



REGULATORY APPROACHES TO DIGITAL PAYMENTS TRANSACTION COSTS IN SUSTAINING FINANCIAL INCLUSION IN AFRICA



SPECIAL REPORT

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ACKNOWLEDGMENTS

This special report is a product of the African Financial Inclusion Policy Initiative (AfPI) and its members.

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We would like to thank the following AFI member institutions who provided qualitative insights through in-depth interviews: Mohamed Helmy (Central Bank of Egypt), Arlindo F. Lombe (Banco de Moçambique), Stephen Mathew Ambore (Central Bank of Nigeria), Josephat Mutepfa (Reserve Bank of Zimbabwe), Jay Dizon and Bridget Romero (Bangko Sentral ng Pilipinas), Liz Julienne (Central Bank of Seychelles), Fadwa Jouali (Bank Al-Maghrib), Bank of Ghana, Brian Muthiora (GSMA) and Sandra Yao (Thunes).

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We would also like to thank Amarante Consulting for their support in drafting the report.

We would also like to thank AFI member institutions, partners and donors for generously contributing to the development of this publication.

This report is financed through the AFI's Multi-Donor Financial Inclusion Policy Implementation Facility (MD-PIF), with the participation of the French Development Agency (AFD), the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Ministry of Finance of the Grand Duchy of Luxembourg.

EXECUTIVE SUMMARY

The Alliance for Financial Inclusion (AFI)'s Expert Group on Financial Inclusion Policy (EGFIP) in Africa developed this special report to provide an overview of the regional landscape on regulatory approaches to digital transaction costs.

The report focuses on mobile money (MoMo) as the key digital payment driver to financial inclusion in Africa. It captures prevailing practices, insights, and lessons from jurisdictions and key industry players within the region, mirroring this with experiences from peer regional jurisdictions.

The report examines the structure of transaction costs, analyzing both direct and indirect cost builders. The direct costs covers downstream activities related to the direct delivery or access of services to/by the end user, known as the point of sale (POS).

These costs also cover distribution costs such as commissions paid to agents on cash-in/cash-out (CICO), and client enrolment. These costs are variable, as other factors such as time and network size can affect their fluctuation. Indirect costs are associated with the setting up of the business (Capital Expenditure or CapEx) and its daily operations (Operational Expenditure or OpEx).

Beyond these, it highlights the critical role of competition within the digital payment industry in influencing the pricing policy of providers. Competition encourages providers to ensure product quality while maintaining a pricing attractive enough to retain or gain consumers.

Based on a comparative analysis of MoMo pricing across several African markets, the report observes that providers prioritize pricing cash-out above cash-in transactions. Indeed, providers encourage customers' cash savings to support liquidity and float management. With regards to pricing for interoperable payment systems, it identified three models: pure market-driven, public-private partnership (PPP), and regulator-led approaches.

The report identified THREE KEY REGULATORY APPROACHES, namely:



A MARKET-LED HANDS-ON APPROACH where the determination of transaction cost, though informed by market players has the active, and permanent participation of the regulator across the process.

The regulator's role ranges from one of a catalyst or enabler, facilitating a process towards a price consensus, to that of a sole adjudicator with powers to issue mandates or directives within which the market could operate or negotiate.

A MARKET-LED HANDS-OFF APPROACH where the regulator's participation in determination of the transaction cost could be described as minimal, external or remote. The process is led by market players without the regulator's direct intervention.

The regulator has an advisory role and would intervene only if there is a need to address issues associated with consumer protection, financial inclusion, or market outcry.

A REGULATOR-LED APPROACH in which the regulator mandates pricing of digital payments to the end user, usually in response to an emergency before being reversed when the emergency situation improves.

Recent interventions witnessed across the region in response to the Coronavirus Disease 2019 (COVID-19) pandemic could be termed as a regulator-led approach.

Additionally, it notes that in order to adequately manage interoperability costs, there should be a balance between the agenda to enhance connections through technology, and other critical factors, such as regulation, market maturity and business models. It also underlines that if MoMo taxation is applied as an excise tax on transaction fees, this additional cost is often transferred by the provider to the end user.

Based on different scenarios, the report opines that the impact of transaction costs on financial inclusion could vary. It could incentivize, disincentivize or may have no effect on financial inclusion. With regards to regulatory approaches to digital payments transaction costs across the region, the report observes that it is defined by the level of influence or participation of regulators and providers in oversight and decision-making.

The report also synthesizes key lessons from the analysis of the regulatory approaches. On one hand it highlights the critical role and possible scope of guidance by regulators. On the other hand, it stresses the need for such guidance to safeguard consumer protection and financial inclusion without inhibiting the business case for providers.



It concludes by confirming that, although cost is a determinant of market forces and players, the regulator intervention is critical to safeguard consumer protection, market conduct and financial inclusion.

The report will serve as a guide to regulators in understanding the different approaches within the region and their impact on financial inclusion to inform interventions at national levels.

1

BACKGROUND

While there is no single standard definition of digital payments, for the purpose of this special report, digital payment is defined as any payment made through an electronic funds transfer (EFT).¹

In Africa, digital payments are now, more than ever, the key to unlocking business growth and financial inclusion. Main types of digital payment instruments used in the African region are Mobile Wallets (commonly known as Mobile Money or MoMo) and bank cards.



According to the Global System for Mobile Communications Association (GSMA)'s report on *State of the Industry Report on Mobile Money 2021*², there are 562 million mobile money accounts in Africa that account for USD492 billion of mobile money transaction values.

84%

Over the next five years, it is expected that 84 percent³ of Africans will have access to a SIM connection and that mobile payments (i.e. digital payments through mobile phones) will play a critical role in empowering individuals, businesses and African economies as a whole.

As mobile money services continue to proliferate in many African countries, several new opportunities easing transactions and connections to the formal systems are being identified and developed across the continent.

1 AFI. August 2016. Digital financial services basic terminology, Guide note No.19. Available at: <https://www.afi-global.org/wp-content/uploads/publications/2016-08/Guideline%20Note-19%20DFS-Terminology.pdf>.

