Digital Africa

Africa is by no means immune to the frenzy of the opportunities which digital developments such as fintech, autonomous transport, artificial intelligence, and e-commerce growth.

In fact, there is an increasing recognition that certain African countries are uniquely placed to take advantage of such developments (in particular mobile payments due to the high market penetration of mobile phones in markets where bank accounts are still relatively rare).

There has already been substantial interest from foreign investors, in particular private equity funds, in the digital sector across certain African countries. As technology advances unfold and the sector further develops, such interest is only likely to expand further.

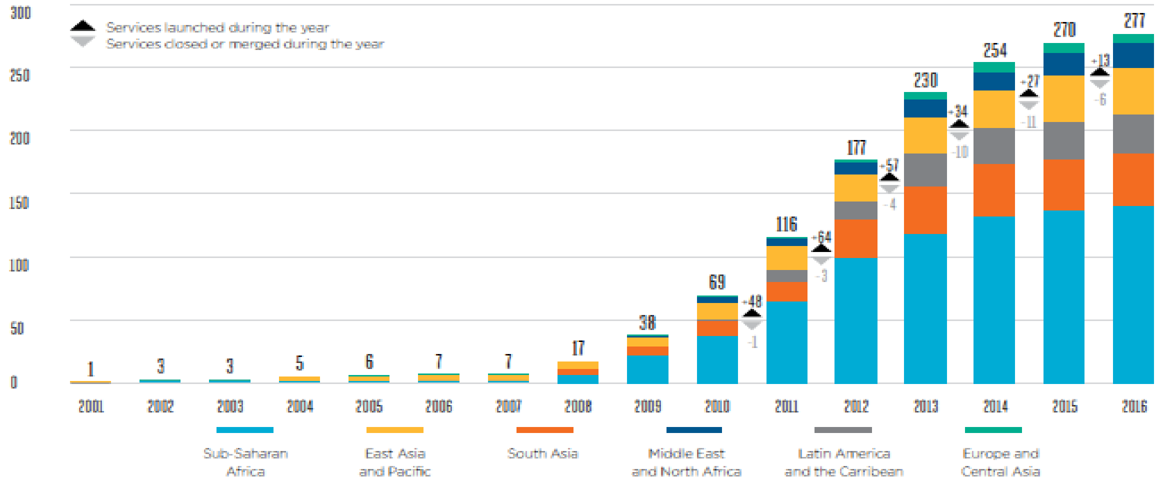
Darren Harris and **Ben Sims**, both of Addleshaw Goddard's Dubai office, comment on how certain African geographies stand to be key participators in the Digital revolution as *Digital Africa* dawns.

Mobile Payments

The rise of mobile money has generated important gains in financial inclusion. By 2011, registered mobile money accounts grew to 86.8 million, with more than a quarter of them active.

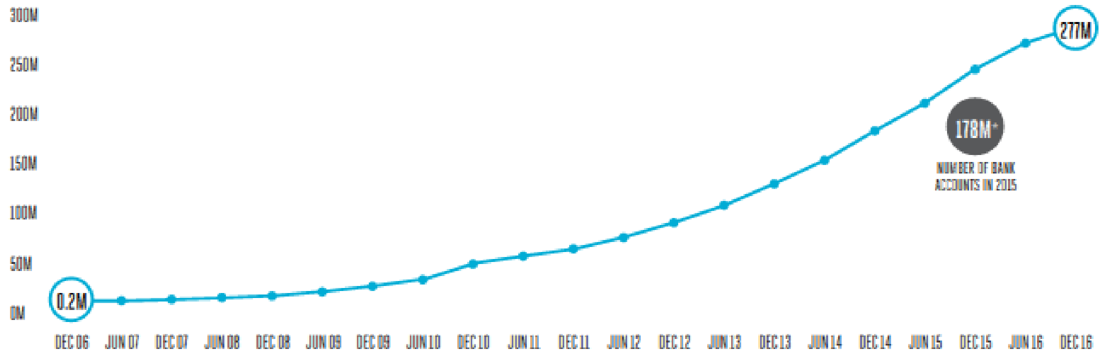
Between 2011 and 2013, the net number of total mobile money services nearly doubled, from 116 services in 60 countries to 230 services in 82 countries (see Figure 1). When the Global Findex survey was updated in 2014, it showed the number of unbanked people globally had dropped from 2.5 billion to two billion in just five years. Much of the gain in low-income countries has been attributed to the spread of mobile money.

