



CAN AFRICA TAKE THE PLATFORM ECONOMY FORWARD?

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CONTENTS

Foreword: Rod Poole	2
Executive summary	4
Introduction to the platform economy	5
How the platform economy has evolved in other markets	6
The prerequisites of a successful platform economy	8
Industry transformation trends	13
The retail sector: Digital marketplaces take root	15
Modernising the healthcare industry	21
Primary demand comes into play for banks and insurers	25
Africa's telecommunications groups are paving the way	31
Convergence of industries	35
Africa can chart the way forward	37
Biographies	39

FOREWORD

Rod Poole, Group Head of Change and Business Transformation at Standard Bank

The digital platform economy's rise heralds a new era of efficiencies for those willing to participate.

Embodied by the likes of Uber and Amazon, the platform economy continues to disrupt traditional industries, from transport to retail and financial services. To some, it is an existential threat. To those that embrace it, it offers the prospect of deeper client relationships and a step-change in efficiency.

Some industries are well into this transformative journey, having replicated the business-to-consumer (B2C) platform model used by the likes of Uber in the business-to-business (B2B) space. In many cases, this results in the walls between industries being gradually dismantled.

Africa's highly innovative mobile-money market, for example, reflects the convergence of telecommunications, financial services and other sectors such as energy. Unencumbered by a lack of legacy systems and processes, and with its resourceful and youthful population, the continent is certainly no laggard in the digital platform economy.

To ensure its sustainability into the future, and to access new revenue streams and opportunities, Standard Bank is starting to reposition itself as a services-focused platform organisation. By tapping into ecosystems of trusted partner companies across all industries, including competitors, organisations such as ourselves will increasingly be able to provide clients with end-to-end solutions for all their needs.

As an example, an agricultural client may rely on a bank's ecosystem of partners for everything from satellite imagery to fertilisers and finding a buyer. Importantly, the bank will be well placed to vet the integrity of all parties.

The possibilities across all industries are immense, and for clients and ecosystem participants, the proposition is highly attractive.

We see opportunities for our own business to not only join these ecosystems, but to build our own and participate in others for the benefit of our clients.

Besides generating new revenue streams, companies will be able to rely on partner organisations to better execute certain business processes, and to offer solutions to their clients that they cannot.

Ultimately, partner organisations will grow together, while their collective clients will be increasingly satisfied.

This is an operating model that I believe Africa can take the lead on. If it does – there are signs that it is already, but much work still needs to be done – the benefits for clients, organisations, the economy and society will be powerful.

It's important to note that while made possible by digitisation and the fourth industrial revolution, this shift in thinking is premised on the belief that it will make us more human, not less. The delivery of comprehensive services and advice, underpinned by genuine human connections, is the end goal where the client is always the winner!



ROD POOLE

Rod Poole is currently Group Head of Change and Business Transformation at the Standard Bank Group, South Africa. He is a member of the Group Executive Committee and the Corporate and Investment Banking Stratco.

The Standard Bank Group (SBG) is the largest African banking group by assets and earnings, offering a full range of banking and related financial services. Standard Bank Group's purpose is: "Africa is our home; we drive her growth". The group's purpose acts as a powerful unifier in a truly African organisation connected to the world and present in 20 African countries and 6 international locations – New York, London, São Paulo, Dubai, Hong Kong and Beijing.

Rod's role places him at the centre of the interplay between client experience, business planning, metrics, human capital, brand, reputation and business architecture while leveraging the values and culture of the people so as to deliver measurable enhancement to performance. Likewise, his role in partnering the Group CEO in the execution of the Standard Bank Group's strategy has involved him in the change required to adapt to a fast-changing world. Rod also partners the Chief Executive of the Group's separately listed entity, Liberty Life, in their turnaround strategy.

His diverse experience, which spans a range of roles within Standard Bank's African and international operations, has led him to devising and partnering on various strategies in the Standard Bank Group.

EXECUTIVE SUMMARY

The burgeoning platform economy, which refers to value-creating interactions facilitated by digital intermediaries, represents an untapped opportunity for many traditional businesses to generate new revenue streams and deepen their client relationships.

Amazon and Uber are well-known examples of platform businesses that facilitate peer-to-peer interactions, albeit business-to-consumer interactions. As these companies build scale and disrupt traditional players in their respective industries, economic activity across sectors is rapidly shifting from pipeline-based models to platform-based alternatives.

Despite several unique challenges across the continent, the platform economy is gaining traction in Africa as consumers and businesses grow more accustomed to online services.

While it lacks the continent-wide digital infrastructure usually required for the rise of platforms, Africa is leapfrogging this step by creating alternative infrastructure. As such, the continent's platform economy is expected to follow a similar path to those in Asia.

Africa may well draw on the experiences of both India and China, whereby governments work to develop standards and create basic digital capabilities such as identity management, while private companies build out the necessary financial and logistics infrastructure.

The sophistication and rapid growth of Africa's mobile-money market, for instance, shows that the continent is already driving innovation in the platform economy in some respects. We believe that an opportunity exists for long-established African organisations to build on this and take the platform economy forward.

With their extensive networks and ecosystems of clients and partner organisations, companies that are already deeply entrenched in the African market are well placed to facilitate the growth of the business-to-business sharing economy, in which companies drive efficiencies by sharing services, processes and digital assets.

Banking groups are among those that could seize this opportunity. For example, a financial services organisation can provide a digital platform that facilitates value-creating interactions between ecosystem participants – clients and other partner organisations.

In this scenario, a corporate banking client that has developed a robust risk-management function could consider taking on the role of a capability provider that on-sells this service to other businesses in the ecosystem.

Platform owners themselves can also on-sell some of their own digital capabilities, which they have built up over the years and invested heavily in. For instance, a telecommunications company with a mobile-money platform could provide credit-scoring services to ecommerce platforms keen on offering instalment-based payment options to boost sales.

By participating in the platform economy, organisations have an opportunity to better service clients while also generating new revenue streams.

Telecommunications firms, retailers and healthcare providers are also well placed to adopt this operating model, although we believe that financial services groups are particularly well positioned to create and operate digital platforms given their ability to manage the identities of customers.

That said, convergence between industries, underpinned by identity management capabilities, is a key feature of the platform economy. Industry boundaries will increasingly blur, with noticeable convergence already taking place across key sectors including financial services, telecommunications, retail and healthcare.

The most successful organisations in the platform economy will be those that seek to play across all these layers, bringing them closer together in the process – to the benefit of all within the ecosystem.

Meanwhile, as the COVID-19 pandemic weighs heavily on African and global economies, it is clear that platform companies are faring better than most. African organisations should consider how they can participate in this segment of the market – whether that means building and owning platforms themselves or participating in them, or both – to ensure that they are agile and able to adapt their offerings while also accessing new revenue streams.

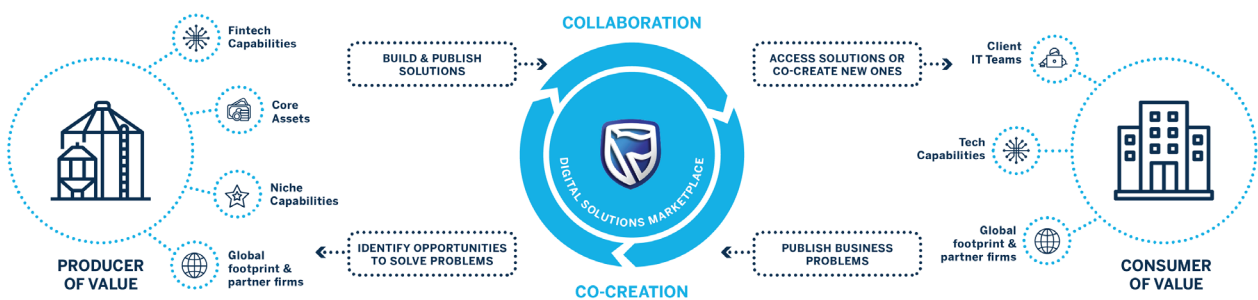
INTRODUCTION TO THE PLATFORM ECONOMY

The 'platform economy' is an increasingly prevalent term that refers to economic activity intermediated by digital platforms. A platform is a business that connects external producers with consumers of value and facilitates value-creating interactions between them.

The largest and fastest growing public companies today – Facebook, Alphabet's Google, Amazon and Apple in the US, and China's Alibaba and Tencent, which counts Naspers among its key investors – have built massive platform businesses. Amazon, for example, mediates economic activity between buyers and sellers, while Tencent's WeChat started by mediating social interactions and has since moved on to mediate economic activity as well.

Three accelerating forces have driven the rise of digital platforms – connectivity, digitisation, and intelligence. The rise of smartphones, and subsequently the Internet of things (IoT), has enabled widespread connectivity. At the same time, cloud computing has enabled the digitisation of workflows and business processes. Finally, the data created through digitisation is increasingly being leveraged to provide intelligence that facilitates the efficient allocation of resources across connected and digitised users and workflows, and also enables the creation of new markets. These three forces – ever accelerating – drive today's platform economy.

USING A PLATFORM BUSINESS MODEL TO DRIVE GROWTH



AS AN ESTABLISHED FINANCIAL INSTITUTION WE HAVE:



HOW THE PLATFORM ECONOMY HAS EVOLVED IN OTHER MARKETS

To understand the potential trajectory of Africa's platform economy, it is necessary to analyse the rise of platform companies in the US and in Asia – most notably in China and India. Many of the largest platforms globally originated in one of these three countries.

Platforms in the US – many of them based in Silicon Valley – emerged largely through private-sector innovation, with relatively low levels of government intervention, although the Internet itself was developed in the 20th century on the back of many government-funded initiatives. Further, platform companies in the US and other developed economies have benefited from existing infrastructural layers, including credit card networks and banking systems that facilitate commerce, as well as strong transportation networks and delivery services.

Amazon's business model illustrates how platform companies leverage underlying infrastructural layers. The company's online ordering, payments and delivery functions rely on the Internet, credit card networks provided by the likes of Visa and Mastercard®, and logistics services such as FedEx and UPS. Amazon's apps are built on existing operating systems, most notably iOS and Android, while its website is accessible through browsers such as Chrome and Safari. Ride-hailing group Uber uses all of the above layers as well as Google Maps to power its location-based service.

Meanwhile, the rise of platform companies in China and India has been driven by a different set of factors. Both China and India lacked many of the infrastructural advantages of the US. Much of the population in both countries has been historically unbanked, while logistics and last-mile delivery services are fragmented. Most importantly, both countries lacked widespread identity management systems.

Unlike the US, the platform revolution in China and India has been led by government initiatives to create large-scale public digital infrastructures. These became the foundations upon which private companies could create complementary business models.

In China, the platform economy has developed in three broad phases. The creation of the Great Firewall of China, which limits access to global platforms such as Google and Facebook, was arguably the single biggest factor behind the rise of homegrown platform companies, which were able to gain scale in a protected environment.

“The continent looks set to take a hybrid approach to the platform economy, where governments collaborate to develop standards and create basic digital capabilities such as identity management, while private operators build out the necessary financial and logistics infrastructure.”

As the likes of Alibaba and Tencent grew, they built out the largest payment networks in the country, spanning both online and offline payments. Alibaba's Alipay and Tencent's WeChat Pay provided the financial infrastructure needed for other platform companies to pursue new business models.

Further, the proliferation of online payment systems has digitised consumer interactions across the economy, leading to the creation of a countrywide identity management system. Alibaba's Sesame Credit is an example of a successful identity and reputation management system.

The government itself has built a social credit system that governs consumer access to a broad range of services, and there is speculation that private systems such as Sesame Credit¹ will be increasingly integrated with the state's. Financial services giant Ping An² operates a similar identity management system called Ping An OneConnect, which uses digitised biometrics and facial and gesture-recognition technology. OneConnect's data will likely be valuable as Ping An and local governments partner on 'smart city' initiatives.

Another government intervention set to shape the direction of the country's platform economy is the New Generation Artificial Intelligence Development Plan, issued by China's State Council in July 2017. The framework makes Artificial Intelligence (AI) a matter of importance for national security, and China's investments in AI are likely to further strengthen the nation's competitiveness in the platform economy³.

India, meanwhile, has forged a different path into the platform economy, with the public sector taking the lead on developing identity management capabilities.

Thanks in part to the widespread adoption of smartphones, the South Asian country has emerged as one of the largest digital markets globally. However, until the late 2000s, most platform activity was driven entirely by the private sector.

This began to change with the launch of the Unique Identification Authority of India, which created a central identity management system called Aadhaar for India's billion-plus population. That system formed the bedrock for an even more ambitious project called IndiaStack⁴, the first initiative of its kind globally.

IndiaStack has given rise to the world's largest public digital infrastructure system, with the state-driven initiative leveraged by new private-sector platform companies.

The biometric identity management system, Aadhaar, is the base layer of IndiaStack, which is supplemented by e-KYC (electronic know-your-customer) and e-documentation services. Nearly 17 billion e-KYC processes have already been performed by the system.

The next layer – perhaps the most important – is part of India's ambitious efforts to bank the unbanked. Known as the cashless layer, it consists of an instant-payments system that enables peer-to-peer (P2P) money transfers. More than 800 million bank accounts are now linked to this system. This means that IndiaStack enables smooth transfers between bank accounts, as well as payment wallets, through a unified payments interface.

Africa's possible hybrid approach

We believe that Africa's platform economy will tread a similar path to Asia's, rather than following the US model. In Asia, China leapfrogged conventional underlying infrastructures thanks to investments by private firms including Alibaba and Tencent, while India did the same through an ambitious initiative led by the state.

With its dearth of continent-wide digital infrastructure, Africa is rapidly forging a similar path. The continent looks set to take a hybrid approach to the platform economy, where governments collaborate to develop standards and create basic digital capabilities such as identity management, while private operators build out the necessary financial and logistics infrastructure.

Indeed, the influence of the Chinese and Indian models is already being felt in Africa. Alibaba has launched the eWTP⁵ (Electronic World Trade Platform) service in Rwanda. This public digital infrastructure could serve as a standardised continent-wide backbone for trade as more African countries adopt it. Similarly, the IndiaStack model could be replicated on the continent. To develop a national digital identity system, Morocco has engaged IIIT-B, an Indian research institution, to build a modular, open-source identity management platform (MOSIP)⁶ modelled on IndiaStack.

