

INTO AFRICA

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DIGITALIZATION: **AFRICA'S FUTURE**

**THREE DIGITAL INNOVATIONS
SHAPING THE FUTURE OF AFRICA**

**REDEFINING THE FUTURE OF
DIGITAL FINANCIAL SERVICES**

**THE BUILDING BLOCKS FOR
AFRICA'S DIGITAL ECONOMY**

**THE PEOPLE, A FAST LANE FOR
FINANCIAL INCLUSION IN AFRICA**

**AFRICAN REGULATORS GET THEIR
DUCKS IN A ROW FOR FINTECH ERA**

**DIGITAL TRANSFORMATION IN AFRICA:
IMPLICATIONS AND OPPORTUNITIES**



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CONTENTS

FEATURED ARTICLES

Digital Transformation in Africa: Implications and Opportunities

The building blocks for Africa's digital economy

The People, A Fast Lane for Financial Inclusion in Africa

Three Digital Innovations Shaping the Future of Africa

Redefining the Future of Digital Financial Services

Navigating the Next Generation of Digital Payments in Africa

Understanding the Usage of Financial Services in Southern Africa

African Regulators Get Their Ducks in a Row for Fintech Era

EXCLUSIVE INTERVIEW

Fintech Innovations are Difficult but Not Impossible to Patent

SPONSORED FEATURE

MyBucks Takes Central Role In Africa's Disruptive Financial Revolution

SPECIAL FEATURE

Credibility of Private Equity Impact investing in Africa

Raising Investment Capital in Africa- Emerging Trends



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1. Blue circuit board background design for digital technology.
2. World map globe digitally drawn low poly triangle wire frame.

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Welcome to the October 2018 edition of **INTO AFRICA**, a publication with fresh insight into Africa's emerging capital markets. This month's edition, titled: **Digitalization: Africa's Future**.

Across Africa, eCommerce platforms flanked by payments, logistics, tourism and big data partners are starting to lift national economies. Technological disruption is transforming markets and societies across Africa in ways that wouldn't have been possible even five years ago. And this opens huge and still largely untapped commercial potential for domestic and international businesses.

The key to Africa's achieving its own digital revolution has been innovation at every step, adapting technology to suit the specific needs and dynamics of the continent instead of the other way around. We believe digital innovation is key to unlocking new markets and the adoption of digital technology enables companies to reduce the cost of servicing clients, to tailor products to the needs of specific income groups, and to streamline internal processes. And to successfully apply and leverage innovative technology along the value chain, technology needs to be embedded into a digital mind-set that focuses on agility, collaboration and flexibility.

We open the discourse with **MARK WALKER** (Associate Vice President, Sub Saharan Africa, International Data Corporation) who shared some insight into era of digital transformations in developing countries. He highlighted that one of the biggest impacts of the digital economy is that it removes traditional barriers to entry, and organisations must change the way they view their competitive environment.

In addition, **TEBOGO LEGODI** (Digital Lead, Sanlam Employee Benefit, South Africa) also contributed to digital transformations by outlining the impacts of technology in business. She made links with positive impacts on African youths and skills gap, the digital stock exchange as well as government regulations in Africa. **HANLIE SMUTS** (Associate Professor, Department of Informatics, University of Pretoria, South Africa) signal a note of warning to companies in Africa about the danger of getting to complacent with the current advancement in digital transformations. From a different angle, **JACK VAN COOTEN** (Digital Analyst, Ecobank London) identified three digital innovations sharing the future of Africa as mobile banking, mobile lending and PAYG solar power.

Moving on, **JACQUES LUDIK** (CEO & Founder of Cortex Logic South Africa) discussed how Artificial Intelligence (AI) is redefining the future of digital financial services. He stated that AI in Africa is on a roll and there is a realization amongst African business executives, particularly in financial services. While, **KIM DANCEY** (Head of Payments for FNB International South Africa) dissected digital payment in Africa and highlighted that the history of digital payments in Africa began well before the rise of mobile money as we know it - the famed MPESA. Furthermore, **DAVID SAUNDERS** (Engagement Manager, Cenfri, South Africa) and **KATE RINEHART** (Senior Research Analyst, Cenfri, South Africa) wrote the article "Understanding the Usage of Financial Services in Southern Africa" and shown that it is becoming increasingly clear that the link between the uptake of financial products and the ongoing use of those products is neither automatic nor certain.

Still more, we bring you a legal viewpoint from **JOHN SYEKEI** (Partner and Head of Bowmans Intellectual Property Practice in Kenya) and **EDDAH KIAI** (Senior Associate in Bowmans Intellectual Property Practice in Kenya) on the Fintech Intellectual Property and of the opinion that although Fintech innovations are difficult but not impossible to patent. In similar vein, **DAVID GERAL** (Partner and Head of Bowmans Banking and Financial Services Regulatory Practice), **JOHN SYEKEI** (Partner and Head of Bowmans Intellectual Property Practice, Kenya), **CHRISTINE MICHIRA** (Partner in Bowmans' Kenya office) and **BRIAN KALULE** (Partner in Bowmans' Uganda office) indicated that all may seem quiet on the fintech regulation front in Africa but under the surface, there is considerable activity as regulators get their ducks in a row in anticipation of change.

Still more, we bring you special features, **KELSEY TANNER** (Senior Private Equity Analyst, RisCura South Africa) examined private equity investment credibility concerns, particularly in Africa, that can be addressed with clear industry guidelines. Similarly, **LINDA ONYANGO** (Associate Partner, MNCapital Africa Advisory South Africa) looked at raising investment capital in Africa – the emerging trends, challenges and opportunities.

Feranmi Akodu

Associate Editor

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DIGITAL TRANSFORMATION IN AFRICA: IMPLICATIONS AND OPPORTUNITIES

By **Mark Walker**, Associate Vice President, Sub-Saharan Africa, International Data Corporation



While digital transformation has emerged as a top priority for most organisations, there are concerns around it being over-simplified, and that companies focus only on the front-end user experience. Many companies across the continent don't even realise that they are in a blind spot and they don't see the immediate need to embark on digital transformation, because they haven't realised how their business might be impacted.

At IDC, we have noted that many companies simply pay lip service to the real impact of embarking on a true digital transformation journey – both positive and negative. When considering what is occurring in developed countries, digital transformation is tangible. Companies that overlook this and don't start putting the building blocks in place to prepare themselves might diminish their own value and risk being disintermediated from the value chain.

One of the biggest impacts of the digital economy is that it removes traditional barriers to entry, and organisations must change the way they view their competitive environment. They can no longer rely purely on the five pillars of competitive analysis due to changes caused by digital transformation. In the digital economy, you may find competitors stemming from organisations that barely register on your competitive radar, yet they carry the capacity to disintermediate you, because they have sought-after capabilities. Consequently, friends become foes, and vice versa.

That said, IDC is already observing signs that companies traditionally slow to adapt are taking steps in the right direction. In the telco environment, for example, Orange has made quite a few key appointments in management, showing that they are preparing for digital transformation. These executives will focus on cybersecurity and innovation, which is not something telcos are traditionally known for. Diversification becomes the key issue here, and not just for the sake of it, but rather for diversification in following where the value is.

What's important is that if your customers, partners or other players in your value chain have moved away from the way you traditionally did business, you must move with them and this might require new capabilities and new ways of providing services.

How do you assess your competitors if you don't know who they are going to be in the future?

Companies must understand what the digital journey entails for them, how it impacts their business model and how their environment, and the industry they operate, in is shifting. IDC has been working with CIOs, walking them through our research-led blueprint aimed at thriving in the digital economy, and helping prepare them for success in this new world of business. It is critical for CIOs to understand that their customers' needs and preferences dictate how they engage with and support them. Unless they are willing and able to move away from traditional models, they are setting themselves up for failure.

The financial sector is one example that has seen a lot of change, with new disruptors emerging in the form of fintechs. Brick and mortar are no longer a necessity and the regulatory environment is also changing, which is lowering the barrier to entry in this industry. The digital environment also removes geographical barriers, so fresh, previously unconsidered competition poses a risk. As a bank, for example, you need to understand how traditional business practises will change due to external digital forces. Then you need to look at what business models need transforming to serve your customers better both on the front and back-end. The next consideration is the impact of new business models coming from a completely separate environment. Finally, particularly on this continent, the impact of mobile banking needs to be considered as those disruptors providing value for lower banking fees.

Where does security fit into the digital transformation picture?

Most South African companies are serious about digital transformation and yet only 9% of South African CIOs believe that cybersecurity and privacy technology are vitally important to a digital transformation strategy. We are seeing similar trends across the rest of the continent as well and this is a concern, because security should be the bedrock for digital transformation – if systems are taught wrongly at the start, the issues scale rapidly. This is particularly true within the scope of the Internet of Things where machine learning, artificial intelligence (AI) and the algorithms that power them must start out with security at their core. A misstep at the start could create a potentially critical security weakness further down the line.

Security is under inordinate pressure to perform and protect while always remaining behind innovation and the demand for agility. IT decision makers must balance the need to drive innovation, monetise data, manage user expectations and enhance agility while simultaneously ensuring that governance, risk, and compliance (GRC) mandates are met. IDC's research has found that 37% of CISOs are battling with this balancing act. This is being compounded by new regulations that have a direct impact on businesses in Africa. They must align the business' need for growth alongside both security and regulatory demands – they're all looking for the digital cure to the GRC and security problem.

Security can no longer be built in a vacuum. The organisation must partner with vendors to craft solutions that map back to specific challenges pertaining to industry, sector and internal structure. Unfortunately, the days of 'plugging in' some security and handing over a phone number to call when it all goes wrong have passed. Internally, there needs to be a clear line of sight as to who leads digital transformation. The power has gradually left the IT department and headed into a line of business. Employees use credit cards to spin up servers and run workloads that IT hasn't heard of, and often never will, until there's a breach. The technology hand is losing sight of what the business hand is doing with technology and this presents significant risk unless a clear line of sight is established at the outset.

Preparing for uncertainty

Organisations must prepare themselves for uncertainty because one of the biggest challenges in digital transformation is that organisations can

never know everything. Planning for every scenario is impossible, and that is where the agility of your business strategy is crucial. When a new, unforeseen competitor emerges, you need to be able to react fast and agile enough to change your business processes.

We neglect the importance of the link between data and technology in the future. It cannot be overemphasised enough that companies which become agile by using emerging technologies and making sense of their data are the only companies able to respond quickly to competitive threats and win. In the digital world, it is not technology for technology's sake, but rather a continuous assessment of what new technologies are out there which enable businesses to play in the digital world and make decisions that enable them to react faster. If you cannot do that, you will be left behind.

Contributor's Profile :

Mark Walker leads Sub Saharan research and consulting operations at IDC Middle East, Africa and Turkey. His consulting focus is on technology strategy and policy formulation, user adoption trends and competitive market planning.

He has over 25 years' experience as a consultant and industry analyst in the systems, data communications and IT services sectors and was instrumental in formulation of quantitative and qualitative research of African markets for IDC since 2001. He has directed large techno-economic studies for major international technology vendors across emerging markets and has consulted to governmental policy making bodies.

Mr Walker has deep knowledge of the African technology industry having held senior roles in engineering, sales and marketing within the software, defence, medical informatics, nuclear imaging and technology equipment sectors.

Mr Walker has been widely quoted in print and electronic media globally and has worked extensively across the Middle East region while based in Dubai, UAE. He currently resides in Johannesburg, South Africa.