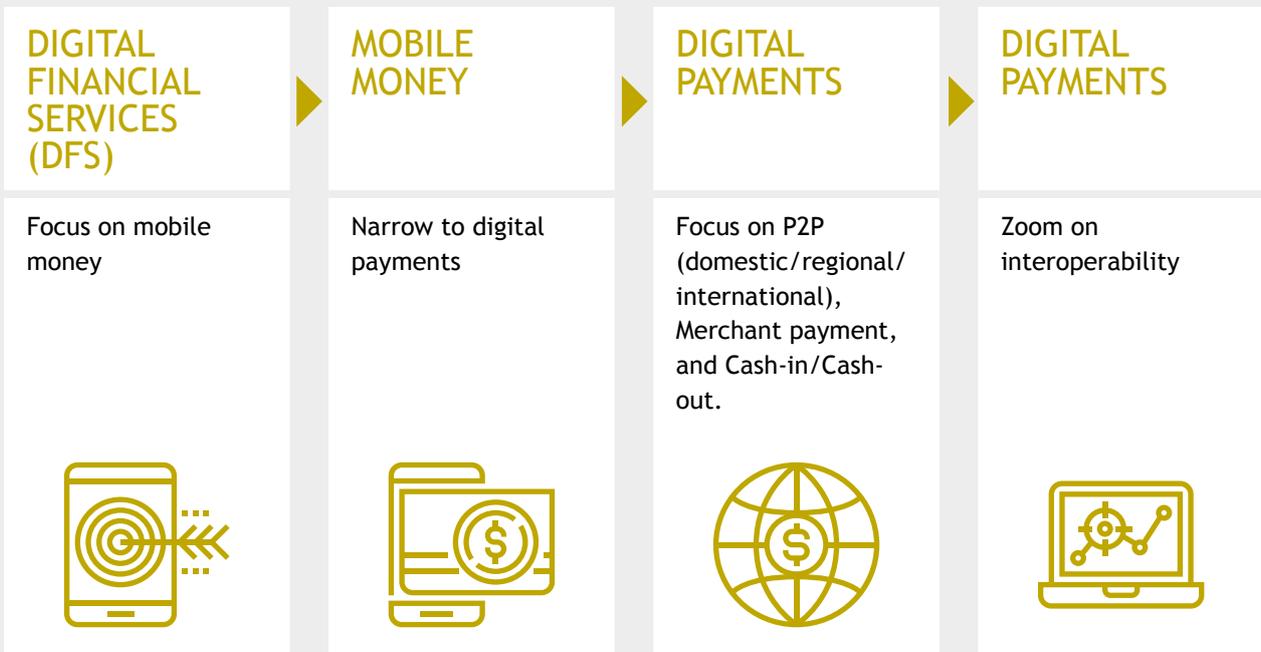
2 GSMA. State of the Industry Report on Mobile Money 2021. Available at: https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2021/03/GSMA_State-of-the-Industry-Report-on-Mobile-Money-2021_Full-report.pdf.

3 GSMA. State of the Industry Report on Mobile Money 2019. Available at: <https://www.gsma.com/sotir/wp-content/uploads/2020/03/GSMA-State-of-the-Industry-Report-on-Mobile-Money-2019-Full-Report.pdf>.

This report focuses on Mobile Money as the main digital payment instrument driving financial inclusion in the African region, far beyond what traditional banking channels have achieved. It is also the most widespread payment instrument in the continent, thus help making relevant comparisons in several countries across different African regions.

While Mobile Money initially enabled basic person-to-person (P2P) transfers, it has now extended to other services, such as digital credit, insurance, cross-border remittances, bulk payments, savings.

This report will concentrate on the most prominent and recurrent digital payments use cases as shown below.



As **digital financial services (DFS) products continue to expand in emerging markets**, particularly those related to mobile money, to sustain financial inclusion it is important to ensure that transaction costs do not deter low-income people from using digital payments, particularly when it comes to low-value amounts (usually those below USD10).⁴



⁴ Lower tier transaction is regarded around USD10. See, for example, Civil Society Budget Advocacy Group (CSBAG). 8 reasons why taxing transaction value on mobile money is a bad idea! Available at: <https://www.csbag.org/download/8-reasons-why-taxing-transaction-value-on-mobile-money-is-a-bad-idea/?wpdmdl=1717&refresh=60fd9a668a0f51627232870>.

2

OVERVIEW OF DIGITAL PAYMENTS TRANSACTION COSTS IN THE AFRICAN REGION



Woman in remote village in Malawi using a smartphone. (Photo by Alan Bramley/Alamy Stock Photo).

2.1 WHAT CONSTITUTES DIGITAL PAYMENTS TRANSACTION COSTS?

Digital payments pricing to the end consumer is influenced by multiple cost factors that include direct costs for the providers, such as commissions paid to agents on cash-in/cash-out, and client enrolment, as well as indirect costs such as competition, policies and regulatory measures.⁵

The pricing strategy for digital transactions is dynamic and nuanced: a provider would price digital transactions based not only on costs and margins, but also considering competition pricing or indirect costs for generating revenues coming from data analytics or loyalty programs. Nevertheless, digital payment providers are often ready to provide some free services to the customer (e.g. Mobile Money cash-in or customer registration), to encourage rapid customer acquisition and create a network effect to increase the value of their digital payment solution. Policy and regulatory measures could also influence this pricing, such as taxation or pricing limits.



A thorough dive into the costing structure from the provider's viewpoint will aid in understanding the cost structure and revenue model of Mobile Money providers.

In reality, the licensing model (whether Electronic Money Issuer or EMI, or banks), market share, and background in the payment area are critical to the cost structure for providers. For example, compliance costs are not absorbed in the same way for an established traditional bank that must comply with strict internal and/or external regulations, laws, and guidelines, as they are for an emerging financial technology (FinTech) provider with a more agile structure and lean processes.

2.2 KEY COMPONENTS OF TRANSACTION COSTS ACROSS THE REGION

From the supply side point of view, there are direct and indirect costs related to the provision of services:

DIRECT TRANSACTION-RELATED COSTS

Electronic payment operations require turning money to electronic value, wiring value across wallets of individuals, companies as well as public entities, before turning electronic value back to money.

TRANSACTION COSTS are payments that service providers and agents receive for their roles. These costs are important to service providers because they are one of the key determinants of net returns.

For a provider, transaction-based costs are influenced by the distribution costs and revenue sharing in case a transaction involves many players.

DISTRIBUTION COSTS are related to commissions paid to agents on cash-in/cash-out and customers enrolment. Usually, cash-in is free for customers but it has a cost for providers, especially for paying agent commissions. Agents are compensated for any transaction they initiate, and as a rule, mobile money agents can benefit from each transaction they make. This is due to the fact that agents can cherry pick which transactions to conduct (if considered not sufficiently profitable for the agent), making it very difficult for consumers if agents fail to facilitate those transactions.