Figure 1: Evolution of the global mobile money landscape (2001 to 2016)



The biggest impact was felt in Sub-Saharan Africa, where 12 per cent of adults in the region had a mobile money account. In 2015, mobile money accounts surpassed bank accounts in the region (see Figure 2). By 2016, there were 277 million registered accounts in Sub-Saharan Africa, of which more than 100 million were active.

Figure 2: Growth of registered mobile money accounts in Sub-Saharan Africa



*SOURCE: AFDB, The Banking System in Africa: Main Facts and Challenges. SSA Bank accounts per 1000 adults 334.5

African Mobile Payments: 2016 Overview

In 2016 the total revenue for the top mobile payment providers across the African continent surpassed USD 1 billion.[1] The GSMA report also identified that more than 40% of the Adult population in Kenya, Tanzania, Zimbabwe, Ghana, Uganda, Gabon and Namibia are now using mobile money on an active basis (90-day). This is an increase from just two countries in 2015 (Kenya & Tanzania).

Generation Z gave mobile commerce the push it needed. While millennials have done tremendous things for mobile payments and mobile commerce, it is consumers born after 1995 who are leading the charge. According to Payvision's Mobile Payments Report 2016, Generation Z does not have the same anxieties as older generations about security and data privacy, which is in part why they use mobile payments twice as much.

Contactless payments became increasingly visible in terms of consumer experience. Mobile POS (**mPOS**) also came into its own. mPOS was originally marketed as the solution to the mobile merchant's biggest problem: being unable to accept card payments on the go. But as mPOS systems improved and consumer awareness/confidence increased it became clear that not only are they a great addition to any business, but in some instances, they can replace traditional fixed POS systems altogether.

African Mobile Payments: A look ahead at this upcoming year's payment trends[2]

Cloud-based point-of-sale will continue to grow. In 2016, cloud-based POS systems had already started to take flight. With everything headed to the cloud, we should expect to see more and more POS systems switching over to the cloud this year.

Customer rewards will take centre stage. A big part of increasing customer satisfaction over the past few years has been through customer rewards and perks. Shopkeep predicts that payment trend will only increase in 2017: "The more in tune merchants are with customers, the better they can tailor their marketing and rewards program to yield better results."

Mobile ordering and payments to boom. In 2017, not only will consumers be paying with their phones, they'll be ordering with them too. On the heels of the success of UberEATS, franchises like McDonald's and Starbucks have started letting their customers order and pay for their food and drink through their apps, and simply pick up the order when it's ready. It would not be a surprise if they are not the only establishments doing this by the end of the year.

[1] GSMA State of the Industry Report on Mobile Money 2016

[2] Payments Afrika, '2016 payment trends and what to expect in 2017', Jan 2017

E-commerce

Africa driving Digital Disruption

The dominance of mobile connectivity across Africa has shaped consumer trends in a manner that is leading to innovative services in e-commerce. The level of growth has not yet reached the benchmark of US or European markets but this is due in part to restrictions relating to a lack of reliable utilities and developed infrastructure.

One live example of an Africa specific evolution in the e-commerce space is the Nigerian online store Jumia who have adopted a pay on delivery system to overcome the lingering distrust of digital malls. Other more general approaches to the problems holding back e-commerce development on the continent is e-commerce companies building in-house logistics networks to take account of the lack of basic infrastructure.[3] Mastercard has also partnered with the Nigerian government to roll out smart ID cards which incorporate credit card capabilities alongside usual ID capabilities.

Africa has various unique characteristics which will contribute to the substantial consumer spending opportunity that opportunist e-commerce companies can take advantage of:

Population Size and rise of the middle class: The United Nations predicts Africa's total population of 1.2 billion is expected to rise to 2.5 billion by 2050, at which point one in four people on earth will be African. The continent is also the only region in the world expected to continue to increase in population after 2050, with an increase to 4.4 billion people by 2100 predicted. Combining this population growth with the anticipated rise in the African middle class creates a compelling e-commerce opportunity for companies.

Urbanisation and improvements in living standards: Africa is the fastest urbanising continent, with an average urban growth of 3.4 percent. By 2050, 1.2 billion people—60 percent of all Africans—are projected to live in cities according to presenters at the Understanding Risk & Finance Conference. With urban growth comes improved living standards and increased spending power. Consumer spending in Africa is estimated to exceed $1 trillion annually by 2020 reports Forbes. The 18 largest cities in Africa will have a combined spending power of $1.3 trillion by 2030, giving retailers an enormous opportunity to meet the demands of these newly-empowered shoppers.

