WHITE PAPER

# Reimagining the Payments Operating Model to Withstand Disruption in Africa

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Africa is a hotbed of payments disruption, with technological leapfrogging, high levels of investment, and a young, tech-friendly population. Amid this, incumbent banks' retail payments' businesses face a growing number of potential destabilisers. Mobile money penetration, innovation, and new products are sweeping the continent, new payment technologies are launching, and competitive pressure is at an all-time high.

Retail payments are a critical foundation for banks' broader businesses – providing rich data for credit decisioning, creating highly relevant touchpoints with clients, and driving stickiness. In response to these threats, radical and concerted action is required from banks to fortify their retail payments operations. In particular, banks need to forge the right payments operating structures, processes, and enabling partnerships to maintain scale and thrive amidst uncertainty. If they can unlock a fruitful combination of these factors, they have an opportunity to step-up to the competitive challenge. Indeed, many banks have understood these priorities. We spoke with key executives of many banks across the continent that have analysed these trends and are already on a journey to reorganise and strengthen their payments businesses, responding to the changing landscape and disruptions. Others, however, are dragging their feet and in so doing are risking putting themselves at a permanent disadvantage.

Here we explore the disruptive trends that are playing out across the payments market in Africa, and the operating models that banks may consider in formulating a response. While the landscape is turbulent, there is a clear opportunity for banks to fortify their payments positioning now, to create the conditions for lasting success.

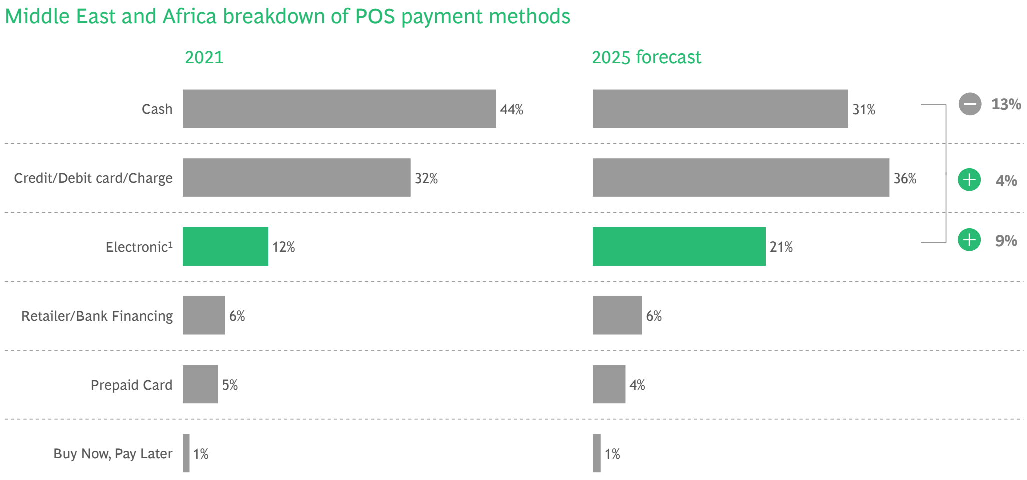
## Disruptive forces

Based on our recent BCG Global Payments report, we believe that the trends related tomarket performance, electronic payments, digital currencies, and risk will shape the payments landscape over the next five years.

In particular, the rising demand for electronic payments is creating fundamental shifts across Middle East and Africa (MEA) and making significant inroads in promoting financial inclusion. Over the past decade, MEA payments volumes have seen solid growth, with payments revenue reaching $1.5Tn in 2021 (a 6.1% increase from 2016). This trajectory is set to continue, with MEA payments revenue forecast to reach $2.2Tn by 2026 (8.3% growth from 2021). While cash remains the primary means of payment, digital is growing fast. Electronic payments are forecast to grow from 12% of POS transactions in 2021 to 21% in 2025. (See Exhibit 1). The trend of cash to non-cash is driven by three underlying themes:

- Deepening of financial inclusion and adoption of mobile money
- New payment competitors entering Africa and growth of specialised payments players and fintechs
- Gaining traction of alternative digital payments technologies

## Exhibit 1: While cash still dominates POS payment methods, cards and electronic payments are expected to capture an increasingly large share




1. Including mobile money
Source: WorldPay, BCG analysis

Faced with these disruptive forces, banks are at risk of losing the scale required to maintain profitable payments businesses. As such, they need to evaluate if they are positioned to fight these trends alone, or if they need to partner to maintain their competitiveness in future.

