-established companies like MTN or Airtel. When we applied it came as somewhat of a surprise to them, as Centrika weren't a very big company at the time, and we were in Transport and Digital Solutions. It took some time to explain how we intended to operate a wallet, and the issues doing so would resolve in the market. This was a bit of a challenge in the early stages of the application process, but once they understood, it was very straightforward. Thereafter, we had constant support and engagement from the Central Bank. They visited us, looked at our use case, and then went ahead and issued the license.

#### **6. What measures would improve the user experience of obtaining approval and relevant licencing from the Central Bank for startups operating in the payments space in Rwanda, if implemented?**

My first observation is the Central Bank really need to be closely monitoring ongoing developments in the FinTech industry, and thus ready to accommodate new entrants, initiatives, and innovations. The time taken to issue our E-Money License was longer than it needed to be, as the Central Bank viewed us through the lens of big companies and their existing use cases. Understandably though, as regulators the Central Bank must really understand what each applicant will be doing in the industry before issuing





them a license. Having a birds-eye-view of wider industrial trends in the financial services industry is key and would make the decision-making process more seamless.

Secondly, the FinTech world is one of complexity and innovation. Individuals are creating products and solutions which no one at the Central Bank or at regulator level has ever encountered previously. The industry would benefit from an environment where innovators are given room to put out their new products and solutions where the regulator can observe and, from there, understand how to regulate the innovation. Fortunately, this is happening with the National Bank of Rwanda - they put in place a Sandbox which I believe is going to be tremendously helpful for FinTechs.

#### **7. What are some of the drivers fuelling the growth of FinTech and digital payments in Africa? Are these growth fundamentals sufficiently strong / compelling enough to guarantee the sustainability of African electronic payment markets in the long term?**

The main drivers of basic financial services in Africa, as we have seen, come mainly from the high mobile phone penetration. The majority of Africa, being a rural population, access financial services through their mobile phones. There is however a need to see how they can be brought into the formal banking sector. At the moment, these basic financial services include remittances or a little savings. But there are several other banking products that can be offered through the same channels, allowing those communities or rural populations in Africa to achieve prosperity and improve their living conditions. This is a particularly interesting path for FinTechs, which are well placed to introduce or offer these more advanced financial products through mobile devices that will have a big impact on Africa's rural population.

We've seen this in the Transport industry. At Centrika, we are making good progress in digitising Rwanda's transport system. But we've observed that most of the people we give transport cards to are unbanked. This presents a good opportunity to analyse how users load money onto their transport cards when they want to commute, with this information leveraged to identify other useful financial products that can be offered to these customers. Something like microloans for example, which would enable low-income commuters to borrow money at a certain fee for their journeys. I believe that would be

a very good product for commuters, with the added benefit of attracting people to financial services. FinTech solutions can easily be deployed using existing technologies and client bases to broaden the overall landscape of financial services in Africa and improve financial inclusion.

#### **8. How can regulators ensure Rwanda is able keep pace with rapidly evolving technology and business models, so to be an attractive domiciliation location for FinTech startups or Payment Service Providers of all sizes and maturity levels in Africa?**

The first point worth emphasising is the regulator being aware or abreast of what is happening in the FinTech industry. Regulatory awareness of topical developments in financial technology is paramount to ensure appropriate regulatory frameworks are put in place pre-emptively, because FinTech is always innovating. If regulation cannot keep up with innovation, FinTech companies are faced with protracted processing and approval timelines before they can operate.

Secondly, consideration of the employee and founder profile of emerging FinTech companies is also needed. Often you find these early-stage startups are being run by young individuals with nothing but a good idea and their computer. These founders aren't equipped with the required knowledge to satisfy regulatory requirements or approach them to seek a particular license. It would be good for the regulator to avail training or workshops that can be attended by these sole proprietorships, to educate them of what is available and the requirements in place for regulatory compliance. Embedding education frameworks that constantly evolve based on market needs and trends is one way regulators can accommodate the needs of FinTech startups. Even with the National Bank of Rwanda's regulatory sandbox, for example, applicants are expected to have a certain base level of understanding (in terms of how the regulator operates) to apply, which is somewhat prohibitive. It doesn't accommodate these early-stage founders who may be interested in applying for the sandbox but unfamiliar with the access and application criteria to do so. Having supportive teams or a help-desk in place to engage these small FinTech companies on a regular basis and help them understand entry and eligibility requirements for the sandbox would make it more inclusive.



# The Policy Perspective

An Interview with the **Monetary Authority of Singapore**

**Sopnendu Mohanty**, Chief FinTech Officer, Monetary Authority of Singapore



## 1. How has the landscape for FinTech in Africa evolved over the last decade, and what key trends do you see emerging in the sector?

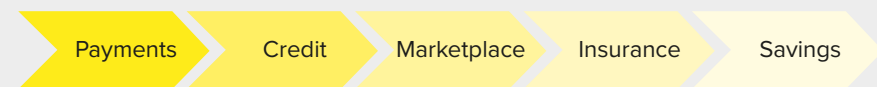
One indicator of how Africa is doing in this sector, although not the only one, is how investors perceive opportunities in Africa. Looking at global FinTech investment last year, 80% of capital went to Asia and North America, and the remaining 20% was split between Europe, Africa and Latin America. Africa perhaps accounted for a little less than 10% of the capital allocation. From the perspective of absolute numbers, the allocation to Africa is still very low. But if you look at the data from the perspective of YoY growth, Africa's growth trajectory is larger than the global growth trend in FinTech - somewhere to the north of 30-35% CAGR.