CASH-OUTS are usually priced to end users, and at a level to cover agent commissions for both cash-in and cash-out. When registering new customers, agents generally receive a fixed-rate commission. The objective is to support agents with a viable business case at deployment. This investments at deployment is expected to be balanced off with increased commissions from cash-in/cash-out transactions once the market begins to mature.

⁵ Indirect costs are also linked to policy and regulatory compliance, as well as managing competition

A new trend is observed in wallet opening commissions, as agents are increasingly being paid when a transaction is performed through a newly opened wallet. Providers avoid paying commissions to agent on inactive wallets.

Finally, where digital transactions involve several players such as an aggregator or a hub for remittances, or a partnership with a bank, the revenue generated by the transaction- is split between the different players.



For interoperable P2P and merchant payments, mobile money providers have to agree on interchange mechanisms and amounts as they create value for the other network.

Mobile Money providers also charge this fee in return for accepting the operational risk and handling charges inherent to these transactions.

INDIRECT TRANSACTION COSTS

These costs are divided into two categories: Capital Expenditures (CapEx) which are the main costs involved in setting up businesses; and Operational Expenditures (OpEx) which represent main costs for operating a mobile money business.

These two expenditure categories are further explained below.

CAPITAL EXPENDITURES (CAPEX) in digital payments are mostly linked to the technology networks used by operators. For example, deployments with an in-house platform would have higher upfront capital costs but lower operating expenses. To that end, most African operators' CapEx will mostly consist of:

- > investments in technology, that is the hardware and software used to provide digital payment;
- > human resources, i.e. the initial expenses for building the team;
- > market research, i.e. investment in order to better understand user attitudes as well as existing use patterns; and
- > legal expenses, i.e. costs associated with securing governmental approval⁶.

OPERATING EXPENDITURES (OPEX) are day-to-day expenses Mobile Money providers incur to keep their business operational. These comprise personnel, operating technology, general and administrative (G&A) expenditures, customer care and compliance to industry regulations and policies.⁷

Firstly, in order to maintain the digital payments infrastructure, Financial Service Providers (FSPs) incur operational technical costs such as platform run, maintenance, evolution, security upgrades, and the related connectivity and server's storage. These costs have to be recouped through digital transactions pricing.

Secondly, FSPs have to also put in place back and front office processes and Human Resources (HR) to manage daily business, operations, clients, and compliance activities.



In several mobile money operations, personnel and commercial agent acquisition costs constitute significant and expanding cost elements.

This is generally to support with the expansion of registered subscribers, agents and a dynamic ecosystem.

FSPs must also guide customers on a journey from their first encounter with Mobile Money to the regular use of the mobile money platform and associated services. The level of service and availability of customer service should guarantee customer protection. Costs associated with these encounters notably involve a call center platforms, HR, trainings, technical platform for customer care, that FSPs take into account while costing and pricing the products and services.

Thirdly, in order to acquire and support customers in getting familiar with and using Mobile Money on a regular basis, providers have to put major efforts in marketing and communication campaigns targeting the customers. Marketing operations are critical to sustain the uptake and usage. As a matter of fact, marketing and communication campaigns are creating service awareness and can be used as a powerful financial

⁶ Rodriguez, C. and Conrad, J. 2018. Aligning Expectations: The Business Case for Digital Financial Services - Best practice financial modeling for financial institutions. IFC and MasterCard. Available at: https://www.ifc.org/wps/wcm/connect/0cc32369-8c7d-4583-8bca-b9d6ca36f045/IFC%2BMcF_Aligning+Expectations_The+Business+Case+for+DFS.pdf?MOD=AJPERES&CVID=mjQxNhC.

⁷ Ibid.

literacy tool. The competitive environment can also influence the marketing costs by pushing the provider to intensify its communication campaigns. This operational expenditure often accounts for a substantial part of FSPs costs, as they often combine Above the line and Below the line (ATL & BTL) operations, mixing media, display, street marketing, etc.

The last component of operational costs is related to compliance to industry regulations and policies, such as licensing, Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT), consumer protection, or taxation when it is applicable. In fact, in most jurisdictions, a licensing fee is charged on a fixed-interval rate (renewable). This is the case in **Kenya, Tanzania and Uganda**⁸ where license and renewal fees are charged at a flat rate.



In some cases, for a hosted, cloud-based solution, the licensing fees constitute a major part of operating expenditure.

Furthermore, in relation to compliance costs, taxation on mobile money transactions has been introduced in some African countries, such as the **Democratic Republic of Congo, Ivory Coast and Uganda**. Indeed, some countries view mobile money as a booming sub-sector and a good opportunity to tax due to the increasing turnover of transactions and their formal nature. However, in developing countries, the rising tax burden on the subsector and customers has sparked fears that the significant financial inclusion gains achieved thanks to the growing use of mobile money services may be overturned, thus leading to the reappearance of cash transactions.

Taxation has an impact on end consumer pricing (see Box 1: Taxation of Mobile Money services). If mobile money taxation is applied as an excise tax on transaction fees, this additional cost is often transferred by the provider to the end user. Taxation can also take the form of a tax on the transaction value itself and might be transferred to the end consumer. In some countries, such as in **Ivory Coast**, there have been a total ban on transferring the tax impact to the end consumer. As a result, the mobile money operator bears the burden of the tax. Taxation elements, especially when they cannot be passed on to the consumer, drive up the cost of providing mobile money services. As a consequence, to remain profitable, mobile money operators might reduce investing in, for example, robust platforms or adequate compliance mechanisms.

BOX 1: TAXATION OF MOBILE MONEY SERVICES

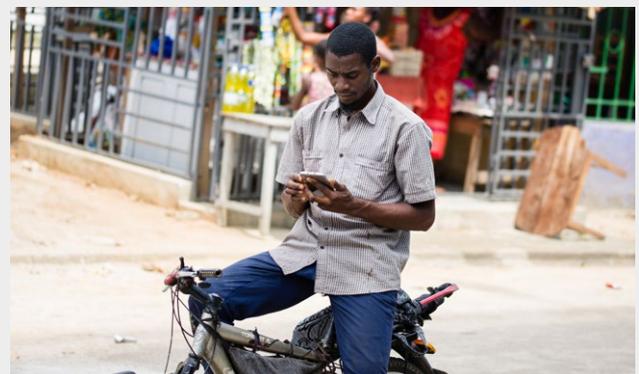
Before 2017, taxation was present in the mobile sector only with designated telecom services that generated a sizeable portion of the tax contribution in African countries.

