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Financing Development: Fintech in Africa

LUCY CORKIN

ABSTRACT In many African countries—some of the most unbanked areas in the world—digital banking applications are redefining what it is to bank in economies with shallow penetration of the formal banking sector, representing an innovative force that is breaking new ground in the long-standing challenge of financial inclusion. This brief explores the emerging world of fintech in the context of Africa, outlining why financial technology applications are making waves on the continent. The role of key stakeholders, such as traditional banks and telecommunications companies are considered, as well as the importance of regulations and policy in this emerging industry. The relevance of local context and potential synergies with the Sustainable Development Goals (SDG) 2030 agenda are also examined.

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INTRODUCTION

Developments in financial technology (or "fintech") are touted as the largest disruptive force to the traditional finance sector the world over.[#] In the case of African countries—which are some of the most unbanked areas in the world—digital banking applications are operating in blue-sky territory and are defining what it is to bank in economies with shallow penetration of the formal banking sector. Thus, as one analyst noted wryly: "Whereas in developed economies, fintech is disrupting traditional banks and financial institutions, in most of Africa it is disrupting nothing at all."[1] The implication is that the communities that are being impacted by fintech were never considered or incorporated into the formal banking sector, in the first place. Fintech startups have mushroomed in the continent in recent times, representing an innovative force that is breaking new ground in the long-standing challenge of financial inclusion. This brief explores the emerging world of fintech in the context of Africa and considers potential synergies with the Sustainable Development Goals (SDG) 2030 agenda.

AFRICA AS THE NEXT FRONTIER FOR INNOVATION

Africa's context differs from that of the developed world. To begin with, less than one in three Africans has access to a traditional bank account—this proportion is significantly lower than that in other emerging markets, at circa 50 percent.[2] This despite impressive growth: according to McKinsey, the number of Africans with bank accounts has increased by 75 percent in five years, to almost 300 million in 2017.[3] The abysmal rate of penetration by the traditional banking sector is due to a combination of interrelated factors:

Geographic fragmentation: Whereas in its entirety, Africa represents a market potential of some 1.1 billion, equivalent to that of India, the population is relatively dispersed and spread over more than 50 sovereign states. Consequently, this has led to a:

Chronic lack of infrastructural investment in terms of the expensive traditional branch networks used to service bank customers. Those networks that do exist are concentrated in Africa's political and economic capitals, remaining inaccessible to potential customers that live in more rural, remote areas who cannot afford the transport cost or time investment required to access them. As a result, this has compounded the:

Lack of Scale: The income level of the majority of Africans has historically rendered them "unbankable", as the projected level of revenue the banks could expect to earn from these individuals does not warrant the expense for the infrastructural support required to service them with the traditional brick-and-mortar network, in turn limiting the reach of formal banks.

In the context of developed markets, a key focus of fintech is customer convenience. In Africa, specifically sub-Saharan Africa, fintech

For the purposes of this article, fintech describes digital innovation that seeks specifically to improve the delivery of financial services. In many cases this means automation, and the disintermediation of the conventional banking sector institutions.

is applying itself to the challenge of basic access to making secure transfers of value. Globally, Africa's diaspora remits approximately US$ 50 billion to families on the continent every year, roughly equivalent to Africa's total annual foreign aid receipts. Even within African countries themselves, individuals working in the cities are often obliged to send money back to family members, many of whom would remain in traditional homesteads. The majority of the remittance providers would historically send cash informally, via travelling family members on public transport, or make use of expensive money transfer mechanisms that required costly and time-consuming trips to bank branches or money-transfer agencies. The remittance imperative has been a key stimulus for African fintech in deriving solutions specifically as regards digital methods of payment.