¹ <https://www.wired.co.uk/article/china-social-credit-system-explained>

² <http://www.pingan.cn/en/common/news/article/1534819398531.shtml>

³ <https://www.cnas.org/publications/reports/understanding-chinas-ai-strategy>

⁴ <https://www.economist.com/special-report/2018/05/04/indias-digital-platforms>

⁵ <https://www.alizila.com/rwanda-first-in-africa-to-join-alibaba-led-ewtp/>

⁶ <https://timesofindia.indiatimes.com/city/bengaluru/iiitb-to-develop-aadhaar-like-database-for-morocco/articleshow/65599637.cms>

THE PREREQUISITES OF A SUCCESSFUL PLATFORM ECONOMY

To fully develop, Africa's platform economy requires broad interventions including the standardisation of identity management, continent-wide interoperability and the creation of single markets, and the development of non-traditional digital infrastructures.

Standardisation of identity management

Identity management is a critical enabler of platform ecosystems. Identifiable users can be verified, giving them access to multiple services and capabilities, while their actions can be tracked and leveraged for insights. Complementary services can be marketed at them, and their reputations can be managed.

The importance of identity management to the platform economy is best evidenced by the role Facebook Connect has played in the rise of the 'sharing economy'. Launched in 2008, Facebook Connect allows users to sign into third-party websites and apps using their Facebook credentials. Sharing economy platforms – Airbnb, Uber, TaskRabbit, Thumbtack and many others – all leverage Facebook Connect's identity management capabilities⁷.

Identity management as an enabler is particularly relevant in Africa, where large-scale migration often results in people losing their formal identities and creditworthiness. Weaker identification systems hamper financial inclusion.

According to the World Bank, an estimated 1.1 billion people worldwide cannot officially prove their identities. The World Economic Forum^{8,9} estimates that nearly half of that population lives in sub-Saharan Africa.

While various African nations have been working to solve the identity problem internally, there have also been efforts to create a standardised identity management framework for the continent. The World Bank's Identity for Development Initiative is one such programme aimed at fostering collaboration on a solution¹⁰.

As previously mentioned, a continent-wide interoperable framework for identity management may be particularly valuable in Africa considering the scale of intra-continental economic migration. A common identity would aid migrants and support new economic interactions between countries. Further, interoperability in identity management could create strong network effects within the platform economy, with platform companies able to build scale across the continent much faster. And, as evidenced by the impact of IndiaStack on fintech innovation in the South Asian nation, a common identity management framework would spur platform innovation, particularly in financial services and commerce.

Continent-wide interoperability and the creation of single markets

Interoperability between markets allows platform companies to build scale. In this regard, trade tariffs and regulatory fragmentation are among several barriers to creating strong network effects across Africa. Recent efforts to address these challenges could however catalyse the platform economy.

First, the Smart Africa initiative aims to create a single digital market across the continent, modelled along the lines of a similar effort underway in the European Union.¹¹

Further, the imminent launch of the African Continental Free Trade Area (AfCFTA) is another important development, even though its launch has been slightly delayed by COVID-19. The trade bloc will complement the move towards a single digital market by allowing platform businesses to scale across the continent with lower regulatory friction¹².

The African Union's Single African Air Transport Market project is an example of efforts underway to break down regulatory discrepancies. The initiative aims to enable intra-Africa trade and logistics integration, with 28 countries already signed up.¹³

⁷ <https://journals.sagepub.com/doi/full/10.1177/0163443718818384>

⁸ <https://blogs.worldbank.org/digital-development/counting-uncounted-11-billion-people-without-ids>

⁹ <https://www.weforum.org/agenda/2017/05/making-everyone-count-the-case-for-national-identification-systems/>

¹⁰ <https://www.worldbank.org/en/news/press-release/2018/09/25/african-leaders-the-world-bank-group-and-partners-catalyze-action-to-ensure-that-everyone-in-africa-has-a-digital-identity-by-2030>

¹¹ <https://ecomafrika.org/news/the-east-africa-single-digital-market-sdm-initiative/>

¹² <https://www.weforum.org/agenda/2019/05/AfCFTA-africa-continental-free-trade-area-entrepreneur/>

¹³ <https://www.iata.org/policy/business-freedom/Pages/saatm.aspx>

Finally, the development of standards will be another critical enabler of co-innovation across countries, particularly as trade and financial platforms leverage new technologies such as blockchain.¹⁴ The African Digital Asset Framework¹⁵ is one such effort to consolidate blockchain development standards across Africa.

Development of non-traditional infrastructures

Africa lacks many of the conventional infrastructural advantages that serve as the backbone of the platform economy in developed markets. However, since the early 2000s, the continent has developed alternative, non-traditional infrastructure, ranging from extensive mobile-money networks to emerging micro-grids and drone transportation capabilities. These developments, which we explore in more detail below, will facilitate the rise of new platform companies and business models.

Financial infrastructure

Most African countries lack robust financial systems. More than 95% of sub-Saharan Africa's adult population does not own a credit card, while nearly 80% is unbanked.¹⁶

Against this backdrop, many African countries have started actively moving towards cashless economies. Nigeria's central bank, for instance, has put together policy changes to limit cash payments.¹⁷

Meanwhile, mobile payments are Africa's solution to the lack of traditional financial infrastructure. By January 2016, 15 countries in sub-Saharan Africa had more mobile bank accounts than traditional ones. Safaricom's M-Pesa, which was started in Kenya in 2007, is Africa's best-known mobile-money service, with more than 37 million active customers. It facilitated more than 11 billion transactions in 2019.¹⁸

The platform's rise has been made possible by greater levels of connectivity and access to mobile devices in Africa. According to the World Bank, an extra 10 phones per 100 people boosts a developing country's GDP growth by 0.8 percentage points.¹⁹ An MIT study in 2016 revealed that the shift to mobile money lifted 194 000 Kenyans from extreme poverty in just eight years.²⁰

Other countries are following Kenya's lead. To address the challenges of cash distribution and accessibility, Nigeria's central bank has signed a memorandum of understanding with the National Communications Commission to provide licences to telecommunications companies to operate mobile-money services.²¹

Mobile money itself is an important infrastructural layer for the development of new platform business models.

Logistics infrastructure

Across Africa's vast landmass, the cost of transportation is on average 50% to 175% more than in other parts of the world due to poor infrastructure, according to a KPMG study.²²

Ambitious initiatives, including the Trans-African Highway network, are underway with the aim of developing more than 35,000 miles of highways that connect all major cities. These projects will solve many of the challenges hindering the growth of ecommerce in Africa.

Alongside the development of highway infrastructure, last-mile delivery continues to be a challenge. In some parts of Africa, alternative solutions, including drone-based delivery services, are being investigated thanks in part to favourable regulations. San Francisco-based start-up Zipline operates unmanned aerial vehicle (UAV) healthcare delivery services in Rwanda and Ghana. Malawi, meanwhile, has opened a 'drone test corridor' to spur innovation in drone-based deliveries. These countries have created new public-private cooperation models around the commercialisation of drone technologies. Swedish firm GLOBEHE, Belgian UAV air traffic systems company Unify, and US delivery drone manufacturer Vayu have all tested flights in Malawi's drone test corridor.²³

Other innovative logistics solutions are being developed. New York-listed Jumia, Africa's leading ecommerce player which operates across multiple countries in Africa, has developed a platform that connects third-party logistics providers with local entrepreneurs for last-mile delivery and cash-on-delivery payment-collection services. Jumia also leverages existing informal transportation networks, such as 'keke marwa' – Nigerian tuk-tuks. Jumia now offers this logistics platform as a service to third-party retailers.²⁴

¹⁴ <https://bitcoinexchangeguide.com/african-digital-asset-framework-adaf-looks-to-unify-blockchain-standards-in-africa/>

¹⁵ <https://breakermag.com/how-unified-blockchain-standards-can-help-africa/>

¹⁶ <https://www.proshareng.com/news/MOBILE%20MONEY%20AND%20TELCOS/Africa-Jumps-the-Bandwagon--Race-Towards-a-Cashless-Economy/40354>

¹⁷ https://www.huffpost.com/entry/the-cashless-nigeria-proj#_b_9253952

¹⁸ <https://www.vodafone.com/what-we-do/services/m-pesa>

¹⁹ <https://www.economist.com/node/14505519/>

²⁰ <https://www.gsma.com/publicpolicy/wp-content/uploads/2012/11/gsma-deloitte-impact-mobile-telephony-economic-growth.pdf>

²¹ <https://qz.com/africa/1211966/nigeria-has-a-cash-problem-at-atms-and-beyond/>

²² <https://qz.com/africa/1343101/1343101/>

²³ <https://techcrunch.com/2018/09/16/african-experiments-with-drone-technologies-could-leapfrog-decades-of-infrastructure-neglect/>

²⁴ <https://www.bearingpoint.com/en-sg/our-success/thought-leadership/sub-saharan-africa-shows-western-retailers-how-to-leapfrog-to-the-future-of-retail-by-leveraging-a-sense-of-community/>

The company is also working on solutions to Africa's lack of address and mapping infrastructure. Instead of delivering to a specified address, Jumia is considering asking for authorisation to deliver to a recipient's location, based on GPS information from their phone.²⁵

Another initiative, Kenya's OkHi, could well be Africa's answer to Google Maps. OkHi provides users with an address – a web link to a GPS beacon. The user then adds a photo of the door to their home to ensure that delivery personnel can find them.

Globally, Uber uses the Google Maps platform for navigation. In Africa, start-ups such as Sendy – an on-demand delivery platform – are leveraging OkHi's addressing platform.

Energy infrastructure

Much of Africa's population lacks access to centralised energy grids. But the continent's power-generation prospects are improving, particularly as the prices of solar panels and wind turbines fall. At the same time, investments in hydropower could significantly increase energy access – Africa dams some of the biggest rivers in the world. Ethiopia, for example, is building the Grand Renaissance Dam across the Nile – a move that is expected to quadruple the country's electricity-generating capacity, according to The Economist.²⁶

However, the energy-generation challenge is overshadowed by distribution challenges. The cost of adding a house to the grid in Rwanda, for instance, is more than the country's average annual income per person.

This is prompting a shift towards decentralised energy infrastructure, including rooftop solar systems, which consist of solar panels, rechargeable batteries and controllers. This infrastructure is being developed on top of existing mobile-phone networks, allowing telecommunications providers to bill for energy in a metered, pay-as-you-go fashion, and to switch these systems on or off remotely. M-Kopa, one of the most successful companies in this space, is adding more than 200 000 homes to its portfolio every year.

Together with mini-grids – which generate less than 10 megawatts of power and serve nearby customers through local distribution networks – these solutions are proving to be viable options for electrifying remote, rural areas.²⁷ According to the International Energy Agency, around 140 million people in rural areas will be on mini-grids by 2040.

The convergence of identity, financial, logistics, and energy infrastructures is helping to create the foundation on which new platform business models can be created, rapidly scaled, and commercially deployed.

As a result, platform companies are emerging across various sectors, including healthcare.

For example, South Africa's government-run MomConnect²⁸ and NurseConnect²⁹ portals are helping to improve identity management and the registration of pregnancies, while also providing a 'telehealth' platform for pregnant women to get health advice and information.

Meanwhile, mobile phone-based services such as SMS For Life have improved supply chain visibility, thereby reducing medicine stock-outs and increasing availability to patients in need. Similarly, health workers in Uganda use mTRAC, a mobile health service used to track and trace medication inventory.³⁰

In Rwanda, drones are being used to transport medical supplies, as previously mentioned, while solar energy cost reductions are driving increased electrification in remote health stations across Africa.³¹

We believe that the continued roll-out of alternative underlying infrastructures will drive the rise of platform businesses in numerous sectors by creating greater visibility, connectivity and access.

Regulatory arbitrage

While not necessarily a prerequisite, regulatory arbitrage can also stimulate the platform economy – an opportunity that some African countries are pursuing. This is a useful strategy particularly in the absence of meaningful homegrown innovation.

This is best evidenced by Rwanda and Malawi's attractive regulations of drone technologies. As previously mentioned, international companies are testing their drone services in these countries, sometimes after being barred from doing so in their home nations.

²⁵ <https://www.bearingpoint.com/en-sg/our-success/thought-leadership/sub-saharan-africa-shows-western-retailers-how-to-leapfrog-to-the-future-of-retail-by-leveraging-a-sense-of-community/>

²⁶ <https://hbr.org/2019/01/the-innovations-closing-africas-electric-power-gap>

²⁷ <https://blogs.worldbank.org/nasikiliza/a-new-chapter-for-sub-saharan-africas-mini-grids-industry>

²⁸ <http://www.health.gov.za/index.php/mom-connect>

²⁹ <http://www.health.gov.za/index.php/mom-connect?id=369>

³⁰ <https://singularityhub.com/2018/05/06/leapfrogging-tech-is-changing-millions-of-lives-heres-how/>

³¹ Solar Energy in Sub-Saharan Africa: The Challenges and Opportunities of Technological Leapfrogging. Thunderbird International Business Review

Rwanda's success with regulatory arbitrage can be traced to its adoption of performance-based regulation. Rather than regulating the technologies themselves and operational parameters, the government specifies a safety threshold and requires that private operators specify the technologies and operational checks and balances used to comply with those thresholds. This gives companies room to develop innovative solutions.

Challenges remain

While Africa has made great strides when it comes to laying the foundations for its platform economy, significant challenges remain.

Ecosystems of product creators needed

First, the adoption of fourth industrial revolution (4IR) technologies does not mean that Africa is poised to leapfrog from an agricultural and resources-based economy to a services one that largely excludes production.

Instead, the 4IR should be seen as an opportunity for Africa to stimulate its manufacturing sector. By leveraging new technologies, African states can increasingly add value to the raw materials they extract and produce. For example, rather than relying on traditional manufacturing processes, centralised electricity supplies and robust logistics networks, Africa can turn to additive manufacturing technologies, micro-grids and drone-based deliveries.

The shift towards beneficiation and production is an important one since platform economies rely on ecosystems of product creators. In Africa, these product creators will need to be supported by alternative infrastructures.

This 4IR-driven industrial development will boost demand for raw materials and further enable other economic transactions across the value chain.³²

Robust privacy and cyber-security frameworks required

Considering that digital identity systems and data underpin platform economies, Africa needs to develop robust privacy and cyber-security frameworks, similar to Europe's General Data Protection (GDPR) framework. Only 21 countries in Africa have developed regulations for cyber security and the protection of personal data.³³

To drive greater regulatory interoperability and encourage the proliferation of continent-wide platforms, African states need to agree to a common regulatory framework. The African Union Convention on Cyber Security and Personal Data Protection initiative could be a step in the right direction.³⁴

The development of sound regulatory frameworks

While the platform economy will create new value across industries, its rise presents new challenges to authorities given the potential pitfalls of unbridled scale and dominance.