Although the opportunity for and progress of FinTech in Africa is on an upward trend, a question remains: is this progression happening fast enough? I think not. This is because Africa presents such a huge investment opportunity, it is prime for good growth, and has an advantageous population. Globally, 4.5 billion of the world's 7 billion people are Asians, roughly 1.3 billion come from Africa, and 600 million or so are from Latin America. Africa benefits from a youthful population whose distribution across the continent is less concentrated than in other markets. Take Asia as an example - India and China occupy more than 60% of its population, while Latin America, Brazil, and Mexico comprise roughly 50% of the region's population. Interestingly, however, Africa's population distribution is relatively more even. So, in terms of population distribution across several countries, I think the continent's demographic dividends have not been fully capitalized. Finally, with the technology we see today, leapfrogging legacy systems is far easier than ever. Technology is more affordable and evolved, making leapfrogging easier and faster for Africa in the current climate.

## 2. Given the onset of new technologies that make leapfrogging possible, how does the evolution of FinTech in Africa fare, relative to other emerging markets? Are there any markets with the tools or the capacity to leverage this new technology and leapfrog faster?

This is where I differ from my other esteemed colleagues in the industry - you don't have to follow the path every country is or has taken. If you look at the history of FinTech, including Africa's own story, it usually begins with payments. The payments space serving as the anchor point for the industry's growth is understandable because the first interaction in a digital world is sending money efficiently to one another. Payments are the starting point of your digital experience as a customer and/or business. However, a broad and comprehensive strategic approach is necessary to transform financial services from payments to other financial products. The depth and breadth of this coverage define the stable and sustainable growth of financial services, leading to far more inclusion and a real impact on the economy.

FIGURE 1: STAGES OF FINANCIAL SERVICES TRANSFORMATION



In Africa, the first two stages (payments and lending) are relatively stable and well-established. For any economy to leapfrog digitally, individuals need access to payment services through their mobile phones. While Africa has a decent mobile phone penetration, the real economy is not moved by financial inclusion but rather by economic inclusion. Financial inclusion considers how to incorporate people into a financial system, which is



essentially access to payment and credit services. Along with accessing credit, there is a need for an enabler that powers economic progress. This is where the third leg comes in, which is the digital marketplace. The task is to ensure Africa's marketplace develops sufficiently such that what was a constraint on the continent's ability to move goods and services becomes an opportunity for development through a transition to digital commerce. Economic inclusion becomes possible with these three in place - access to payment, credit, and the digital marketplace.

Once economic inclusion has been established, you can start thinking about risk management. This is where the fourth leg - insurance - comes into play. Namely, how can ordinary citizens and businesses in Africa access affordable insurance which protects them from unanticipated risk in their lifetime? The final one is to increase Africa's savings potential. Doing so requires developing innovative financial solutions that incentivise individuals to increase their savings potential, which becomes the fodder for future capacity development and growth. Standard practice is to follow each stage of the track chronologically. However, for Africa to see economic inclusion on top of financial inclusion, regulators should view the preceding components holistically instead of conventional practice focusing only on mobile payments and lending.

**3. Regulators are tasked with navigating several often-competing considerations. These include balancing innovation and consumer protection, as well as promoting competition in the payments industry while also ensuring market stability. What are some best practices for regulators seeking to strike this delicate balance in their oversight of FinTech and digital finance?**

As Africa's digital economy develops – spanning digital finance, the digital marketplace and digital infrastructure – a consistent, progressive regulatory environment is needed to manage the transition of each system. Regulatory frameworks for financial services are often overcomplicated but need not be. Regardless of the regulatory body – it could be the Central Bank of Ghana, the Central Bank of Rwanda, or the Central Bank of Kenya – fundamentally, they all operate on a very simplified model that I call a regulatory stack.

FIGURE 2: REGULATORY STACK



1. **Know Your Customer (KYC).** The starting point for regulators is KYC processes because you don't want people with unverified credentials participating in the digital economy.
2. **Anti-money Laundering / Counterterrorism.** The second layer for regulators involves ensuring no 'bad' transactors within the institutions facilitating financial services.
3. **Consumer Protection.** The third layer ensures the accountability of financial institutions to adhere to consumer protection requirements.
4. **Market Integrity.** The fourth layer involves ensuring market participants in the financial system are preserving the integrity of the market.
5. **Financial Stability.** In the fifth layer, regulators define prudential frameworks which ensure the market operates under the appropriate regulations that will protect the stability of the financial system. However financial regulation is more than just having rules in place - it's also about the ongoing oversight and enforcement of these rules.
6. **Technology Risk Management.** The sixth and final layer concerns minimizing the risks associated with introducing technology into the financial system, given the rising integration of technology in traditional financial services.

Considering existing regulatory frameworks across all 54 African countries, they all fall under the breadth of these six layers. What makes the regulatory landscape complicated and fragmented is how each country



executes this framework. For example, one country may require in-person identification to satisfy KYC requirements to open a bank account, whilst another may rely on digital infrastructure to meet the same requirement. Both countries are trying to solve the same issue – knowing their customer. But friction arises because of the diverging methods of doing so. The question thus becomes how Africa can come together and streamline this procedural construct towards universal and common experience.