For the reasons outlined above, it is not surprising that according to one survey, 40 percent of all African banking customers preferred digital channels, which can quite literally bridge the gap of time and space. This means access via a mobile phone. [4] A mobile phone can provide African users, sometimes for the very first time, access to a secure store of value, a means of exchange and a host of other financial services at the click of a button. Small wonder that the uptake of mobile wallets has been nothing short of phenomenal. It is unsurprising that more than half of the 282 mobile money services operating globally hail from Sub-Saharan Africa.[5]

According to the Global System for Mobile Communications Association (GSMA), Sub-Saharan Africa has a unique subscriber mobile phone penetration of 44 percent, but certain economies such as South Africa (68 percent), Kenya (59 percent), and Nigeria (49 percent) far exceed the average. Mobile money penetration is almost exactly in step with ownership of phones.[6] Currently, 57 percent of the world's money market accounts are located in this region. With 100 million active accounts, Africa has the highest mobile money penetration in the world, at 10 percent of working adults, versus a global average of two percent.[7]

One example is Kenya's Mpesa, a pioneer in terms of scale, market traction and product innovation on a money market platform. It is no coincidence that Mpesa's initial wildly successful tagline was, simply, "Send Money Home." Before the launch of Mpesa, more than a quarter of Kenya's population, usually rural women, were reliant on remittances for income. By eliminating the time, cost and risk involved in the conventional way of sending money home, some estimates put the increase to household income that mobile money has facilitated at between five and 30 percent. Transactions costs remain high, relative to global banking norms, and are the most punitive for the smaller more frequent "micro transfers". However, it is still widely preferred to the way things were done previously. The average transaction size is around US$ 33 and half of the transactions are for a value of less than US$ 10. Indeed, Mpesa accounts for just less than seven percent of national payments' throughput value in Kenya, but more than two-thirds of the transactions by volume and now commands more than 80 percent of Kenya's mobile money market.

From a continental perspective, the market is not yet saturated, with active mobile money

users growing in excess of 30 percent between 2013 and 2016. Despite Kenya's dominance in its local market, Mpesa accounts for less than 25 percent of mobile money clients on a pan-Africa basis. Key to mobile money's rapid take-up is that the product set is specifically designed to service cash transactions previously considered too small by banks to bother about. For Safaricom, the mobile network operator that owns the Mpesa platform, digital inclusion is good for business. Safaricom now generates more than 30 percent of its revenue[8] through providing a transactional banking platform for that segment of the population which conventional financial institutions did not consider worthy to bank.

Considering that Africa also has one of the youngest populations in the world—as well as the highest middle-class growth, albeit from a low base—the growth outlook for innovations such as these is considerable. Indeed, the transformative potential of fintech on the African continent cannot be underestimated.

FINTECH STAKEHOLDERS

A study by PricewaterhouseCoopers found that in 2016, of all regions globally, African financial services business leaders were the most concerned (95 percent) by the potential threat posed by stand-alone fintechs.[9] This underlines the significant impact that fintech is expected to have on the continent in the coming years. This has moderated somewhat in the last year, potentially as these actors have realised that cooperation (rather than competition) with fintech companies is a way to extend their service offering and make it more relevant to their customers. As the open banking[10] approach gains traction, this trend is likely to continue. There are three broad categories of players that have a role in shaping the fintech landscape:

Mobile Network Operators (MNOs)

For many Africans, their first digital transaction was the purchase of pre-paid mobile airtime. Indeed, in many parts of the continent, before the advent of fintech and mobile wallet applications, airtime was and remains an informal form of currency. Digital banking, through channels such as mobile money, is the link between phone ownership and banking penetration. It thus allows banking to piggyback on mobile penetration in African populations (67 percent), versus banking penetration (22 percent), thus solving the problem of distribution.[11] This renders MNOs rather than traditional banks, the true incumbents in Africa's financial services sector. In addition to a wider footprint, MNOs also have access to a particularly rich source of customer data. In another context, China's Wechat has recognised this and leveraged this kind of access to launch a number of targeted applications off the social media site. Whereas Kenya's Mpesa has a similar vision, the platform has begun from a different starting point, expanding its suite of financial services accessible off the platform and adding its own social media platform "Bonga" to lock in customer usage.[12] It is clear that competition is intense and the innovation between these players is fast-paced.

Traditional Banks

Globally, banks are under increasing pressure to both provide a seamless client experience and reduce cost-to-income ratios. By contrast,

many financial institutions in Africa find themselves hamstrung with outdated modes of client engagement and expensive brick-and-mortar branch networks that are experiencing rapidly declining footfall, especially with the advent of mobile money. The response of many institutions has been to promote digital channels over traditional banking methods. Since 2014, Standard Chartered Bank (SCB) has closed 175 of its more than 1,000 branches across Africa, Asia and the Middle East and aims to generate 30 percent of sales and 40 percent of payments online by the end of 2018. In March 2018, SCB launched its first digital-only offering in Ivory Coast. This was not only a first for the bank across its global footprint, but also its first retail presence in Ivory Coast. The client offering is completely online, and compatible with smart devices.