As mobile money continued being a booming sector, some policy makers in countries like the **Democratic Republic of Congo, Ivory Coast, Malawi, Uganda, and Zimbabwe** developed an interest to tax mobile money services, due to the increasing turnover of transactions. These taxes were levied as excise duty on mobile money transaction fees. Mobile money sector-specific taxation has emerged in Africa, taking various forms, including the expansion of current excises in certain countries.

For example, in **Kenya**, since 2012, payments for mobile money transfers and other financial transactions have been subject to a 10 percent levy (since 2018, the government has decided to increase this tax by 2 percent, reaching 12 percent). In **Tanzania**, mobile money transaction fees are subject to a 10 percent excise tax, while in **Zimbabwe**, each mobile money transaction is subject to a USD0.05 tax.

An emerging though nascent evidence indicates that tax on MoMo could affect the use of mobile money services if it leads to a rise in transaction costs. This could adversely affect gains made to sustain financial inclusion.

For instance, in **Uganda**, following the 1 percent tax on mobile money transaction in 2018, the average volume of business transactions fell by 24 percent. Moreover, P2P money transaction value dropped by more than 36 percent as consumers opted to leave the mobile money system, with lower-value transactions migrating to cash and higher-value transactions migrating to other options like agency banking.⁹



Abidjan, Ivory Coast (Photo by vystekimages/Shutterstock).

- 8 Ugandan National Payments Act of 2020, Tanzanian Payment Systems (Electronic Money) Regulations of 2015 (Electronic Money Regulations), and Kenyan National Payment System Act of 2011.
- 9 Independent. 2020. Rich people prefer agency banking to mobile money - URA. Available at: <https://www.independent.co.ug/rich-people-prefer-agency-banking-to-mobile-money-ura/>.

As a conclusion to this section, the following table highlights several pricing models of mobile money services prevailing across different African regions, for key types of transactions.

TABLE 1: COMPARATIVE PRICING GRID OF A USD10* TRANSACTION ACROSS SELECTED JURISDICTIONS

REGION	COUNTRY	TRANSACTION CATEGORIES							
		Provider	Cash-in (USD)	Cash-out (USD)	Transfer within network (USD)	Transfer out of network (USD)	Transfers within the region to the same provider/ network (USD)	Bill payment (USD)	Type of bill payments
SOUTHERN AFRICAN DEVELOPMENT COMMUNITY (SADC) REGION	Zambia	Airtel	Free	0.234	0.02345	0.2345	0.281	0.0703	> Electricity > School fees > Water
		MTN	Free	0.234	0.023	0.469	N/A	0.0703	> Bank transfers > Electricity > School fees > Water
CENTRAL AFRICA	Cameroon	MTN Money	Free	3 percent off the transaction = 0.3	1 percent of the transaction = 0.099	0.3	4.63	0.37	> School fees
WEST AFRICA	Ivory coast	MTN	Free	0.23	0.46	1.46	0.91	0.23	> Electricity > Satellite TV > School fees > Taxes and duties > Water
		Orange Money	Free, but includes a fee stamp of USD0.184	(a) POS and Agency Withdrawal Grid (Full profile. Lite *. Woman. Young) = 0.876; (b) Visa card (withdrawals except Orange is = 1.844); (c) Automated Teller Machine (ATM) and Banque Atlantique Côte d'Ivoire (BACI) withdrawals grid (Female profile) = 0.645; (d) ATM Orange Money Côte d'Ivoire (OMCI) withdrawals grid (Young profile) = 0.231	0.46	1.43	(a) Mali/ Senegal/ Burkina grid (Transfer fees) = 1.843; (b) Niger Grid = 0.553	0.277	
EAST AFRICA	Kenya	M-PESA (Safaricom)	Free	0.254	0.236	0.236	0.907 (KES100)	0.308	> Electricity > School fees > Taxes > Water
NORTH AFRICA	Morocco	Inwi	Free	1.12	0.55	0.55	NA	0.6	

* Conversion from local currency to US dollars is based on the exchange rates, as of 19 January 2021. Available at: <https://www.xe.com/currencyconverter/>.

The examples cited in all the five regions share in common free cash-in transactions while cash-out transactions are always charged to consumers but with different models. For instance, in Cameroon, it is charged as a standard percentage off the transaction while in the other jurisdictions (in East, North, West Africa, as well as in the SADC region), it is a specific standard based price.



Furthermore, the pricing grid shows that for all regions, it is generally cheaper to make transactions within the network (same provider) rather than across networks (other providers).

This implies that providers in the five regions weigh their pricing more toward cash-out than cash-in transactions. The key motivation behind this strategy can be attributed to providers' desire to allow customers to transfer money into their wallets as a first step toward encouraging wallet use.¹⁰

2.3 COMPETITION AS A DRIVER OF PRICING STRATEGIES AND BUSINESS MODELS

Effective competition among digital payment providers not only encourages the provision of high-quality products, but also competitive pricing policies to attract and retain consumers. This in turn makes mobile money services more affordable to consumers and businesses.¹¹

In markets where one or several mobile money providers gained a dominant position, pricing is often an essential driver for new entrants. Their business model is based on differentiating criteria including pricing, service offering or specific customer segmentation.



As shown in Table 1 above, the pricing offered in countries with multiple players tends to become more uniform over time.

This is the case in Ivory Coast where the price of on-network transfers is the same for MTN and Orange, while prices on other services have minimal variation. Given the clientele targeted by Mobile Money services, the price offered by providers is a determining factor.

Competition between Mobile Network Operators (MNOs) has also driven incentivization of Mobile Money agents in a quest to gain a significant footprint to serve clients. This has been the case particularly in markets where agents' exclusivity (i.e. providing services on behalf of one provider such as an MNO or a bank) is still in effect.

¹⁰ Cook, W. 2017. The Secret Life of Mobile Money Pricing. CGAP blog. Available at: <https://www.cgap.org/blog/secret-life-mobile-money-pricing>.

¹¹ International Telecommunication Union (ITU). 2016. "Competition in mobile digital financial services (ZAIN)." Presentation given during the Regional Workshop on "Digital Financial Inclusion": Policies and Regulation, Khartoum, Sudan, 24-25 August 2016. Available at: <https://www.itu.int/en/ITU-D/Regional-Presence/ArabStates/Documents/events/2016/DFI/Pre/Competition%20in%20mobile%20digital%20financial%20services.pdf>.