His academic background includes a BA (University of South Africa), MAP (Wits), an IMM (Marketing) and telecommunications engineering qualifications from the Air Force School of Logistics and Technology.

THE BUILDING BLOCKS FOR AFRICA'S DIGITAL ECONOMY

By **Tebogo Legodi**, Digital Lead, Sanlam Employee Benefits South Africa



Access to technology changes peoples' lives, improves business practices and drives economic growth – that much is a fact. Now, technology is giving emerging markets a competitive advantage, allowing them in many instances to be more agile and innovative than developed economies. In Africa, a reduction in costs of hardware and continuous efforts to improve internet connectivity are two of the factors driving the continent's digital economy. However, maintaining the momentum to keep up to date with digital innovations to avoid being left behind remains a challenge.

According to a 2018 study by WeAreSocial, Internet penetration in Africa is at 34% with 1,040 172 mobile connections - this accounts for 82% of the population. The rise in mobile connections complements the exponential growth of mobile - based financial solutions, which subsequently provides an opportunity to include the previously unbanked population in the mainstream economy. Studies by Statcounter shows that Kenya, Nigeria, Ghana and South Africa are ahead of the world-wide average of 52% when it comes to mobile share of web traffic. According to GSMA 2018, in 2017 mobile tech generated 7.1% of GDP across Sub-Saharan Africa. By 2022, the mobile economy will generate more than \$150 billion of economic value added due to productivity and efficiencies brought by mobile services and mobile adoption by consumers. What are the building blocks to ensure continuous digital economy growth?

African Youth and Skills gaps

Africa is the world's youngest continent with 60% of the population under 25. Known as a mobile-first tech continent means that exposure to technology/digital is arguably the most defining characteristic of young people and has had an impact on the outlook of the youth on social and business interactions. Benjamin Disraeli said: "The Youth of a Nation are the trustees of posterity". If we are to accelerate and capitalise on the opportunities to build Africa's digital economy, the first building block is to empower the youth. In order to match the rapid exponential growth of mobile technology in Africa, we have to close the skills gap in transforming Africa's digital economy. As Figure 1 indicates, the literacy rates by gender and region, some of the regions in Africa are lower than

the global averages. It is critically important to gear ourselves for the future by first closing this gap.



It also involves investing in the youth to bridge the tech skills divide between the developed markets and African tech sectors. Young people in Africa are leading some incredible innovations borne out of the continent, driving consumption patterns and innovation rates across the entire continent. With a youthful population, one big opportunity is to empower and educate the youth by building a highly educated and skilled workforce that aligns with the needs of the private sector and government to sustain and grow African economies. High unemployment rates in the continent requires creative ways to get more people in the job market, and the mobile industry has contributed in solving this problem by creating 3 million direct and indirect jobs in 2017 and this is expected to increase to 3.45 million by 2022.

Apart from literacy skills, there is a gap in skilled tech developers, which will be a threat in the near future if not addressed timeously. This will hinder the progress to advance digital economy strategy. Google's partnership with Andela and Udacity to provide 15,000 "single-course" scholarships and 500 nanodegree scholarships to aspiring developers in Nigeria, Kenya, and South Africa is an example of how to unlock human potential at scale and tackle the technical skills gap on the continent.

Infrastructure and Connectivity

There is a positive correlation between sufficient infrastructure and economic growth, however infrastructure remains the biggest challenge to connectivity in Africa. The second block in building digital economy is access to internet. Available and affordable internet access is a prerequisite for

sub-Saharan Africa to participate in the digital economy. Strengthening and maintaining digital infrastructures provides the foundation that many other development activities will revolve around, while services and connectivity are the building blocks and the driver for economic development in the digital age. The lack of connectivity infrastructure, including reliable electricity in the continent is a major barrier to internet expansion. Africa is driven by mobility, and therefore there is an opportunity to provide cost-effective internet access as a solution to develop high-density areas such as those found in cities.

Digital stock exchange

There's a need for an African Digital stock exchange in order to succeed in building the digital economy. TechCrunch in 2015 noted that "Uber, the world's largest taxi company, owns no vehicles. Facebook, the world's most popular media owner, creates no content. Alibaba, the most valuable retailer, has no inventory. And Airbnb, the world's largest accommodation provider, owns no real estate". The third building block is digital interconnectedness. The digital economy has changed traditional philosophies on how businesses organise themselves and interact with each other; and how consumers acquire goods and services. There's a need to re-imagine the traditional boundaries and value proposition to fuel peer and supplier networks and ultimately customer experience.

There are remarkable entrepreneurs in Africa driving social economic innovations, with limited or no capital investments to grow their businesses. This presents a huge opportunity for Investors for an untapped market of African tech companies. Structural platforms for banks to support incubators and accelerators must be implemented to facilitate investments for tech entrepreneurs and Investors. African investors are risk averse and tend to lean towards tangible opportunities such as technology. Starting out in the digital economy gives Africa an advantage over the developed markets because it doesn't have infrastructure legacy issues, and therefore there's more opportunity for innovation to encourage private and public investments.

Data deficit

Africa has a data deficit and this filters across many sectors. Availability and access to accurate and reliable data is the fourth block to building the digital economy. The global business ecosystem technologies and the growing interconnection of systems presents opportunities for innovation and cost optimization. The success of the business

interconnections relies on the foundation of integrated data. The challenge Africa is facing as a continent, is that data available at a national and continental level is not integrated. Also even when data is available, it is not always reliable. The lack of relevant data will impact on the capacity of the region to make informed policy and implementation decisions, and also makes it challenging to seek opportunities for citizens. There's often an issue of compatibility which makes data integration challenging. Businesses should be able to securely share data in real time to enable digital interconnections to succeed. The ability to capture and use customer insights to shape products, solutions, and the buying experience as a whole is critically important.

Government regulations

The fifth and final block to building Africa's digital economy depends on government policies and regulations and partnering with stakeholders in the digital ecosystem. The absence of laws on areas such as cybersecurity, data protection and privacy, could slow down the growth of Africa's digital economy. Due to the increases in cyberattacks, African countries have implemented laws to protect the privacy and personal information of citizens, and should continue on this line. This is particularly important for global companies that collaborate with African businesses. Mobile is no longer a means of communication between friends and families, it is a tool for many to engage digitally and access basic services. Affordability is a challenge given the low-income levels and poor literacy rates in the region. As a result, governments should apply tax reform policies to improve affordability of technology for consumers. The focus should also be on extending connectivity to rural areas to enhance digital inclusion.

Conclusion

Technology has shifted from being a challenge to being a critical enabler in addressing the opportunities and challenges that many industries face. Building and sustaining a digital economy requires a proactive approach and collaboration between governments, investors, industry and civil society. Digital education for the youth, infrastructure growth and the fostering of an environment that allows technological transformation irrespective of social class and affordability will provide the platform to shape Africa's digital economy. Technology provides the world with an opportunity to work at scale, in real time and at an almost zero marginal cost – it will be transformational for Africa's economy at large.



THE PEOPLE, A FAST LANE FOR FINANCIAL INCLUSION IN AFRICA

By Hanlie Smuts, Associate Professor, Department of Informatics, University of Pretoria

Much has been written and said about Africa's on-line revolution, digital opportunity and digital transformation. Digital connectivity in Africa increased to 453 million people¹ at the end of 2017, with more than 557 million unique mobile subscribers². Rapid advancement and growth in smart and exponential technologies are creating the ability to catapult technological trends. In addition, Africa's digital eco-system is a showcase of innovation - transforming economic sectors such as telecommunication, finance and agriculture, and offering great opportunity for partnerships and technology start-ups. Africa has one of the fastest growing youth populations in the world boasting prospects for unlocking great potential. Irrespective of such a prospective encouraging picture, the question on how digitally connected Africans really are, remains and more essentially, whether Africa's most important resource, its people, are ready to embrace digital transformation.

Each obstacle an opportunity

Although optimism about Africa's potential to surf the digital transformation wave exists, many obstacles must still be addressed to fully optimise and unlock Africa's potential. The World Economic Forum highlighted that electronic payments offer a

highway to that future growth³ as financial inclusion with access to financial and mobile money services, get people online. Furthermore, such access to financial transactions and mobile payments set the scene for the platform economy⁴ of ecommerce driving digital economic growth.

The growth of mobile money in the region has not slowed down, supported by partnerships between mobile money operators and banks, as well as the establishment of FinTech companies across the region. Driven by mobile, the mobile money eco-system move over \$22 billion annually⁵, yet, according to the World Bank about 66% of adults on the continent stay unbanked. Through improved access to financial services and electronic payments, this potential may be unleashed towards sustained economic growth with more people actively contributing.

The main focus of these partnerships are on innovative, accessible and affordable services through investment in new ways of banking and digital operations. This requirement has elevated omni-channel providing a seamless user experience across all digital channels. With the front-end mobile application being the main customer touch point, banking and FinTech partners should invest,

1. <https://www.internetworldstats.com/stats.htm>

2. <https://www.gsma.com/newsroom/press-release/number-of-unique-mobile-subscribers-in-africa-surpasses-half-a-billion-finds-new-gsma-study/>

3. <https://www.weforum.org/agenda/2017/05/the-road-to-africas-future-growth-is-paved-with-electronic-payments/>

4. <https://ihub.co.ke/blogs/31672/platform-economy-the-next-business-frontier>

5. <https://www.forbes.com/sites/tobyshapshak/2018/05/16/mobile-drives-financial-inclusion-in-africa-growing-20-in-past-six-years/#468367003129>

not only in technology, but also in the people, understanding culture and user context.

User context as an option for realising the promises of financial inclusion in Africa

The Partnership for Finance in a Digital Africa reports that poor user experience across e-commerce platforms are evident as 70% of e-commerce payments are still cash-on delivery⁶, consequentially also impacting delivery, refund and exchange processes. According to the GMSA, high drop-offs are an outcome of poor mobile money payment user experience⁷. A large number of process steps and the requirement to capture various data points accurately, create multiple opportunities for error. In this instance, transaction account and payment product design are particularly relevant for electronic payments and should include user experience characteristics such as simplicity, reliability and take cognisance of customer expectation and context.

In Africa, user experiences are often influenced by interactions with mobile applications, wireless application protocol (WAP) and unstructured supplementary service data (USSD) - the choice being driven by the capabilities of accessible mobile devices. Interactions are all facilitated through user interfaces. Furthermore, feature phones still make up 56% of the African market share⁸, while continue to outsell smartphones. FinTech partners must therefore be cognisant of the particular user interface requirements as it plays a vital role in user experience.

Rather to specifically consider usability principles for feature phones or smart mobile phones, we share five high level usability guidelines to demonstrate how small steps in terms of usability can be a giant leap as far as the chances of realising the promises of financial inclusion in Africa are concerned.

Status visibility and control

Ensure that the user is kept informed of status timeously via applicable and context relevant feedback. Make it easy to determine which actions are possible for a user at any time. The more visible the available functions are, the easier users will perform their next task. Irrespective of the user interface you utilise, if scrolling is required, indicate that invisible content is available below the screen

border.

Users should easily determine what the current state of task completion is. In a wizard, for example, there should be an indication of the number of steps completed and how far the user is from the total completion of the task. It should be clear what the effect of each action is.

Support internal locus of control by allowing users to control what information will be displayed and how it will be displayed. E.g. if they prefer detailed tables to graphic summaries, allow them to hide the summaries.