It was in Nigeria where Africa's first fully digital bank, ALAT, was launched in May 2017 by Wema Bank. ALAT targets the youth segment with a host of simple savings plan products based on the principles of convenience, simplicity, and reliability. Customers can open an account online in under five minutes. Debit cards are delivered anywhere in Nigeria within two to three days, free of charge. All required documentation can be uploaded via the app or website.[13]

Whereas MNOs are deemed to have muscled in on the territory of traditional banks with mobile money offerings, South Africa's FNB has counter-attacked by offering customers an integrated telco service, complete with FNB-branded handsets and SIM cards.[14] This netted FNB the "most innovative African bank" award for the second time running at the 2018 Africa Fintech awards. However, the real prize is access to the customer data that FNB has orchestrated as a result. This enables the bank to use the data collected to analyse customers' trends to tailor products and incentivise behaviour, similar to WeChat and Mpesa.

THE ROLE OF REGULATORS

The actions of regulators play an import role as they set the framework in which fintech may operate. Theoretically, the digital revolution presented by fintech innovations is supported by African governments and their central banks, which have in principle been encouraging a move to cashless societies, for the following reasons:

Informal economy: The informal economy remains so due largely to its cash-based nature. The digitisation of informal economy transactions would facilitate their traceability and allow governments to gain a better understanding of the country's economic activity, effectively formalising the informal. The GDP size of African countries is suspected in many cases to be grossly underestimated; their informal economies are believed to rival, if not surpass their formal equivalents. An ability to track the transactions that comprise the currently cash-based and largely untraceable informal market would in turn allow governments to incorporate this part of the economy into the tax base, generating much needed domestic receipts.

Cybercrime and fraud mitigation: Digitisation is potentially also the first step in the prevention of money laundering, although further work needs to be done in this field. For instance, there is currently a cap of US$ 500 on Mpesa transactions specifically in order to

prevent the use of the platform for money laundering.

Financial inclusion: The migration to digital economies is perceived as a key aspect of financial inclusion for the majority of African citizens.

Consequently, an enabling regulatory environment is not only important in promoting fintech innovation but would also go a long way in facilitating the formalisation of large swathes of the economy through financial inclusion and increased transactional transparency. This would also coincidentally support the interrelated SDGs of poverty alleviation; industry, innovation and infrastructure; reduced inequalities; and economic growth.

However, despite such seeming win-win circumstances, regulators across the continent are struggling to keep up with the pace of indigenous fintech innovation. Whereas their counterparts in developed countries are concerned mainly with privacy and data protection laws, African central banks are far more occupied with overseeing the impact of fintech on the country's macro-economics, financial inclusion, and financial sector stability. They are therefore understandably cautious. There is a delicate balancing act between wanting to regulate a sector that clearly has significant implications for financial services in African countries, and stifling it altogether. Whereas the Kenyan mobile money innovation complex may have serendipitously benefitted from a formerly *laissez-faire* approach, other governments have been more proactive. Tunisia, for instance, passed a "Start-up Act" (20018), the culmination of two years of stakeholder consultation that sets out the government's policies for startup growth, and possibly a high-water mark for governments across the continent.[15] Similarly, Egypt has the only national e-commerce policy on the continent.

The interventions of other regulators had been less fortuitous. In November 2018, the Central Bank of Nigeria proposed legislation establishing minimum equity thresholds for fintechs to achieve a license, presumably due to concerns about the systemic risks that fintech may pose to the financial sector. Mobile payments are also far more regulated than in other markets, requiring a separate license as of 2011. This has had the effect of limiting competition to the formal banking sector from alternative market entrants, despite the former's inability to provide one of Africa's most populous countries with the payment solutions that can service the majority of the (unbanked) population.

The key to sustaining a dynamic context for African fintech development is proactive engagement with financial regulators to ensure an enabling environment. In recognition of this, i4Policy, a pan-African advocacy group has led hackathons across the continent to stimulate digital policy conversations and worked with the African Union Commission of Trade to convene dozens of innovation hubs to mainstream this debate. Such interaction and collaboration between local policymakers and homegrown fintech is critical for the success of this dynamic sector. As such, an encouraging development is the proliferation of regulatory sandboxes, in countries such as Nigeria (March 2018), Kenya (December 2018), and Mauritius (January 2019).