As platforms build scale through network effects and data-driven learnings, they begin to exert increasing control over their ecosystems, which may prompt them to act against the interests of other actors in their ecosystems.

First, as we have seen in the business-to-consumer segment, large platforms can leverage their dominance in market access or control over market-wide data to compete unfairly. Google, for example, has been extensively investigated and fined for unfair practices in which it pushed down rivals in search results.³⁵ And researchers have demonstrated how Amazon uses its oversight over market-wide data on its platform to selectively compete with merchants on its platform.³⁶

“As the platform economy grows, authorities need to understand control points within ecosystems to monitor shifting power structures and to design new frameworks for regulating the market power of platforms.”

Second, platforms including Facebook and Google have been under increasing scrutiny over their data-usage practices. Facebook's news feed³⁷ and Google's search engine are important control points that enable these platforms to constantly harvest data from users – often more data than is required for the improvement of their services.³⁸ This data can then serve as a control point over brands and advertisers seeking to influence users.

³² <https://thebreakthrough.org/journal/issue-7/leapfrogging-progress/>

³³ <https://www.equaltimes.org/africa-s-invisible-millions#.X0tmq9MzZcA>

³⁴ African Union Convention on Cyber Security - <https://au.int/en/treaties/african-union-convention-cyber-security-and-personal-data-protection>

³⁵ <https://www.theguardian.com/business/2017/jun/27/google-braces-for-record-breaking-1bn-fine-from-eu>

³⁶ <https://www.seattletimes.com/business/eu-investigates-amazons-collection-of-data-on-marketplace-rivals/>

³⁷ <https://edition.cnn.com/2019/03/13/tech/facebook-criminal-investigation-data-sharing-deals/index.html>

³⁸ <https://www.reuters.com/article/us-eu-alphabet-antitrust-exclusive/exclusive-eu-antitrust-regulators-say-they-are-investigating-googles-data-collection-idUSKBN1Y40NX>

Third, platforms also engage in 'bait and switch' practices, whereby they start as open systems but increasingly exert greater control over the ecosystems. Google has been criticised for creating an increasing number of control points over Android³⁹, while platforms such as Twitter⁴⁰ and Uber have often changed policies to the detriment of actors in their ecosystems.

Fourth, platforms can treat each ecosystem partner differently. For instance, Amazon and Flipkart have been charged by the Competition Commission of India for providing preferential treatment to certain sellers in terms of market and data access – in exchange for bilateral arrangements that favour the platform. Both platforms have been accused of offering deep discounts and preferential listings to certain sellers, to the detriment of others.

Fifth, another aspect of fairness deals with the inability to audit algorithms used by platforms. Since platform algorithms determine market access and consequently market power for ecosystem participants, the 'black boxing' of such algorithms prevents regulatory scrutiny.

Platforms may also commoditise ecosystem players by intensifying competition amongst them. For example, Amazon's Buy Box solution is a highly contested battleground which increases competition amongst merchants, increasingly commodifies them and impacts their margins. When multiple sellers offer the same product, Amazon's algorithms determine the seller that should be featured on Buy Box, which facilitates the vast majority of Amazon's sales. While Buy Box reduces search costs for consumers and helps create a more efficient market, smaller merchants can be negatively impacted.

Finally, as more services and workstreams move into the platform economy, platforms can use their dominant positions to exploit workers and service providers in their ecosystems. In a 2018 paper for the International Labour Organisation's Global Commission on the Future of Work, Sangeet Paul Choudary, an author of this paper, demonstrated how platforms such as Uber⁴¹ and Deliveroo exploit drivers in their ecosystems.⁴²

The examples above represent some of the key areas of concern about today's dominant platforms.

These challenges are by no means insurmountable, and many regulators are already considering the best way forward. As the platform economy grows, authorities need to understand control points within ecosystems to monitor shifting power structures and to design new frameworks for regulating the market power of platforms.

New funding models to encourage infrastructure investments

As Africa increases its reliance on alternative infrastructures, new funding models should be pursued. For example, since local governments are not always able or willing to fund micro-grids, private companies could plug the funding gap. The Rockefeller Foundation is considering whether it is viable for telecommunications groups to finance their own micro-grids to reduce their energy costs. Moreover, mobile operators could take the lead on creating the over the top (OTT) services needed to manage energy billing using mobile money.⁴³

The importance of education

To unlock the potential of the platform economy, Africa needs an innovative talent pool. The US, China and India have been successful innovators in this space thanks to their strong education systems and trained workforces.

According to the World Bank, half of Africa's adults never attended school or only have a primary school education. While the Internet is democratising access to education, sub-Saharan Africa dominates the list of nations with the slowest Internet speeds in the world.

Meanwhile, the rapid growth of Africa's population, coupled with a dearth of education infrastructure and weak social mobility, heightens the prospect of social unrest particularly as the continent grapples with youth unemployment crises. At the same time, sub-Saharan Africa risks falling further behind if basic computer skills are not prioritised.⁴⁴

To address these issues and prepare the continent for a successful transition to the platform economy, investments in education are critical.

³⁹ <https://arstechnica.com/gadgets/2018/07/googles-iron-grip-on-android-controlling-open-source-by-any-means-necessary/>

⁴⁰ <https://www.theverge.com/2012/8/16/3248079/twitter-limits-app-developers-control>

⁴¹ <https://www.cnbc.com/2019/09/17/uber-drivers-are-protesting-again-heres-what-the-job-is-really-like.html>

⁴² https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms_630603.pdf

⁴³ <https://www.economist.com/special-report/2017/11/10/africa-might-leapfrog-straight-to-cheap-renewable-electricity-and-minigrids>

⁴⁴ <https://www.worldbank.org/en/news/opinion/2017/10/11/africa-can-enjoy-leapfrog-development>

INDUSTRY TRANSFORMATION TRENDS

Economic activity across industries is shifting from pipeline-based operating models towards platform-based models.

Generally, a pipeline business is a traditional – non-platform – business, in which a firm first designs a product or service, then manufactures it and offers it for sale, or puts in place a system to deliver it. Finally, a customer purchases the product or service. This step-by-step process of creating and transferring value can be viewed as a kind of pipeline, with producers at one end and consumers at the other. This is also known as a linear value chain.

A platform business, on the other hand, enables value-creating interactions between external producers and consumers. The platform provides an open, participative infrastructure for these interactions and sets governance conditions for them. The platform's overarching purpose is to match users and facilitate the exchange of goods, services, or social currency, thereby enabling value creation for all participants.⁴⁵

Several industries have already witnessed a significant shift, including the media sector. Prior to the widespread adoption of the Internet, traditional media companies built business empires through two primary competitive advantages – editorial excellence and strong distribution networks. The ubiquity of the Internet has made content distribution cheap and accessible, thereby commoditising this function. Moreover, the democratisation of web-publishing tools, alongside the rise of 'wiki' platforms, means anyone with an Internet connection can create public content – thus eroding the competitive advantage of strong editorial content.

This shifting landscape favours digital platforms over pipeline-based media companies. The likes of Google and Facebook can better curate content using algorithms and social signals, while their ownership of user data allows them to provide personalised content.

As a result, advertising has moved from media houses to Facebook and Google. At the same time, media companies have become increasingly dependent on Facebook and Google for distribution and are often affected by changes in these platforms' policies and algorithms.

Some media groups have successfully reinvented themselves for the platform economy, including Norway's Schibsted Media Group and Germany's Axel Springer. More than 80% of Axel Springer's 2017 revenues originated from platform-based operations. This compares to more than 60% of Schibsted's revenues in 2016. This came after the companies shifted much of their focus away from content and advertising towards online classifieds and later mobile classifieds.

In Africa, Johannesburg-listed Naspers, which was founded in 1915 as a newspaper and magazine group, pursued a similar strategy to reinvent itself for the platform economy. The company, which bought a large stake in China's Tencent in 2001, has added online classifieds, payments, food delivery, ecommerce and travel services to its portfolio.

As demonstrated by Naspers' transformation into the largest public company in Africa, platforms have emerged as the most powerful business models in today's increasingly connected and data-rich world.

⁴⁵ Parker, Geoffrey, G. Platform Revolution: How Networked Markets Are Transforming the Economy and How to Make Them Work for You (p. 298). W. W. Norton & Company. Kindle Edition

The new landscape is conducive to three types of operators. The first is the platform company itself, which acts as an intermediary and orchestrator of other ecosystem participants. The second is the capability provider, whose growth is linked to that of the broader platform ecosystem. The third is the creator of digital tools that can serve as industry infrastructure and standards.

Facebook, for instance, provides an identity management capability – Facebook Connect – to third-party platforms such as Airbnb.

Google, on the other hand, provides infrastructure for the media industry in the form of publishing and analytics tools for web publishers. The platform's search engine optimisation (SEO) guidelines also serve as a de facto standard for the entire web-publishing industry.

As the platform economy grows, companies that provide products and services will need to participate on third-party platforms. To avoid commoditisation, they must differentiate themselves and build their reputation on, and influence over, these external platforms.

Through this report, we explore four industries that we believe are poised for a far-reaching transition to the platform economy in Africa – retail, healthcare, financial services, and telecommunications. We also note the ongoing convergence of these industries in the platform economy.

THE RETAIL SECTOR: DIGITAL MARKETPLACES TAKE ROOT

The retail sector has been shaped by the Internet and the platform economy since the 1990s.

The Internet affords near-zero marginal costs of distribution, making ecommerce more cost effective than traditional commerce. In the US, the bookstore Borders was disrupted by Amazon's online bookstore, and eventually by the Kindle publishing platform. Retailers around the world, including Sears and Macy's, have been shutting physical stores as platforms including Amazon grow larger on the back of network effects.

Platforms in the retail industry have the advantage of strong consumer data flows, which help them to create greater value through personalisation and targeting.

They are also able to use consumer data to advise ecosystem partners further up the value chain. China's Tmall collaborates with global brands to co-create new China-specific offerings based on consumer data on its platform. Even traditional retailers such as Zara are using data to respond to 'fast fashion' trends.

Since the early 2010s, traditional retailers have invested in digital infrastructure to effectively engage users across multiple channels. In doing so, they have developed a single view of the customer. The adoption of this consumer-centred business model is a good starting point for a transition to the platform economy. In the years ahead, we expect many traditional retailers in Africa to go this route, as US-based firms such as Walmart have done.

Retail organisations that are moving in this direction are either creating platforms themselves or developing capabilities and digital infrastructure for other platform businesses. We discuss this further below.

Platform business models

There are several key platform positions that will create competitive advantages in Africa's platform economy.

Ecommerce marketplaces and lifestyle super-apps

The most powerful platforms in retail are the horizontal marketplaces that span multiple categories. Leading global ecommerce marketplaces that deliver to and/or source from Africa include eBay and Alibaba. The leading local platforms include Jumia, Konga and Kilimall.

Jumia is Africa's best-known ecommerce platform, with operations across multiple countries.⁴⁶ The group provides a marketplace with more than 80 000 sellers and has a logistics arm with a network of leased warehouses and drop-off stations. It also provides payments capabilities in the form of JumiaPay and has an affiliate programme that allows bloggers and other individuals to promote products on its marketplace for a commission.

Konga is a Nigeria-based ecommerce platform owned by Zinox Group, and Kilimall operates across Kenya, Uganda and Nigeria. Konga's marketplace allows traditional offline retailers to sell their products via digital channels.⁴⁷ Sellers deliver their products to a Konga drop-off centre, and Konga then manages the logistics. Like Jumia, Konga offers affiliate marketing and comparison-shopping capabilities.

⁴⁶ <https://finance.yahoo.com/news/jumia-technologies-ag-jmia-q2-182332826.html> and <https://www.marketwatch.com/story/african-ecommerce-site-jumia-is-going-public-5-things-to-know-ahead-of-its-ipo-2019-03-19>

⁴⁷ <https://www.intogeek.net/sell-on-konga/> and <https://kxpress.ng/location>

Online classifieds

Classifieds businesses connect buyers and sellers and build scale through network effects. While they lack many of the advantages of ecommerce marketplaces – particularly control over transactions – they are an important component of Africa's platform economy. As with other operating models, payments and logistics continue to be a challenge.

Africa's online classifieds space has become more concentrated over time. The three largest players in this segment – Norway-based Schibsted, South Africa-based Naspers, and Ukraine-based Genesis – have bolstered their positions through acquisitions. Naspers' OLX acquired Schibsted's Tradedesktop, and in April 2019, Genesis' Jiji acquired OLX's operations in some African markets. The largest classifieds player on the continent, Jiji, dwarfs the classifieds offerings of leading marketplaces such as Jumia. It had 8 million monthly active users following the OLX deal.⁴⁸

This makes Jiji one of the most important players in Africa's platform economy, although the business still has much scope to improve its capabilities in identity management, payments integration and logistics if it is to capture a greater portion of the flow of goods, services and money through its ecosystem.

Global marketplaces connecting Africa to the world

Alongside the many successful intra-African ecommerce marketplaces, there are also those where either the buyer or the seller is based outside of the continent.

MallforAfrica, for example, enables the creation of platforms that connect African consumers to US- and UK-based retailers. The company's DHL Africa eShop venture combines DHL's logistics capabilities with MallforAfrica's retailer relationships and ecommerce engine. MallforAfrica also allows African consumers to buy products from global sellers on eBay.

MallforAfrica also operates marketplaces that connect African retailers with global buyers. In 2018, DHL and MallforAfrica launched MarketplaceAFRICA.com, a platform that connects a curated portfolio of African artisans with global buyers residing in countries where DHL operates.⁴⁹

Further, MallforAfrica connects artisans with buyers on eBay, providing them with a link to the global market. DHL is the logistics partner for these transactions.⁵⁰

Offline-to-online commerce platforms

Offline-to-online platforms allow users to discover products offline and buy them online. This enables a seamless customer journey, where the buyer simply scans a QR code on their smartphone or receives a one-time password to place an order. The model has been highly successful in China. In Africa, WeChat has been among the first platforms to bring this model to market.