#### **4. What role can international cooperation play in shaping FinTech and payments regulation, and what are some examples of successful cross-border regulatory frameworks?**

The prevailing best practice belief regarding good cross-border regulation is that it is achieved by what is referred to as regulatory passporting. This is where a licensed entity in Kenya could do the same seamlessly in Rwanda, for example. This is considered the ‘Nirvana’ of cross-border regulatory alignment, but the reality is, that implementing regulatory passporting is very difficult.

Optimal cross-border regulation lies not in passporting but in consistently deploying procedures to address each component of the regulatory six-stack. Collaboration towards developing a consistent procedural approach is required between the 54 countries in Africa or, more realistically, between any logical group of countries on the continent (e.g. East or West Africa). Accordingly, the way customer policies are defined in Kenya ought to be equal to customer procedures in Rwanda or Tanzania. If this occurs, a Kenyan FinTech company can land in Rwanda for licensing and submit the same documentation to the Rwandan Central Bank. The benefit is mutual – Rwandese regulatory authorities will find the documentation very familiar, and the FinTech company will find it administratively and bureaucratically easier to pursue licensing in Rwanda. Challenges arise because of the inconsistencies in the approach to the same framework of regulatory concerns. At a minimum, procedural elements of regulations should be consistent. Hence, consistency rather than merely passporting is more pragmatic, cost-effective, and straightforward than passporting across jurisdictions.

#### **5. How can regulators ensure Rwanda is able keep pace with rapidly evolving technology and business models, so to be an attractive domiciliation location for FinTech startups or Payment Service Providers of all sizes and maturity levels in Africa?**

Rwanda, a relatively small country with very strong governance, has the elements necessary to transform and reconstruct its economic system rapidly. Rwanda’s key priority is shifting its economic design as closely as possible to a pure, 100% digital economy. As a well-governed country, Rwandese citizens are also positioned for seamless integration into this new digital economy. Rwanda has good public infrastructure and a strong, competent regulatory body within their Central Bank. If they can implement established best practices into their regulatory processes and incorporate risk management frameworks whilst accepting modern technologies for Banks and FinTechs, then Rwanda has the best chance to be the fastest-growing digital economy on the continent.

However, critical to Rwanda’s success is maintaining consistency with global best practices from a regulatory perspective and having an appropriate financial technology infrastructure. Rwanda’s ability to attract FinTech companies that can build innovative solutions hinges on this and its capacity-building efforts across three levels: at the policy level, for producers of economic activity, and for consumers of economic activity. On the policy side of capacity building, it is important to have policymakers who understand the importance, complexity, and opportunity of a digital economy. Capacity building for the producers of economic activity refers to Rwanda’s ability to create digitally native businesses – i.e., fully digital companies from the day they start business. Finally, on the consumer side, the ability of the general population to understand and consume digital services while also being aware of consumer protection rights and cyber hygiene must be cultivated. Such an approach will turbo-charge the financial technology development.

# Policy Recommendations

Driven by a combination of in-depth interviews with representatives from relevant stakeholders and complimentary research, this section identifies countries with a comparative advantage over others and highlights continental gaps in both the licencing for payment service providers and regulation for sandbox innovation, highlighting strategies or additions that will harmonize regulation across Africa.

## Creating a Framework for Responsible and Innovative FinTech Services: Recommendations for Regulatory Sandboxes



### Encourage Collaboration and Partnerships

In multi-peak jurisdictions (those that have more than one financial services regulator), coordination mechanisms are essential to ensure effective and efficient financial services for consumers, as well as greater collaboration within the industry. This is particularly so in jurisdictions with multiple regulatory sandboxes hosted by different prudential regulators. This is the case in Nigeria, for example, which has the *Financial Services Innovators Sandbox* run by the Nigeria Inter-Bank Settlement System (2019); the *Regulatory Incubation Program* run by the Securities and Exchange Commission (2021); and the most recent *Regulatory Sandbox* run by the Central Bank of Nigeria (2023). Similarly, Egypt has concurrent FinTech regulatory sandboxes in place, run by the Central Bank of Egypt (2019) and the Financial Regulatory Authority (2022).

Given that FinTech innovations often fall within the supervisory scope of different regulators, linking independent sandboxes can have the dual benefit of providing a single entry point for FinTech firms testing products that span across more than one regulator, while also enabling all relevant authorities to work together on applications and tests. This approach was successful in Hong Kong. In 2016 the Monetary Authority, Securities and Futures Commission, and the Insurance Authority linked (not merged) their independent regulatory sandboxes, providing a single entry point for applicants under a new banner called the “Fintech Supervisory Sandbox”<sup>54</sup>. In this framework, pilot trials of cross-sector fintech products can access multiple sandboxes concurrently, with the result being an increase in the number of firms testing across the three sandboxes<sup>55</sup>.