A feature of dynamic USSD menus may be applied to present a menu based on the user's behaviour. E.g. a micro-insurance provider in Africa, utilises this feature where an USSD menu is presented to a user based on the features the user selected. An added advantage is that these features generate data that may be utilised to inform credit limits, lending decisions etc.

Let the real world inform the system

Of particular importance to the African context, is what the real world in Africa looks like. Maximise the extent to which the experience in the digital domain, can be applied by using words, phrases and concepts that the user is familiar with as opposed to system-orientated terminology. Consider the logical relationships between interface elements and their effect on the system e.g. labels and headings should be familiar to the user and not banking jargon; present the same kind of information for each account (e.g. rewards earned) in the same way.

Users using mobile phones and financial services (e.g. mobile money), are familiar with terminology in the telecommunication and mobile money industry. Use familiar terms like recharge, sender, cash-in, etc. to ensure understanding between the system and real world, limiting misinterpretation and optimising the touchpoint intervention required. This will also ensure that users discover services through easier and "familiar" navigation.

As USSD menus utilises submenus, ensure that submenus can be associated with the main menu option rather than presenting it under a different and unrelated heading.

6. <https://www.financedigitalafrica.org/>

7. <https://www.gsma.com/mobilefordevelopment/programme/mobile-money/integrating-mobile-money-e-commerce-challenges-overcome/>

8. <https://www.forbes.com/sites/tobyshapshak/2017/03/28/feature-phones-still-rule-in-africa-as-smartphone-sales-slow/#44117ffe60e5>

Help users recognize, diagnose, and recover from errors

Do not display error messages with codes, rather express errors in plain language. Be clear about what the problem is and suggest constructive steps to resolve or suggest a solution. Eradicate error-prone conditions by for example presenting users with a confirmation option before they commit to an action.

Allow the user to take corrective action when they recognize an error. Users should be able to “undo” a search easily when done incorrectly. Restrict user actions to avoid user errors. When a time period for a financial transaction is selected, enforce a valid period. Only display options or information that apply to the client’s portfolio.

Simple design and flexibility

Only include relevant information in the interface as any unnecessary information presented to the user at that point, compete with the pertinent information. Use concise but meaningful labelling. Where applicable and possible, provide expert users with shortcuts and allow users to tailor frequent actions. Allow users to choose what they want to see using well-designed search options.

Do not expect a user to remember instructions, options available or recall previous choices from memory. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

Due to the particular features of USSD menus, it may be presented as an unbundled menu with long lists of options, requiring users to page down through USSD menu navigation. Alternatively, if bundled USSD menus are applied, users may take a long time to navigate to the required option. The choice of such USSD menus may be user context specific and through participatory design sessions, user input in this regard may guide the best fit-for-purpose options.

Help and documentation

The user should not rely on help facilities, but when required make it easy to search and give clear steps to accomplish tasks. The importance of digital literacy and skills must not be underestimated as people require it to interact in the digital world.

The future highway

According to the 2017 PwC Global FinTech Report, 82% of the financial institutions expect to increase their FinTech partnerships in the next three to five years. Such partnerships facilitate the evolution of business models and changing the financial and mobile money services landscape. In this context, the African user context and usability is not an afterthought in the development process of financial systems capability. There is no doubt that Africa has all the resources it needs to overcome its most stark problems; ensure that financial and payment systems are designed to serve the needs of African users the best.

According to the World Bank⁹, there is a need in the broader industry across the continent to shift to the next generation of digital products. The message is clear: the future of financial inclusion is digital and digital knowledgeable people, are you prepared?

“Africa has one of the fastest growing youth populations in the world boasting prospects for unlocking great potential.”

Contributor’s Profile

Dr. Hanlie Smuts is an Associate Professor in the Department of Informatics at the University of



Pretoria. During her tenure in industry, she aimed to deliver consistent, customer relevance across all digital touch points, to empower customers through convenient and effective self-service, and to drive growth through personalised digital offerings. Through a deeper understanding of the digital and adjacent ecosystems, she championed transformation to digital and the need for collaboration in this context.

She currently focuses on research in IS and the Organisation with particular emphasis on digital transformation, disruptive technologies, big data management and knowledge management. During her last project in industry, she worked in East and West Africa implementing digital solutions to the mass market.

Dr. Smuts has published several papers and book chapters in her field of study.

9.https://www.ifc.org/wps/wcm/connect/region_ext_content/ifc_external_corporate_site/sub-saharan+afrika/resources/201805_report_digital-access-afrika

THREE DIGITAL INNOVATIONS SHAPING THE FUTURE OF AFRICA

By Jack Van Cooten, Digital Analyst, Ecobank London

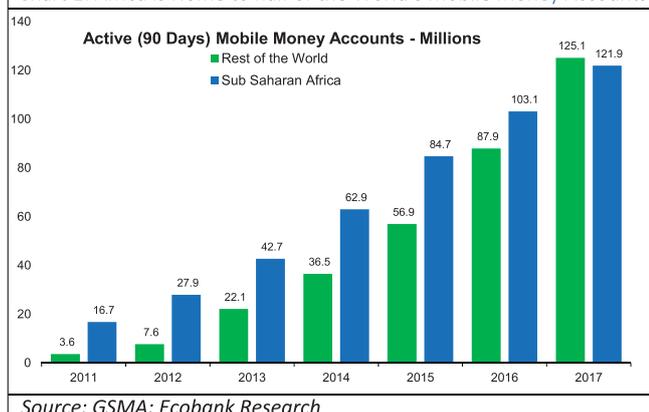


The mobile phone is at the forefront of technological innovation in Africa. Penetration rates are growing rapidly - in 2017 there were 444 million African unique mobile subscribers, a penetration rate of 44%. This figure is projected to grow to 634 million by 2025 (52%), making it the fastest region in the world for subscriber growth. The mobile industry will contribute US\$150 billion to Sub-Saharan Africa's economy by 2025 (about 8% of the total)¹, but perhaps more important than the numbers is the ability of mobile technology to be used as a platform for digital innovation. Three of these most exciting innovations: mobile banking, mobile lending and pay-as-you go solar energy, are described below.

Moving Beyond Mobile Money – Mobile Banking

The recent advancements in mobile-fuelled digital innovation across Africa can trace their foundations to Safaricom's M-Pesa in Kenya. Working on even the most basic of mobile handsets, M-Pesa allowed users to send each other money via SMS messages, and use 'agents' to deposit and withdraw cash from mobile wallets stored on their SIM cards. For over ten years, Africa has been the preeminent mobile money continent. It is home to half of the world's 247 million active mobile money accounts, 73 million of which are in East Africa (Chart 1)². M-Pesa's impacts on the Kenyan economy in particular have been profound, and it has since paved the way for a digital innovation model that has been replicated elsewhere in Africa.

Chart 1: Africa is Home to half of the World's Mobile Money Accounts



However, what will really drive technological advancements and digital inclusion in the coming years, and allow Africa to move beyond mobile money is the astronomical rise of the internet-enabled feature phone. Mobile handsets, often from Africa-focussed Chinese companies such as Tecno, iTel and Infinix (all of which sit under the same parent company, the Shenzhen-based Transsion Holdings³) can be purchased for as little as US\$30⁴, a price point available to almost everyone. These handsets allow users to surf the web, access social media and shop online, albeit in a limited manner.

Across Africa, only 33% of people have a bank account and inclusion rates are even lower for women (27%) and those in rural areas (30%)⁵. For the unbanked, it is more difficult to manage finances, save money, make payments, and obtain formal credit to start a business. Banks have begun to acknowledge this. Across the continent, they are developing products and services that leverage improving mobile technology and Africa's familiarity with mobile money to grow banking penetration and broaden financial inclusion. For those who don't have a bank account, the main reasons cited are that bank accounts are too expensive (as most in Africa require a monthly service-fee to be paid), and that they have insufficient or unreliable incomes. Others say that banks are too far away or that they lack the necessary documentation to open one. In response to this and following on from the mobile money precedent set before them, Ecobank have launched the entry-level Xpress Account⁶. Accounts can be opened and the user on-boarded entirely through a mobile app, and for free. There are no ongoing service fees, it is free to send and receive money, and customers can withdraw from ATMs using a voucher code generated through the app. Innovations such as the Xpress Account will do more than simply broaden financial inclusion. They also help to build digital and financial literacy skills by giving previously excluded customers the chance to get to grips with digital transactions and electronic money, often for

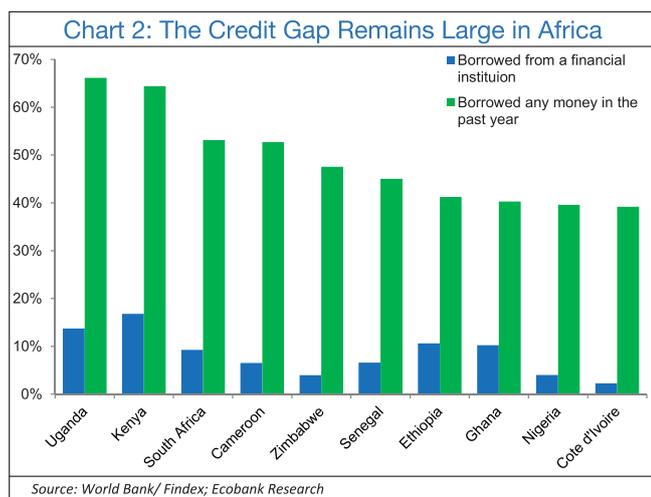
1. GSMA (2018) <https://www.gsma.com/mobileeconomy/sub-saharan-africa/>
 2. GSMA (2018) <https://www.gsma.com/mobilemoneymetrics/>
 3. Transsion Holdings <http://www.transsion.com/en/about/profile.html>
 4. <https://www.jumia.com.ng/mobile-phones/>
 5. World Bank/ Findex (2018): <https://globalfindex.worldbank.org/>
 6. <https://ecobank.com/personal-banking/ways-to-bank/mobile/mobile-banking-via-app/xpress-account>

the first time.

The Data Revolution - Mobile Lending

The ‘credit gap’ – the difference between the number of people seeking credit, and the (un)availability of formal credit to those people - is another big problem in Africa. For the ten countries selected in chart 2, there was on average a 41% difference between the proportion of adults who had borrowed money in the past year, and those who had done so from a formal financial institution⁷. The rest were forced to borrow from friends and family, or worse, from informal lenders who are known to charge exorbitant interest rates. But start-ups across Africa are using innovative digitally-based approaches to narrow this gap.

By 2025, 87% of phones in Africa will have mobile internet, a massive increase from 38% in 2017⁸.



These internet-enabled feature phones allow myriad additional pieces of consumer data to be collected and mobilised to bring the financially excluded into the formal sector. For example, analysing a customer’s history of mobile money transactions is increasingly being utilised by mobile-based alternative lenders such as Tala in Kenya and Paylater in Nigeria to create a credit score. From this, an algorithm that is continually augmented with machine learning can assess the creditworthiness of the borrower, before deciding the terms and limits of the loan. Once this has been decided, the loan is disbursed to - and subsequently repaid from - the customer’s mobile wallet. Many of these borrowers were unbankable five years ago, as there was simply not enough information for lenders to make an informed decision – but improving technology and mobile penetration is

continuing to create new business opportunities, and new ways to mitigate financial exclusion. Another strand of innovation is also enabling this process: the rise in start-ups focussing on providing ‘digital identities’ to those who were previously without, thus enabling them to meet financial institutions’ KYC (Know-Your-Customer) regulatory requirements. Being able to prove one’s identity, particularly as more aspects of society and the economy shift online, is a prerequisite to inclusion. One startup, Tradle, aims to place the KYC process in the hands of the consumer by building a global trust provisioning network on the blockchain. Another example is how Ecobank allow customers to use the KYC information from their SIM cards when they are opening an Xpress Account, digitalising and streamlining the onboarding process. Finally, other companies are using digital technology to provide physical addresses to those who live in houses without an officially recognised address - a pertinent challenge particularly for those living in informal settlements. Accessed through a free mobile app, What3words use GPS coordinates to divide the world into a grid of 3m x 3m squares and assign each square a unique 3 word address. People can use this three word code to pinpoint people’s exact address. All of these innovations are facilitated by, or accessed through the internet-enabled mobile phone and will continue to coalesce across Africa in the future.