Lack of retail outlets: Thriving city populations are already outpacing Africa's traditional marketplaces, and many African urban centres lack a sufficient number of brick-and-mortar retail locations to meet overwhelming demand. With a lack of retail infrastructure, e-commerce becomes a more compelling, affordable and efficient option for African consumers. McKinsey and Company predicts that some $75 billion in e-commerce revenue in Africa will be generated by 2025, about 10 percent of retail sales of the continent's largest economies and 40 percent annual growth over the next 10 years.

Mobile capabilities: Africa leapfrogged the world by becoming a mobile-first, mobile-only and mobile-web continent. While less than one in three people have a proper drainage system, and only 63 percent have access to piped water, a staggering 93 percent have cell phone service according to the Afrobarometer. The explosion of mobile phone networks has transformed data and communications on the continent, allowing much of Africa to skip the landline stage and jump right into the mobile age. Most Africans experience the Internet for the first time on a cell phone, and more and more on a smartphone, opening the way for online retailing.

Draw of global brands: With increased buying power comes brand preference as African consumers shift from unbranded products to branded; and from economy to premium brands. While some consumers will continue to support local brands for products such as food, beverages, and some household items, consistent with global trends, many Africans are attracted to the quality, prestige

[3] A Digital Savannah: Africa's e-commerce promise

and strong social cachet that global brands offer, particularly in clothing, durables, and electronics.

Prime age online shoppers: Africa's young population will be a huge pool of untapped e-commerce riches. The IMF predicts 100 million people in the region will reach the working age of 15 to 64 by 2035, nearly double the number of the rest of the world. This scenario presents a rare opportunity to help transform the online shopping experience of an entire generation of Africans.

Challenges in the e-commerce space

Globally e-commerce has some inherent challenges, and Africa has many. While some e-tailers focused on Africa have closed their retail businesses almost as fast as they've been opening online platforms, retailers determined to overcome the e-commerce challenges are adapting the online experience for the African consumer and implementing some clear, long-term plans.[4]

Overcoming Distrust: Like their peers in other countries, wealthy Africans are concerned with scams, which prevent many from disclosing financial information and buying online. Some online sites offer cash-on-delivery (**COD**), such as Nigeria's Jumia as noted above, to overcome these concerns, but COD can cause massive problems for retailers including theft, the high cost of returns, and couriers returning cash late. One emerging solution is using a trusted third party between buyer and seller to handle the money. E-tailers have to play their part to keep online transactions safe through increased data protection.

Helping Literacy: Shopping online requires some literacy, but illiteracy remains high in Africa, with some countries having literacy rates of less than 30 percent. Opportunities to tackle this include building educational apps supported by e-commerce advertising or rebuilding the e-commerce experience with less text and more images. Chat-based selling can switch to call-based selling, and smartphone-based virtual reality is coming online soon, which could lead to fewer literacy requirements for shopping online.

Better Delivery: While many postal services across Africa leave a lot to be desired when it comes to service level expectations, e-tailers can create their own, more reliable delivery options. E-tailers can deliver through crowd shipping, drone delivery networks, and multiple pick-up locations. Companies must set up a decent delivery infrastructure or partner with a company that has one in place already

Solid Return Policies: Like many global online consumers, Africans need to touch and try on items before purchasing them. The underlying concern is that returns will not be accepted after the transaction. Any self-respecting e-retailer should have the option for efficient exchanges and returns in the same manner that brick-and-mortar retail stores do, even offering free trials and top-notch return policies.

Fintech

In many cases, fintech's rapid growth can be attributed to the industry's widespread adoption and innovation in developed, Western countries. But to continue on its growth path – including a projected compound annual growth rate of 54% through 2020 – fintech businesses have been increasingly developing strategies to target emerging markets.

Africa is becoming an evolving fintech innovation hub (in particular South Africa, Kenya, Rwanda and Nigeria). As much as 80% of the continent is unbanked, opening the door to a breadth of opportunities for fintech companies to seize market share. In fact, companies in the fintech space received almost 30% of all funding for African tech businesses and this growth shows no signs of slowing down.

[4] Digital Commerce 360, 'Africa's untapped e-commerce potential', May 2016

Two key reasons why fintech innovators will seem likely to continue to shift their focus to certain African countries in 2017 and beyond:

Cash rules the market[5]
In addition to 80% of Africa being unbanked, up to 90% of retail payments are made using cash. When compared to Europe, the difference is staggering, as more than 50% of the payments in most European countries are electronic.