Collaboration should also extend beyond regulatory authorities to include relevant stakeholders in the broader financial services ecosystem, including innovators in the field, financial institutions, consumer associations, policymakers and any other relevant regulatory body or advocacy group. Engaging such actors in the design and implementation of regulatory sandboxes will ensure a more comprehensive understanding (and therefore addressal) of the industry’s needs and challenges. Regular stakeholder engagement through the creation of symposiums, working groups or associations has the additional benefit of building trust and promoting knowledge sharing. In addition to self-regulating national FinTech associations, examples of forums that foster this collaboration on a continental level include the African Fintech Network (AFN), the Africa Financial Industry Summit (AFIS) and the Better Than Cash Alliance.



### Develop Multi-Jurisdictional Sandboxes

Given the borderless nature of FinTech, regulatory sandboxes can be leveraged as a tool to promote cross-border regulatory harmonisation and enable innovators to scale more rapidly on a regional and continental level. The ability for innovators to deliver scalable, financially sustainable solutions is contingent on creating larger economies of scale to support business models through cross-border transactions. Multi-jurisdictional sandboxes can facilitate regional regulatory convergence through shared or joint testing programs.

Three multi-jurisdictional sandboxes are currently underway in Africa. The first is the West African Economic and Monetary Union (WAEMU), whose *Financial Innovation Laboratory* is accessible to all eight member states of the Union. The second multi-jurisdictional sandbox is amongst members of the East African Securities Regulatory Authorities (EASRA). In July 2018, the EASRA adopted a framework to ensure fitness of capital market practitioners who operate regionally, including through the employment of regulatory sandboxes<sup>56</sup>. The final multi-jurisdictional sandbox belongs to the West African Monetary Zone. Launched in May 2023, the West African Monetary Institute and EMTECH Solutions developed a strategic partnership to modernise country-level and regional regulatory sandboxes, enabling the harmonization of heterogeneous Fintech regulatory policies and frameworks across member states. Existing regional

cooperative efforts, including intergovernmental organizations, economic and trade unions, can be used as vehicles to initiate joint or shared regulatory sandboxes. Not only would this negate the need for regulatory arbitrage across individual sandbox jurisdictions, but it could also facilitate seamless “passporting” of FinTech solutions across borders, as piloted in the European Union (EU) for remittances<sup>57</sup>. In the long term, pan-African economic integration projects such as the African Continental Free Trade Area (AfCTFA) can also serve as a framework to leapfrog regional harmonisation of regulatory sandboxes to continental harmonisation.



## Implement Thematic Sandboxes as a Tool for Financial Inclusion

Thematic sandboxes are emerging as tools to advance financial inclusion. All five regulators surveyed identified financial inclusion as part of their mandate, either directly or by targeting enabling technologies or services. The regulatory sandboxes below explicitly promote financial inclusion, with sandbox applicants expected to demonstrate how their innovation will domestically advance inclusion.

Regulator	Inclusion Objective	Project Approach / Summary
Banco de Moçambique	Financial Inclusion	Now in its fourth edition, the Mozambican regulatory sandbox falls under the implementation of the 2016-2022 <i>National Financial Inclusion Strategy</i> <sup>58</sup> . The first cohort of sandbox participants in 2018 specifically targeted FinTech innovators advancing financial inclusion.
Bank of Sierra Leone (BSL)	Financial Inclusion	The BSL <i>Regulatory Sandbox Pilot Program</i> was expressly linked to Sierra Leone’s National Financial Inclusion Strategy 2017 – 2020 and designed as a dedicated regulatory environment to facilitate new business models that have clear potential to benefit Sierra Leone’s consumers and advance its financial inclusion strategy <sup>59</sup> .

In the case of the Bank of Sierra Leone, this commitment to supporting inclusive financial innovation went beyond the selection criteria for its regulatory sandbox to include financial assistance for successful applicants. The first cohort of the sandbox pilot program were the winners of the Sierra Leone FinTech Challenge, which offered cash prizes and US\$100,000 of seed capital in addition to sandbox admission<sup>60</sup>. Given the scarcity of capital available for startups in their early stages of development, this approach mitigates participatory constraints and ensures the regulator, and its private sector partners, espouse the same values it screens its participants for.

Given the lower levels of financial intermediation, bank competition, and macro-financial linkages in sub-Saharan Africa relative to other regions, regulators and central banks can benefit from considering FinTech as a leapfrogging opportunity to foster inclusive economic growth and development<sup>61</sup>. Inclusivity minded policymakers should therefore consider linking their sandbox programs to national financial inclusion strategies, thus amplifying the capacity for financial technology to improve the quality of access to financial products and services and be an enabler of inclusion in their jurisdiction.



## Relax Entry and Eligibility Requirements for Sandbox Applicants

A market study of 45 market sandbox participants from Indonesia, Japan, Korea, Malaysia, Philippines, Russia, Singapore, Taipei, and Thailand highlighted how burdensome application processes can hinder market satisfaction both in the functioning of sandboxes and the interaction with regulator<sup>62</sup>. Survey respondents highlighted several suggestions for improving the existing piloting frameworks in their respective jurisdictions, which can also be applied to the African context considering the high degree of overlap between requirements for licensing and sandbox participation in all five countries benchmarked. These include:

1. Reducing application and evaluation processing times.
2. Simplifying and reducing paperwork, particularly with the frequency and scope of interim progress reports.
3. Exploring the possibility of digital means for inspection report provision, expanding communication channels beyond static, formal paper-based procedures to include email, video conferencing, face-to-face meetings or direct contact with firm representatives.