2.4 COSTING FROM AN INTEROPERABILITY PERSPECTIVE

Pricing for interoperable payment services is determined in several manners across the African continent. These approaches affect the final cost to the customer, and notably include:

- > **A pure market-driven approach** where the interchange is owned and managed by market participants, as in Ghana.
- > **A public-private partnership (PPP)** in which the regulator and the players collaborate to control and manage the interchange, as in Egypt.
- > **A regulator-led approach** in which the regulator has complete control and authority to establish pricing limitations.

Available research indicates that stakeholders must consider other critical aspects such as infrastructure, regulation, and market dynamics when determining the cost of interoperable services. On that premise, several types of costs may apply here, the most important of which are as follows¹²:

- > **Switch processing or switching fees**, i.e. a flat or percentage-based fee paid by all providers on every transaction routing through the central processing platform, commonly referred to as the “(central) switch”.
- > **Membership or scheme fees**, i.e. periodic fees paid by providers as subscription or membership to the central interoperable scheme. The fees are notably informed by the volume of memberships and the cost of operating the interoperable scheme. Hence, the bigger the volume of memberships, the lower operating costs are, and vice versa.
- > **Interchange or interparty fees** are paid between two DFS providers for accepting or sending a payment. These fees can either be paid by the receiving (by far the most typical practice across the African continent) or sending side.

This bilateral fee structure does not involve a central platform. Thus, interchange fees may be lower, but research shows that maintenance fees can push the costs to higher levels since each provider needs to invest in its own technical platform and IT support team.

On the other hand, in models relying on a central platform, the high cost of setting up an infrastructure is likely passed on to end customers through processing and/or membership fees incurred by the providers.



As a result, the more participants in the scheme, the lower the costs for each provider and fees paid by end customers tend to be.

Overall, interoperable schemes are viable when the number of participants and the volume of transactions are large enough to offset the heavy costs of setting up the model. Too often, participants of interoperable systems tend to charge high and multiple fees to quickly recover their investment. As a result, with no control over fees, interoperable schemes can become expensive for end consumers. While setting the cost of interoperability services to providers, stakeholders must guarantee that the final price charged to consumers promotes financial inclusion without compromising the providers' business case.

Each pricing decision involves opportunity cost for providers with regards to commercial, strategic goals, as well as safeguarding the interest of its vulnerable customers.

¹² <https://www.cgap.org/blog/balancing-economics-interoperability-digital-finance>

TABLE 2: INTEROPERABILITY APPROACHES IN AFRICA

COUNTRY	REGULATION	GOVERNANCE	BUSINESS MODEL	TECHNOLOGY
GHANA	The Ghana Interbank Payment and Settlement Systems (GhIPSS) through the Bank of Ghana	Multilateral agreements	<ul style="list-style-type: none"> > Sender pays an interparty fee > Consumer surcharge 	Switch
KENYA	NPS Act (MNO)	Bilateral agreements	<ul style="list-style-type: none"> > Bilateral > No interparty fee and no surcharge for initial trial period 	Bilateral
	NPS Act (Bank)	Multilateral agreement	<ul style="list-style-type: none"> > Sender pays interparty fee > Consumer surcharge 	Switch
MOWALI (BCEAO REGION)	No regulation	Bilateral and multilateral	<ul style="list-style-type: none"> > Receiver pays 	Switch
TANZANIA	Regulation	Multilateral and bilateral agreements	<ul style="list-style-type: none"> > Receiver pays interparty fee, bilaterally negotiated > No consumer surcharge 	Bilateral
UGANDA	Uganda National Payment System (NPS) Act of 2020	Multilateral agreement	<ul style="list-style-type: none"> > No interparty fee, then moved to receiver pays > Consumer surcharges 	Aggregator, then multilateral

Sources: CGAP 2018¹³ and Bank of Uganda 2020**BOX 2: INTEROPERABILITY PRICING IN GHANA***

In Ghana, interoperability via an interchange factored into pricing had an impact on DFS transaction costs as illustrated below.

TRANSACTION	ON-NET FEES	OFF-NET FEES
GHS1 to 50 (USD0.71 to 8.64)	GHS0.50 (USD0.355)	GHS0.75 (USD0.533)
GHS51 to 1,000 (USD8.81 to 172.78)	1 percent of transaction amount	1.5 percent
GHS1,000 (USD172.78)	GHS10 (USD1.73)	GHS15 (USD2.59)

* USD rates as of 3 June 2021.

2.5 THE IMPACT OF TRANSACTION COSTS ON FINANCIAL INCLUSION

Emerging literature and evidence suggest that the impact of transaction costs on financial inclusion could vary depending on how it is manipulated: it could either incentivize, disincentivize or may have no effect on financial inclusion.

In response to the COVID-19 pandemic, regulators in several African countries introduced moratoriums reducing and waiving transaction costs on digital payments.¹⁴ The resultant evidence pointed to an unprecedented spike in access and usage of digital payments, with some countries recording over 50 percent increment in usage within the first week of implementation of the moratoriums. This perhaps provides the strongest validation yet on the impact of low transaction cost in driving access and usage of digital payments, as evidenced in Box 3 opposite.



Available evidence also suggests that unfavorable transaction costs could either disincentivize usage or compel consumers to adopt alternatives to avoid such costs, leading to possible consumer protection-related risks.

After the implementation of excise duty on mobile money transactions in Uganda in 2018, consumers viewed the tax as contributing to a rise in transaction costs, resulting in a decrease in mobile money usage. For example, **MTN Uganda**, one of the country's leading mobile money providers, announced a relapse in mobile money service use among the 5,000 Savings and Credit Cooperative Societies (SACCOs) it supports. This was due to the high transaction costs incurred as a result of taxation. As a consequence, the provider was concerned that this would adversely affect the growth of mobile money services in the country.¹⁵

In **Tanzania**, due to unfavorable transaction costs on mobile money, consumers developed a practice consolidating smaller deposits into one to avoid paying mobile money transfer costs on every single

transaction. Unfortunately, providers responded to this circumvention of transaction costs with an additional 85 percent charge on withdrawals.¹⁶

On the other hand, evidence also shows that transaction costs may not necessarily impact the consumer behavior or usage, as in the case of **Pakistan** (a country located in the southern region of Asia which could be considered as a market peer to the African region). Though providers increased the price of over-the-counter (OTC) transactions to three times the pricing of wallet transactions, thereby making wallet pricing nearly free, the low transaction cost on wallets in contrast to OTC had little impact on user behavior in terms of increasing wallet usage. This is because other factors such as market preferences, perceptions, satisfaction, and rewards provided to agents for providing good customer service during OTC transactions outweighed the reduced transaction costs and influenced customer behavior away from wallet usage.¹⁷

From the aforementioned, it is evident that transaction cost could either have a positive or negative impact on consumers and financial inclusion depending on how it is manipulated. Nonetheless, it cannot be said to be the sole determinant of access or usage of digital payments.

