Five Strategies for Mobile-Payment Banking in Africa

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Five Strategies for Mobile-Payment Banking in Africa

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AT A GLANCE

Mobile payments and other phone-based transactions—including access to energy, health care, education, and transportation—represent a must-win opportunity for banks in Africa. If they don't move into this $500 billion payments market, they face disruption from technology companies based inside and outside the continent.

Two New Factors Make It Possible

African banks can use digital platforms to link to enterprises with complementary skills and business models. And African consumers are increasingly likely to have mobile phones and to be eager for services that contribute to a higher quality of life.

Five Possible Strategies

Large incumbent banks can be ecosystem leaders (overseeing the consortia), branded customer relationship builders, or back-office champions (providing support). Smaller banks can specialize in services or customer groups within the ecosystem.

Moving Beyond Current Business Models

Ideally, 33% of the income from mobile payments banking will come from person-to-person transaction fees, about 25% from point-of-sale transaction fees (usually paid by merchants), and the rest from fees charged for nonbanking services.

A customer thanks the local branch manager for a new solar electricity device that the bank has provided. It powers a water pump for irrigating the customer's microfarm and includes a light bulb socket. "My children no longer have to rush through their homework before dark."

Another customer has set up automated insurance payments for appointments at a local medical clinic. "My daughter's health has improved."

A third uses a smartphone to receive payments from vendors for her craft business. This offering from the bank has enabled her to expand her customer base, and she can now save some money each month, for the first time in her life.

Stories like these illustrate the potential future of mobile payments in Africa. They also represent a path to success for many retail banks and financial institutions. This is a challenging path, however, and it requires many banks to gain new capabilities. But it is also a path with African precedent. In the mid-2000s, Kenya and Uganda were the first countries to introduce mobile payments. (See the sidebar "Birthplace of the Mobile Wallet.")

Global momentum in the mobile payments space has since moved to China and other geographies. But it could return to Africa, especially if financial institutions take the lead. The estimated potential market for banks in sub-Saharan Africa is $500 billion, nearly all of it in the form of person-to-person (P2P) payments. For a broad range of current banking customers, mobile payments could provide access to many new products and services, including energy as a service and health care as a service, high-quality education, and even ride-sharing-style transportation services. They could also attract many customers who currently do not have bank accounts—and for whom mobile-phone-based solutions and payment platforms open the door to a much improved way of life.

Global momentum in the mobile payments space could return to Africa, especially if financial institutions take the lead.

Mobile payments represent a must-win opportunity for African banks, for several reasons. The COVID-19 crisis has rapidly raised peoples' interest in contactless transactions. The prospects of recovery suggest that people will be looking for improved services from their retail institutions. If the banks don't provide these services themselves, technology-driven competitors from Africa, China, or elsewhere could capture the market instead. Outside competitors will gain not just revenue this way, but invaluable customer data as well. And as Clayton Christensen documented in *The Innovator's Dilemma*, establishing a new adjacent market makes it much easier to disrupt and overtake more-established markets.

BIRTHPLACE OF THE MOBILE WALLET

The history of mobile payments in Africa helps explain the current opportunity. In 2007, executives at the Kenyan mobile network operator Safaricom (affiliated with the global telco Vodacom) noticed that customers were using prepaid airtime as currency. With a grant from the UK's Department for International Development (aimed at facilitating microfinance), the company launched a service called M-PESA (*m* for *mobile*, and *pesa*, the Swahili word for money).

The resulting mobile wallet model provided a viable alternative to inefficient and unreliable telecommunications services, and offered broader access to financial services, including person-to-person fund transfers. The company expanded the service under the name M-Shwari (from *shwari*, the Swahili word for calm) to offer savings accounts and micro-loans. Another Kenyan company, M-Kopa (from *kopa*, meaning to ask) uses a similar app-based system to finance home solar energy devices.

The model spread to other parts of Africa (MTN in Uganda and Orange Money in Côte d'Ivoire), to India, to Eastern Europe, and to China. In 2008, the giant e-commerce store Alibaba launched a mobile payments system using QR codes through its Alipay division. Tencent, another Chinese giant, launched its mobile wallet service WeChat in 2010. During the past decade, these firms have developed their mobile wallets into digital ecosystems with billion-dollar valuations. This type of mobile payment innovation could find fertile ground when it returns to Africa.