## Financial inclusion and adoption of mobile money

Overall, it is estimated that 43% of the African population now have access to formal financial services, a massive increase from 23% in 2011. Powering this shift, is the growth of mobile money, which has expanded over the last 2 decades from a niche offering in few African markets to a critical feature of the continent's financial services landscape. At the start of 2021, Africa had over 170 mobile money services and ~620 million registered mobile money accounts with an estimated 33% of Africans using mobile money. However, mobile money penetration is unequal across African countries. While Kenya and Ghana have extremely high mobile money uptake (87% and 82% of GDP respectively transacted via mobile money in 2021), the majority of African countries are still underpenetrated (<5% of GDP transacted through mobile money), signifying a massive opportunity for further mobile money growth.

Noted barriers to mobile money adoption include affordability, low relevance of solutions, and security concerns. In recent years, market participants and regulators have made significant efforts to address these issues. The results have been positive, with a 17% increase in registered mobile money accounts across Africa and a 39% increase in mobile money facilitated transaction value (reaching a total of ~$700 billion) in 2021.

One of the more popular initiatives, often instigated by governments, is to make the mobile money industry more interoperable (which has been shown to lift active customer rates and reduce cash usage). Of the markets in which mobile money services are in use, almost 50% now have interoperability with either banks or between mobile money players. Furthermore, real-time interoperability between accounts at different mobile money players is now available in 19 countries. This is a dramatic increase from 2013, when only one market had real-time interoperability.

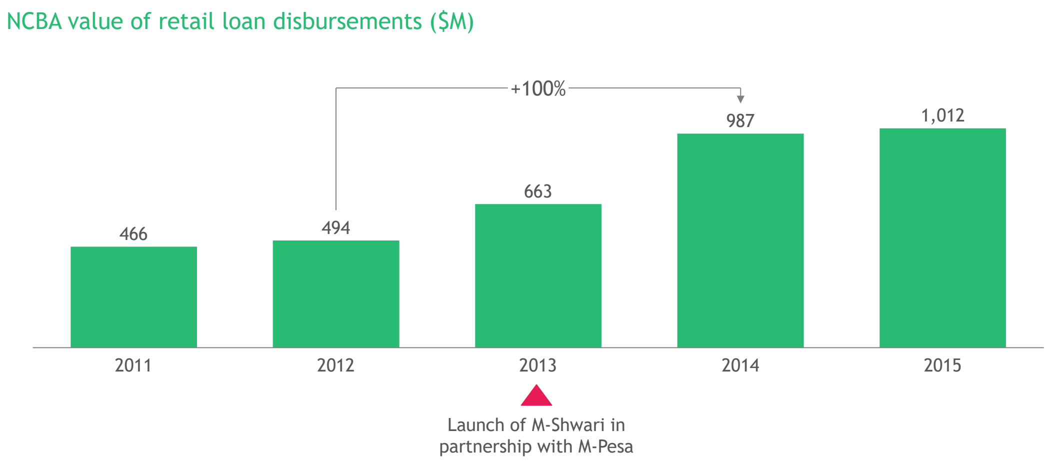
Mobile money players are also driving adoption by expanding beyond basic cash-in-cash-out services and peer-to-peer transfers. Many now offer a broad range of payments services, including bill payments, bulk disbursements, and remittances, as well as financial services including credit, savings, and insurance.   This shift is rooted in a clear business case. Globally, we see that by embracing ecosystem plays, mobile money players can improve their active customer rates, revenues, and profitability. According to GSMA Global 2021 Adoption Survey, mobile money players that offered broader financial services had, on average, 16% higher active customer rates than those that did not. Players that offer a broader range of payments services also tend to have higher EBITDA margins, up to 15% more than their nascent peers. M-Pesa has been the African front-runner in this shift. In 2021, on top of their existing offering, M-Pesa launched their super app and business super app. The super app offers access to third-party products and services through "mini-apps" including gas delivery, public transport tickets and 3rd party financial services. In 2021, M-Pesa generated record revenues of ~$840 Bn (a 30% YoY increase) with more than 4.2 million customers having downloaded the super app – an indication of the potential of this diversification strategy.