14 Xinhuanet. 2020. COVID-19 crisis lifts Kenya's mobile money usage to 4.2 bln USD a month. Available at: http://www.xinhuanet.com/english/2020-09/01/c_139334795.htm.

15 The Observer. August 2018. Telecoms, Bank of Uganda want mobile money tax scrapped. Available at: <https://observer.ug/news/headlines/58334-telecoms-bank-of-uganda-want-mobile-money-tax-scrapped.html>.

16 Cook, W. 2017. The Secret Life of Mobile Money Pricing. CGAP blog. Available at: <https://www.cgap.org/blog/secret-life-mobile-money-pricing>.

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**BOX 3: IMPACT OF WAIVERS ON TRANSACTION COSTS
FOR THE USE OF DIGITAL PAYMENTS IN KENYA DURING
COVID-19**

Following the COVID-19 outbreak, Kenya explored “ways of deepening mobile-money usage to reduce risk of spreading the virus through physical handling of cash”.¹⁸ As a result, the flow of digital payments varied by sector.

+54%

For instance, incoming digital payments increased significantly in retail sectors such as food and grocery (a 35 percent increase), pharmacies (18 percent increase), and agribusinesses (54 percent).¹⁹

In addition, in July 2020, the Central Bank reported that Kenyans transacted a record KES450.9 billion (approximately USD4.18 billion) on mobile phones, with usage boosted by increased service uptake.

Moreover, the number of mobile money subscribers rose to 62 million, and the transactions totalled to 158 million during this same month.



Farmer irrigates his crops using a generator-powered water pump and pipes in Makueni County, Kenya. (Photo by Jake Lyell/Alamy Stock Photo).

¹⁸ TechCrunch. March 2020. Kenya turns to M-Pesa mobile-money to stem the spread of COVID-19. Available at: <https://techcrunch.com/2020/03/16/kenya-turns-to-its-mobile-money-dominance-to-stem-the-spread-of-covid-19/>.

¹⁹ Benni, N. 2021. Digital finance and inclusion in the time of COVID-19: Lessons, experiences and proposals. Rome, FAO. Available at: <https://doi.org/10.4060/cb2109en>.

3

REGULATORY APPROACHES TO DIGITAL PAYMENTS TRANSACTION COSTS

Regulatory approaches to digital payments transaction costs across the region is defined by the level of influence or participation of regulators and providers in oversight or decision-making. These approaches confirm that cost is a determinant of market forces or players, yet acknowledges the critical role of the regulator in safeguarding consumer protection, market conduct and financial inclusion.

This special report identifies three key regulatory approaches to transaction cost by the regulator across the region.



3.1 MARKETS LED HANDS-ON APPROACH

As the name indicates, determining transaction cost is an activity of market players or providers with an active and permanent participation of the regulator across the process. This approach comes with different models across the region, defined by the level of control and role of the regulator in determining the transaction cost.



The role and control of the regulator ranges from one of a catalyst or enabler, facilitating a process towards consensus on price to that of a sole adjudicator with powers to issue mandates or directives within which the market could operate or negotiate.

With reference to the former, the regulator's role is more consultative, where the regulator engages the market to determine acceptable threshold and ranges for pricing which will facilitate financial inclusion for consumers without jeopardizing or disincentivizing the business case of the providers.

An example is **Namibia** where after an industry wide consultation process by the regulator, it determines a threshold for profitability by providers, thus favorable for financial inclusion and consumer protection. Based on this, the regulator defined guidelines on transaction costs (PSD-10)²⁰ which included the following:

- > **Prohibition of double charging**, i.e. providers are prohibited to charge both sender and recipient for single transactions.
- > **At least one monthly free cash out or ATM withdrawal** for either on-us or off-us transactions is granted to customers; and
- > **Providers are prohibited from charging e-money PIN requests or PIN renewals.**

The guidelines were the first step to regulating e-money fees and charges. Prior to Payment System Determination (PSD)-10, PSD-5²¹ focused on fees and charges for basic bank accounts.

Another example can be seen in **Ghana**, where the service providers have a working group which moderates and standardizes pricing across networks. The regulator, represented by the Pricing and Automation Working Group's Payment Systems Advisory Committee, develops policies that guide the adoption of pricing structure for DFS. This helps stabilize pricing among service providers and prevents exploitation. The approach has been more of advisory or guidance as to the extent to which the service provider could go.²²

Beyond this consultative model, the market led hands-on approach features another model with an active regulator's role across some markets. Here, the regulator defines the limits of transaction cost across different products for the adherence of providers. An example of this is given by the **Central Bank of Nigeria**, where though the pricing is determined by the market, regulator reviews and issues periodic directives entitled "Guide to Bank Charges" which provides price caps to a variety of charges including bank charges, mobile payment, customer transaction and request. According to the Central Bank, this approach is driven by the objective of facilitating financial inclusion through DFS without compromising the business case of providers. Here, the scope of manipulating transaction cost by providers is minimal.

20 Government gazette of the Republic of Namibia. Windhoek. 10 August 2020. No. 7304. Determination on Standards for Fees and Charges for Payment System Services within the National Payment System (PSD-10). Available at: <https://gazettes.africa/archive/na/2020/na-government-gazette-dated-2020-08-10-no-7304.pdf>.

21 Government gazette of the Republic of Namibia. Windhoek. 18 December 2019. No. 7079. Determination on the Standards for a Basic Bank Account and Cash Deposit Fees within the National Payment System (PSD-5). Available at: <https://gazettes.africa/archive/na/2019/na-government-gazette-dated-2019-12-18-no-7079.pdf>.

22 Data from questionnaire completed by the Bank of Ghana.

3.2 MARKETS LED BY AN HANDS-OFF APPROACH

Under this approach the regulator's participation in the determination of transaction could be termed as minimal, external or remote, since the process is led by market players without the regulator's direct participation.

The regulator provides an advisory or guidance role and would intervene when there is a need to address issues related to consumer protection, financial inclusion, or market outcry. Contrary to the "hands-on approach", providers take the lead role in determining transaction costs. It is worth stressing that the term "hands-off" does not assume a complete absence of the regulator in the oversight of digital payment pricing.

Within the region, two models could be identified under this approach. In the first model, though the market players take leadership in or have the authority to determine the scope of transaction cost or pricing, the regulator plays the role of an advisor, providing guidance for the benefit of consumers without necessarily mandating pricing.