Another aspect that would be well-served by this collaborative approach between governments and other fintech stakeholders is the strengthening of the cyber-security regime and the combatting of cyber-threats. The use of digital and social media by extremist groups such as Boko Haram (Nigeria) and Al-Shabaab (Kenya) for recruitment and coordination of terrorist attacks (cyber-terrorism) is well documented.[16] In the context of fintech, cybercrime in Africa is facilitated by a large number of domains and weak network and information security. Coupled with rapid and rising internet and mobile penetration, this leaves the continent vulnerable to attacks. One 2016 report estimates the cost of cybercrime to the Nigerian economy at US$ 500 million, whereas in 2014, South Africa reportedly had the third highest percentage of cybercrime victims per total population (80 percent), after Russia (92 percent) and China (84 percent).[17] In recognition of the severity of the issue, the African Union has collaborated with the United Nations Economic Commission of Africa to develop a Convention on Cybersecurity and Personal Data Protection, adopted in June 2014. While this is a positive step, the road is long to its successful implementation across the continent.

LOCAL FLAVOUR

Effective communication between regulators and local fintech companies is important because the latter are best placed to apply technological solutions to home contexts, cognisant of the circumstances of the operating environment. The following considerations are key:

Different saving patterns: Essentially community savings structures, Savings and Credit Co-operative Societies (SACCOs) or a derivative thereof are a universal feature of the economic fabric of African (and other emerging market) countries. Entire fintech ecosystems have sprung up to service SACCOs and the more adaptive traditional banks have launched products such as the group savings account to cater for this segment.

USSD: Whereas GMSA estimates that unique subscriber mobile penetration in Sub-Saharan Africa is 44 percent, only 34 percent of these are smart phones. [18] Consequently, mobile solutions that do not require mobile data to operate are more likely to gain traction. Unstructured Supplementary Service Data (USSD) that allows applications to communicate via text messaging to mobile phones, a system that has almost become obsolete in other markets, remains highly relevant in African markets. International banks such as Standard Chartered Bank have been quick to adopt platform technologies to local contexts. In 2008, in partnership with African fintech company Cellulant, the bank launched mobile banking on a USSD platform to Ghana, Zambia, Botswana Nigeria and Kenya. [19] In 2011, plans were announced to expand this partnership to create an e-commerce platform (effectively allowing the bank to widen its online product offering) and to roll this out to all its African markets.[20]

Cash is still king: From a retail perspective, it is unlikely that digital banks will immediately succeed as completely cashless banks, and provision must be made for physical transactions. Most mobile money applications that stand a chance of success will still need to design their platforms to be able to handle interaction with a cash economy, dubbed a “bricks and clicks” solution, referring to a

combination of digital and hard-currency transactions.[21]

FINTECH AND THE SDGs

Developments in fintech are of significant interest to those working towards achievement of the Sustainable Development Goals (SDGs) both in Africa and across other developing areas of the world. Many of the positive trends associated with fintech fit well within the SDG agenda. Even though none of the SDGs refer specifically to financial inclusion per se, the overriding theme to which fintech and the SDGs speak, in the context of Africa, is one of access, in order to end the various interrelated deprivations that perpetuate poverty and inequalities on the continent and elsewhere. Similarly, whereas fintech is not specifically mentioned in the Africa Union's Agenda 2063, it should be viewed as a key enabler and vital transmission mechanism through which all the stated goals will be achieved and aspirations met.[22] Fintech is a powerful tool particularly in:

Data capture: Social scientists and policymakers alike have long bemoaned the lack of verifiable data in many African countries; an issue alluded to previously in terms of the inability to track the informal economy. Key records, such as land and birth registries are often incomplete or disputed. As a result, citizens' access to important information, such as identity documents and title deeds is curtailed, which further restricts access to numerous other services as a result. Technologies such as blockchain and biometric applications have considerable potential to both streamline the capturing of this data and thus providing:

Accessibility not only to this data, but for the citizens of these countries, access to the services that possession of this information unlocks, such as being able to use a title deed as collateral for credit.