Combining Innovations – PAYG Solar Power

Another exciting digital trend in Africa is the rapid rise in pay-as-you-go (PAYG) solar energy and their accompanying standalone home appliance systems. This innovation represents a combination of numerous breakthrough technologies working in synergy. Companies such as M-Kopa in Kenya, or Arnergy in Nigeria provide solar panels and accompanying products, notably LED lightbulbs, phone charging cables, electrical appliances such as TVs, radios and even home internet, for a small upfront fee. The remainder of the cost is paid back incrementally, usually over the next twelve to eighteen months, and often using mobile money. The PAYG solar energy model is vitally dependent on the interoperability between the solar panel company and the mobile network operator. Without the development of robust and mutually-beneficial partnerships between the two, this innovation would not have grown so rapidly.

As chart 3 shows, much of Africa, particularly its

7. World Bank/ Findex (2018): <https://globalfindex.worldbank.org/>
 8. GSMA (2018) <https://www.gsma.com/mobileeconomy/sub-saharan-africa/>

REDEFINING THE FUTURE OF DIGITAL FINANCIAL SERVICES

By Dr Jacques Ludik, CEO & Founder of Cortex Logic South Africa



Although Artificial Intelligence in Africa is on a roll¹ (as can be seen with the dramatic increase in Artificial Intelligence-related events on the Machine Intelligence Institute of Africa² (MIIA) events calendar³ in 2018), there is a realization amongst African business executives, particularly also in Financial Services, that they need to boost their organization's competitiveness by innovating through investments in Artificial Intelligence (AI) technologies. The reality in Africa is that there is much planning, investment and policy-making required before local businesses and decision makers can properly leverage this transformative technology. For any Financial Services business to stay relevant and thrive given the swift pace of change and disruption in the Smart Technology Era (4th Industrial Revolution), it needs to be transformed into a smart-data-driven business and have increasingly more real-time intelligence on all aspects of its internal operations, customer needs and impact, and competitive and collaborative forces in the ecosystem in which the business operates. The better a company is able to mine all available internal and external data across its operations, value chain, customers, and ecosystem to create real-time dynamic simulation models of all aspects of its business, the better it would be able to optimize the business over short, medium, and long-term windows and adjust its course where required.

Smart Data-driven Business Transformation can for example involve the following steps:

- Define the AI journey roadmap (Game changer and quick wins use cases, future state capability scenarios, benefits and roadmap)
- Implement AI Transformation Catalysts to accelerate path to value generation
- Do regular assessments of AI maturity from an Intent, Technology, People, Data and Process perspective (maturity states vary from ad hoc, opportunistic, repeatable, managed, and optimized)

In order to accelerate a company's path to value generation, from its current-state of data utilization to a clear understanding of the promise of AI when applied against a company's key business problems or goals, the following transformation catalysts are key: intent (strategy, sponsorship, justification), data (relevance, quality, availability), technology (adoption, performance, functionality), people (skills, culture, organizational structure), and process (tracking, analysis, decisioning). In addition to having a practical AI roadmap and organizational alignment, businesses need to focus on operationalizing AI via quick-win end-to-end solutions that can lead to business benefits such as increased productivity and revenue, reducing risk, lowering costs, creating strategic value, enable smart automation, enhancing customer experience, and implementing more targeted sales and marketing.

Financial Services businesses that are dissatisfied with their speed and/or inability to unlock value from AI and solve strategic and operationally relevant problems, should collaborate with AI / Smart Technology partners such as Cortex Logic⁴ that can help them to accelerate the operationalization of AI solutions. Some of the problems that many businesses face include not having access to people with AI and data science related skills, struggling to attract top talent and cultivating the best possible environment for the top talent, having business divisions that are operating in silos, not having a solid, scalable data infrastructure and smart data layers to enable rapid access to all data for analytics, and not having the ability to integrate AI solutions into business workflows, processes and customer facing channels. Compared to the developed world, African businesses in general also do not have high quality data streams. In addition to driving awareness of AI and skills training within the fields of data science and analytics, local businesses also have to ensure that they create and enforce strong policies around internal data storage and data protection.

¹ <https://www.linkedin.com/pulse/artificial-intelligence-africa-roll-jacques-ludik/>

² <http://machineintelligenceafrica.org/>

³ <http://machineintelligenceafrica.org/activities/events/>

⁴ <http://cortexlogic.com/>

Many of the current success stories with AI have come about with companies enabling analytic innovation and creating data services, embedding a culture of innovation to create and propagate new database solutions, enhancing existing solutions for data mining, implementing predictive analytics, and machine learning techniques, complemented by the creation of skills and roles such as data scientists, AI or machine learning engineers, data science developers, big data architects, data visualization specialists, and data engineers, among others. These enterprises' experiences in the AI landscape are characterized by innovation, acceleration, and collaboration. Another key aspect of leveraging AI is to also understand where it can be used, when it can be used, and how it can be used. Some examples of value drivers include

- Strategic drivers:
 - o *Generate new opportunities*: Through exploratory analysis uncover hidden patterns and generate new business opportunities
 - o *Proactive decisions*: Through predictive analytics forecast customer and market dynamics, gain operational insights
 - o *Faster decisions*: Speed up strategic decision making, provide more frequent and accurate analysis (e.g., real-time analytics dashboard, intelligent virtual assistants and advisors)
 - o *Better decisions*: Estimate impact using cross-organizational analysis, quantify impact of decisions.

- Efficiency drivers:
 - o *Reduce costs*: Focus on continuous improvements items, reduce costs on people, process, infrastructure & tools that does not enhance an agile and smart data-driven business
 - o *Increase automation*: Reduce efforts needed to extract, consolidate and produce reports, innovate automation options
 - o *Improve capabilities*: Complement or retool skills of current analysts to emphasize problem solving and recommendations, develop data-driven decision-making culture
 - o *Eliminate redundancy*: Eliminate redundant tools, data stores and processes, focus on consolidation and continuous improvements
 - o *Improve processes*: Standardize metrics and stream line processes

The operationalization of AI should focus on business outcomes such as increased productivity and revenue, reducing risk, lowering costs, creating strategic value, enable smart automation, enhancing customer experience, and implementing more targeted sales and marketing (see Figure 1). AI solutions can be characterized by solving core business problems and needs in a practical, cost-effective way using all available data and smart technology in an end-to-end, full stack, integrated, scalable, and secure manner.

In order to help businesses thrive in the Smart Technology Era, AI-based solutions can be delivered to solve business needs with respect to an

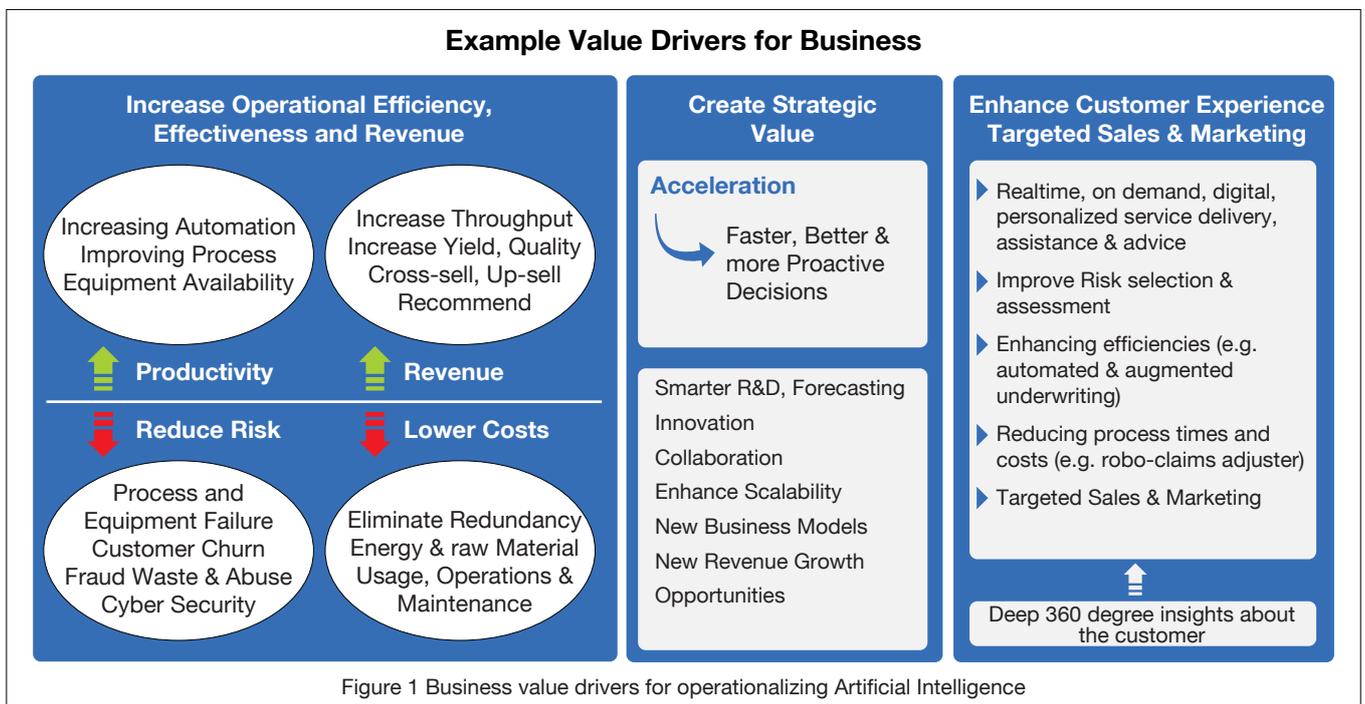


Figure 1 Business value drivers for operationalizing Artificial Intelligence

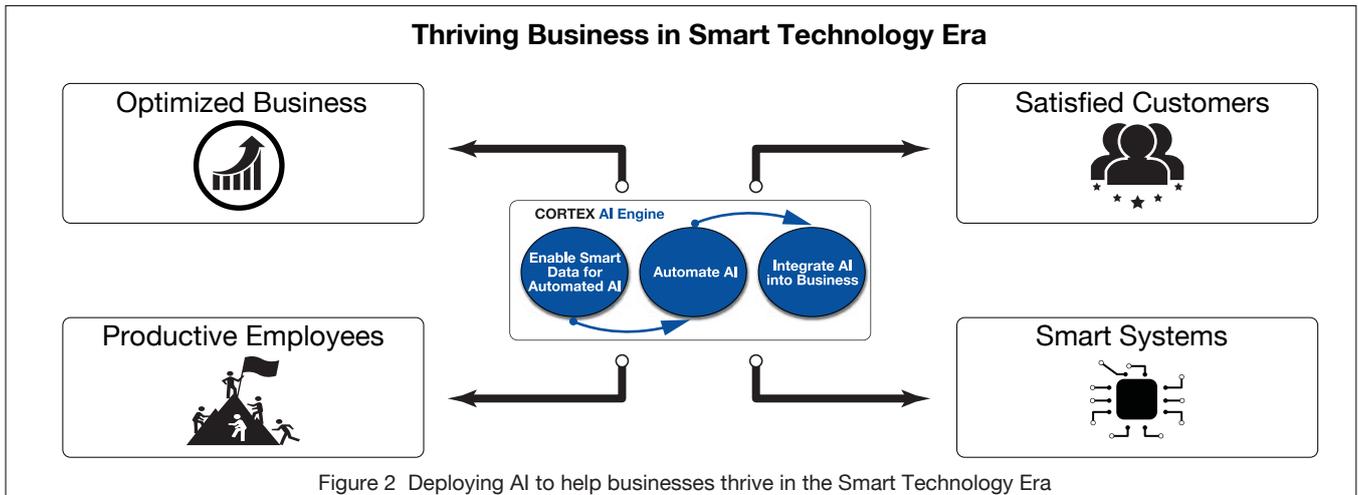


Figure 2 Deploying AI to help businesses thrive in the Smart Technology Era

optimized business, a satisfied and growing customer base, productive employees and smart systems to support the business' smart digital transformation (as illustrated in Figure 2).