Moreover, in some cases, if sandbox application processes are complex, unclear, or constantly evolving, firms may consider entry into sandboxes to be cumbersome. Relaxing entry and eligibility requirements for sandbox applicants opens avenues for market entry for a broader cohort of innovative firms that would otherwise struggle to establish themselves due to high regulatory thresholds.



## Leverage and Create Education Opportunities

In resource-constrained emerging and developing economies, there is a knowledge gap between regulators trying to navigate complex evolving markets for financial services and the innovators responsible for these new tech-enabled business models, products, and services. Bridging the FinTech skills gap is therefore necessary for any meaningful public-private collaboration towards joint understanding of industry developments, as well as establishing whether (and how best to) manage these developments.

Strategies for regulators to build internal knowledge and capacity should include investing in training for mid-to senior-level officials on underlying technologies as well as the legal, cyber and security challenges of FinTech oversight operations. In so doing, regulators are equipped with a sufficiently strong understanding to provide useful guidance and support to FinTech firms participating in the sandbox. One avenue for such upskilling is leveraging online and in-person courses by suitable academic or financial institutions. Examples include the Monetary and Capital Markets Department of the International Monetary Fund (IMF) or the Centre for Finance, Technology and Entrepreneurship which offer training for both corporates and governments<sup>63</sup>. Additionally, making use of technical assistance from specialist development agencies such as FSD Africa (which partnered with both the Bank of Sierra Leone and the Bank of Ghana in the implementation of their regulatory sandboxes) or the UN Capital Development Fund (which similarly partnered with Zambia Security Exchange Commission in 2018).

Beyond internal capacity building, regulators should also create education opportunities for prospective sandbox applicants. Possibilities for this include:

- a. Regular office hours with startups to answer questions, strategize solutions, and support with compliance, including access to mentors and experts.
- b. Development of tools and resources (such as checklists or FAQs) to improve accessibility and transparency of application processes and requirements.

- c. Public disclosure of historic and incumbent sandbox testing outcomes and lessons learned to guide future cohorts.

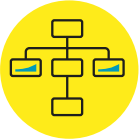
## Creating a Framework for Responsible and Innovative FinTech Services: Recommendations for Payment Service Provider Licensing



## Develop Sophisticated Risk Management Options

Central banks and regulators are traditionally risk-averse, valuing stability over innovation. The inherent novelty of FinTech developments presents challenges to regulators, who are justifiably concerned over the risks these developments may have on safety, consumer protection and data privacy. Coupled with the lack of subject specific technical knowledge, this risk aversion can be magnified by internal resource constraints, which further problematise the prospect of regulating technology-enabled financial innovation. FinTech regulators are thus tasked with the delicate balancing act of fostering innovation while mitigating risks to consumers and the financial system.

In Africa, this risk aversion manifests itself in lengthy due diligence and approval processes for licensing. This can have a detrimental effect to companies under review, especially for startups that may want to begin operations along the way. While the need to carefully select which firms should be granted licensing is paramount, regulators should consider implementing sophisticated risk management options that nevertheless enable startups with a comparatively higher risk profile to begin operations, albeit with appropriate controls and safeguards in place. This could be by imposing limits on the number of individual transactions these firms can offer to users, as well as placing a cap in transaction values per month. Placing restrictions such as these during a company's 'risky phase' minimises its economic liability, and also enables regulators to conduct ongoing due diligence (rather than lengthy ex-ante due diligence) on the firm's performance, monitor their transactions, and examine customer complaints.



## Introduce Tiered or Phased Licensing Options

Another risk mitigation strategy regulators should consider is introducing tiers within existing licence categories. This is the case in Nigeria, where the Central Bank offers a six month Approval-in-Principle (AIP) license for PSPs, only authorising a final commercial license following a satisfactory pre-license inspection of the applicants premises and facilities. The AIP license allows PSPs to begin operations while they work to meet the full requirements for a full license, ultimately reducing the time and cost of bringing new FinTech products and services to market.

Another way to add flexibility to licensing regimes is by phasing or customising existing requirements for new entrants. A phased approach would subject applicants to regulatory controls in stages, whilst a customised approach would tailor regulatory controls to applicants reflecting their individual risk levels, with both based on the size, type, and service scope of the FinTech provider<sup>64</sup>. Integrating a tiered approach to regulatory scrutiny will not make regulatory oversight more targeted, but it can also be instrumental in reducing barriers to entry (by expediting entry of FinTech entities with comparatively low risk business models and practices) and enhancing competition and innovation<sup>65</sup>.

For example, within Africa the Central Bank of Kenya offers a three-tiered licensing framework for PSPs, while the Bank of Ghana offers six categories of PSP licences. Beyond Africa, the Monetary Authority of Singapore and the Reserve Bank of India both offer a three-tiered and two-tiered licensing framework for PSPs, respectively.



## Pursue Regional Harmonisation

Despite the similarities in FinTech regulation and licensing requirements across several countries, as evidenced in the comparative analysis exercise in Section 2, having a PSP licence in one country does not guarantee similar authorisation in another country in the same region. For example, Chipper Cash is licensed in Rwanda, but was denied similar licensing in neighbouring Kenya<sup>66</sup>. This is particularly counterintuitive considering wider continental frameworks for cross-border payments such as the AfCTA's *Pan-African Payments and Settlement System*, which is working to eliminate fragmentations such as these and provide a payment

and settlement service in which commercial banks, payment service providers and fintech organisations across the continent can connect as participants<sup>67</sup>.