A partnership opportunity for banks:

As mobile money players expand into broader financial services, they require access to a banking license. However, amid a regulatory push for consolidation, these are few and far between. As such, many mobile money players are turning to banks to support their product agendas. We have already seen the rate of partnerships between banks and MNOs increasing, with 62% of mobile money players that offer mobile-enabled credit doing so in partnership with banks. A notable example is M-Shwari, an M-Pesa offering of micro-savings and credit for the unbanked, sold in partnership with the National Commercial Bank of Africa (NCBA). Within four years of launch, M-Shwari had 14 million customers, held about $80 million in deposits, and had disbursed almost $1 billion in loans. The initiative was transformative for NCBA, which was able to shift from principally commercial activities to become the largest retail bank in Kenya in terms of number of customers. (See Exhibit 2).

As mobile money adoption rises and its value proposition grows, more banks will have opportunities to partner with MNOs to offer core banking products to a broader range of mobile money customers. This is an excellent opportunity for banks that have historically been unable to compete with MNOs in the mobile money space to make up lost ground. However, to take full advantage, they need an operating model that enables them to partner quickly and to effectively deliver financial services capabilities.

## Exhibit 2: NCBA loan volumes increased >100% post M-Pesa partnership




Source: Bank annual reports

## New payment competitors entering Africa and growth of specialised payments players and fintechs

Competition from Big Tech and fintechs has led to significant disruption of payments business models and a new competitive landscape. In recent years, Google, Amazon, Facebook, and Apple have accelerated financial services initiatives, launching payments services such as Apple Pay and Amazon Pay, and partnering with banks to offer financial services products. Initially, BigTech efforts were directed toward Europe and America, but their playing field has recently widened to developing markets. There are already more than 20 million Google Pay users in India, and Google has launched instant loans in partnership with leading Indian banks. Facebook is developing several pilot projects, such as a chatbot that helps customers use payment services and manage their banking directly from Facebook Messenger. The United Bank of Africa, Diamond Bank, and Guaranty Trust Bank in Nigeria have already agreed to allow Facebook to distribute through them and further African expansion is imminent.

China's internet giants are also a growing presence. In 2021, Alipay (an Alibaba service) had ~1.2 billion users worldwide, and ~300 million outside China. At the same time, in excess of 80 million merchants accept Alipay payments. Alipay's parent company, Ant Financial, is also looking to expand its activities in developing markets. In 2017, it made an unsuccessful attempt to buy American company MoneyGram, which would have given it access to the African market. In 2019, it partnered with M-Pesa to enable customers to pay for Alibaba products with M-Pesa.

Fintechs remain the fastest-growing start-up industry across Africa, and players are gaining momentum -with six of Africa's nine fintech unicorns playing in the payments space. Supporting this growth is the sizeable influx of equity funding for African payments fintechs. In 2022, African payments fintechs received ~$740Mn in equity funding (55% increase from 2019). While this is still a small share (~5%) of global payment's fintech equity funding, it is significantly larger than Africa's share of global GDP (2.7% in 2022).

Global fintechs are also intensifying their activity in Africa. In 2020, Stripe announced the acquisition of Nigerian-based payments company Paystack, which at the time processed almost half of online transactions in Nigeria. Shortly after, Paystack began a pilot with businesses in South Africa and expressed ambitious plans to expand across Africa.