South Africa's JD Group, a leading traditional retailer with brands including Incredible Connection and Russells, runs a virtual store in partnership with WeChat.

In a campaign run in 2016, WeChat allowed readers of Stuff Magazine to buy goods directly from the publication's pages, with the orders fulfilled by JD's stores.

Offline-to-online commerce is a compelling opportunity for traditional retailers in Africa to benefit from the growing levels of consumer engagement on digital platforms.

Capability providers

Digital retail platforms require a host of capabilities in order to be successful. In the US, ecommerce giants such as Amazon and eBay have relied on existing capabilities and infrastructural layers, including credit card networks, standardised mapping and addressing systems, and logistics services including the US Postal Service. But as discussed, many of these capabilities are not yet mature enough in Africa to support the continent's platform economy.

Unsurprisingly, most major African ecommerce players – such as Jumia, Kilimall and Konga – have invested heavily in developing these capabilities themselves. They are now well positioned to start licensing these capabilities to third parties as well.

There remain opportunities to develop five broad categories of capabilities needed to support Africa's platform economy:

1. Transaction-management capabilities, which facilitate payment collections.
2. Logistics and order-fulfilment capabilities.
3. Front-office capabilities, which assist merchants with their marketing and promotion efforts, and allow them to communicate with customers.

⁴⁸ <https://techcrunch.com/2019/04/04/consolidation-in-africa-as-classifieds-player-jiji-acquires-their-main-competitor-olx/> and <https://www.naspers.com/news/jiji-to-welcome-olx-users-in-africa> and <https://www.pulse.ng/bi/strategy/jiji-acquires-olx-businesses-in-kenya-ghana-uganda-and-tanzania/90lsfvf>

⁴⁹ <https://techcrunch.com/2019/04/11/dhl-launches-africa-eshop-app-for-global-retailers-to-sell-into-africa/>

⁵⁰ <https://www.ebayinc.com/stories/news/ebay-partners-with-mall-for-africa-to-bring-african-handmade-goods-to-us/>

4. Co-innovation capabilities – those that enable merchants to create new products in conjunction with platforms.
5. Business-management capabilities for merchants.

Payment capabilities

On consumer ecommerce platforms, payment facilitators such as PayPal and Stripe fulfil a crucial role.

Some retailers and ecommerce players in Africa have built their own payment capabilities. In fact, proprietary payment capabilities are often a necessity. Most of Africa's major ecommerce platforms still rely heavily on cash-on-delivery models, which involve additional costs and raise the likelihood of product returns. As a result, this model is less profitable. Jumia's initial public offering (IPO) filing highlights many of these issues, alongside the company's efforts to move transactions away from cash and towards its proprietary payment system.

To encourage the shift, Jumia and Konga offer cash back when customers use their payment systems, JumiaPay and KongaPay respectively.

Both payment services allow customers with registered phone numbers and linked bank accounts to securely make payments from their bank accounts, without requiring online banking access. A code sent to the customer's phone acts as the equivalent of a one-click payment.

Foreign services, including WeChat Pay and Alipay, are used as payment options in East Africa, particularly in Kenya, Uganda, Tanzania and Rwanda, in partnership with regional financial services company Equity Bank.

Considering the importance of payment capabilities in the platform economy, ownership of these services allows platform companies to move into new segments of the market, as shown by WeChat's evolution from a communications platform. In Southeast Asia, Grab started as a ride-hailing app but has moved into media, ecommerce and financial services thanks to the success of its payments arm.

Logistics as a service

Logistics remains one of the biggest hurdles to the rise of ecommerce in Africa. Jumia, Konga and Kilimall have built proprietary logistics services and also offer these to third parties. Traditional logistics groups such as DHL are also improving their ability to service ecommerce players. Telecommunications companies such as Safaricom, as well as national postal service operators, are playing an important role in this space too, leveraging their massive agent networks.

Last-mile delivery in particular remains a significant challenge in Africa. The lack of structured national address systems, combined with poor road infrastructure, increases the complexity of deliveries.

Jumia Logistics has responded by using machine learning to map out addresses using coordinates logged on deliveries, and routes used. As more deliveries are made, the mapping coverage improves, and delivery routes are optimised.

Moreover, unconventional modes of transport are being used for last-mile delivery. Jumia Logistics, for example, uses motorcycles, popularly known in Nigeria as 'boda bodas', in addition to other vehicles.

Other innovative last-mile delivery models could transform the industry. Zipline in Rwanda and Astral Aerial Solutions in Kenya have worked on commercial drone deliveries, which could eventually be extended to last-mile ecommerce deliveries as well.

Kilimall has taken a leaf out of China's logistics playbook. The company uses aggregated statistics from online shopping activity to determine specific demand regions within a city. It then partners with local businesses that serve as pickup centres. This reduces complexities, while consumers benefit from not having to pay delivery fees.

Meanwhile, Konga has developed its own logistics capabilities but also offers a self-fulfilment model – whereby sellers manage the delivery process by leveraging Konga's KExpress service and its bulk shipping agreements with courier partners. It also allows merchants to receive payments directly from buyers when deliveries are made, rather than relying on the more centralised delivery model where merchant inventory is first aggregated centrally and then shipped by the marketplace owner.⁵¹

With ecommerce growing, many start-ups have been formed to provide specialised logistics services. Sendy, for instance, provides an on-demand delivery network, while Fargo Courier⁵² provides a warehousing and fulfilment solution for online businesses, allowing them to track their stock as it moves in and out of warehouses and is delivered to customers.

Safaricom partners with Fargo and Sendy to access many of these back-office capabilities as a service.

In addition to servicing merchants, many logistics-as-a-service players target consumers as well. Fargo has created a network of over 2,500 pick-up points across South Africa, where users can accept delivery. This capability is provided to ecommerce platforms, which offer this option at checkout.⁵³ DSV has a similar locker system⁵⁴ and Takealot delivers items to a number of pick-up points.⁵⁵

⁵¹ <https://techpoint.africa/2015/04/23/kongas-self-fulfill-model-allows-merchants-to-make-their-own-deliveries/>

⁵² <https://www.businessdailyafrica.com/corporate/shipping/Logistics-firms-bank-on-new-innovations/4003122-5010768-120gml0/index.html>

⁵³ <https://fargo.co.za/>

⁵⁴ <https://locker.za.dsv.com/>

⁵⁵ <https://www.takealot.com/takealot-pickup-points/>

Some traditional logistics providers, which are also moving into the logistics-as-a-service space, are leveraging their expertise and asset bases to vertically integrate into ecommerce. DHL is one of them.

Finally, there is scope for Africa's national postal networks to provide logistics services to ecommerce platforms – as has been done in the US and other developed markets.

The Nigerian Postal Service is tackling the addressing issue using an alternative mapping and addressing service called What3words. In the absence of structured address-naming conventions, What3words divides map surfaces into squares of three metres by three metres, and assigns three words to each square, which then serves as a geo-located identifier for that location. Konga uses the Nigerian Postal Service's capability as a service to solve its logistics and delivery challenges.⁵⁶

Similarly, Kilimall partners with the Postal Corporation of Kenya to allow customers to collect goods and place orders at post offices.⁵⁷

Front-office capabilities

Salesforce as a service: Since Internet penetration remains low in sub-Saharan Africa, potential customers may not always have access to e-commerce platforms. Some platforms are trying to solve this problem by setting up 'feet on street' salesforces. Jumia's JumiaForce is a network of agents, equipped with WiFi tablets, who go from door to door to take orders on behalf of customers.

This capability can, again, be licensed to third-party ecommerce platforms, particularly those that are non-competitors. It could also be licensed to financial services and healthcare platforms, if the agents are specifically trained for those sectors.

Omnichannel capabilities: In the platform economy, brands and merchants need to have a single view of the customer across all their marketing channels. This is a prerequisite to creating a seamless customer journey across multiple touchpoints and is of particular importance to the retail industry. Companies such as OneView Commerce provide this service and let retailers engage customers across multiple channels.

Loyalty as a service: Customer loyalty is an important success factor for platform companies. Safaricom's Bonga loyalty programme lets customers earn points for service usage. The telecommunications group is now extending the programme to ecommerce platforms. For instance, it lets users earn points for purchases made on Kilimall.⁵⁸

Communications as a service: Local markets have thrived in Africa without the internet, relying on face-to-face communication and negotiation. Communication will be an important capability for online marketplaces as well. Konga, for example, has a proprietary messaging tool integrated onto its platform. The K-Talk tool enables real-time communication between buyers and sellers. In the African context, such a communication capability could even be licensed to non-competitor platforms. These tools also benefit from machine learning – the platform can correlate communication patterns with fraudulent transactions to better predict instances of fraud over time. This is a valuable capability considering the time it takes for new entrants to develop similar tools.⁵⁹

Co-innovation capabilities

Brands are increasingly partnering with platforms to co-innovate and develop new offerings. With the wealth of consumer data that platforms have, they are well positioned to do this.

This partnership model has been highly successful in China, where Alibaba's Tmall Innovation Center is a key player. International brands such as Pepsi, Johnson & Johnson, Snickers, and L'Oréal have partnered with Tmall to co-develop products, which are initially launched and tested exclusively on the platform. Alibaba also gains co-ownership of these new brands.

Given Africa's unique consumption patterns, large platforms such as Jumia and Konga may be well positioned to partner with international brands. Considering its presence in Africa, Alibaba itself may bring the Tmall Innovation Center model to the continent at some point.

Business-management capabilities for merchants

Shop in a box: A 'shop in a box' refers to the provision of the underlying infrastructure and tools required to run an end-to-end online store. These platforms essentially provide the tools and services a merchant needs to set up an online shop. Shopify is the leading player, employing this business model globally. Several merchants in Africa have also set up shops on Shopify.

Shopify provides access to an ecosystem of third-party services that the merchants can use. In Nigeria, payment service provider Paystack lets merchants in the country set up outlets on Shopify and accept payments through Paystack itself.⁶⁰

Kenya's Sky.Garden is a similar shop-in-a-box solution

⁵⁶ <https://techpoint.africa/2015/02/12/breaking-konga-to-make-deliveries-through-nipost/>

⁵⁷ <https://www.howwemadeitinafrica.com/kilimall-kenyan-ecommerce-company-sees-opportunity-in-secondary-cities/52508/>

⁵⁸ <https://www.standardmedia.co.ke/article/2000228981/kilimall-partners-with-safaricom-on-bonga-points-payment>

⁵⁹ <https://www.igi-global.com/chapter/e-commerce-management-in-emerging-markets/148960> - paid article

⁶⁰ <https://www.itnewsafrika.com/2016/11/nigeria-paystack-introduces-online-payment-for-shopify-merchants/>

that additionally provides distribution capabilities by creating its own marketplace destination. Once they have set up shop, a merchant can also sell through third-party platforms including WhatsApp, Facebook and Instagram by posting a link to their online store.⁶¹

Marketplace in a box: A marketplace-in-a-box solution allows any business to easily set up an ecommerce marketplace. Over and above the technology and logistics capabilities that come with a shop-in-a-box solution, a marketplace in a box provides the third-party merchant network required to set up a marketplace. A business adopting this solution can sell products from these third-party merchants to its customers. It is important to note that the third-party merchant ecosystem continues to be owned by the marketplace-in-a-box provider.

In Africa, Link Commerce is the leading provider of marketplace-in-a-box solutions. Link Commerce provides a third-party merchant ecosystem comprising more than 200 retailers from the US and UK, which sell more than 5 billion products. The solution is white-labelled, allowing a client to brand the marketplace for their customer base. The solution can be used by logistics players, banks, telecommunications companies and even retailers.⁶²

Retail back-end in a box: Given Africa's unique logistics, warehousing and fulfilment challenges, the provision of entire retail back-end services is a compelling business proposition. In this business model, the end-to-end management of the physical movement of goods for online merchants is provided.

South Africa's Parcelninja provides retail-back-end-in-a-box solutions, combining warehousing and fulfilment services for ecommerce businesses. These tools integrate with an ecommerce merchant or marketplace's front-end store, and provide an integrated solution across order management, warehousing, packaging and logistics. Parcelninja combines integrated real-time tracking and analytics capabilities with a proprietary logistics network of partner couriers.

Digital trade infrastructure: Digital trade infrastructure providers supply the operational capabilities and tools required for merchants to run their businesses. Alibaba's Electronic World Trade Platform (eWTP) is the most significant player in this space in Africa. The eWTP solution provides small- and medium-sized enterprises with back-end capabilities, including logistics as a service, cloud computing, mobile payments and skills training.

But unlike Link Commerce or Parcelninja, eWTP is just

one element of the digital infrastructure that Alibaba can provide. Once businesses start using eWTP, their data can be used to obtain bank finance, with the credit-scoring process done by Alibaba's Ant Financial. Further, the eWTP solution allows merchants to sell directly to Chinese consumers. More importantly, as other African countries follow Rwanda's lead and join eWTP, the platform could serve as a common back-end, effectively creating a standard for cross-border trade on the continent.

Because of Alibaba's unique ability to serve merchants across the spectrum of commerce, financing and logistics, we expect that the group will be the most comprehensive provider of digital trade infrastructure in coming years.

Digital infrastructure and the road ahead

While ecommerce continues to gain momentum in Africa, its growth is being tempered by numerous obstacles. There remains a long way to go to develop ubiquitous and robust payments and logistics infrastructure, for instance.

The reliance on cash-on-delivery payments is another challenge that needs to be addressed, considering the additional costs involved and delivery failures. More than 14.4% of Jumia's gross merchandise value in 2018 involved failed deliveries or product returns. Meanwhile, Jumia's IPO prospectus revealed that more than USD800 000 of cash payments for 2016 remained uncollected in 2018. Cash collection also brings with it the risk of fraud. In response to these challenges, Konga has moved to a prepay-only model.⁶⁴

In some countries, Jumia's delivery fleet is larger than that of major logistics firms such as UPS, FedEx and DHL. But with high logistics and delivery infrastructure costs, Africa's ecommerce platforms also demonstrate high burn rates. Jumia incurred nearly USD1 billion in total losses by the end of 2018 due to its ongoing investments in building the required infrastructure.⁶⁵

These challenges notwithstanding, ecommerce platforms are poised for strong growth across Africa. We believe that better access to credit, thanks largely to fintech platforms, will enable new merchants to set up shop more easily. The payment mix is also shifting towards mobile money-based solutions, and we believe that interoperability between mobile-money players will accelerate this shift. As we note in this paper's section on convergence, developments in the financial services and telecommunications industries will spur the growth of platforms in the retail industry.