To be sure, most African banks do not have much direct experience with mobile payments. But two dynamics make it is feasible for them to take the lead. On the supply side, we've seen the emergence of technologically enabled business ecosystems—groups of enterprises linked through digitally based platforms that make it easier for them to collaborate dynamically with other enterprises and remove much of the friction involved in joint ventures and other cross-boundary collaboration. On the demand side, customers in Africa are increasingly likely to have mobile phones and to be eager for better access to essential services, particularly those involving comprehensive solutions that make life easier.

Together, these two factors create a mutually reinforcing virtuous cycle. The business ecosystems enable banks to offer new products and services at lower costs. This in turn attracts more customers, building scale, which make the new products and services more accessible and profitable. It becomes easier for banks to start and scale new activities, to exchange data, to innovate collaboratively, and to pool resources, without having to renegotiate their working relationships each time.

In Africa, especially after the COVID-19 crisis, business ecosystems will be particularly valuable for growth. They will enable companies with limited resources to join together and offer innovations such as mobile payments, with comparatively little investment and risk. The most successful of these groups will have a central ecosystem leader—a financial services, technology, or telecom company that organizes activity, governs the platform, provides core skills and funding, and attracts other businesses. Whether as the central leader or as participants, African banks can use emerging ecosystems to play a disruptive role with comparatively little investment and risk.

There are five potential strategies for applying the ecosystem concept to the mobile payments challenge. The most suitable choice depends on a bank's size, capabilities, and technological experience. (See the sidebar "Five Mobile Payment Strategies.")

As African economies evolve, the mobile device will become the payment vehicle of first resort. By picking the most appropriate strategy and developing the requisite capabilities, banks can build a viable, sustainable growth business at the heart of this interface.

Prospects for Growth

With the support of an ecosystem, the mobile wallet model can succeed in Africa. In Ghana, it has achieved strong market penetration and monetization of consumer-to-consumer transactions. In Côte d'Ivoire, this model has captured a high percentage of the market for consumer and business transactions. It is a leading vehicle for cross-border remittances between Côte d'Ivoire, Mali, and Senegal. Other applications lie outside financial services: online retail, ride sharing, health care services, energy services, and real estate.

Africa's overall mobile financial services market penetration is currently second only to China's. (See Exhibit 1.) BCG estimates that the total value of global mobile financial services transactions is from $15 trillion to $20 trillion per year. China has the highest utilization rate: 125% of its GDP is transacted via mobile payments each year. This figure is higher than 100% because it includes person-to-person transactions, such as money transfers among friends and within families, which are not included in GDP. Although their smartphone penetration rates are lower, Kenya and Ghana have the next-highest mobile payment rates after China. In Kenya, transactions via mobile wallets and phones represent 87% of the country's GDP; in Ghana, they account for 82% of GDP.

Although figures for mobile transactions are strong in Africa overall, they are not consistent across the continent.

Although figures for mobile transactions are strong in Africa overall, they are not consistent across the continent. Kenya and Ghana, with their relatively mature mobile payments sectors, account for much of the business in Africa. In most other countries in the region, less than 50% of financial transactions occur through mobile payments. The underlying conditions for growth—including the potential market for mobile payments, and opportunities to reduce friction in transactions and data sharing among companies—are therefore more favorable in these countries.

Already, 400 million consumers in sub-Saharan Africa use mobile payment banking systems to handle $300 billion worth of mobile money transactions, generating $200 billion in mobile banking fee charges to customers. (These figures do not reflect the impact of COVID-19.) By 2025, the mobile payment market could reach 650 million to 750 million customers. If that were to happen, mobile payments revenue, which tends to average about 1.1% of overall transaction volume, would rise

FIVE MOBILE PAYMENT STRATEGIES

Each of the five basic strategies that banks can use to enter the mobile payments business in Africa has a different value proposition and level of customer engagement. (See the exhibit.) The most suitable choice for a particular bank depends on the bank's scale and customer orientation (customer facing or back office). A large bank—especially one with a strong position in the retail or small and medium-size enterprise (SME) segment—already has an established customer base and, probably, a back office that can support a high volume of transactions.