In **Morocco**, the Central Bank has a right of oversight, supervision and compliance, but does not interfere in commercial agreements. The national switch is a private company initially founded and run by the banks which transformed into a company (called Hightech Payment Systems or HPS) which acquired, and now manages the public interest infrastructure that handles card and MoMo switching. The Central Bank regulates strategic fees (switching, messaging and interchange) and allows the market to drive consumer costs and regulate itself. The Central Bank's objective is to accompany the market and not to impose commercial rules. For consumer protection purposes and to encourage financial inclusion, the Central Bank instituted some pricing guidelines which included among others free customer transactions on cash-in, account opening, and account closure.

The provider (i.e. the Economic Interest Group or EIG) undertake joint initiatives with the regulator in the advancement of financial inclusion. For example, to improve merchant payments, the EIG with the regulator agreed to make mobile money micro-payments below MAD30 (approximately USD3.36) free for both merchants

and clients for a year starting from September 2020. To support this interchange fees were capped, among others.

In **Mozambique** the regulator does not mandate price of digital transactions but relies on the provision of regulatory guidance to protect consumers and ensure good market conduct. In July 2017, through a consultative approach, it reviewed its guidance on fees related to financial services (Notice 13/GBM/2017). Among others, this harmonized the naming of fees, defining services that should be provided free (e.g. the first ATM transaction in a month, notification messages through mobile phone for bank transactions, etc.). Other requirements included full disclosure of all charges, fees, and commissions, as well as the directive for prices of new products and changes to existing ones to have prior approval from the Central Bank.

In **Egypt**, the Central Bank of Egypt (CBE) limits its role to providing guidance whereas the final price to be applied to the end consumer remains the responsibility of wallet providers – an approach to raise competition among providers. However, the outcomes of a recent market audit which highlighted pricing as a challenge to financial inclusion has informed CBE's on-going engagements with providers to address this. The objective is not to unilaterally issue pricing directives but to build consensus with stakeholders on a regulatory framework that promotes financial inclusion and safeguards their business case.

The other model under this approach could be described as one where the regulator is relatively passive to the process and only intervenes when feedback from the market requires so. An example is the case of **Zimbabwe**, where costs and prices for DFS transactions are not mandated by the Central Bank, but rather market-based. However, in response to public outcry on high transaction costs, the Central Bank intervened with a directive for mobile money operators to transition to interoperability via the national switch (known as Zimswitch). Interchange fee is charged on a flat rate basis at ZWD13.50 (around USD0.16 as of May 2021) per transaction mainly to recoup the cost of running the switch. It also required all transaction charges including any increase of prices by providers to obtain the Central Bank's prior approval with supporting details of the cost drivers.

BOX 4: PAKISTAN, A PEER MARKET TO AFRICA MARKETS

In Pakistan, the regulator has adopted a principle for providers of payment services to ensure prices are fair, reasonable and market-based.

For electronic account-to-account fund transfers, only senders can charge transaction fees so that the recipient should be able to receive the transferred amount in full.

In 2016-2017, the regulator issued a regulation prohibiting providers to charge consumers for “cash-in” in agent retail shops. A cash-out fee is freely determined by each provider and providers charge P2P through agent transfer, person-to-agent transfer and the Central Bank never intervened in defining such pricing.

The regulator does not mandate any pricing to Branchless Banking providers and prefer to leave it to the competition to decide end user pricing. However, in response to rather high interchange fees for POS, the regulator intervened with a directive on interchange fees for POS transactions in 2019 to encourage acquirers to invest more in the POS area.



There is no mandate on end consumer pricing, but all providers have the obligation to publish their price lists for transparency purpose.



Pakistan. (Photo by Rawpixel.com/Shutterstock).

3.3 A REGULATOR-LED APPROACH

A recent approach that has been witnessed across the region in response to the COVID-19 pandemic could be termed as the regulator-led approach. The regulator mandates pricing of digital payments to the end user without necessarily considering the business case of providers. It is normally time-bound, a temporary response to an emergency situation and reversed once the emergency situation improves.

During the COVID-19 pandemic and its associated restrictions, a number of regulators issued moratoriums to either waive or reduce transaction costs for digital payments to facilitate their use. Examples of this approach on transaction costs of digital payments across the region are as follows:

- > **In Ghana**, at the onset of the COVID-19 pandemic, the Bank of Ghana issued a moratorium on transaction costs, wallet limits and on-boarding process effective from 20 March 2020 to December 2020.²³ Transfers of up to GH¢100 (USD17.3 as of May 2021) were free, excluding cash-out for both on-net and off-net via the interoperability platform.
- > **In Mozambique**, charges and commissions on customer-to-customer transfers up to a daily limit of MZN1,000 (USD14 as of May 2021) were waived.
- > **In Egypt**, the cost of opening a wallet was waived, including the following:
 - P2P transfer (on-us and off-us transactions) was free for six months and renewed for six months.
 - Other channels, such as banks, automated clearing house (ACH), cash-in/cash out was free (through bank branch, MNO agent and ATM).
 - Waived fees for merchants for any peer-to-merchant (P2M) transaction.

²³ Available at: <https://www.bog.gov.gh/wp-content/uploads/2020/03/MPC-Press-Release-March-2020-3.pdf>.

4

KEY LESSONS ON REGULATORY APPROACHES TO DFS TRANSACTION COSTS WITHIN THE AFRICAN REGION



Ms. Tobadina Luhwavi, shop owner, Iringa, Tanzania. (Photo by Jake Lyell/Alamy Stock Photo)

Some of the key lessons identified from the approaches within Africa are as follows:

- 1 **Regulators must ensure that transaction costs are fair to all concerned parties**, i.e. both consumers and providers. It should safeguard consumer protection and financial inclusion without inhibiting the business case for providers.
- 2 **Regulators need to define a scope and framework** to guide providers in the determination of transaction costs/pricing for the end user. This guideline could cover the following:
 - > Principle-based which defines the core principles to guide providers in their setting of transaction costs, such as fairness, proportionality, transparency, etc.
 - > Threshold-based which defines caps and thresholds on pricing within which providers can operate. This includes services with regulator-required free charges.
- 3 **Defining what constitutes profitability** to a provider or affordability to a consumer could be a complex issue as this can be very subjective. Stakeholder engagement is thus critical to build consensus and ensure market acceptance.
- 4 **Engagement or consensus building between providers and regulators facilitates market confidence in the transaction cost regime.** On one hand, it facilitates acceptance by providers in that they were part of the decision-making process, while on the other hand it safeguards consumer confidence knowing that the regulator is involved to protect their interest.
- 5 **While using transaction cost to incentivize digital payments usage, it is important to ensure that the digital payments ecosystem is well developed** to serve as an available alternative to cash payments being disincentivized. Indeed, any policy intervention to disincentivize cash transactions when the capacity or reach of digital payments ecosystem is underdeveloped will result in consumers saddled with high transaction costs when using available traditional option due to challenges with access or usage of the digital payment services.
- 6 **A framework or legislation on anti-competitive behavior, especially in markets with a dominant player with significant market share is paramount.** Indeed, regulator must ensure that such player does not take advantage of its size to the detriment of other providers and consumers in pricing.
- 7 **When the regulator-led approach to address emergency situations is applied, it is important that timelines are defined, and efforts made to transition to ensure that business case for providers are not adversely affected** and impact their long-term sustainability. Although the COVID-19 pandemic was unprecedented, moving forward, regulators should incorporate provisions that address emergency situations within their pricing frameworks so that providers could also prepare ahead.
- 8 **While implementing interoperability²⁴, it is important for regulators to consider business models as well as the market maturity** to create optimal transaction volumes and generate economic value. This is critical since interoperability has potential to affect pricing of digital payments and poor business models, coupled with inadequate transaction volumes that could result in high costs pushed to the end user.

24 García Arabéhty et al. 2016. "Digital Finance Interoperability & Financial Inclusion: A 20-Country Scan." Working Paper. Washington, D.C. CGAP. Available at: <https://www.cgap.org/sites/default/files/researches/documents/interoperability.pdf>.

5

CONCLUSION

Across the region, the landscape on regulatory approaches to digital payments transaction costs is a dynamic one, defined by the level of influence or participation of regulators and providers in oversight and decision making. It confirms that cost is a determinant of market forces or players yet acknowledges the regulator's critical role in safeguarding consumer protection, market conduct and financial inclusion.

Indeed, transaction cost could be manipulated to drive financial inclusion. However, regulators must ensure that it does not jeopardize the business case for providers as that is critical in safeguarding the sustainability of digital payments by providers.

Regulatory guidelines, innovative policy incentives and moral suasion remain viable mechanisms for the regulator in the governance of transaction costs.

In response to COVID-19, regulatory interventions on digital payments transaction costs presented the most viable evidence to potentially lower transaction cost in order to drive financial inclusion. Moving forward, regulators should continue engaging providers on how to ensure transaction cost does not stifle financial inclusion.

ACRONYMS

ACH	Automated clearing house
AFI	Alliance for Financial Inclusion
AfPI	African Financial Inclusion Policy Initiative
AML/CFT	Anti-Money Laundering/Combating the Financing of Terrorism
ATL & BTL	Above the line and Below the line
ATM	Automated Teller Machine
BCEAO	Banque Centrale des États de l'Afrique de l'Ouest
CapEx	Capital Expenditures
CBE	Central Bank of Egypt
CICO	Cash-in/Cash-out
COVID-19	Coronavirus Disease 2019
DFS	Digital Financial Services
EFT	Electronic Funds Transfer
EGFIP	Expert Group on Financial Inclusion Policy
EIG	Economic Interest Group
EMI	Electronic Money Issuer
FinTech	Financial Technology
FSP	Financial Service Provider
G&A	General and administrative
GhIPSS	Ghana Interbank Payment and Settlement Systems
GHS	Ghanaian Cedi
GSMA	Global System for Mobile Communications Association
HR	Human resources
KES	Kenyan Shilling
MAD	Moroccan Dirham
MD-PIF	Multi-Donor Financial Inclusion Policy Implementation Facility
MNO	Mobile Network Operator
MoMo	Mobile Money
OpEx	Operating Expenditures
OTC	Over-The-Counter
P2M	Peer-to-merchant
P2P	Person-to-Person
POS	Point Of Sale
PPP	Public-Private Partnership
PSD	Payment System Determination
SACCO	Savings and Credit Cooperative Societies
SADC	Southern African Development Community
USD	United States Dollar

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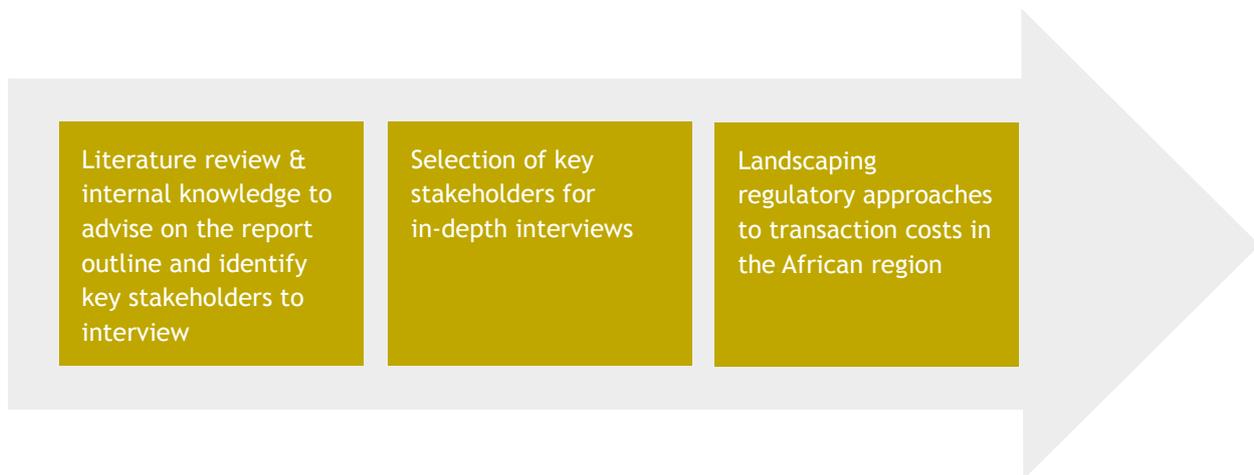
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ANNEX

A mixed methodology used for developing this special report.



MEMBERS INTERVIEWED

1. Banco de Moçambique
2. Bangko Sentral ng Pilipinas
3. Bank Al-Maghrib
4. Bank of Ghana (BoG)
5. Bank of Namibia
6. Central Bank of Egypt (CBE)
7. Central Bank of Nigeria (CBN)
8. Central Bank of Seychelles (CBS)
9. Reserve Bank of Zimbabwe
10. State Bank of Pakistan (SBP)

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