Figure 3 shows the value drivers to help businesses and organizations thrive for an optimized business, a satisfied customer base, productive employees and smart systems. The following aspects are essential to operationalize AI-based solutions:

- Enable Smart Data for Automated AI
 - As shown in Figure 4, enabling smart data for automated AI involves providing a solid data lake and warehouse infrastructure that can not only deal with the volume, velocity and variety of structured and unstructured data but also enable rapid access to all data via flexible data models, data preparation and smart data layers for analytics and automated AI systems. It should support polyglot persistence and facilitate access to various source systems via data virtualiza-

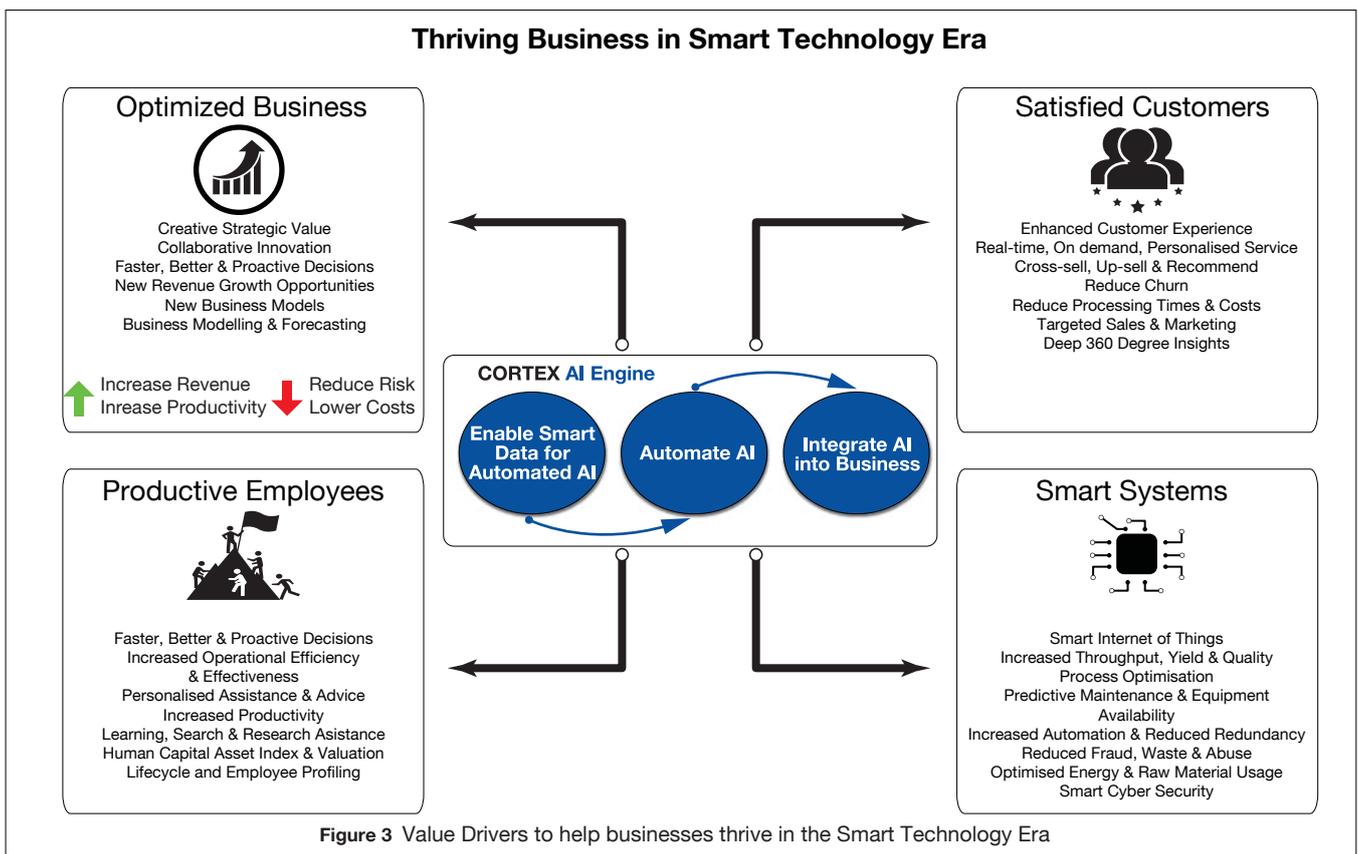


Figure 3 Value Drivers to help businesses thrive in the Smart Technology Era

tion, distributed processing and other system components. The multi-platform architecture should also provide a governance model to support trust and security, master data management, data federation, data cataloging, automation, support for all types and levels of users, and the ability to facilitate near real-time analysis on high velocity data, massive parallel processing and in-memory compute.

- Automate AI
 - o This type of data and compute infrastructure is essential to operationalize Data Science and implement automated AI systems where there is significant reuse of feature libraries and data preparation pipelines for generating deep insights via data exploration, analysis, contextualized data, modelling, and predictive models in a development and productionized context.
- Integrate AI into the Business
 - o The next step ensures that the analytic outputs, scores and predictions are integrated into the business via an Analytics services layer that involves, amongst others, automated analytics dashboards, intelligent assistants, a range of deployed models, simulation and optimisation service and real-time machine learning. The integration

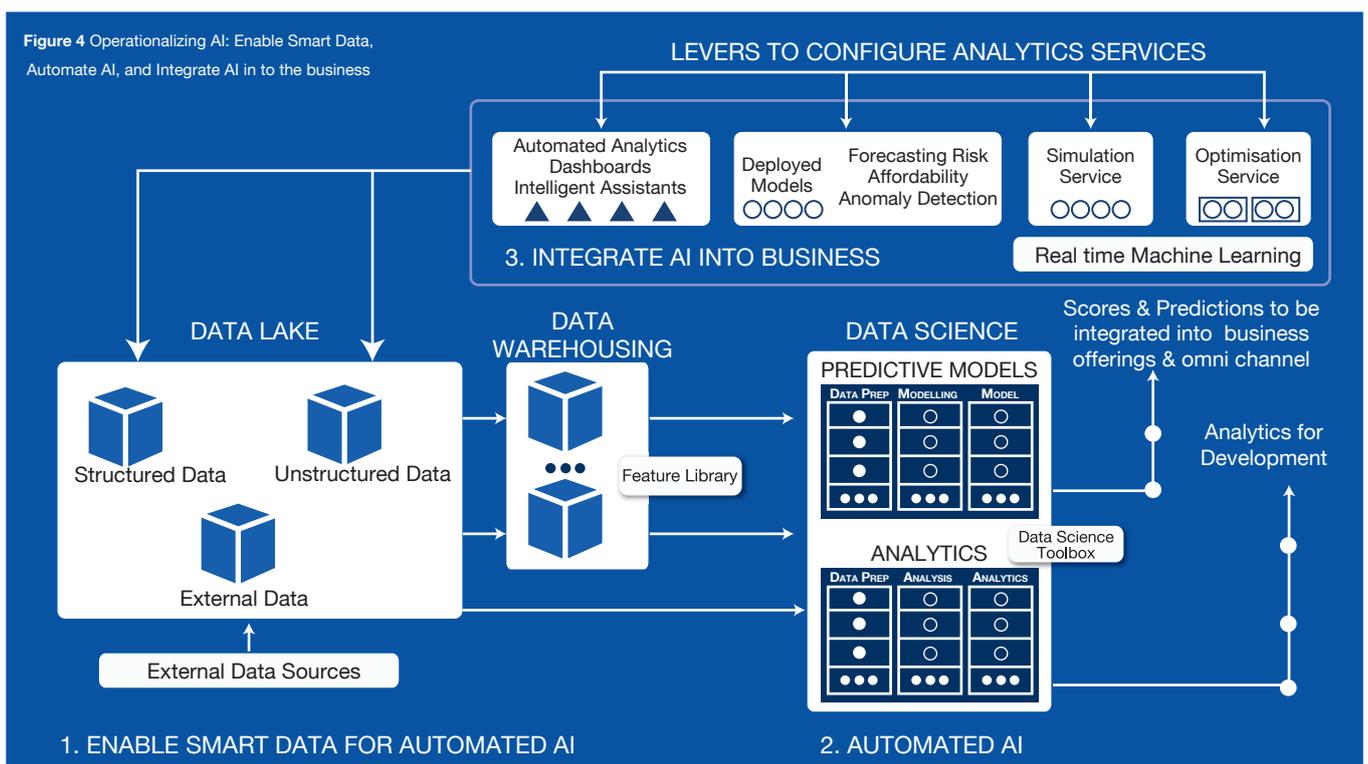
into business processes involves for example:

- on-demand delivery models via access-anywhere analytics services and context-aware business applications,
- push delivery models via alert and respond and location-based services, and
- embedded delivery models via workflow and interaction automation and smart devices and systems.

Some relevant use cases for deploying AI Solutions in the financial services sector includes:

- Real-time customer insight
- Risk analysis and management
- Fraud detection and security analytics
- CRM and customer loyalty programs
- Credit risk, scoring, and analysis
- Churn mitigation, response modeling
- High speed Arbitrage trading
- Trade surveillance, abnormal trading patterns, market manipulation and fraud detection
- Smart payment systems

Figure 5 illustrates the operationalizes AI within a banking environment from enabling smart data for automated AI, providing 360-degree view and insights via automated AI, and integrating the AI generated insights into the business via next best actions.