The lack of banking and electronic transaction infrastructure in place at this time opens the door for fintech businesses to provide financial services to millions of consumers who previously have not had access to bank accounts or other financial institutions.

Mobile penetration
As noted above, mobile penetration far outstrips bank account penetration so the functionality and tools for such platforms to thrive are already in place.

Ripe opportunities in the African Fintech space

Payments and remittances is the most populated of nine sub-sectors addressed in the Forbes 2017 Report,[6] with 125 startups across the continent focused on making the process of sending and receiving money easier. Lending and financing - with 65 startups - is the next most popular category; indeed, over 60 per cent of all Africa's fintech startups are focused on these two crucial spaces.

Seven other categories are analysed in the report, which also looks into the funding and acquisitions of African fintech startups over the last few years. Though payments and remittances and lending and financing startups secured the most funding in total, African blockchain startups are the most successful in percentage terms, with almost 40 per cent of the blockchain-focused startups on the continent securing funding.

The continent's fintech startups have secured over US$92.5 million in investment since 2015, the report finds, while the data shows fintech startups are spread across the African continent. Southern Africa and West Africa are fintech leaders - with 34.2 per cent and 34 per cent respectively based in those regions respectively. South Africa has the most fintech startups (94), followed by Nigeria (74) and Kenya (56).

"The sad fact is many of Africa's citizens still lack access to basic financial services, with traditional financial service providers being unable to reach the most needy on the continent. The heavy work to connect these unbanked populations is being done by the continent's fintech innovators, meaning the space is of crucial importance and impact," said Gabriella Mulligan, co-founder of Disrupt Africa.

Blockchain
Compared to Western nations, many areas of Africa lack extensive infrastructure, entrenched financial institutions, a high degree of political stability and/or large pools of capital. In most traditional senses, these challenges constrain opportunities for growth on the continent. Yet in many respects, they also create opportunities for the growth of blockchain technology. By design, blockchain frameworks thrive in environments characterised by many of the challenges that Africa and its residents face today.

For this reason, blockchain technology is in a remarkable position to transform African societies and economies. The process is already underway as blockchain adoption grows across Africa, despite challenges such as the difficulty of retaining African blockchain developers.

[5] Banking Tech, February 2017
[6] Forbes, June 2017

Africa's Challenges, Blockchain Solutions

In several key ways, blockchain technology offers meaningful solutions to some of Africa's most pervasive social, political and economic problems.

Consider the following challenges that many African nations face and the ways in which blockchain technology can help solve them:

Instability of central authorities: Unlike traditional currencies, blockchain-based cryptocurrencies do not depend on governments or the credit of the state in order to guarantee their value. They are also immune to localised inflation triggered by political crisis or war. These factors make cryptocurrencies like bitcoin particularly attractive within African countries that suffer from recurring political upheaval or military conflict.

Lack of infrastructure: The exchange of data or property on the blockchain typically requires nothing more than an internet connection. A lack of highways, airports and other types of traditional infrastructure does not impact the efficacy of a blockchain.

Blockchain in Africa Today

The application of blockchain as solutions to challenges within Africa is not just theoretical. A number of companies are already using blockchain technology to offer innovative solutions for people on the continent. While they work to solve Africa's problems, they are taking blockchains in directions that could one day help people all over the world.

BitHub.Africa is one example. Founded in December of 2015 and based in Kenya, BitHub.Africa offers consulting, development and support services to organisations working with blockchain technology on the continent. The initiative aims to promote blockchain use in a range of areas, from financial services to identity management.

Bitland, a blockchain company based in Ghana, has a more specific focus. It is building a blockchain-based land management system, which will allow people to register property ownership via a blockchain, eliminating the need for reliable political authorities to guarantee property rights and confirm transactions.

In the realm of financial transactions, the South African company Bankymoon is working to leverage Bitcoin and other blockchain-based cryptocurrencies to enable securities trading and electronic payments. The company is especially interested in using blockchain to extend financial services to populations whose access to traditional banks is limited.

The future for Digital Africa

The future certainly looks bright for Africa when viewed through a digital lens. Whilst challenges remain to business (especially those in the start up phase and foreign companies investing into unfamiliar landscapes) a lot of what the digital opportunities are about is overcoming such challenges and making transacting and doing business in the region less of a challenge. On this basis it is difficult to see how anyone could take a negative outlook in relation to Digital Africa.

We, along with many others, will view the developments with great anticipation and interest. Digitising Africa is sure to be an exciting journey and will help to develop Africa (albeit at different rates in different African countries) beyond all recognition.

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