⁶¹ <https://danishdigitalaward.dk/projekt/sky-garden-mobile-commerce-in-africa-innovation-startups/>

⁶² <http://linkcommerce.com/what-we-do.html>

⁶³ <https://www.marketwatch.com/story/african-e-commerce-site-jumia-is-going-public-5-things-to-know-ahead-of-its-ipo-2019-03-19>

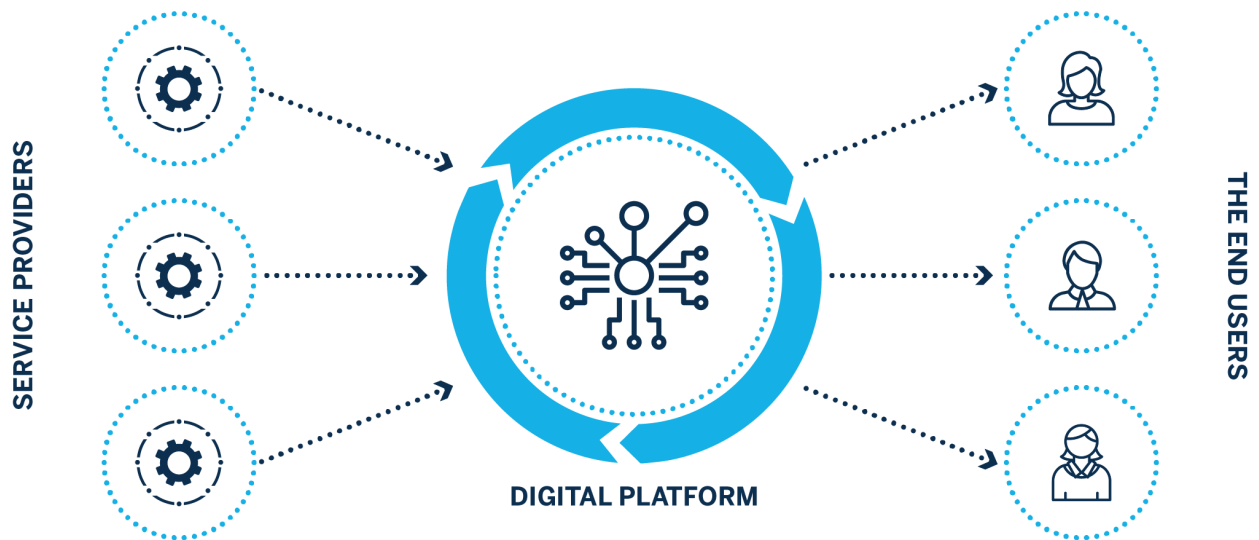
⁶⁴ <https://allafrica.com/stories/201802070144.html>

⁶⁵ <https://qz.com/africa/1572162/jumia-ipo-filing-offer-african-ecommerce-insight/>

We also believe that measures being taken to curb the spread of COVID-19 could accelerate the adoption of ecommerce in Africa. Telecommunications groups are encouraging the use of mobile money, and the avoidance of physical cash, by scrapping transfer fees,

for instance. They are also providing faster Internet speeds to customers as more people work from home. In general, social-distancing measures are raising Internet usage and more people are turning to online deliveries for the first time.

BUSINESS-TO-CONSUMER PLATFORM COMPANY



THE DIGITAL PLATFORM'S ROLE IS TO MATCH AND FACILITATE INTERACTIONS TO CREATE AND TRANSFER VALUE

MODERNISING THE HEALTHCARE INDUSTRY

There are four key drivers behind the rise of healthcare platform businesses.

First, patient data is becoming increasingly digitised, with many countries adopting electronic health records. Device manufacturers including Philips and Apple use sensors in medical equipment and consumer wearables to digitise health data.

Second, digitisation is moving across the healthcare value chain, allowing for greater coordination between different actors. For example, claims and insurance workflows are being digitised, while some AI-based 'telemedicine' platforms are digitising doctor-patient interactions.

Third, in remote parts of Africa, healthcare services are increasingly being delivered via an informal economy of connected wellness and care providers. Digital platforms allow these interactions to be tracked for future reference.

Finally, the integration of offline and online workflows is giving rise to hybrid platform-based models in Africa. Under these systems, in-person care creates, and is augmented by, data insights. To function effectively, these models require platform businesses, capability providers and digital infrastructure. We discuss examples of each below.

Platform business models

Several types of platform-based healthcare businesses have emerged across Africa in recent years.

End-to-end healthcare coordination platforms

End-to-end healthcare coordination platforms integrate community healthcare centres with players further up the supply chain, including pharmaceutical companies, clinical research centres, distributors and healthcare funders. Community healthcare centres remain particularly important in Africa, where telehealth services are not always viable due to poor broadband infrastructure, while highly skilled

healthcare professionals are in short supply. Major global healthcare groups including Philips and Merck are developing end-to-end healthcare coordination platforms on the continent.

Philips' solution, the Philips HealthSuite⁵⁶ platform, entails workflow digitisation at community health centres – by providing tools for diagnosis, treatment, and patient management – alongside the training of staff and specialists.

Importantly, the project aims to manage referrals between community life and wellness centres, basic care centres and advanced care centres by using workflow automation software connected to its HealthSuite platform. The platform's role is to help manage workflows and information exchanges between the various stakeholders across the value chain. This ensures that patients are referred to the right centres, with all of their information managed off a single platform. The platform also provides analytics to policymakers and planners based on the data captured from ecosystem interactions.

Merck's healthcare coordination platform has three key components. The first is CURAFA, a network of primary healthcare facilities that provide pharmacy and nursing services, digital health solutions, healthcare financing, and healthcare awareness and education services run by local entrepreneurs. The second component is an operating system for community pharmacies that was developed by Maisha Meds, a Merck Accelerator start-up. The final component involves Merck's recent acquisition of telehealth platform ConnectMed.

CURAFA allows local entrepreneurs – with nursing and pharmaceutical training – to operate franchised primary healthcare facilities. It provides them with digital tools for disease screening and management. The points of care yield data about community healthcare, which can be aggregated and supplied to players further up the value chain.⁶⁷

⁵⁶ https://www.philips.com/c-dam/corporate/about-philips/sustainability/healthy-people/fabric-of-africa/focus/Philips_Working_together_to_transform_HC_in_Africa.pdf

⁶⁷ <https://medium.com/@MESTAfrica/startup-opportunity-mercks-new-curafa-pilot-project-971bcec8f46c>

The Maisha Meds operating system provides business and inventory management capabilities to CURAFA clinics, pharmacies, and drug shops. It effectively integrates them with other ecosystem players.

Moreover, the subsidies offered by global healthcare funders and pharmacies can be integrated into the point-of-sale systems of participating clinics. This creates a medical reimbursement ecosystem where funders can directly assist patients in need. The system also enables pharmacies and clinics to automate reorders of medicine based on their sales data. Further, Maisha Meds provides trade credit to unbanked pharmacies.⁶⁸

Finally, the ConnectMed telehealth platform that Merck acquired in 2019 facilitates tele-consultations between patients and doctors. The platform supports on-demand and scheduled consultations and allows for online prescriptions as well as ratings and reviews of doctors.

As CURAFA is scaled, larger networks of community-based points of care, run by local entrepreneurs, will emerge. And linking the platform to ConnectMed will facilitate the scalable delivery of healthcare through online consultations.

Telehealth and appointment-booking platforms

The geographical vastness of Africa, coupled with the continent's migratory rural population and poor transport infrastructure, makes telehealth an important operating model. Some platforms in this segment create their own marketplaces by connecting certified doctors with patients. Others work within existing care ecosystems, allowing doctors to be linked up with patients via new channels.

Merck's ConnectMed facilitates remote online consultations, while other platforms enable the booking and scheduling of offline appointments.

Discovery's wellness centres allow users to book appointments and rate their experiences. RecoMed is an online doctor appointment-booking platform, while AppointmentGuru helps patients to make bookings with chiropractors, dietitians, and wellness professionals.

Healthspace provides the most comprehensive platform. The business records electronic trails of doctor-patient interactions, and includes the patient's medical history, previous prescriptions, and notes by other doctors on the patient.

While telehealth is an important emerging business model, several systemic challenges stand in the way of its successful roll-out and use. The lack of broadband infrastructure, for instance, means these services are often ineffective in remote areas, where they could add the most value. And the lack of certified technicians poses a challenge to the ongoing support and maintenance of these systems.

Finally, since these services rely on well-trained healthcare professionals, platform businesses will need to invest heavily in education.

Healthcare workflow platforms

Some platforms manage operational workflows for traditional care providers and enable them to better manage their interactions with ecosystem partners. Unlike end-to-end healthcare coordination platforms – which establish new healthcare providers and delivery points and help coordinate interactions with stakeholders across the value chain – healthcare workflow platforms cater to existing care institutions. These platforms provide patient-record-management and workflow-management capabilities to doctors and healthcare institutions. The result is that the patient is better integrated into the healthcare provider's workflow. These platforms are also well placed to manage the patient's identity and data profile.

Interswitch's Smarthealth is one of the leading platform players in this space. The platform digitises and automates day-to-day processes. It is complemented by Interswitch Hospital Management Solutions, which helps hospitals to outsource their non-core functions, including patient record-keeping and claims management. Interswitch, a payments technology company, also manages claims processing, payments integration, analytics and reporting, as well as the arbitration and settlement of disputes. Interswitch's outsourcing service acts as an entry point towards the digitisation of hospital workflows and patient data. That means the company is well positioned to manage the patient's identity. Smarthealth offers biometric identification services at hospitals, as well as mobile health enrolment verification services, which allow care providers to confirm a patient's eligibility for specialised services.

Interswitch's payment capabilities facilitate transfers to employees, vendors, suppliers, and tax authorities. Regulators can access dashboards on the platform to inform policy-making and future government interventions.⁶⁹

⁶⁸ <https://www.yunusssb.com/blog/2019/7/23/curafa-integrated-points-of-care-an-integrated-primary-healthcare-platform-in-kenyanbsp>

⁶⁹ <https://www.vanguardngr.com/2016/05/interswitch-enhances-healthcare-with-remarkable-hospital-management-solution/>

Several companies are following Interswitch's lead. South Africa's Netpractice provides an integrated solution for patient billing, claims management, and verifications.

HealthCloud, GoodX and SmartPrac are similar workflow-management platforms that coordinate patient scheduling, billing, claims processing, and accounting. HealthCloud also integrates wearable devices, while SmartPrac provides electronic health-record services.

As we noted with the Interswitch example, the provision of these services can serve as an entry point into patient identity management, and into the healthcare delivery workflow.

Eldercare platforms

Eldercare platforms such as Honor, which is backed by Naspers, are gaining traction globally. As incomes rise, African countries may also see growing demand for in-home care for the elderly, especially where traditional care agencies are absent. These platforms manage the informal care ecosystem by connecting families of the elderly with care agencies and individual care workers. The ability to pick a specific caregiver is critical to the success of these platforms. Nigeria's Greymate Care platform conducts a series of governmental and biometric checks on caregivers and also provides them with comprehensive remuneration packages to encourage high-quality care.

On-demand expert marketplaces

Platforms can also be used to create markets that connect healthcare specialists with care institutions. In Africa, where trained and educated specialist practitioners are in short supply, such on-demand marketplaces can allow hospitals to serve patients partly by relying on external practitioners.

LocumBase, for instance, connects doctors and specialists with healthcare institutions looking to fill temporary requirements.

Similarly, Vula connects healthcare institutions with eye specialists. The platform allows healthcare workers to perform basic eye tests and connects them with specialists who can use this information to make diagnoses.

Capability providers

A range of capability providers are required in the healthcare platform market, including diagnostics players and care providers.

Data analytics and AI-enabled diagnostics

Data analytics and AI are playing an increasingly important role in diagnostics. In the platform economy, a telehealth platform could use an existing AI capability as a service instead of building its own. As these capabilities are used across more platforms, they get better at predictions and diagnostics thanks to learning effects. Platforms often use AI-enabled diagnostics services to encourage users to share patient data.

IBM Watson has been conducting pilot projects in Kenya, while Google has set up an AI centre in Ghana. More multinationals are likely to enter this space in Africa as they build scale and use learning models built in other geographies.

Claims management as a service

Claims management, verification, and payments are important functions for insurance platforms and healthcare workflow platforms.

GoodX Switch is a business-to-business service that enables patient validation and related services. It is integrated into GoodX Practice Management Software but could also be licensed to third-party platforms.

“Telemedicine has already become an important tool in the fight against COVID-19.”

Patient identity management coupled with payments

Claims management can be an entry point into a larger opportunity – patient identity management. This vital capability allows a platform to operate across workflows.

Interswitch, for example, digitises patient data by providing operational workflow tools. It could go a step further and enter care workflows by partnering with diagnostic capability providers.

Providers of electronic health-record services can also play an important role in patient identity management.

Self-diagnostic capabilities for ecosystem participants

Providers of wearable devices can connect with other platforms to expand the range of data-capture and diagnostic channels. The data captured from wearable devices underpins personalised recommendations and connects patients to services from third parties.

South Africa-based KardioFit uses connected glucose and blood-pressure monitors to provide tele-monitoring solutions, including real-time monitoring by physicians. Meanwhile, hearScreen, by hearX Group, is a smartphone-based hearing screener.

These devices and apps allow for self-diagnosis and monitoring and can be integrated into broader healthcare data platforms.

Logistics capabilities

As is the case in the retail sector, logistics remains a challenge in the healthcare industry. Logistics providers such as Jumia and Konga may have an opportunity to extend their services into the healthcare segment. Meanwhile, companies such as Zipline have been piloting drone-assisted vaccine and medication deliveries. More recently, Zipline has been using its infrastructure and drones to help tackle the COVID-19 pandemic. It is delivering personal protective equipment and COVID-19 test samples to hospitals and other health facilities.⁷⁰

Digital infrastructure and the road ahead

Most healthcare systems in Africa lack the levels of digitisation and interoperability needed for effective ecosystem development and innovation. Two types of solutions have emerged to develop the requisite digital infrastructure for the industry. The first is aimed at creating interoperability across existing disparate systems, while the second proposes a new health technology stack.