A small bank has a narrower customer segment focus and a smaller customer base. To succeed, it needs either to specialize in its niche or to compensate for lack of scale by leveraging its relationships with other mobile money players. If it is a pure-play digital bank, it may be able to scale its back office very rapidly. This flexibility could enable it to succeed with one of the strategies that is generally more appropriate for larger banks.

Three strategies tend to be suitable for large banks:

- **Ecosystem Leader.** Manage financial-services-oriented ecosystems, in which the bank shares an interoperable platform and orchestrates a group of operations and services. An ecosystem leader should have a strong retail focus, a broad base of current and prospective customers (including many SMEs), and the ability to coordinate activities on a broad scale. Only be a handful of ecosystem leaders are likely to emerge in the mobile payments business in Africa.

- **Customer Relationship Builder.** Go to market under the bank's own brand, focusing on customer-facing mobile payments solutions with a broad reach. A bank that follows this path may have to disrupt its existing business model. That might mean relying less on high fees paid by affluent customers for banking services and transactions, and more on a broader revenue base with a wider range of services, more customers, and ecosystem support. The bank may also have to provide a distinctive customer experience on mobile devices.

- **Back-Office Champion.** Provide the services and support needed on the back end of other companies' ecosystems (including telco-led ecosystems). A bank in this category uses other banks' brands to develop the scale it needs to reach retail customers. It plugs into digital platforms with application programming interface (API) links—software features that allow computer systems to easily interrelate. The contributions of the back-office champion add significant value to the front-end players' offerings, enabling the front-end players to upsell a wider range of banking services to mobile wallet customers.

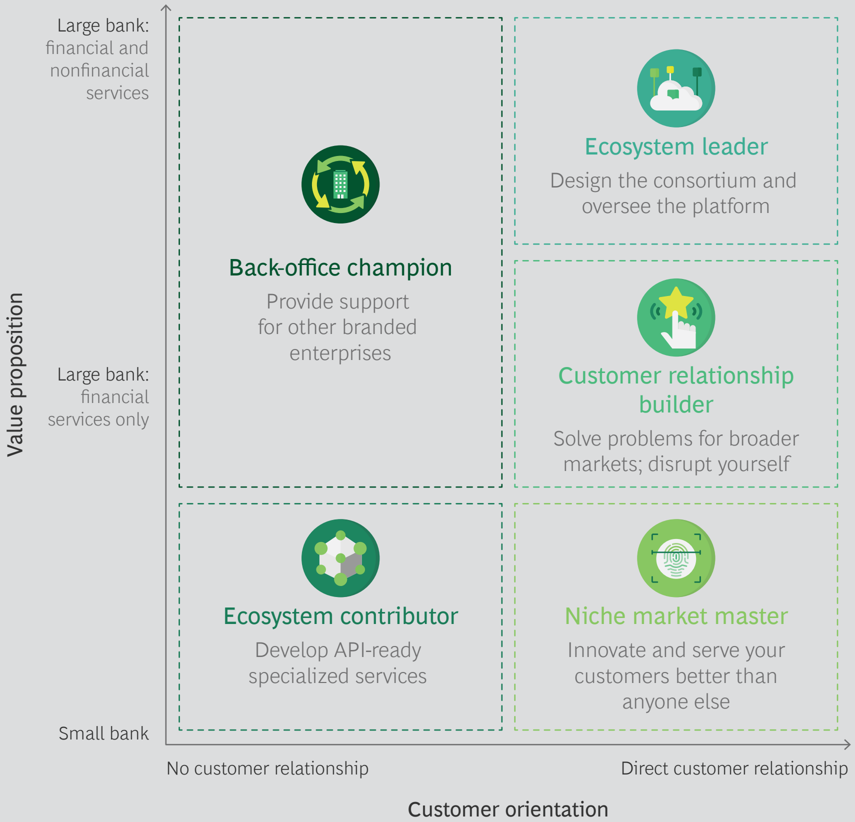
Two possible strategies can work effectively for small banks:

FIVE MOBILE PAYMENT STRATEGIES
(continued...)