If trends from other emerging markets are indicative, the competitive pressure on banks' retail payments business is only just beginning. With payments volumes in jeopardy, there is a clear case for banks to seek out value-creating payments partnerships.

## Gaining traction of alternative digital payments technologies

Around the world, new payment technologies such as account-to-account (A2A) and digital currencies are gaining traction. These solutions are still associated with relatively basic applications, but they are already impacting the payments landscape. As they mature, and their relevance to consumers deepens, their disruptive potential is significant.

Real-time A2A payments are picking up momentum globally, and particularly in emerging markets. A2A enables payments between bank accounts to be initiated, cleared, and settled within seconds; 24 hours a day and 365 days a year. Generally, these kinds of innovations are beneficial to banks because they reduce the amount of expensive cash in circulation. However, in some cases the growth of A2A also poses a threat to profitable card businesses.

PIX, an A2A solution launched by the Brazilian Central Bank in November 2020, enabled instant peer-to-peer (P2P), peer-to-government (P2G) and peer-to-business (P2B) payments through QR codes or unique identifiers such as cell phone numbers. By July 2022, Pix had 122 million registered accounts, representing over half the country's population. In 2021, PIX payments values were about $930 billion, compared with card payments of about $460 billion, and the company is on track to surpass card transaction volumes.

In 2016, to reduce cash usage, India launched the Unified Payments Interface (UPI), which enables A2A real-time payments on a mobile platform. UPI offers similar use cases to PIX –enhancing and simplifying the user experience. As such, UPI was a massive success. By 2021, it was handling transaction volumes that were roughly 11 times those of credit and debit cards combined. The company has seen a ninefold increase in transaction volumes over the past three years, growing from 5 billion transactions in 2019 to about 46 billion transactions in 2022, accounting for more than 60% of non-cash transaction volumes in India.

African countries are now also beginning to launch their own A2A solutions. In 2022, Egypt saw the launch of A2A products InstaPay, and PayShap - the South African equivalent - is on the brink of coming to market. If Africa follows other emerging markets, the launch of A2A solutions will result in lower use of cash, likely by about 5%. However, profitable card businesses may also be disrupted and banks need to be prepared to anticipate and respond with value-creating solutions.

In South Africa, real-time, interbank transfers have historically come at a high cost for poorer consumers, and the time delay for a normal interbank transfer is one to five days. For many South African consumers, this is sufficient to dissuade mass adoption of A2A transfers, with cash remaining the most common means of payment (62% of all transactions). Recently, the South African Reserve Bank (SARB) has articulated its vision for a financially inclusive, interoperable, and cost-effective solution for the National Payment System (NPS), through the publication of Vision 2025.

In response, BankServe, in collaboration with the broader payments industry, began work on the Rapid Payments Programme (RPP) - an A2A system enabling real-time, low-cost payments which will be officially launched in 2023 under the commercial name PayShap. PayShap will enable low value, (<R3,000) interbank, real-time digital payments using a unique identifier (e.g., phone number or email address) rather than an account number. Consumers will be able to access PayShap through bank channels such as internet banking, apps, or their bank's USSD.

Roll-out is planned over two phases. Phase 1, launching in early 2023, will enable payment by proxy (payments without the need for bank account details through proxy identifiers) and instant payments (immediate notifications and posting of funds that are final and irrevocable). Phase 2, in mid-2023, will enable users to request payments from other users digitally. Both phases will initially be piloted by four South African banks: Standard Bank, Nedbank, FNB and Absa, before being rolled-out industry wide.

A potentially even more destabilising shift for banks is the rise in popularity of CBDCs (Central Bank Digital Currencies). A CBDC is a digital form of money issued by a country's central bank, which may leverage distributed ledger technology. Like physical currency, it can be used to store value and make payments. Drivers for rising interest in CBDCs include near-instant settlement, potential for reduced transaction costs (both valuable for merchants receiving consumer payments), fraud reduction, and programmable payments (enabling self-executing payments based on programmed code and external triggers for complex, conditional payments). According to a BIS survey conducted in May 2022, 90% of central banks are now actively exploring CBDCs, with a few countries launching pilots.