The Bill & Melinda Gates Foundation and non-profit organisation PATH have set up the Data Use Partnership, which aims to digitise and connect Tanzania's healthcare system. The programme initially focused on developing a digital registry of immunised babies. A public-private partnership with the Tanzanian government, the initiative digitises and integrates

existing information without requiring an entirely new technology stack.

The second type of solution – the development of an entirely new technology stack for healthcare – has not yet been piloted in Africa but is being championed by the Indian government under the National Health Stack initiative. India's approach comprises a set of cloud-based services, including a digitised national health registry, a coverage and claims platform, a federated patient database, and a health analytics platform. Considering that Morocco's modular, open-source identity management platform is being modelled on IndiaStack, the National Health Stack may be a viable option for creating digital infrastructure in Africa.

Meanwhile, the COVID-19 pandemic has exposed significant gaps in Africa's healthcare sector. Considering their funding challenges, African governments could well turn to digital solutions to make their healthcare sectors more efficient. With social-distancing measures expected to remain in place for some time, virtual healthcare in particular could gain traction.

Telemedicine has already become an important tool in the fight against COVID-19. South African insurer Discovery and telecommunications group Vodacom have partnered on an online healthcare platform that gives all citizens free access to virtual doctor consultations. Vodacom provides the technology and connectivity while Discovery provides the network of doctors, who are paid a fee for each consultation. Under the partnership, the organisations are scaling Discovery's DrConnect platform.⁷¹

⁷⁰ <https://www.weforum.org/agenda/2020/05/medical-delivery-drones-coronavirus-africa-us/>

⁷¹ <https://www.biznews.com/inside-covid-19/2020/04/01/adrian-gore-discovery-vodacom-covid-19>

PRIMARY DEMAND COMES INTO PLAY FOR BANKS AND INSURERS

In Africa, individual financial identities are often not owned by traditional banks. This is because telecommunications groups and retailers have also leveraged digital technologies to create alternative payment mechanisms that gives them access to consumers' financial identities. But considering that Africa's population remains largely unbanked, banks and asset managers have an opportunity to adjust their business models in a way that allows them to own and curate the financial identities of users.

Meanwhile, although central banks have historically focused primarily on the stability and robustness of the banking sector, there is an ongoing shift towards a more progressive view on innovation. In countries such as Nigeria and Kenya, central banks have amended policies to limit cash transactions and digitise financial activity. The South African Reserve Bank has established a fintech unit to monitor the impact of new technology developments on deposit-taking, payments, lending, insurance, and investments.⁷²

With the rise of platforms and the adoption of application programming interfaces (APIs), the distribution of financial services is becoming increasingly decoupled from the production of those services. Profit pools are increasingly shifting towards platforms that own customer relationships and data.

For context, it is helpful to understand the distinction between primary and secondary demand. For example, a car purchase represents a user's primary demand, while the associated loan is secondary. In the platform economy, financial services firms will need to understand the user's primary demand in order to capitalise on secondary demand and avoid disintermediation.

Finally, banks need to find new ways to acquire and process data, particularly in African countries that lack strong curators of risk-scoring and credit-scoring models. Banks will need to create new data flows to strengthen their core competencies in risk and credit management.

Platform business models

Primary demand ecosystems around insurance

Insurance firms use data-driven business models, but often capture data as a one-time event to determine a customer's risk profile and to price premiums. In the platform economy, insurance firms have an opportunity to move from one-time data capturing to continuous data flows by leveraging connected devices and digital services. Some insurers, including Progressive Insurance, use data-capturing devices in cars to monitor driving behaviour and provide personalised premiums based on this data.

These data flows can also inform product innovation. More importantly, over time, insurers can create larger ecosystems by partnering with third parties that can serve their clients based on this data. While insurance satisfies a secondary need – protection against adverse events – third parties can serve the user's primary needs based on data that shows their wellness or driving habits, for example. Health insurers can build platforms that connect clients with wellness and care services. Similarly, motor-vehicle insurers can offer value-added services from driving schools, service centres, fuel stations, and so on.

South African insurer Discovery has successfully implemented this strategy, creating a health and wellness ecosystem around its Vitality rewards platform. Vitality allows millions of users to track their health and adopt healthier habits to earn loyalty points. These points are redeemable within Discovery's partner network, including British Airways, Emirates, and Europcar.

As platform users adopt healthier lifestyles, the insurer benefits not only from fewer claims but also from additional sources of revenue generated through ecosystem interactions. This can be reinvested in the ecosystem to build it out further – leading to a feedback loop where healthier users result in higher profits for the insurer, which in turn leads to further investment in incentivising healthy living.

⁷² <https://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/8259/SARB%20FinTech%20release%202013%20February.pdf>

Apple is one of the partners to Vitality Active Rewards. An insurance client gets an Apple Watch on a monthly repayment plan, although repayments can be waived if the user is physically active. The platform also sets personalised goals for users as well as reward schedules to continually encourage healthy living.

Vitality is fundamentally a data platform. It tracks nearly 1 000 activities and 50 biometric readings per minute and learns from this data as well as historic health, life and insurance data. Discovery has scaled the Vitality platform globally using a platform-as-a-service model, partnering with AIA in Southeast Asia, Generali in Europe, John Hancock in the US, Manulife in Canada and Ping An in China. Discovery's Vitality offering yet again demonstrates how businesses achieve scale in the platform economy by offering capabilities and platforms as services.

By shifting focus from cover to wellness, an insurer can change behaviours. In the traditional insurance model, unhealthy clients are most likely to retain cover as they are the ones that need it. The focus on incentivising healthy habits means healthier customers become more engaged, thereby lowering the overall risk profile.

The ownership of consumer data is an important control point. Insurers moving down this path will also need new organisational skills and a shift in focus from risk assessment and claims management to service innovation.

Primary demand ecosystems around lending and payments

Much like insurance firms, banks will increasingly move from satisfying secondary demand – in the form of loans or payments – towards services that fulfil primary demand. In the lending space, for instance, loans and mortgages are becoming increasingly commoditised, and with banking services being delivered via APIs, loans will increasingly be sold through third parties. Banks that can understand and satisfy the primary demands of the user – around buying a home or a car, for example – will be best placed to differentiate themselves and grow profits even as lending is commoditised. The shift in focus will also open up new revenue streams, since banks will be able to monetise non-financial interactions in the home-buying or car-buying journey.

First National Bank (FNB) is one example of a major African bank that is moving towards the fulfilment of primary demand. On FNB's navHome platform, customers can search for houses, estimate valuations, get pre-approvals for mortgages, and access curated service providers. The platform also provides private

house-buying markets, allowing the bank's customers to place listings that are only shared with qualified buyers. Buyer-seller communication is managed through the FNB Secure Chat platform on FNB's banking app.⁷³

FNB's navCar, meanwhile, allows customers to access various services needed throughout the lifecycle of car ownership.

The bank also provides a curated market of house service professionals. These platforms are created partly by using FNB's business-banking customer data.⁷⁴

We expect more banks to participate in the primary demand segment. The ownership of consumer data and understanding of primary demand patterns will become a competitive advantage.

Alternative financial ecosystems

Many platforms have successfully facilitated new market interactions by investing in trust, reputation assessment, and risk-scoring mechanisms. In doing so, these platforms have aggregated fragmented markets and even unlocked latent supply. Airbnb, for example, unlocked new market interactions through trust. This shows that platforms, in many cases, do not merely shift value from existing business models – they create new value that did not previously exist.

Traditional banks avoid market interactions between high-risk participants. This means that they typically do not lend without collateral, for example. In this environment, platform businesses can facilitate entirely new interactions using alternative sources of data that banks do not usually have access to, or do not use.

Peer-to-peer lending platforms facilitate such interactions by allowing platform users to borrow from and lend to each other. Pezesha is a key player in Africa's credit-scoring and peer-to-peer lending market.

The higher the risk in a particular market, the greater the need for services curation. Hence, Pezesha invests in educating its ecosystem of individuals and micro-businesses on financial knowledge. This includes information on credit habits and saving, which is delivered online and through an offline agent network. Through this process, Pezesha is also building its core asset – credit-scoring business Patascore.⁷⁵

Educated individuals and businesses take credit assessments, which builds up Patascore's capabilities and value. That business is also licensed to third-party financial institutions.

⁷³ <https://www.itnewsafrika.com/2018/11/you-can-now-sell-your-home-using-nav-in-the-fnb-app/>

⁷⁴ <https://www.itweb.co.za/content/LPwQ57lyLQBMNgkj>⁷⁵ https://medium.com/@hello_39242/what-does-pezesha-do-2dfe71305764

⁷⁵ https://medium.com/@hello_39242/what-does-pezesha-do-2dfe71305764

Pezesha leverages this capability to provide a curated peer-to-peer marketplace of borrowers and lenders.

In Africa, this business model requires much higher levels of upfront education and manual effort than similar models in developed economies. However, as other peer-to-peer lending platforms such as LendingClub and Zopa have demonstrated, the model is highly scalable once the platform starts gathering data. As more data is captured, the manual curation and underwriting process can increasingly be done by algorithms.

The platform then benefits from a feedback loop. As more diverse data comes in, the platform's ability to identify high-quality borrowers increases, which in turn leads to lower risk. The platform can then price loans more attractively, leading to even more lending activity and data.

Another emerging peer-to-peer lending model is one that enables lending within trusted peer networks. Under this model, a platform does not need to invest as much in trust creation. Aella Credit, for example, helps employees to borrow from their employers.

Financial profile aggregators

Consumers often have financial relationships with multiple institutions. Financial profile aggregators collate data from across accounts to create a single financial profile for the user. Aggregators provide unified analytics, but also learn from this data to connect users with relevant offers from third parties — both financial and non-financial players. Mint.com, now owned by Intuit, was the first business to implement this business model. In general, countries with fragmented banking landscapes, where consumers have multiple financial relationships, are most likely to support this model.

In South Africa, FNB's navMoney tool could evolve into a financial profile aggregator. The tool helps consumers to track funding, manage cashflows, and determine their credit status.

In developed markets, the competitive advantage of financial profile aggregators was historically based on their proprietary screen-scraping technologies. Gathering data from multiple financial services accounts was a non-trivial exercise. However, as banks open up APIs, this task is less of a challenge. This means that these platforms will need new data, beyond bank account data, to differentiate themselves. They will also need to onboard third parties faster so that they can expand their offerings beyond financial services.

Trade platforms

Supply chain interactions and trade flows are increasingly being digitised. Banks including HSBC, logistics firms including Maersk, and even the Swiss and Singaporean governments, among others, are working on building trade platforms. These platforms help banks to capture more primary demand. Instead of merely financing trade, a platform approach can give a bank oversight of underlying trade activities.

Several banks globally have formed consortia to develop and use common blockchain-enabled trade infrastructure, which acts as an interoperable layer for trade.

Given Africa's fragmented trade landscape, the importance of such a common interoperable trade layer cannot be overstated. There are at least two noteworthy initiatives underway which have the potential to drive greater interoperability.

First, Alibaba has made significant strides in the establishment of its eWTP in Africa, with Rwanda being an early adopter. As more players are onboarded, the platform could become a common technical backbone and interoperable layer for trade activity in the region.

Meanwhile, the African Digital Asset Framework (ADAF), a set of standards for transactions in digital currencies and assets, could also boost the continent's fintech community and promote intra-African trade. ADAF uses the Raise security token to digitise real-world assets, such as real estate and fine art, allowing them to be more effectively traded over new markets.⁷⁶

Frameworks such as ADAF and eWTP serve to digitise trade events and documents and create an underlying interoperability layer. This also provides data that banks can use to finance trade.

The second noteworthy type of initiative involves the digitisation of supply-chain trade activities. FNB has partnered with Selpal, a platform that connects informal retailers with suppliers of fast-moving consumer goods, wholesalers and brands. Selpal provides point-of-sale devices that help traders to manage inventories and order and pay for new stock. Through the partnership, FNB can finance trade across the supply chain based on the data captured on the Selpal platform.

⁷⁶ <https://www.tralac.org/blog/article/13921-how-can-blockchain-support-intra-african-trade.html>

Standard Bank Group is also moving to digitise trade processes. The banks' TradeCloud platform is a cloud-based business-to-business trade-management platform that is part of the group's TradeSuite offering. In the same vein, Standard Bank is working with Trade Alliance, a group of 16 banks around the world, to ease the process of connecting buyers and sellers in the pre-execution phase of trade finance. This complements efforts to digitise the financial supply chain and to digitise document chains – including proof-of-concept tests using blockchain to digitise bills of lading and to issue letters of credit.

The group also provides clients with access to the Trade Club, which is comprised of more than 15 000 trusted businesses from around the world that are ready to trade with Africa. The club leverages Standard Bank's African footprint, its partnership with China's ICBC and its participation in the International Trade Alliance.

In Africa, the digitisation of the agricultural supply chain presents a particularly important opportunity. Start-ups including Banqu, Binkabi and AgriLedger use blockchain technology to track farmers' transactions. The digital profile created from this transactional data can be used to finance their trade activities.

Standard Bank's OneFarm platform, which is currently being piloted in Uganda, uses a smartphone app to connect smallholder farmers to an ecosystem of start-ups and enterprise services through channel-enablement partners. The platform integrates financing for inputs, weather-related advice, and the purchasing of crops. The bank has been working with five cooperatives, 350 farmers, a maize aggregator and a local tech startup and has trained local agents to profile farmers, manage input distribution and provide support.

The bank has provided financing for seeds, fertilisers and access to tractors, and the farmers are receiving training from an agronomist. The initiative leverages satellite data to monitor each farm and identify potential risks early. The farmers who participated in the pilot have already doubled their plantings.

The OneFarm platform formalises corporates' supply chains, takes the risk of financing farmers off their balance sheets, improves the quality and consistency of their produce, and ensures that they meet their goals of sustainability, fair trade, organic production and gender equality.

Capability providers

Identity management

Banks have legacy capabilities in managing user authentication through KYC. In the platform economy, banks should consider extending this to a more holistic management of the financial identity of the user. This opportunity is particularly important for African countries where vast majorities of the population remain unbanked.

As highlighted by the success of Facebook Connect and China's OneConnect and Sesame Credit, identity management is an important enabler in the platform economy. Like Africa, much of China was unbanked – with poor identity data – before Alibaba and PingAn developed their respective identity management capabilities.

As we have noted with the above examples, platform owners themselves are often well positioned to build identity management capabilities.