A standardised, coordinated, and harmonised FinTech regulatory framework is key to eliminating duplicity. For example, in 2022 Kenyan mobile money transfer company PesaPal was licensed as a Payment System Operator in Uganda and as a Digital Payment Systems Provider in Tanzania, permitting it to operate in both countries. More recently, in 2023 the firm was also licensed as a Payment Service Provider in Rwanda. Despite these positive outcomes, the need to pursue separate application processes to enable market integration for a single entity lends itself to regulatory duplicity. In the long term, regulators should consider developing bi or multilateral agreements to facilitate cross-border interoperability, based on the mutual understanding that their supervisory regimes have congruent regulatory objectives which aim to deliver comparable outcomes, and thus have similar compliance requirements<sup>68</sup>. Such agreements would thus enable licensed PSPs to operate cross-jurisdictionally without the need for further authorisation, eliminating regulatory inefficiencies and siloes/fragmentation.

Recognising that regional harmonisation of FinTech regulation and licensing requirements is a long-term goal, in the interim regulators should work towards compliance with international standards (such as ISO 20022) and frameworks (such as the Financial Action Task Force (FATF) and the General Data Protection Regulation (GDPR), among others). Maintaining parity with global benchmarks such as these provides a near-term baseline that African regulators can work towards on the journey towards regional, and ultimately continental, harmonisation.

A standardised, coordinated, and harmonised FinTech regulatory framework is key to eliminating duplicity. In recognition of this, the Central Banks of Egypt and Nigeria recently signed a landmark MoU establishing a “FinTech Bridge” between the two countries to develop joint regulatory projects, coordinated licensing and legal frameworks and talent development.<sup>69</sup>





## Embed RegTech<sup>70</sup> as a Tool for Efficient Regulatory Supervision

A 2018 study on the use of RegTech by Central Banks in India, Mexico, Nigeria, Nepal and the Philippines highlighted how technology can be harnessed to improve the efficiencies of supervisory and regulatory tasks and enhance internal reporting processes<sup>71</sup>. Examples of RegTech used by regulators in the financial services industry across Africa include:

- **Ghana:** The Bank of Ghana launched the *Online Regulatory and Analytical Surveillance Software*, a single portal to collect prudential data from banks and deposit-taking institutions. It also centralises the data from all the departments into one solution, which will improve the Bank's reporting and analytical capabilities<sup>72</sup>.
- **Kenya:** The Insurance Regulatory Authority developed the *Electronic Reporting System*, an integrated system to automate collection, review and analysis processes. The system has helped the regulator automate an array of functionality including submission, data aggregation and summary reports<sup>73</sup>.
- **South Africa:** The Financial Services Board developed a system that automates the processing of insurance claims, which has helped the regulator reduce time taken to process claims and provide customer feedback<sup>74</sup>.
- **Zambia:** The Pensions and Insurance Authority developed a holistic risk-based supervision system for its 600+ regulated entities, on-site and off-site inspections capabilities, and a single portal for data submission<sup>75</sup>. This has enabled the regulator to consolidate and improve the efficiency and effectiveness of the data it collects, including licensing for new market applicants.

Given the expanding oversight scope for Central Banks with the rise of FinTech and digital financial services, regulators should make use of similar technology where possible to streamline internal processes and systems. Avenues to integrate RegTech include in automating reporting, live monitoring and enforcing of regulatory compliance, and integrated collection of granular data to improve predictive and algorithmic supervision.