Nigeria is one of these first pilot countries, with the central bank of Nigeria launching the eNaira in 2021. The eNaira enables users to send and receive digital payments P2P and P2B and was developed to reduce cash transactions. According to the Central Bank, ~910,000 customers have been onboarded onto the eNaira platform, with 700,000 transactions to the value of ~18 million Naira processed in the first year of operation. To widen eNaira adoption, the central bank is exploring use cases such as eNaira tax payments and disbursements of government social grants. In a market of 211 million people, there is still significant room for growth, but initial adoption validates the potential of CBDCs in African countries. While broader adoption of CBDCs is likely to take time, the market consensus is for "when" not "if".

For banks, CBDCs introduce significant complexity, and may require changes across the organisation. For  example, from a technology standpoint, banks may need to adapt their infrastructure to process transactions and add CBDC functionalities. Moreover, Central Banks can create their own version of digital wallets (similar to mobile money solutions) – potentially bypassing the use cases for bank payments and eroding bank's payment revenues. As such, African banks should be prepared to make bold course corrections in the case of shocks from CBDCs – either to build their own technologies or to partner to acquire them.

## Banks need to be prepared to tackle uncertainty head-on

Faced with disruptions from all sides, banks must ensure that they have the right structures, processes, and partnerships to thrive amidst uncertainty. Many banks are already beginning these shifts and are reorganising and strengthening their payments infrastructures.

## Reorganising for success

In our experience from numerous client engagements, there are four key payment operating models to consider: decentralised, centers of operational excellence,  product verticals, and business verticals - each with their own pros and cons.

## Decentralised model

In a decentralised model, payments strategy and operations are spread across business lines, which define priorities, while group technology is used to develop and maintain products.

**Pros:** Good end-to-end accountability and strong customer centricity.

**Cons:** No common payments strategy and there are limited incentives to create innovative solutions across product lines.

## Center of operational excellence

Center of operational excellence models centralise key payment operations and IT into a single function, while payments strategy and commercial responsibility remain with business lines.

**Pros:** Increased operational efficiency and similar customer experiences across business lines.

**Cons:** No common payments strategy and a strong perception of cost center, i.e., focused on cost optimization rather than revenue generation.

## Product vertical

In a product vertical model, strategy and product development are centralised and shadow P&L ownership drives revenue growth and cost optimisation. Existing business line capabilities are used for sales (except for specific initiatives such as embedded finance) and supported by product experts from payments vertical.

**Pros:** Coordinated strategy, agility to develop new solutions and stronger incentives to maintain/attract/build payment expertise.

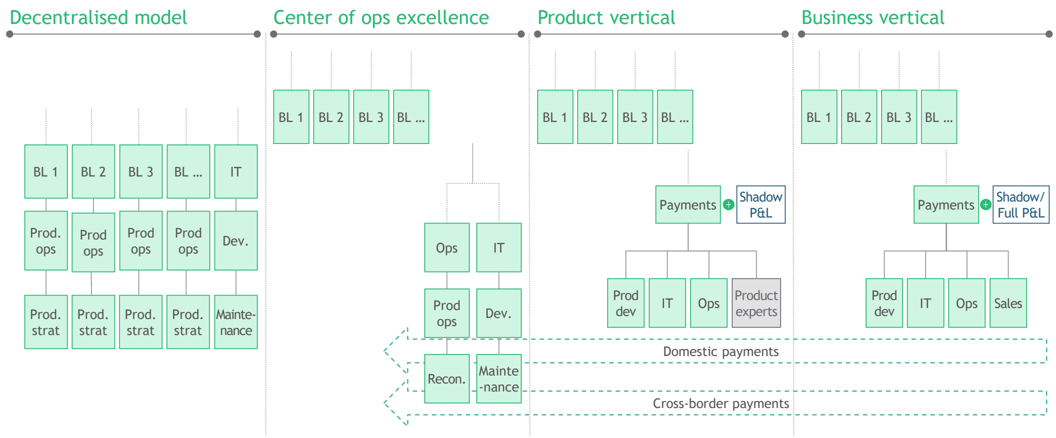
**Cons:** Lower customer-centricity and may provide a weaker customer experience due to a reduced ability to customise products to customer needs.