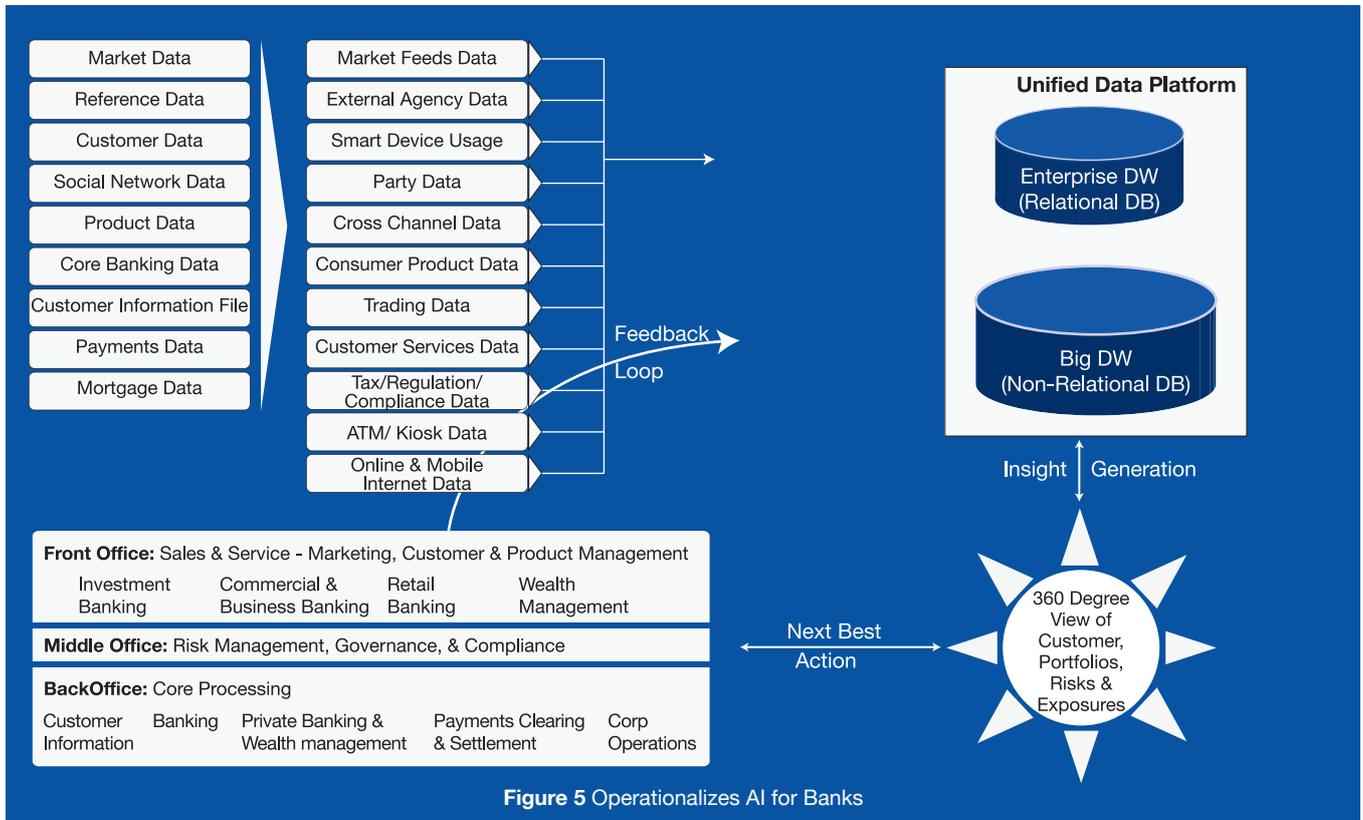


Figure 5 Operationalizes AI for Banks

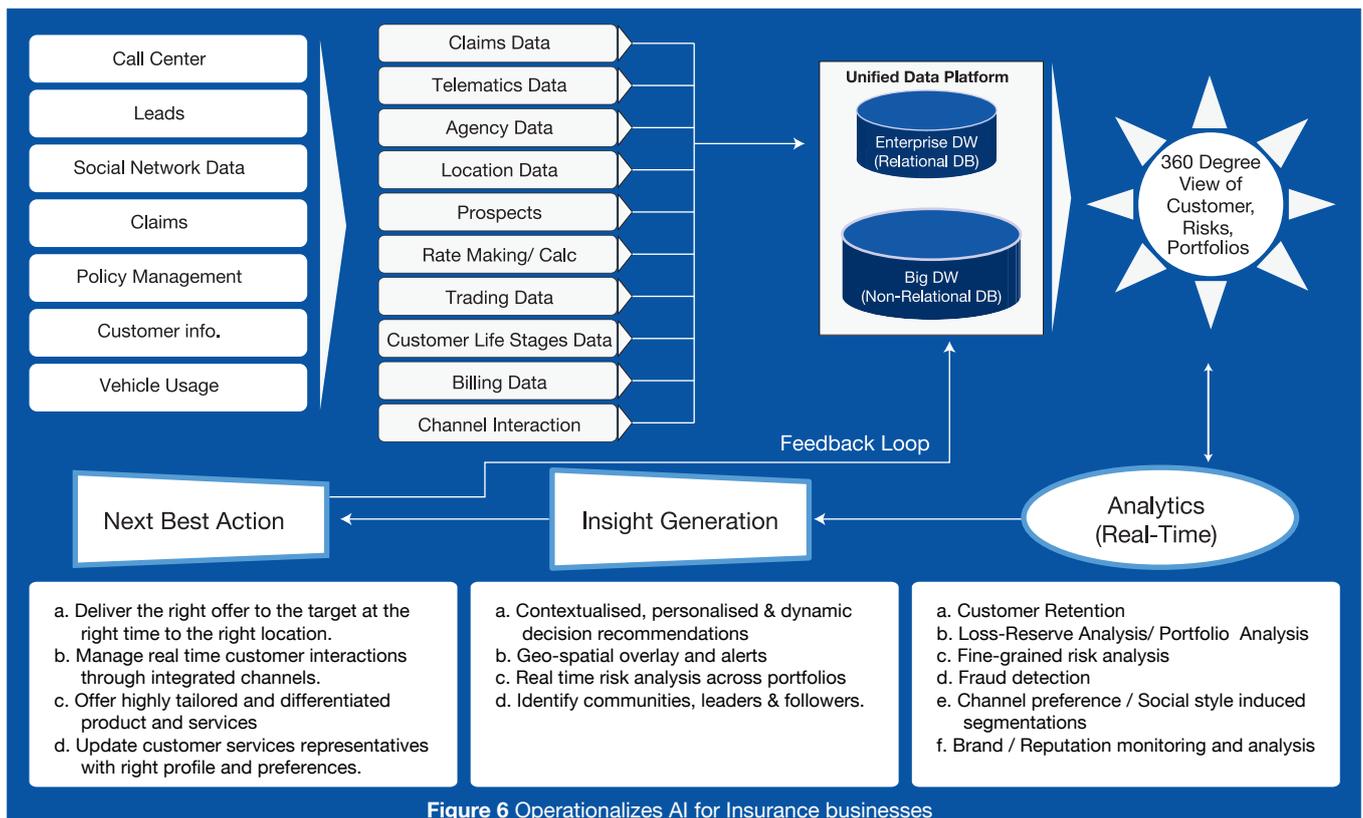


Figure 6 Operationalizes AI for Insurance businesses

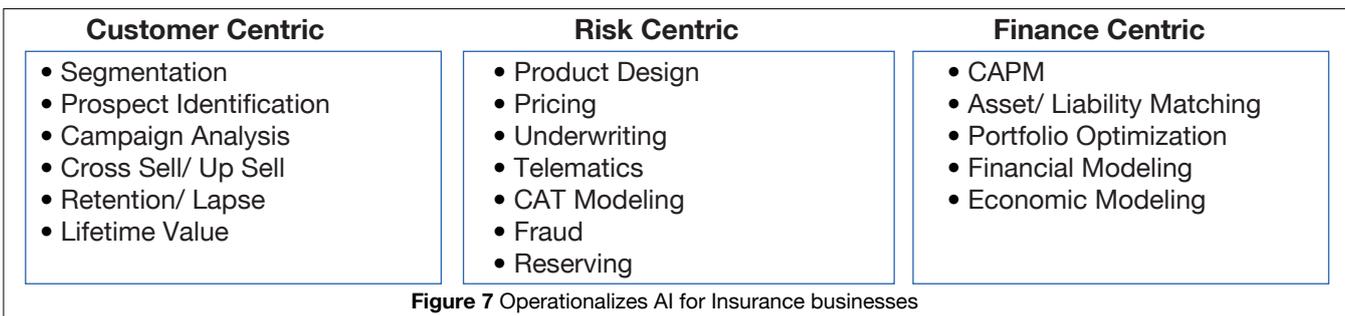


Figure 7 Operationalizes AI for Insurance businesses

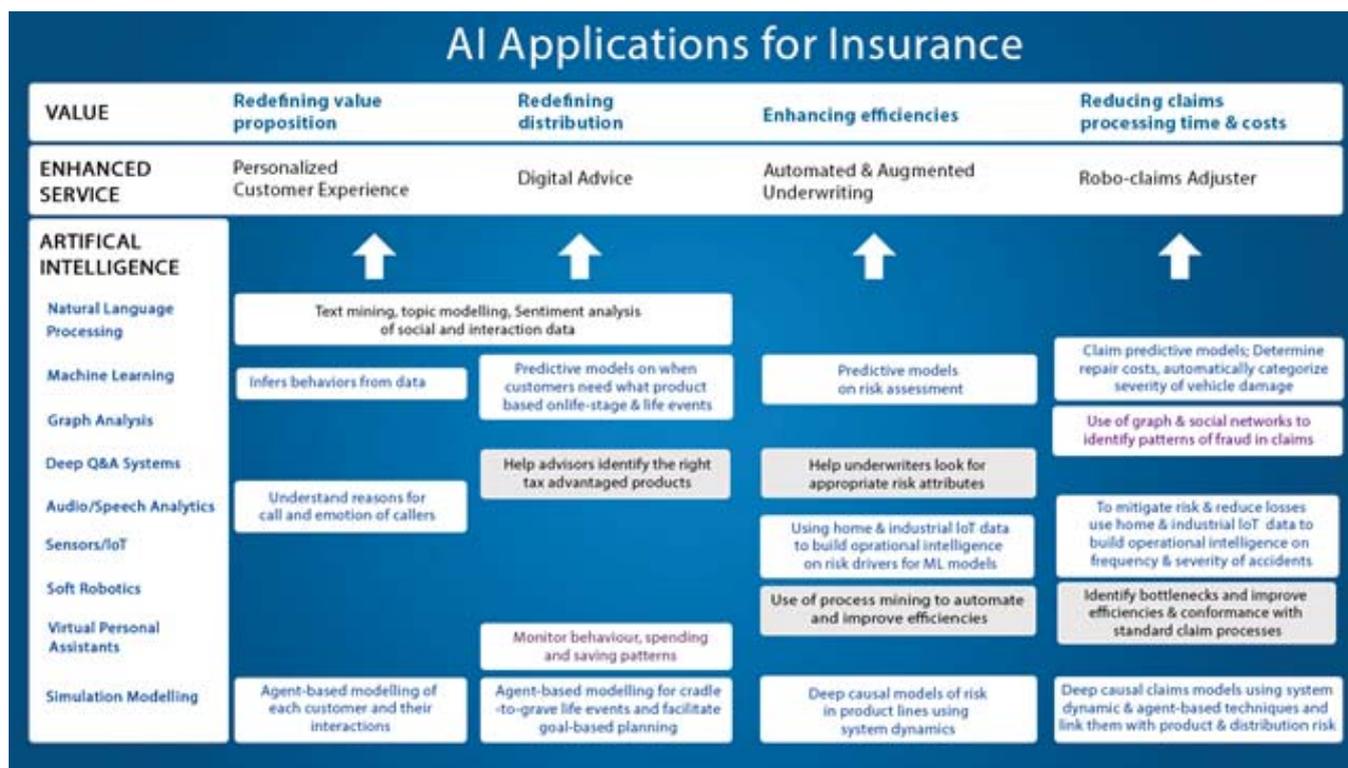


Figure 6 illustrates operationalizes AI for the insurance industry, whereas Figure 7 shows the analytics domains for the insurance industry within the categories of customer centric, risk centric and finance centric.