In Africa, BanQu uses blockchain technology to provide financial identities to the unbanked. South Africa-based ThisIsMe provides user data-management capabilities and a verification system, enabling businesses to reduce fraud and automate identity authentication in user workflows.⁷⁷

Credit scoring as a service

Considering the size of Africa's unbanked population, the development of credit-scoring capabilities is a sizeable opportunity for the platform economy. Credit scoring enables access to credit, but more importantly, it can also serve as a reputation-scoring tool that determines access to non-financial services.

Credit scoring is a data-driven capability, and firms with access to such data flows and scoring mechanisms will be best placed to provide decision support to platforms.

In the past, credit access was largely collateral based. However, new credit-scoring models are leveraging non-traditional data sources.

Low-income entrepreneurs do not tend to have valuable and liquid collateral, and their loan applications are often rejected. Alternative data flows, including the cash flows of their businesses, can be employed to determine their creditworthiness.

⁷⁷https://h2.vc/wp-content/uploads/2018/11/Fintech100-2018-Report_Final_22-11-18sm.pdf

A number of start-ups and traditional firms in Africa have built lending models using non-traditional data sources.

Apollo Agriculture uses satellite imagery data to determine the creditworthiness of farmers, while APA Insurance uses similar data sets to inform risk. First Access uses weather and warehouse records to calculate credit scores for farmers. Companies such as SyeComp gather geospatial data through a combination of satellite and drone-based imagery, while FarmDrive employs a blend of social, agronomic, environmental and satellite data to develop credit scores for farmers.⁷⁸

Other companies are using repayment data to build credit-scoring systems. Pezeshka's peer-to-peer lending marketplace relies on the credit-scoring capabilities of Patascore, which is crafting financial credit profiles for the unbanked through a combination of education, assessment-based curation, and data on actual repayments. The cost of data acquisition is high, but this is a bet on credit scoring the still-large cash economy.⁷⁹

Start-ups such as Tala and Branch say they use data from mobile usage to build out credit-scoring models, while Nigeria-based Social Lender uses signals from social media platforms.

Payment capabilities for financial and non-financial ecosystems

Payment services provide an entry point towards identity management capabilities. Ant Financial in China built its entire ecosystem around the Alipay payments system, which drives the acquisition of data and commercial activity in the ecosystem.

This example shows that financial services firms can use payments as a starting point to the development of a larger ecosystem. This approach is particularly effective when the payment capability allows new kinds of transactions to be processed. Alipay took off in China when Alibaba decoupled it from the ecommerce marketplace and enabled offline-to-online QR code-based payments in China. Many banks are looking to bring that model to Africa. Yoco, for instance, lets small- and medium-sized businesses accept card payments using a connected device, and it is now building a larger ecosystem consisting of customer-relationship-management solutions and business-management solutions.

Payments can also serve as an entry point into non-financial ecosystems. As previously discussed, Southeast Asia's Grab started as a ride-hailing platform but has since used its underlying payment capability to build a larger ecosystem in partnership with Mastercard®.

In Africa, Cellulant started as a music ringtone business, connecting musicians with consumers, but has since moved on to building payment capabilities, leveraging that initial use case as a starting point.⁸⁰

Cross-border payment capabilities

Cross-border payment capabilities enable platform businesses to scale across geographies. For the time being, most mobile-money operators in Africa charge high cross-border payment fees. Some start-ups are working on developing these competencies.

Flutterwave, a Nigerian start-up, aims to integrate Africa's diverse payment systems through a single API. Moneywave is a solution by the company that enables local merchants to send and receive money across Africa instantaneously, via an API connection.

WeCashUp is another API provider that enables online merchants to accept mobile-money payments.

Payments and money transfers from Africa to non-African countries is another important function. SimbaPay provides such a capability and has partnered with Family Bank Limited, a bank in Kenya, and WeChat to facilitate Kenya-China trade activity.

Digital infrastructure and the road ahead

Bank-in-a-box and insurance-in-a-box models

Technological and regulatory changes are fast transforming the banking sector. Banks will increasingly serve their financial products as banking-as-a-service APIs. Non-banking players, including the big tech platforms, will provide these services to end-consumers.

We expect bank-in-a-box business models will emerge to manage the aggregation and provisioning of these APIs from multiple banks. A bank-in-a-box platform uses core banking capabilities to make these APIs consumable by third-party non-banking entities.

⁷⁸ <https://farmdrive.co.ke/credit-scoring>

⁷⁹ https://medium.com/@hello_39242/what-does-pezesha-do-2dfe71305764

⁸⁰ <https://www.pymnts.com/news/mobile-payments/2019/cellulant-africa-fintech/>

Bank-in-a-box models enable innovation as external developers can create new applications using these APIs. Several banks in Africa have opened up their APIs. Unlike Europe and the UK – where regulation is pushing all banks to open APIs – African banks are doing so selectively. However, this trend is expected to accelerate, and banks would be well positioned to take an early lead in creating such models.

MMI Holdings has created an insurance-in-a-box model. It aggregates its insurance APIs and allows start-ups and brands to develop new niche insurance products, which it underwrites. The insurance-in-a-box model incorporates and productises many insurance functions, including premium collection, financial reconciliation, claims-handling, regulatory reports and insurance licensing. This allows MMI to benefit from innovation without taking on the risk of a new niche insurance product itself. With the right data-sharing agreements in place, the platform can also benefit from data gathered by third-party insurers.

APIs and cloud capabilities

As banks prepare themselves for the platform economy, there is an opportunity for technology companies and other financial services firms to create back-end digital infrastructure that enables banks to transform and provide their services as APIs

Alibaba's cloud-computing arm, Aliyun, provides this infrastructure to banks in several countries, including Pakistan, and is likely to bring these services to Africa as well.

Public-private partnerships, such as Mastercard's partnership with Rwanda, are also being established to provide digital infrastructure. In Rwanda, Mastercard® is helping to digitise government services, particularly payments of national healthcare claims. It is also setting up an interoperable mobile-banking platform.

AFRICA'S TELECOMMUNICATIONS GROUPS ARE PAVING THE WAY

The telecommunications industry has paved the way for Africa's platform economy, creating much of the underlying payment capabilities for platforms in other industries, such as retail and financial services.

Globally, systems including Apple's iOS and Google's Android have played a major role in the platform economy thanks in part to their strong app-billing and payment capabilities. In Africa, telecommunications groups play an important role largely thanks to the success of mobile money on the continent. Their mobile-money services allow them to act as capability and infrastructure providers for platforms in other industries.

Telecommunications companies the world over have been impacted by the rise of 'over the top' communication platforms, particularly WhatsApp, WeChat and Skype. These platforms have eroded their revenue streams as they offer competing communication services for free. In Africa, WhatsApp, WeChat and other similar services are rapidly gaining adoption as smartphone penetration rates rise.

But as we note towards the end of this paper, telecommunications companies are increasingly participating in other industries, and we believe that they are perhaps best placed to benefit from convergence in the platform economy.

Platform business models

Mobile-money platforms are the most evolved and comprehensive platform offerings in Africa's telecommunications industry.

Safaricom's M-Pesa was the first to gain scale, partly thanks to favourable regulations. Kenya's central bank allowed mobile-money providers to conduct business relatively freely. Safaricom's dominant market position at the time of M-Pesa's launch also played in its favour.

M-Pesa is a mobile-based money-transfer system that allows individuals to make payments and send remittances.

The system was built on top of existing market infrastructure and was aligned to existing consumer habits – mobile-phone users were already trading pre-paid airtime. Safaricom capitalised on this behaviour and developed a network of agents to allow customers to convert cash into mobile money and vice versa. These agents include shops, post offices, fuel stations and some bank branches.

In short, M-Pesa started as a money-transfer system using a common trust account across its user base. However, as it gained traction, banks decided to join the ecosystem, and started integrating savings accounts for individual customers and interest rates on deposits. As more users set up savings accounts, the M-Pesa platform became an increasingly important contributor to banks' balance sheets.

Next, as commercial activity on the M-Pesa platform grew, banks and Safaricom were able to gather valuable data, which helped them to build credit-scoring models. As noted previously, access to credit in Africa is often based on cashflow and transactional data, rather than on collateral.

M-Pesa's credit offerings, M-Shwari and KCB M-Pesa, leverage this data to price credit. Other telecommunications groups, including MTN Group and Airtel Kenya, have launched similar credit products in conjunction with their respective mobile-money platforms.

Meanwhile, M-Pesa has also opened up APIs on its platform, which banks use to manage bank-to-mobile transactions. Businesses and government services use this to manage collections and payments. Fintech lenders including Tala use the APIs to grant loans to customers and accept interest payments.

It is worth noting that amid the COVID-19 pandemic, M-Pesa has waived fees to encourage users to avoid the usage of cash. This followed consultations with Kenyan authorities over ways to contain the virus.

Platform interoperability

As telecommunications companies scale their respective mobile-money offerings, interoperability has become an important issue. Account-to-account interoperability allows users to transfer between accounts held with different providers and banks.

To develop robust infrastructure for Africa's platform economy, these players will need to work towards greater interoperability.

MTN Group and Orange launched Mowali in 2018 – open-industry infrastructure that enables interoperability across different accounts. The infrastructure is open to third-party mobile-money providers and banks, as well as money-transfer operators and other financial services providers. Mowali aims to create a brand and infrastructure that is shared and co-governed, thus encouraging greater uptake across the industry.

Capability providers

In addition to building platforms, telecommunications groups are well positioned to provide capabilities for the platform economy. All platform businesses need identity management, communication and payment capabilities, and telecommunications companies are uniquely positioned to provide all three.

Identity management

Telecommunications firms that provide mobile-money services are well placed to be custodians of user identities, and this can then be provided as a service to third-party platforms. For example, the M-Pesa platform requires user confirmation as a security tool, and it allows users to have a beneficiary list. Authenticated identities and beneficiary networks may be provided as a service to third-party platforms. Similarly, Orange's Discover IDaaS API provides single-sign-on and identity management capabilities to third-party platforms.

Credit scoring

Telecommunications companies with mobile-money platforms can also provide credit-scoring capabilities as APIs. Payment and remittance activity on mobile-money platforms can be used to determine the creditworthiness of users. This means credit scoring can be provided as a capability to third-party platforms. For example, ecommerce platforms may offer instalment-based payment options to users based on their creditworthiness.

Fraud detection as a service

Fraud detection is another important capability that telecommunications groups can offer. In fact, Safaricom provides an anti-fraud system, called International Mobile Subscriber Identity, aimed at helping financial institutions to curb fraud incidents targeting customers.

The capability also helps financial institutions to better design their lending propositions and to manage the onboarding of new customers.

When a customer tries to log in through a bank channel, the bank may turn to the M-Pesa Daraja API⁸¹ to perform a background check on the customer's phone number. The check looks for specific parameters and events – for example, whether a customer's number was recently swapped.

Similarly, Orange's Location Check API is aimed at minimising fraud by performing location checks on login activity.

Agent network as a service

In Africa, the agent networks managed by telecommunications companies can also serve as a capability for third-party ecommerce platforms. Safaricom's ecommerce platform, Masoko, leverages M-Pesa's agent network to solve for logistics and fulfilment challenges. More than 160 000 agents act as delivery and collection points. This agent network could also be licensed to third-party ecommerce platforms looking to operate in those geographies.⁸²

Digital infrastructure

Telco-in-a-box models

Telecommunications firms perform many functions across authentication, communication and payments, among others. Each function can act as a capability that third-party companies can leverage.

Africa's Talking, a company that provides communication and payment APIs, unbundles many of these functions as individual APIs, allowing third-party developers to leverage these capabilities. Businesses can add APIs as they scale. This reduces the risks and upfront investments typically required when working with large telecommunications groups.

⁸¹ <https://www.dignited.com/49069/safaricom-launches-an-anti-fraud-api-for-the-financial-sector/>

⁸² <https://gadgets-africa.com/2019/03/11/masoko-mpesa-shops-deliveries/>

The texting API, for example, allows consumers to register for a service via SMS. The unstructured supplementary service data (USSD) API enables a business to gather more information from users and send them text or voice alerts. The payment API allows businesses to send and receive money through text messages. Africa's Talking also includes an analytics platform for tracking customer engagement.⁸³

Globally, companies such as Twilio provide cloud-based communications capabilities to third-party platforms, while the likes of Stripe provide comprehensive payment solutions through APIs. Africa's Talking can perform a similar role on the continent, enabling the rise of the platform economy by providing key telecommunications capabilities as a service.

Telecommunications groups, in particular Orange, have also developed APIs with similar capabilities. Orange's APIs range from verification and identity management to providing communications and data-management capabilities for third-party services and platforms.

The road ahead

The evolution of mobile-money platforms, particularly M-Pesa, highlights several opportunities for telecommunications companies to participate in the platform economy.

“Mobile-money platforms have developed the underlying infrastructure on which other platform services can be built.”

M-Pesa has four distinct layers of value creation, including the flagship mobile-money layer, where electronic units of money are transferred and settled. In conjunction with the savings accounts linked to the mobile-money network, this layer generates commercial activity on the platform.

This commercial activity feeds into the second layer – the data layer, which enables the provision of credit.

Next, the API layer allows a larger ecosystem to connect to the platform.

Finally, the services layer refers to key services created by the platform owner – Safaricom in this case – or by ecosystem partners.

The telecommunications industry's future will be characterised by ongoing innovation within each of these four layers.

At the money-transfer layer, for example, M-Pesa has been integrating with other payment and remittance networks to enable greater interoperability. There are two noteworthy types of partnerships in this space – partnerships aimed at creating greater interoperability within Africa, and partnerships aimed at integrating other payment networks globally, thus enabling more offshore payments and remittances. M-Pesa has partnered with Alibaba, WeChat and Western Union to enable interoperability with these payment networks.

In the data layer, telecommunications groups can package some of their data capabilities as services for third-party platforms. For example, credit-scoring services may be delivered as an API that enables ecommerce firms to determine the creditworthiness of individuals interested in making large purchases. Similarly, telecommunications firms can provide critical identity management services for consumers using their mobile-money platforms.

The API layer will likely facilitate much innovation, particularly as it unlocks products and services that have long relied on cash transactions. Twiga Foods is one such example. The company operates in the agricultural supply chain, connecting farmers of fresh produce to small-scale retailers. It also finances small farmers. M-Pesa's APIs allow Twiga Foods to manage payments to farmers. Smaller payments are made directly into M-Pesa accounts, while API-based bank account integration means larger payments can be deposited directly into bank accounts. As M-Pesa builds out its API layer further, other segments of the cash economy will become digitised.