- **Ecosystem Contributor.** As a team player in a larger ecosystem, provide technically adept, API-ready services, connecting closely with the offerings of one or more front-end mobile money players. Small banks tend to play this leading-edge "bank of the future" role because they do not have the scale to compete otherwise.

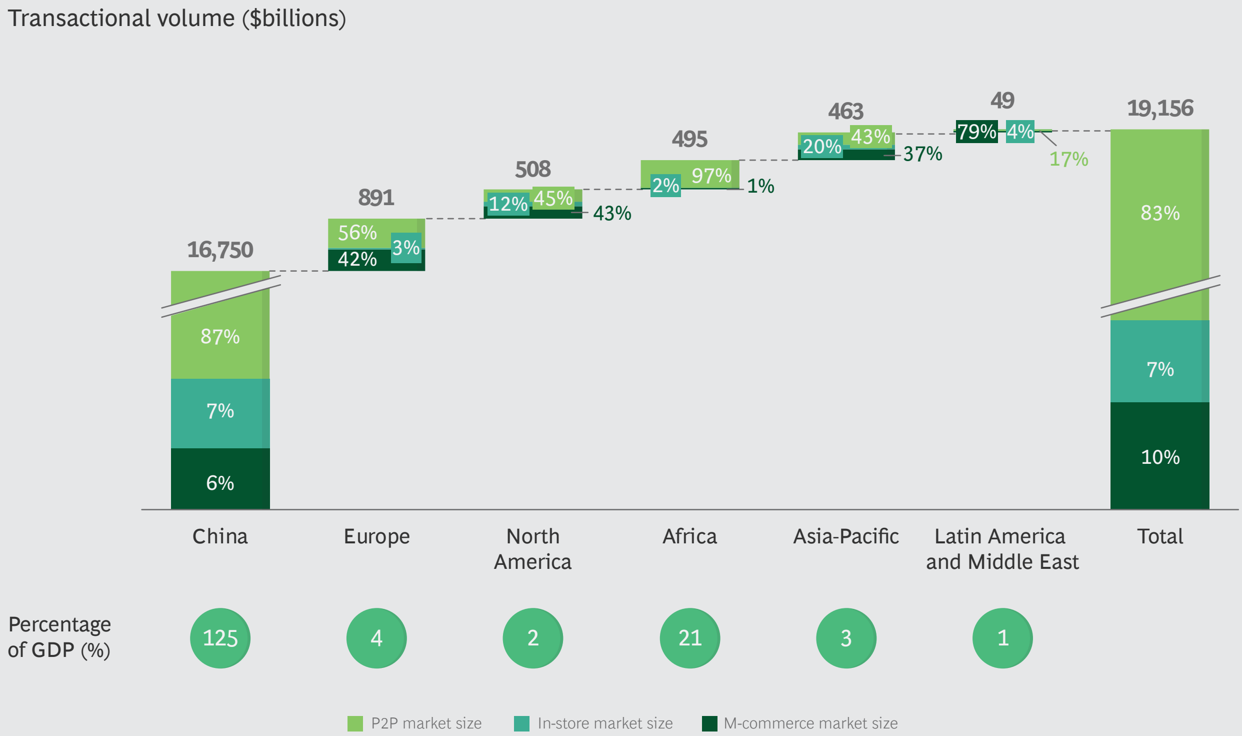
- **Niche Market Master.** Focus on particular offerings such as wealth management, where the bank can innovate and take advantage of its customer insight. Only a few banks can tailor these highly functional solutions—at a level far superior to competitive services—to this customer base.

Five Strategies for Mobile Payments in Africa



Source: BCG analysis.

Exhibit 1 | The Global Mobile Financial Services Market



Source: GSMA; eMarketer; GlobalData; The Economist; press research; BCG analysis.
Note: Because of rounding not all percentage totals add up to 100%.

from $3.5 billion today to between $14 billion and $20 billion. The ultimate size of the market across Africa could be as high as 850 million customers, supporting about $2.5 trillion to $3 trillion in transaction volume and $25 billion to $30 billion in yearly revenue from the financial transactions alone.