## Business vertical

In this model, a payments business line is established. Payments-specific sales capabilities are created with direct client relationships and there is close collaboration with existing sales capabilities to enable new value propositions.

**Pros:** There is end-to-end visibility and accountability of high-value payment activities and a push to pursue new business models and customers.

**Cons:** Diluted focus on serving traditional customers and increased change management complexities.




Source: BCG study 2021, market reports, bank annual reports

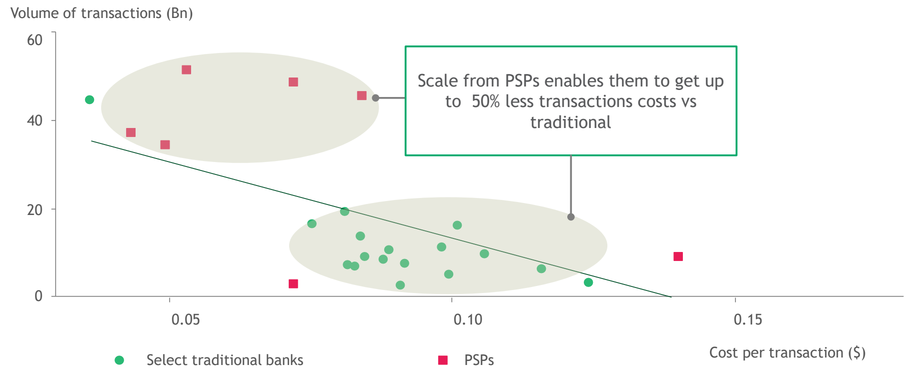
In developed markets, where customer needs are relatively similar across operating countries, we have seen a trend of banks taking the bold move to centralise their operating model. In emerging markets, however, banks are taking differing approaches to account for the wide range of consumer and legislative expectations across operating geographies. As such selecting the right operating model is highly dependent on the individual bank and its unique goals and ambitions for the payments business. Furthermore, enhanced structure alone will not be enough to ensure banks thrive in this uncertain environment. Decisioning processes, development programs for new skills/ways of thinking, and performance management also need to be carefully considered in light of the bank's strategic agenda to create the right context for their organisation to thrive.

## Payment partnerships: a non-negotiable

Regardless, of the chosen organisation structure, these trends are making effective payment partnerships a priority. Payments is increasingly a scale business and, faced with these disruptive forces, traditional banks may struggle to operate at the scale necessary to efficiently optimise their cost baselines. Globally we have seen the rate of partnerships between banks and specialised payments service providers (PSPs) increasing. PSPs tend to operate at greater scale to traditional banks, enabling them to achieve lower transaction costs (up to 50% less). See Exhibit 3. In partnering, banks can also access innovation budgets, people, expertise, and technology solutions that may not be available in-house, and refocus time and efforts on core activities. To remain competitive in payments, partnering with PSPs is no longer an option; it is a necessity.

## Exhibit 3: Traditional banks tend to lack the scale, compared to PSPs, to effectively optimise their cost baselines

Estimated direct cost per transaction & transaction volume




Source: BCG study 2021, market reports, bank annual reports

Payments disruption is proliferating across Africa, and banks that have historically lacked scale and innovation power in payments face a precipice. However, an uncertain future is no excuse for inertia. Indeed, turbulent times often bring the greatest value-generating opportunities. Banks that seize the moment, organise themselves to navigate disruption, and create strong enabling partnerships, stand the greatest chance of navigating the disruption and building lasting competitive advantage.

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