Connectivity and Network effects: The Ecosystem Accelerator Innovation Fund that focuses on commercially sustainable mobile applications in Sub-Saharan Africa has invested in a number of projects across various sectors whose simple value was in the ability to create an accessible platform that connected users, such as informal workers to a job marketplace or farmers to crowdsource investors.[23]

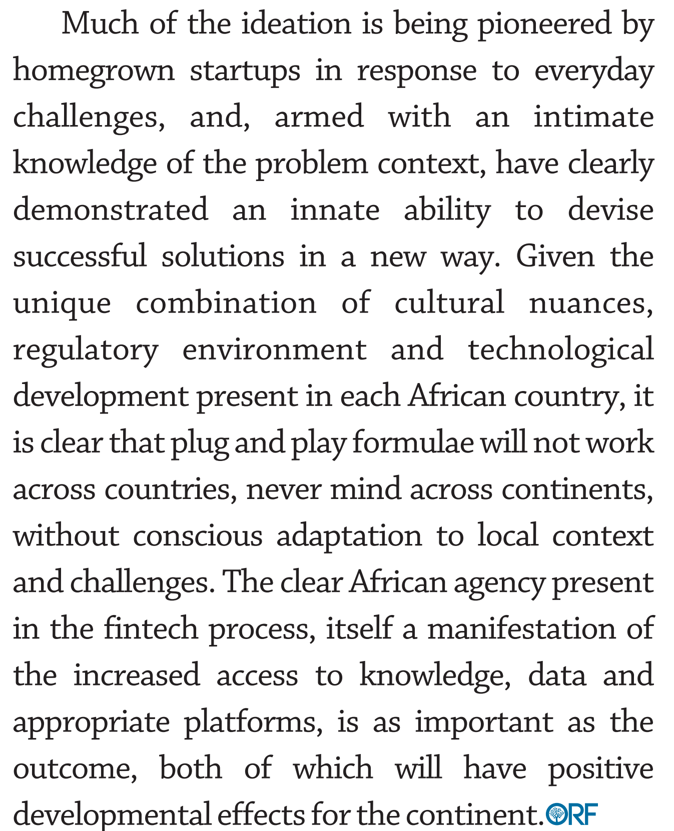
Scalability and Fractionalisation: Fintech's digital medium allows solutions in the health and education sector to have the potential to leapfrog the current challenges of infrastructure and skills gaps found in many countries, allowing rapid expansion of access to services. Similarly, digital solutions also allow access to be broken down into accessible components for lower income users, such as Mpesa's MShwari micro-loans (average loan size USD 35) or Kytabu, an online library that leases textbooks in chapter/lesson to increase affordability.[24]

CONCLUSION

Beneath the hype, homegrown fintech solutions in Africa hold real potential to unlock financial inclusivity for the continent's economically disenfranchised. The ripple-effect of such empowerment cannot be underestimated.[25] As has been recognised by outside observers, the more widespread financial inclusion and digital literacy grow,

the more likely the SDGs are to be achieved by their target deadlines.

African countries' regulators have a key role in how the advance of fintech plays out, given their responsibility for setting out the rules of the game. By the same token, it is important to recognise that it is not necessarily the responsibility of the regulator to be an agent of innovation, as legislation inevitably lags industry developments, but more to foster an environment in which innovation may occur. In most cases this means keeping a watchful eye on developments and maintaining an open dialogue with stakeholders, the latter of which also have a responsibility to ensure the former is not kept in the dark. In addition, the very real threat of cybercrime and cyber-terrorism if not adequately addressed, will introduce systemic vulnerabilities to what are already some of the world's most vulnerable economies.



Much of the ideation is being pioneered by homegrown startups in response to everyday challenges, and, armed with an intimate knowledge of the problem context, have clearly demonstrated an innate ability to devise successful solutions in a new way. Given the unique combination of cultural nuances, regulatory environment and technological development present in each African country, it is clear that plug and play formulae will not work across countries, never mind across continents, without conscious adaptation to local context and challenges. The clear African agency present in the fintech process, itself a manifestation of the increased access to knowledge, data and appropriate platforms, is as important as the outcome, both of which will have positive developmental effects for the continent. ORF

ABOUT THE AUTHOR

Lucy Corkin is Business Strategist at Rand Merchant Bank in South Africa.

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Ph. : +91-11-35332000 Fax : +91-11-35332005
E-mail: contactus@orfonline.org
Website: www.orfonline.org