If banks step up to this opportunity, they will open significant new revenue streams. Mobile transactions are unlikely to be a winner-take-all business, dominated by one or two companies with a digital firewall around their offerings, because regulators in most African governments have mandated mobile wallet interoperability. More likely, banks will compete against telecoms, fintech companies, and other banks. In many markets, leading retail banks could capture 20% or more of the mobile wallet market if they make the right investments and design their offerings strategically.

Building a Mobile Payments Business

With capital constrained by the financial crisis and limited time, African banks should focus on two priorities concurrently: use cases and capabilities.

Use Cases

Use cases are descriptions of solutions that tackle specific fundamental customer pain points. They enable a bank to scale its offerings by engaging a broader customer base and showing how it can help them. Use cases are particularly useful in the early stages of an offering, when banks often face a chicken-or-egg problem: they need multiple vendors to interest customers, but they need many customers to attract vendors.

The best strategy is to target the large majority of customers who are unbanked or underbanked, attracting them with use cases involving innovative offerings. The offerings need not be exclusively financial; they may also extend to health care, energy, or transportation as a service.

Banks can format use cases as testimonials or stories. The key is to show how these new offerings improve the lives of real-world customers, although they can address other everyday pain points as well. For example, the mobile payment market in Ghana emerged when companies packaged use cases around sharing money with family members.

Other customer hooks may involve stories of banking transactions that illustrate how customers can send money to relatives at a distance or set aside money for starting a business. Banks might describe health insurance offerings in terms of access to clinics, or they might describe education savings plans as something to start when a child is born and spend years later when the child is ready for school. They could also partner with transportation companies in their network to include offerings such as ride sharing and deliveries.

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In Africa, many people consider access to banking, energy, health care, high-quality education, communications, transportation, and insurance to be luxuries. Customers may not feel ready to ask for these, but they would nevertheless appreciate having them. Banks should consider giving people holistic opportunities to access a variety of resources and solutions. For example, small-farmer sites could provide information on soil conditions and pests that would help farmers become more productive than in the past.

Capabilities

Capabilities are the front- and back-office tools and practices that allow a bank to scale rapidly, gain critical mass, and introduce new services to its customers. Banks should base new services on what their capabilities allow them to offer. For example, through the use of data, a bank can offer guidance to first-time users, teaching them to practice the new habits associated with the bank's offerings. Chinese mobile payment companies have excelled at this. When it is time to make a purchase, their customers automatically pull out their phone, rather than a debit or credit card.

Banks should tailor their offerings to the competitive situation in their country. For example, mobile-based energy-related services already exist in Kenya. Other countries have less competition. A bank must ensure that its ecosystem of collaborating companies can deliver what it needs. For example, a solar energy offering may require the bank to partner with manufacturers that can produce low-cost solar panels.

A bank may not be able to provide every aspect of the service itself—but other companies, government agencies, or even universities (for education and research) might be able to fill in any gaps. This is where a well-designed ecosystem comes in. Linked by a common digital platform, the bank and its network partners can pool investment and innovation. The bank can use the ecosystem to work with companies that might otherwise compete with it. For example, fintech companies can deploy digital design or data analytics capabilities in a platform that a bank would otherwise have to build from scratch.

In Africa, linking finance and electricity is particularly valuable. This can be a good catalyst for developing a use case and a bank's capabilities together. Lighting represents 15% of a typical African household's income. Kerosene, the most widely used source of electricity, is unreliable, a fire hazard, an indoor pollutant, and terrible for climate change. Solar home systems represent a safer, more convenient, and more appealing alternative, but the upfront costs (about $200) are too high for a low-income household to afford. By providing a comprehensive solution—including a solar panel, financing, a process for repayment, a way to manage and monitor risk, and ancillary services, made easy through an ecosystem-driven mobile payments offering—a bank can generate a loyal customer relationship.

Markets and Competition

In deciding which services to offer and how much to invest in the countries where it operates, a bank should consider demand and supply. Although there is tremendous opportunity across Africa, countries with extensive mobile phone penetration but few sophisticated services have a higher level of latent demand. Their people will be ready for smartphone-accessible offerings, especially once they see their neighbors using them.

Linked by a common digital platform, the bank and its network partners can pool investment and innovation.