# Endnotes

- 1 The Banker, 2023. *Payments Innovation the Key to Financial Inclusion in Africa*
  - 2 McKinsey, 2022. *Sustaining Digital Payments Growth: Winning Models In Emerging Markets*
  - 3 The future of payments in the Middle East, 2021 <https://www.mckinsey.com/industries/financial-services/>
  - 4 McKinsey and Co., 2022. *Sustaining Digital Payments Growth: Winning Models in Emerging Markets*
  - 5 United States International Trade Administration, 2023. *The Rise of eCommerce in Africa*
  - 6 Central Bank of Nigeria, 2023. *E-Payment Statistics*
  - 7 McKinsey and Co., 2022. *The Future of Payments in Africa*
  - 8 UNECA, 2021. *Covid-19 Impact on E-Commerce: Africa*
  - 9 McKinsey and Co., 2022. *The 2022 McKinsey Global Payments Report*
  - 10 FTX Intelligence, 2023. *Nigeria's Digital Economy: Building a Digital Payments Ecosystem*
  - 11 Republic of Ghana Ministry of Finance, 2020. Press Release: *Government Launches new Policies to speed up Financial Inclusion and Digital Payments to Transform the Economy*
  - 12 Ministry of ICT & Innovation, 2023. Press Release: *The Government of Rwanda Launches a National Awareness Campaign On Digital Payments*
  - 13 South African Reserve Bank, 2023. Media Statement: *South Africa Clears the Way for Broader Financial Inclusion With the Launch of a Low-Value, Real-Time Digital Payment Service*
  - 14 Cellulant, 2023. *The Rise and Rise of Proximity Payments in Africa*
  - 15 GSMA, 2023. *The State Of The Industry Report On Mobile Money 2023*
  - 16 United Nations International Telecommunication Union Data Hub
  - 17 World Bank, 2022. *The Global Findex Database 2021*
  - 18 Finmark Trust, 2022. *The State of the Digital Payments Ecosystem in South African Townships*
  - 19 Akinyemi, B and Mushunje, A., 2020. *Determinants of Mobile Money Technology Adoption in Rural Areas of Africa*
- The 10 countries chosen for the survey in this study include Ghana, Kenya, Lesotho, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, and Uganda.
- 20 Tay, S., 2020. *Expansion Of Mobile Money In Africa: The Transaction Fee Concern In Ghana And Uganda*
- Other pricing models used by mobile money operators include percentage-based pricing (where a flat percentage fee is applicable, regardless of transaction value) and the free model (where no transaction costs are incurred by the user).
- 21 Karombo, T., 2022. *Why African Governments' Obsession with Mobile Money Could Backfire*
  - 22 World Bank and Bank for International Settlements, 2020. *Payment Aspects of Financial Inclusion in the FinTech Era*
  - 23 African Development Bank, 2022. *Understanding The Importance of Regulatory Sandbox Environments and Encouraging Their Adoption*
  - 24 World Bank, 2020. *Brief: Key Data from Regulatory Sandboxes Across the Globe*
  - 25 World Bank, 2020. *Brief: Key Data from Regulatory Sandboxes Across the Globe*
  - 26 This consists of the National Treasury, the Financial Intelligence Centre, the Financial Sector Conduct Authority, the National Credit Regulator, the South African Reserve Bank, the South African Revenue Service and the Competition Commission.
  - 27 The Central Bank of West African States have a FinTech Sandbox (the Financial Innovation Laboratory) that is accessible to all eight member states of the West African Economic and Monetary Union. This includes Benin, Burkina Faso, Côte D'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo.
  - 28 The Central Bank of Egypt's Regulatory Sandbox also accepts applicants testing solutions that offer an already existing service or product, but that use a new and innovative mechanism or technology. The Regulatory Sandbox is also open to mature FinTech providers that have already finalized their solution.
  - 29 These include Banks and Specialised Deposit-Taking Institutions, Payment Service Providers, Dedicated Electronic Money Issuers, Savings and Loans Companies, Microfinance Companies, Financial Holding Companies and Unlicensed FinTech Start-Ups.
  - 30 For Business-to-Consumer companies, benefits the innovation should be able to demonstrate or bring about include lower prices, increased competition and/or improved accessibility (financial inclusion). For Business-to-Business companies benefits the innovation should be able to demonstrate or bring about include lower costs, increased efficiency, and/or improved compliance.
  - 31 The Regulatory Sandbox of the Bank of Ghana is operated in a hybrid model that fuses the cohort model and the rolling model. It invites prospective applicants to submit applications during a specific application window, but also allows entities to apply at any time outside the subject areas published for a cohort, with admission exercised at the discretion of the Bank.
  - 32 While each of the jurisdiction surveyed permit testing extensions, the duration of these vary by country. In Egypt, the initial testing period can be extended for a maximum overall testing period not exceeding 12 months, while in Ghana and Kenya participants may request to extend the initial testing period for a duration of no more than three months and 12 months, respectively.
  - 33 The Banker, 2023. *Payments Innovation the Key to Financial Inclusion in Africa*
  - 34 South African Reserve Bank, 2015. *Directive For Conduct Within The National Payment System*
  - 35 National Council for Law Reporting, 2011. *The National Payment System Act, 2011*
  - 36 Cenfri, 2018. *Payment Systems in Sub-Saharan Africa*
  - 37 Financial Stability Institute, 2021. *Fintech and Payments: Regulating Digital Payment Services And E-Money*
  - 38 Cenfri, 2018. *Payment Systems in Sub-Saharan Africa*
  - 39 Deloitte, 2022. *Payment Providers: The Race to Scale and Expansion Into New Markets*
  - 40 World Bank, 2016. *Innovation in Electronic Payment Adoption: The Case of Small Retailers*
  - 41 Except in the case of applicants for a PSP Standard License, which requires 100% Ghanaian ownership.
  - 42 Company profile should detail current type of products and services being offered, and the program of operations to do so.
  - 43 While not in the mode of a "Fit and Proper" form, The Central Bank of Egypt required applicants to meet minimum fitness and probity requirements for Directors and Senior Management.
  - 44 Information technology policy should be accompanied by evidence that an accredited body entitled to regulate information communication technology in Rwanda certified the technology infrastructure for the PSP operating their network.
  - 45 Should include copies of any agency or outsourcing agreement if outsourcing of parts of the activities.
  - 46 At the time of writing (August 2023), the USD equivalent of the minimum capital requirements for each jurisdiction are as follows: 1) Ghana: ≈US\$175,000 ; 2) Kenya: ≈US\$35,000; 3) Nigeria: ≈US\$130,000 ; 4) Rwanda: ≈US\$43,000 ; 5) South Africa: ≈US\$550,000 ; and 6) WAEMU: ≈US\$167,000
  - 47 Article 185 of The Central Bank and Banking Sector Law No. 194/2020 identifies a minimum capital requirement as a condition for granting a license to operate payment systems or provide payment services, but does not prescribe a specific value for what this minimum statutory capital is/will be.