Finally, in the services layer, Safaricom itself has been making significant moves. The group is relying on payment data to identify use cases where it can better facilitate communication. In that regard, it has identified three broad sets of use cases. The first is centred around payments, where communications capabilities are used to manage negotiations and payments. Second, communication services – and payments – are necessary in the gaming and sports-betting markets. Finally, communications enable groups to raise money for important events, such as weddings. With these broad use cases in mind, Safaricom has launched Bonga, a social networking platform integrated with M-Pesa.[1]

⁸³ <https://phys.org/news/2019-06-platform-africa-mobile.html>

⁸⁴ <https://techcrunch.com/2018/04/30/safaricom-rolls-out-bonga-social-networking-platform-to-augment-m-pesa/>

⁸⁵ <https://www.bsg.ox.ac.uk/sites/default/files/2018-06/2017-07-M-Pesa-Practitioners-Insight.pdf>

Safaricom's integrated payment and communications offering may also allow the group to develop a fully-fledged applications platform, similar to Apple's App Store, or WeChat, where dedicated apps are built for the platform. Today, many third-party applications integrate with an M-Pesa API but do not create applications on the M-Pesa platform itself. Mobile-money platforms could create a stronger network effect by allowing third-party developers to create applications on their platforms.[2]

The COVID-19 pandemic could spur further innovation in the mobile-money segment. Further, as ecommerce gains traction as more consumers work from home, and as mobile-money platforms temporarily waive their fees, mobile-money adoption rates could increase significantly.

In South Africa, the government has temporarily provided telecommunications groups with additional spectrum. This will help them to improve network capacity as millions of citizens work from home, and could help lower the cost to communicate. This could result in a long-term change in consumer behaviour to the benefit of the platform economy.

CONVERGENCE OF INDUSTRIES

The platform economy, while still relatively small, is gaining traction across various industries in Africa. As platforms expand their ecosystems, industry boundaries will increasingly blur and players from different sectors will start converging. This is already taking place across the four main industries discussed in this report.

Banking and telecommunications

The convergence between telecommunications groups and banks in Africa is particularly noteworthy.

MTN Mobile Money is an example of a vertically integrated model, where the telecommunications group manages the mobile-money platform as well as the payment platform and agent network. FNB's banking app, meanwhile, is fully owned and managed by the bank. M-Shwari, on the other hand, is a partnership between a telecommunications firm, Safaricom, and a bank, CBA. The bank provides financial products and services – loans and deposits – alongside Safaricom's financial offerings. CBA is effectively participating in Safaricom's ecosystem. At the same time, Equitel, a partnership between Equity Bank and Airtel, is an example of a telecommunications group participating in a bank's ecosystem.

Meanwhile, both FNB and Standard Bank have launched telecommunications services for their customers. FNB Connect and Standard Bank Mobile are mobile virtual network operators (MVNOs) that rent network capacity from Cell C, a traditional mobile operator. These services help banks to attract and retain clients.

Telecommunications and retail

Telecommunications companies have played an important role in ecommerce as enablers of payments. And since 2017, telecommunications firms have been participating more actively in the retail value chain.

In November 2017, Safaricom launched ecommerce platform Masoko, leveraging on the success of its mobile-money arm, M-Pesa. Its sizeable M-Pesa user base allowed Safaricom to avoid relying on cash on delivery. By owning both the payment service provider and the ecommerce platform, Safaricom can guarantee payments to merchants as soon as an order is placed. Finally, to address the logistics challenge, Safaricom is using its agent network for deliveries and collections.

Banking and retail

There has been significant convergence between retail and financial services organisations. Every major ecommerce company has invested in their own payment capabilities, and some are even moving into the lending space. Using data from its ecosystem, Jumia has entered the micro-financing segment, providing working capital to merchants on its platform. Financing encourages merchants to grow their participation on the platform, which is then able to scale faster.

Banking and healthcare

Many financial services firms are entering the healthcare industry. Discovery, one of the largest platform players in Africa's financial services industry, has been highly successful with its Vitality incentives platform, which rewards healthy behaviour.

Further, Discovery's DrConnect platform connects patients, doctors, and medical scheme case managers. The platform facilitates AI-informed doctor-patient interactions.

Banking, telecommunications and retail

The convergence between the banking, telecommunications and retail sectors will manifest most strongly in the services layer – closest to the end-user. Several initiatives by South Africa's FNB demonstrate this.

FNB Connect, the bank's telecommunications arm, offers customers attractive data bundles in a bid to increase the use of digital banking. Further, a monthly reward of one gigabyte of data is offered to customers who make at least one financial transaction on the bank's app in a particular month. Meanwhile, FNB's loyalty and rewards programme, eBucks, drives the convergence into retail. Finally, FNB's 'nav' platforms offer a range of services – from money management to house and motor-vehicle searches – that drive further convergence between these verticals.

Healthcare and telecommunications

The COVID-19 pandemic is driving closer convergence between the healthcare and telecommunications sectors. As discussed previously, Discovery and Vodacom have partnered to scale up the DrConnect healthcare platform to give all citizens free access to virtual doctor consultations. Vodacom provides the technology and connectivity while Discovery provides the network of doctors, who are paid a fee for each consultation.

The road ahead for convergence

To truly understand convergence in the platform economy, it is necessary to consider that convergence is primarily a quest towards identity management. The world's largest platforms – Facebook, Google, Amazon and Alibaba – all operate across multiple industries, with their initiatives tied together by identity management. Successful platform companies excel at understanding the identities of their users and the data generated across their ecosystems.

This is particularly important in Africa, where traditional banks, retailers and telecommunications groups are not yet able to identify most of the population. The convergence of these three industries is partly premised on managing the identity of users. Telecommunications groups provide a foot in the door through basic connectivity. Financial services firms are then able to capture users' financial identities. Finally, retailers provide use cases where financial identities can be exercised through payments and borrowing.

The most successful platform companies will be those that play across all these layers, driving ever greater convergence.

AFRICA CAN CHART THE WAY FORWARD

Despite being relatively new, the platform business model has already proven itself as the preeminent driver of growth, employment, shareholder value, efficiencies and innovation across industries and regions. The platform economy has also proven its resilience amid the COVID-19 pandemic as governments take extreme measures to encourage social distancing. These measures are accelerating the transition to digital technologies and could well lead to a permanent shift in consumer behaviour.

As we have discussed through this paper, the ability of a region or sector to transition to the platform economy is determined by the availability of digital infrastructure, whether or not the regulatory environment is innovation-friendly, and the disruptor's ability to create and scale a market where one previously did not exist, among other factors.

Over the past decade and a half, digital platform companies in Asia and the US have become giants in their respective industries. They have dislodged traditional banks, miners and oil & gas companies as the world's most valuable brands.

Africa's platform economy is also gaining traction. Global players have either established their presence on the continent already or are in the process of doing so as they eye new growth markets, and local firms are making headway too.

Relative to other regions, Africa's digital infrastructure – the foundations on which platform companies can innovate – is fragmented and immature. However, the continent has shown its ability to leapfrog its peers through homegrown innovation.

Alternative infrastructures are being developed across Africa. Mobile-money services, for instance, were built on top of existing network infrastructure, and now facilitate the growth of new platform business models.

Importantly, we believe that while technology companies have been first movers in the platform economy, there is a sizeable and unrealised opportunity for organisations in other industries to meaningfully participate.

In addition to the business-to-consumer segment, we see an untapped opportunity for large incumbent organisations to adopt platform mindsets and focus on the business-to-business market as well.

In doing so, they will be able to leverage their assets and brands to develop new markets, revenue streams and growth opportunities.

Indeed, many long-established African organisations have built up valuable intellectual property and technology assets, as well as robust operational capabilities. In many cases, these investments have been made to solve for the complexities associated with doing business on the continent.

Over time, they have invested in many of the building blocks of the platform economy, including the requisite digital infrastructure – from connectivity to identity management and payment solutions. They have also moved to solve many of Africa's business challenges, including logistics.

At the same time, many traditional firms have entrenched themselves as credible and trustworthy organisations. The oversight of regulators and industry bodies through the years has ensured accountability and a deep understanding of local regulations, further developing trust. This is particularly important when considering the scrutiny that big technology groups have attracted in recent years.

“In addition to the business-to-consumer segment, we see an untapped opportunity for large incumbent organisations to adopt platform mindsets and focus on the business-to-business market as well.”

Considering the above, many established corporates in Africa are well placed to participate in the platform economy and drive its development – if they position themselves accordingly.

By making their existing assets, capabilities and rich sets of data available to third parties, they will stimulate innovation and generate new opportunities for customers. And by leveraging their longstanding client relationships and brand trust, they can even take on the role of platform owners.

In adopting a platform business model, we believe that an established corporate in Africa could generate new types of revenue streams in the short to medium-term by:

- Monetising their own back-office and technological capabilities – licensing these to clients and partner organisations within their ecosystems
- On-selling the capabilities of trusted partner organisations to clients
- Co-developing new solutions for clients by combining their data sets and capabilities with those of their partner organisations.

For example, a mining company may have an opportunity to license its risk-management technologies and capabilities to an industrial firm within the same ecosystem of trusted organisations.

On the other hand, a financial services group may on-sell the asset-tracking capabilities of one client to another.

Just as business-to-consumer platform companies facilitate interactions between service providers and consumers, the examples listed above speak to interactions facilitated by the platform owner and its digital marketplace.

Though these are hypothetical examples, we believe this to be a compelling proposition for corporates, their partners and their customers. This approach would raise efficiencies, generate new revenues and innovation, and ultimately result in deeper client relationships.

Meanwhile, amid the transition to the platform economy, it is likely that established corporates will be relied upon as the backbone of innovation. Banks, for example, could become national identity providers, while telecommunications groups could take on the role of alternative payment networks.

We believe that well-established African organisations that embrace the fourth industrial revolution and adopt platform mindsets will be best placed to take advantage of the numerous opportunities to tackle Africa’s unique problems, and thus drive growth.

If regulated in a manner that curbs unbridled scale and dominance while also allowing for innovation, the platform economy promises to drive efficiencies and create new value across industries.

This is particularly relevant as business-to-business services migrate to the platform economy, following the lead of business-to-consumer organisations including Amazon and Uber.

Finally, as the COVID-19 pandemic causes severe damage to the global economy, the need to raise efficiencies, strengthen client relationships and access new revenue streams has come to the fore. We are of the view that the adoption of platform business models could help African corporates to be more resilient through this period and long into the future.

BUSINESS-TO-BUSINESS PLATFORM COMPANY

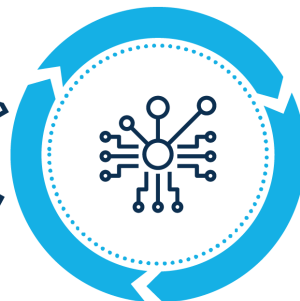
MINING COMPANY

The company, which has a commercial relationship with the platform owner, has a highly successful risk-management technology system



TELCO

The company, which has a commercial relationship with the platform owner, has robust asset-tracking capabilities



DIGITAL PLATFORM



MANUFACTURER

The manufacturer, which also has a commercial relationship with the platform owner, is seeking a quality risk-management system and asset-tracking services

THE DIGITAL PLATFORM’S ROLE IS TO MATCH AND FACILITATE INTERACTIONS TO CREATE AND TRANSFER VALUE



BIOGRAPHIES

KENT MARAIS

Group Head of Digital Channels, CIB, Standard Bank Group

Kent has a wealth of experience in the financial services industry, with over 20 years' experience in short-term insurance and banking. He has been with Standard Bank Corporate and Investment Bank (CIB) for close to nine years, having joined in 2011 as Head of Product Management in Transactional Products and Services. He is currently Executive Head of Digital Channels for Standard Bank Group's CIB unit.

Kent holds a Bachelor of Commerce Honours degree in Business Economics (Risk and Insurance Management) as well as a Master of Business Administration (MBA) from the University of the Witwatersrand. He has also completed an Advanced Management and Leadership Programme at University of Oxford's Saïd Business School.

Kent started his banking career as Business Unit Manager at Nedbank in 2000 and worked in a variety of operational and leadership roles before being appointed as Group Head of Digital Channels for CIB in 2018.

Kent is well versed in leading business units, managing large business-improvement projects, product management, channel management, driving strategy, digitisation, planning, performance and profitability.



JONATHAN LAMB

Executive: Platform Business Lead, CIB Digital, Standard Bank Group

Jonathan has more than 15 years of regional and global expertise in banking. He has been part of Standard Bank Group's Corporate and Investment Bank (CIB) for more than 12 years, having joined as Lead Analyst for Payments in Information Technology. Covering a variety of roles since then, he is currently Executive Head of Platform Business for Standard Bank CIB.

Jonathan holds a Bachelor of Science honours degree in Information Systems & Computer Science from Rhodes University. He has also received several professional certifications, and most recently, he completed the Senior Executive Programme Africa at Harvard Business School.

Jonathan started his banking career in the UK in 2005 and has worked in various roles across information technology, product enablement and channel management before being appointed as the Platform Business Lead for CIB Digital in 2018.

Jonathan has extensive executive-level expertise in digital channel and product strategy formulation and in execution across multiple African markets and customer segments. He also has broad practical experience in platform business models in Africa, and is regarded as a subject-matter expert in this space. He has a passion for using digital strategy with practical delivery to drive client experiences and has had significant customer-facing experience in the CIB domain.



SANGEET PAUL CHOUDARY

Global Advisor: Platform Economies and Network Effects

Sangeet is the founder of Platformation Labs and the best-selling author of *Platform Revolution* and *Platform Scale*. He has advised the leadership of more than 30 of the Fortune 500 firms and has been selected as a Young Global Leader by the World Economic Forum.

Sangeet's work on platforms has been selected by *Harvard Business Review* as one of the top 10 ideas in strategy, alongside Michael Porter, Clayton Christensen and others, and is one of the rare articles to have been featured thrice in the HBR Top 10 Must Reads compilations.

Sangeet is a member of the WEF's Global Future Council, an Entrepreneur-in-Residence at INSEAD Business School, the co-chair of the MIT Platform Strategy Summit, and the youngest ever recipient of the IIMB Distinguished Alumnus Award. He is a frequent keynote speaker at leading global forums including the G20 Summit, the World50 Summit, the United Nations, and the World Economic Forum.