Factors affecting supply include a favorable regulatory regime and a strong network of sales agents. Banks with a good ecosystem can work with other companies such as telcos, whose sales agent networks may already have influence with customers.

In terms of mobile transactions, African countries fall into three distinct categories (see Exhibit 2):

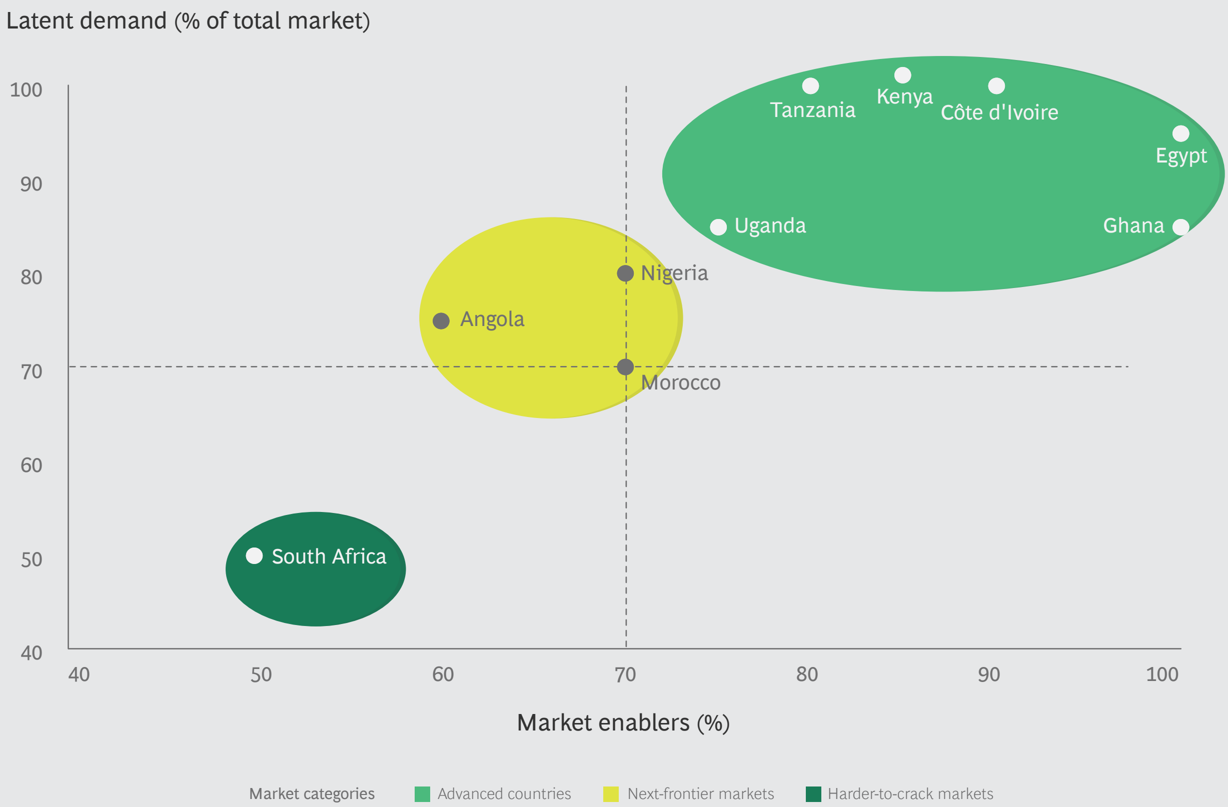
- **Advanced countries** have high latent demand and favorable regulatory environments, but in many instances competitors are already in place.

- **Next-frontier markets** present some regulatory challenges and have moderate latent demand, typically because consumers still prefer cash or use non-mobile-payment alternatives such as debit cards.

- **Harder-to-crack markets** are a category that currently includes only South Africa. Thus far, mobile payment efforts in that country have faltered because of entrenched consumer habits and a regulatory bias against interoperability. Industry-led efforts to establish interoperable banking platforms in South Africa have not yet succeeded.