- 48 There are currently six categories of PSP licences issued by the Bank of Ghana: a Dedicated Electronic Money Issuer (“DEMI”) license, a Payment and Financial Technology Service Provider license, and the PSP Scheme, Enhanced, Medium and Standard Licenses, respectively. The data in this table covers the application procedures for the PSP Enhanced License. For a breakdown of permissible activities, capital required, tenor and licensing fees for each PSP category, please refer to [Notice No BG/GOV/ SEC/2019/16](#).
- 49 Where the company has foreign shareholders, the company must satisfy the Ghana Investment Promotion Centre minimum foreign capital requirements under the Ghana Investment Promotion Centre Act, 2013 Act 865).
- 50 The Central Bank of Nigeria grants an Approval-in-Principle (AIP) valid for 6 months if it is satisfied with the PSP license application and accompanying documents submitted. Upon obtaining an AIP from the Central Bank, applicants are then required to pay a NGN 1 million license fee and apply for a final licence within six months of obtaining their AIP. The Central Bank only issues a final licence if it is satisfied with its inspection of the applicant’s registered place of business, the duration of which is at the discretion of the Bank.
- 51 Application fees for a PSP license for remittances differs from that for other payment services and is RWF1 million.
- 52 Once granted, PSP licenses are valid perpetually until revoked or suspended by the National Bank of Rwanda.
- 53 The East African, 2023. [Mobile Money Transfers Beat Other Digital Payment Platforms](#)
- 54 Hong King Monetary Authority, 2016. [Circular - FinTech Supervisory Sandbox \(FSS\)](#)
- 55 UNSGSA, 2019. [Early Lessons on Regulatory Innovations to Enable Inclusive FinTech](#)
- 56 East African Securities Regulatory Authorities, 2018. Press Release: [East African Securities Regulators Agree on Criteria for Fit and Proper Assessment of Market Practitioners](#)
- 57 Wechsler, M., Perlman, L. and Gurung, N. (2018) [The State of Regulatory Sandboxes in Developing Countries](#)
- The ‘passporting’ concept allows for entities licensed in one-member country to operate across borders in another with an approved ‘passport’ within the union, which has been used for money transmitters in the EU.
- 58 Banco De Moçambique, 2023. Press Release: [Governor Of The Banco de Moçambique Launches the 4th Edition of the Regulatory Sandbox](#)
- 59 Consultative Group to Assist the Poor, 2018. [What Can We Learn from Sierra Leone’s New Regulatory Sandbox?](#)
- 60 Bank of Sierra Leone, 2018. Press Release: [Sierra Leone FinTech Challenge](#)
- 61 International Monetary Fund, 2019. [FinTech in Sub-Saharan African Countries: A Game Changer?](#)
- 62 APEC Economic Community, 2021. [FinTech Regulatory Sandboxes Capacity Building Summary Report](#)
- 63 Notable alumni of the latter include the Monetary Authority of Singapore, the Central Bank of Eswatini, and the State Bank of Vietnam.
- 64 World Bank and Bank for International Settlements, 2020. [Payment Aspects of Financial Inclusion in the FinTech Era](#)
- 65 TheCityUK and PwC, 2022. [Fintech In Kenya: Towards an Enhanced Policy and Regulatory Framework](#)

- 66 Business Daily, 2022. [CBK Warns Flutterwave And Chipper Cash Not Licensed To Operate In Kenya](#)
- 67 AfCFTA, 2023. [The Pan-African Payments and Settlement System](#)
- 68 TheCityUK and PwC, 2022. [Fintech In Kenya: Towards an Enhanced Policy and Regulatory Framework](#)
- 69 African Business, 2023. [Egypt and Nigeria Unite on FinTech](#)
- 70 “RegTech” refers to the use of technology for compliance and regulatory purposes by regulators and the entities they supervise.
- 71 Gurung, N. and Perlman, L., 2018. [Use of RegTech by Central Banks and Its Impact on Financial Inclusion](#)
- 72 Regnology, 2020. [Integrated Financial Supervision System Supports Bank of Ghana Reforms](#)
- 73 Regnology, 2019. [The Insurance Regulatory Authority Kenya Accelerates Risk-Based Supervision](#)
- 74 Opoku-Afari, M., Abugre, J., and Oppong, K., 2022. [Playing-Catch Up: SupTech and RegTech Developments in Africa](#)
- 75 Regnology, 2020. [The Pensions and Insurance Authority \(PIA\) Zambia Gains New Efficiencies With Online Submissions](#)





**For further information, contact**  
Kigali / Rwanda  
BPR-PCD Tower, 4th Floor

E [info@rifl.rw](mailto:info@rifl.rw)  
W [www.kifc.rw](http://www.kifc.rw)  
T +250 786 422260



**For further information, contact**  
[research@avca-africa.org](mailto:research@avca-africa.org)

**Contact AVCA**  
37 North Row, 3rd Floor  
London W1K 6DH

E [avca@avca-africa.org](mailto:avca@avca-africa.org)  
W [www.avca.africa](http://www.avca.africa)  
C [www.avcaconference.com](http://www.avcaconference.com)  
T +44 (0)20 3874 7008