Figure 8 shows the AI applications in the Insurance industry with respect to:

- Redefining the value proposition via personalized customer experience
- Redefining distribution via digital advice
- Enhancing efficiencies via automated and augmented underwriting
- Reducing claims processing time and costs via robo-claims adjuster

“Although, Artificial Intelligence in Africa is on a roll and there is a realization amongst African business executives”.

Contributor’s Profile

Dr Jacques Ludik, CEO & Founder of Cortex Logic, President & Founder of the Machine Intelligence Institute of Africa.

Dr Jacques Ludik is a smart technology entrepreneur, Artificial Intelligence (AI) expert, investor and ecosystem builder with a Ph.D. in Computer Science (AI) and 25+ years’ experience in AI & Data Science and its applications. He is currently, amongst other roles, the Founder & CEO of Cortex Logic and Founder & President of the Machine Intelligence Institute of Africa (MIIA) and has also founded Bennit.AI, The Talent Index, SynerG and CSense Systems (Africa’s first AI company that was sold to a multi-national company, specifically General Electric in 2011). Apart from his executive management responsibilities in these companies, he was previously Vice President Data Science & Chief Data Officer at Jumo, Director and Big Data & Analytics Leader at General Electric and Senior Lecturer & Researcher at Stellenbosch University.

NAVIGATING THE NEXT GENERATION OF DIGITAL PAYMENTS IN AFRICA

By **Kim Dancey**, Head of Payments for FNB International South Africa



The history of digital payments in Africa began well before the rise of mobile money as we know it. Some time before the famed MPESA, people in Africa were sending mobile phone top-ups to each other as an easy and secure way to digitally transmit value. In 2009 First National Bank, South Africa expanded its cross border mobile top-up service to include all SADC countries. These international airtime transfers were performed real time, via SMS, meaning that the GSM network offered a new set of payment rails.

At that time, few would have imagined a world where more people would have access to a mobile phone than a toilet or electricity¹. Today, mobile technology is said to contribute to 13 of the 17 Sustainable Development Goals. Mobile payments are considered an essential tool for delivering on this ambitious agenda. Better connectivity and new services are enabling healthier, more inclusive communities, providing access to essential services like electricity, health and education.

Fast forward a decade to the current era where the rise of cheap smartphones are transforming the paradigm for both the unbanked and the banked. This paradigm shift has created opportunities for a new generation of players in the financial services space – the so-called Fintech players. Africa is considered a global leader in fintech innovation due to the high penetration of mobile phones, coupled with the low penetration rates of traditional banking infrastructure in some African countries, creating opportunity for innovation. Sub-Saharan Africa has long been the focus of mobile money growth, and shows no sign of slowing. The GSMA State of the Industry report for 2017² maintains that mobile money has evolved into a leading payment platform for the digital economy, with more than 690 million registered accounts in over 90 countries, with sub-Saharan Africa representing 49% of that market.

However, as impressive as these numbers look, and despite the many Fintech entrants, ambitions remain the same as those who have been slogging

away in Kenya, Tanzania and elsewhere for a decade now: how to move customers beyond P2P payments and into a digital payments ecosystem that would see funds recycled, and not cashed-out.

The GSMA report states that globally, activity rates have flattened over the last three years with only three out of 10 mobile money customers transacting in a 90-day period. The current service addresses the immediate needs of customers, but does not encourage more transactions or drive customer stickiness. Thus, the elusive tipping point where mobile money deployments become a mobile payment systems still remains largely out of reach.

And the future looks complicated; the mobile network operators are no longer the “disruptors”, it is the Fintech and tech titans, like Apple; Google who have now taken on this role. Enter Loon, a Google company, partnering with Telkom Kenya to deliver connectivity to remote areas of Kenya by through a network of giant balloons. Loon's balloons float high in the stratosphere, around 20km above sea level; a height the company says is out of range of air traffic, storms and wildlife. Each balloon carries an antenna, which relays internet signals transmitted from the ground, extending coverage to an area of 5,000sq km. As much of Kenya's population is catered for by mobile coverage, to date the telco companies have owned the network technology, the infrastructure as well as the customer relationship. However large sections of the country are disconnected from the internet and Project Loon consequently represents a major challenge to the traditional telco business model. If Loon is successful, the stronghold that the telcos have over the mobile technology market could be slackened.

If one accepts that payments are the gateway to the digital economy for the underserved, and that the current mobile money model is an opportunity to provide a platform that opens access to key services, the telco companies must aim to provide

1. <https://www.businessinsider.com/chart-of-the-day-putting-global-mobile-in-context-2012-4?IR=T>

2. <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2018/02/GSMA>

services that go beyond P2P transactions. In August 2017, in Kenya, Safaricom announced it would open an API portal, for businesses to integrate their services with MPESA. Easy API integrations allow third parties to plug in, expanding the value of mobile money for all customers. This is an example of innovation available to the telco's to further develop the mobile payment platform and to counter the challenge posed by the tech giants.

Looking forward, all players in the mobile technology game will need to adapt to a changing environment. The challenges discussed below are common to all players and will need to be considered in navigating the next generation of digital payments in Africa.

One key challenge: the enemy remains cash! The adage that “Cash is King” endures as powerful today as ever. Overall, cash still emerges on top in most consumers' assessments: it is trusted, ubiquitous, reliable and has almost no barriers to use. So, while there may be specific circumstances in which the function of cash can be improved upon, for example the displacement of funds by using mobile money to send money over distance, as of now, no one app or mobile money service checks all the boxes quite as readily as cash does. Only China stands apart, tech giants in China have been particularly successful in creating platforms that improve customer experience by providing seamless access to a variety of use cases. Alipay and WeChat Pay provide a complete value proposition to customers, making sure not to leave obvious gaps where alternatives such as cash could creep in. These companies have, between them, created a digital and mobile payments ecosystem that successfully spans the array of payment functions from P2P to bill payments to offline shopping. It is very likely that the e-commerce, social media and gaming focus of their respective parent companies (Alibaba and TenCent) gave these services their notable foothold.

As always the regulatory ecosystem presents challenges. The GSMA report highlights growing demands on financial service providers from regulators, and increased compliance pressures. Going forward, a stronger focus on data regulation is likely. As providers integrate their platforms with a broad range of institutions, regulators are contemplating how to manage issues pertaining to data sharing between organisations, cross-border

flows, security, analytics, privacy, and more. A trend is also emerging in the SSA region where governments seeking to shore up public revenues are imposing tax collection requirements on mobile money service providers. This trend may see a shift in focus by investors toward RegTech solutions. Heralded as the new Fintech, “RegTech” has rapidly risen to prominence in the past two years, the concentration of RegTech is the use of technology to facilitate the delivery of regulatory requirements.

The growth of store of value interoperability is a further significant trend. In many countries on the continent, regulators, possibly influenced by advisors from the World Bank; IFC and the like, view interoperability as key to payment system evolution. Interoperability is seen to facilitate an efficient payment system, as it enables real time payments to be made and cleared between any account or any mobile wallet, facilitating visibility within financial transactions. As payments are often the first, and most used financial service, getting payment products to “talk” each other is vital to expanding digital payments. Making it easy for people to access transaction accounts and payment services, using any store of value, matters in enabling financial inclusion. And therefore, interoperability is considered crucial to increasing the usage of mobile money services, thereby deepening financial access. In May 2018, the Bank of Ghana launched a mobile money interoperability system using the existing industry interbank payment and settlement system (GhIPSS) aiming to simplify transfers across mobile money networks. The next step is to enable the movement of money seamlessly between mobile wallets and bank accounts. Likewise, Tanzania and Kenya have opened to interoperability, and regulators in many other African countries have indicated a similar sentiment.

The trends explored above will be key to traversing the digital payments future in Africa. Furthermore, service providers will be compelled to simultaneously serve not only the smartphone customer base, but also feature phone customers, as the USSD channel is still alive and well, and may well remain so. Success will require skillful judgement on when to align or partner; or to tailor in-house solutions. Data analytics will be key to understanding how best to serve the customer, and innovative thinking is a prerequisite. All of which will have major implications for digital payment service providers, and the millions of people that they serve.

UNDERSTANDING THE USAGE OF FINANCIAL SERVICES IN SOUTHERN AFRICA



By **David Saunders**, Engagement Manager, Cenfri, South Africa
Kate Rinehart, Senior Research Analyst, Cenfri, South Africa

The recent 2017 Findex findings have triggered another round of important discussions on usage in financial inclusion. They highlight the importance of usage: If consumers don't use financial services, they don't get value from them and providers don't make money. It's a lose-lose situation.

Understanding usage in financial inclusion has been one of i2i's main objectives. Our research has shown that it is becoming increasingly clear that the link between the uptake of financial products and the ongoing use of those products is neither automatic nor certain.¹ If uptake does not necessarily translate into usage, and usage is necessary to achieve impact for both the consumer and the provider, the key question is really, "How can we increase usage?"

To answer this question, we set out to create a conceptual framework of what influences consumers to make ongoing use of financial products. Our framework identified five broad categories that, together, inform consumers' usage decision²:

1. **Functional drivers** are factors that influence the consumer's perceived value that they derive from the product, such as whether the product meets a need, and cost in terms of both monetary value and time.
2. **Relational drivers** are decision-making considerations – such as trust and relatedness – that are associated with the way in which consumers relate to, or connect with, a financial provider or product.
3. **Contextual factors** are pre-existing conditions – such as gender or societal context – that influence uptake and usage of financial services and are not easily influenced by the consumer or provider.

4. **Behavioural factors** stem from deep-seated preferences, beliefs and decision-making tendencies, also known as biases and heuristics
5. **Financial knowledge and skills** are factors – such as a consumer's knowledge of financial concepts, awareness of financial products and practical know-how around using financial products – that influence the usage decision.

This article examines how this framework can be used in practice to understand drivers of usage for different types of financial inclusion initiatives. It looks at three in Southern Africa: grant payments in South Africa, mobile money in Zimbabwe and retailers in South Africa.

Government-to-person (G2P) social grant payments in South Africa

In 2012, the Government of South Africa migrated G2P payments (previously disbursed in cash) to digital payments and opened transactional accounts for beneficiaries. While digitisation can make payments more convenient, very few of the recipients reaped the benefits of being financially included. One study found that 90% of recipients used their account only once to withdraw their income from their bank account as soon as they received it.³ The account otherwise remained dormant. By applying our drivers-of-usage framework, we identified three factors that may have led to this behaviour:

- **Lack of functional drivers:** The restrictions on the type of transactions that could be made through the account limited the account's ability to meet the financial needs for individuals beyond receiving income. For example, there was no easy way for recipients to check their bank

1. <http://i2ifacility.org/insights/blog/can-the-usage-issue-in-financial-inclusion-be-solved?entity=blog>

2. <https://indd.adobe.com/view/70e93a78-a8b8-437a-a20e-bc96f0f4debc>

3. https://cenfri.org/wp-content/uploads/2016/11/Why-use-accounts-understanding-account-usage-through-a-consumer-lense_FinMark-Trust_2016.pdf

balance and transaction history. This limited their perceived control of their finances.

- **Limited financial knowledge and skills:** Many recipients thought that their grant eligibility would be affected if they deposited additional funds into their bank accounts, which discouraged them from using it to save.