To win in this realm, banks must cultivate new thinking about customers and a new set of capabilities. Otherwise, technology and telecom companies could outpace

EXHIBIT 2 | Readiness of African Markets for Rapid Mobile Money Penetration



Source: BCG analysis.
Note: Latent demand is influenced by penetration of banking products, availability of alternatives, and cost of existing banking services. Market enablers include ease of supply, accessibility, and regulatory framework.

them. In China, for example, tech companies dominate 90% of the market and have commoditized financial services firms into a role as back-end product providers.

In Africa, for several reasons, telecom companies currently have a much higher market share in mobile payments than banks do. For one thing, they have overcome some regulatory hurdles; in Ghana, for example, they are allowed to issue money. They also have the largest existing customer base. Banks typically focus on affluent customers, who represent perhaps 10% of the adult African population, while telcos, with lower fees and requirements, attract a wider range of customers. Telcos also have broader agent networks; in Kenya, there are about 700 mobile money agents per 100,000 people, compared to nine ATMs and five bank branches per 100,000 people. Finally, telcos have some unique capabilities: for instance, they manage the mobile network infrastructure.

Technology companies, meanwhile, have innate advantages of their own. They are typically strongest in the mechanics of digital activity: processing payments and orders. They also tend to be agile in their operational structures and good at cross-boundary collaboration with, for example, power utilities.

Aside from Safaricom in Kenya, neither telcos nor tech companies have as yet successfully established mobile payment dominance in an African market, but they will sooner or later. Chinese and US companies are showing interest as well—and they, too, are well positioned to win if they are interested, even though recovering from the pandemic will undoubtedly slow them down.

Looking to the Future

The opportunities for mobile payments arrive at a pivotal time. African countries such as Nigeria and Ethiopia are now welcoming more investment in mobile services. The COVID-19 crisis has provided a further opportunity. Mobile payments make social distancing easier, and these new digital solutions can help businesses and consumers cut their day-to-day expenses at a time of financial stress. At the same time, many African economies have strong and resilient fundamentals, including a young, fast-growing population and ongoing improvements in the business environment and governance. Together, these factors will lead to significant opportunities in Africa's mobile payment space.

African economies have strong, resilient fundamentals, which include a young and growing population and improvements in business environment and governance.

For financial services institutions that are considering whether to enter this domain, time is not an ally. They must move as quickly as they can to position themselves in this space and to build or acquire the necessary capabilities, which may include digital capabilities for online customer experience and broader business models for monetizing health care or consumer services.

Customers throughout Africa have shown that they are open to a range of services. A Kenyan mobile platform called CarePay, for example, connects people, payers, and providers in the health care sector—arranging appointments, enabling clinics to bill patients through their phones, and facilitating different types of funding, including donor funding, remittances, and insurance. This model also permits data collection to improve efficiency and quality of care, with appropriate government agencies and donors involved in making sense of the data.

Banks should prepare to move beyond their current business model. Cash transaction fees, which provide the bulk of banking revenue today, are valuable for creating customer relationships, but they are not sufficient for a mobile-payments-based business. The most successful implementations of the mobile wallet model rely on a diversified income stream, as in the following example:

- ~40% from cash withdrawal charges
- ~33% from P2P transaction fees (charged to the sender)
- ~25% from person-to-merchant transaction fees (charged mostly to merchants)

Banks should make the most of their advantages as financial institutions. Regulations favor them against telcos and tech companies. Banks issue money and provide services such as insurance and lending. They have a captive customer base and experience with retail banking customers. This positions banks to acquire customers, help customers manage cash flow, and process payments.

Many established banks will probably delay acting until it is too late. That's what happened in China and Kenya, for example. Although they may be able to hold on to their current businesses for several years, banks' consumer-facing businesses will ultimately be disrupted. Today's banking customers may not realize it yet, but they will eventually be attracted to new services that are tailored to their rapidly evolving needs.

A bank might just offer banking by phone today. But loyal customers will be ready when the bank expands its offerings to include, say, medical or energy services tomorrow. Banks can also develop financial services, such as credit availability and property financing, that are associated with a rising middle class.

The five strategies outlined in this article give banks a chance to balance this medium-term imperative with crisis management and other short-term priorities. By focusing its business on a viable mobile payment strategy today, a bank can build the capabilities it needs to recover from this year's difficulties and shape its destiny in the long run.

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