Mobile money in Zimbabwe

Mobile money has gained significant traction in Zimbabwe since EcoCash was launched in 2011⁴. In 2017, over 47% of the adult population had an active mobile money account.⁵ We identified three factors that may have driven the use of mobile money:

- **Contextual factors:** Zimbabwe experienced hyperinflation and cash shortage from 1998 to 2008, which resulted in numerous bank closures, which reduced trust in the formal financial system. The absence of cash and the lack of confidence in the banking system created a gap in the market for mobile money.
- **Functional drivers:** The shortage of cash created a financial need for consumers who were looking for alternatives to transfer value. Mobile money addressed this financial need for consumers by reaching into local communities to enable them to meet their need to transfer value in the absence of cash.
- **Relational drivers:** Mobile money providers built trust and relatedness by employing individuals in these communities as agents.

Retailers in South Africa

Retailers in South Africa (such as those selling fast-moving consumer goods [FMCG], clothing, furniture or appliances) have been successful in offering financial products and services such as transactional, savings, insurance and credit products.⁶ For example, retailer services accounted for 20% of domestic remittances, i.e. money sent to family members or friends within South Africa, in 2016.⁷ We identified three factors

that may have driven the popularity of financial services offered by retailers:

- **Behavioural factors:** Credit accounts at retailers can only be used to purchase the specific goods or services offered by the retailer. Consumers noted that they valued this aspect of retailer accounts, as it helped them to control their spending habits.
- **Functional drivers:** Retailers have extensive physical footprints and late store hours, unlike more traditional financial services. This made them more convenient for consumers who did not need to miss work or find transport to access them.
- **Relational drivers:** The terms and conditions of the products offered by retailers made consumers feel that the retailers understood their lifestyles, challenges and financial needs and that the products had been designed for them. The retailers allowed consumers to determine the amount they wanted to pay, the timing of payment and the form of payment. This flexibility built relatedness.

The above are a few of the insights that can be drawn from applying our usage framework to financial inclusion initiatives. They highlight that FSPs should focus on:

- Meeting the financial needs of consumers
- Building trust and relatedness in addition to reducing costs
- Making contextual and behavioural factors work for them

This is only a starting point, and we would encourage FSPs to engage with the framework when they evaluate their own initiatives.

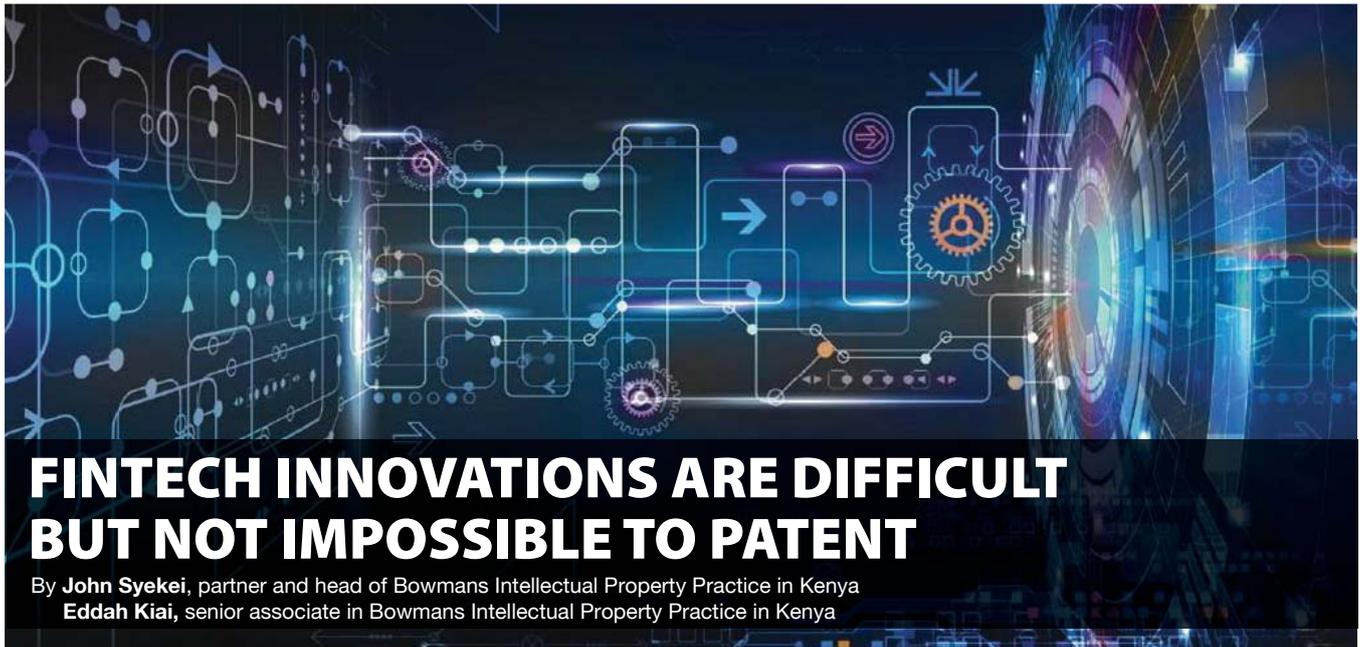
“They highlight the importance of usage: If consumers don’t use financial services, they don’t get value from them and providers don’t make money. It’s a lose-lose situation.”

4. https://cenfri.org/wp-content/uploads/2016/01/MAP-Zimbabwe_Diagnostic-report_Cenfri-finMark-trust-UNCDF_October-2016.pdf#page=108

5. <https://globalfindex.worldbank.org/>

6. https://cenfri.org/wp-content/uploads/2013/11/Retailers-Motivation-for-Offering-Fin-Services-in-South-Africa-report_FinMark-Trust_FinMark-Trust_2014.pdf

7. <http://www.technoserve.org/files/downloads/South-Africa-domestic-remittances-report.pdf>



FINTECH INNOVATIONS ARE DIFFICULT BUT NOT IMPOSSIBLE TO PATENT

By **John Syekei**, partner and head of Bowmans Intellectual Property Practice in Kenya
Eddah Kiai, senior associate in Bowmans Intellectual Property Practice in Kenya

While it is not impossible for fintech developers to successfully secure patent registrations in respect of innovations relating to blockchain and cryptocurrencies, they should be keenly aware of the many pitfalls they may encounter. Only a fraction of the patent applications lodged in the United States – where most attempts to protect fintech-related IP have occurred – have been granted.

“Despite an increase in patent-filing activity, few patents have been granted,” says John Syekei, head of the East African Intellectual Property (IP) Practice at leading Pan-African law firm, Bowmans. He points to 2017 figures for the United States, showing that the IP authorities granted patents for only 11 out of 160 smart contract applications and for only 61 out of 511 blockchain applications. Patent applications for cryptocurrencies were also given short shrift, with fewer than 15% accepted.

The main reason most applications were rejected is that they did not reveal anything new. Different countries have operational differences in how they examine inventions for patent-eligibility, but novelty is key. The problem is that most cryptocurrencies are based on existing platforms. “As a developer, you would have to show you have done something in the underlying platform that is unique.”

With blockchain and cryptocurrency innovations, the novelty test is all the more pertinent given their decentralised character and the fact that the underlying technology is sometimes public, in some cases based on open source software, or otherwise

not private. “Further, critics against monopoly in matters related to cryptocurrencies argue that exclusivity – which is what a patent essentially grants – is the antithesis of everything decentralised currencies stand for,” Syekei says.

However, if a fintech developer has indeed created something new and wants to protect it, there are IP protection options other than patent registrations to consider. These include utility model protection, copyright, trademark or trade secret protection. However, each of these comes with its own pros and cons.

Utility model has limitations

“Utility model protection is only available in some countries – most notable markets, the UK and the US, do not offer utility model protection. The process of applying for this protection is not as rigorous as that which applies to patents. The applicant only needs to show that the invention is new and industrially replicable. There is no need to go to a lot of effort to distinguish it from existing innovations,” says Eddah Kiai, an associate in Bowmans’ East African IP Practice.

In Kenya, for example, this form of protection is issued on the basis of the application only and not through substantive examination or checks on claims made.

Kiai goes on to say that, “the disadvantage is that utility model protection is not very strong and is easily revoked if challenged. There are not enough

stress tests. The advice we give to clients is that it is good to have this protection, but they need to question whether it can be upheld under a revocation challenge.”

Treating an invention as a trade secret may seem like an attractive common law remedy as protection comes without registration, but there are many drawbacks. “To be considered a trade secret, an invention has to meet certain conditions, particularly around keeping it a secret, which can be easier said than done,” she says. “Trade secret protection may also prevent collaboration with other entities and does not protect against the development of the trade secret by third parties.”

Copyright the most challenging to enforce

“Copyright protection is another possibility, but this is likely to be very difficult to enforce,” Kiai says. “Bear in mind that the predominant source code for blockchain technology is based on open-source and therefore a related invention cannot be held back from the public. Custom-developed proprietary source code is a different matter. But we would still ask a developer, ‘Exactly what is it that you claim copyright over?’ It could be very difficult to convince a court that a source code is absolutely owned by someone unless developed wholly in-house.”

An interesting twist on the use of proprietary source code, however, is the resistance this could provoke in the marketplace. “One of the currencies that landed in the United States threatened to move away from open source and there was a significant backlash.”

Protecting the brand is key

While developers may encounter hurdles in claiming technological ownership of a blockchain product or cryptocurrency, they should not overlook the importance of protecting their brands.

“The brand is key,” says Syekei, pointing to the value and market prominence of the Bitcoin brand.

“While registering a trade mark would protect the brand only and not the technology, the developer can still fully commercialise a platform, contract commercially with clients and offer commercial services.”

Filing a trade mark through the Madrid system (for the international registration of marks) is possibly the “most prudent” way to protect a blockchain or

cryptocurrency brand in as many jurisdictions as possible.

Consider each case on merit

Syekei adds that whatever IP protection options a fintech developer considers, it is vital to understand the legal requirements, capacity and constraints of the jurisdiction concerned.

“Many African registries do not have the technical expertise to examine the claims that patent applicants make, for example. At the same time, they may not permit an invention devised in that specific country to be pursued elsewhere without approval from the local registry. This is the case in Kenya. There are ways to overcome these hurdles, such as by convincing the registrar that it is not possible to get a proper examination in Kenya or by committing to commercialising the invention in Kenya and not outside. The point is that, as always in Africa, there are many nuances in the IP frameworks of different countries and no one-size-fits-all approach.”

Contributor's Profile



John Syekei, partner and head of Bowmans Intellectual Property Practice in Kenya. His experience covers commercial intellectual property advice, IP litigation, advertising law and litigation, advice on drafting and/or negotiation of information technology agreements on seller or buyer side, and advice on the protection and enforcement of trade mark, patent, copyright and industrial designs. John is regionally and globally renowned for his excellence in the IP space, and has received several top citations and recognitions from international directories. John is an Advocate of the High Court of Kenya as well as a Patent Agent, Commissioner of Oaths and a Notary Public. He holds a LLB from Moi University.



Eddah Kiai, senior associate in Bowmans Intellectual Property Practice in Kenya. Eddah specialises in intellectual property law, information and technology and telecommunications law. Her experience extends to consumer protection, e-commerce, advertising, trademarks, patent drafting, data privacy and project management. She is admitted as an advocate of the High Court of Kenya and a member of the Law Society of Kenya. Eddah graduated with a Bachelor of Laws (LLB) degree from the Catholic University of East Africa and a LLM degree from the University of Cape Town and is a registered patent agent.

MYBUCKS TAKES CENTRAL ROLE IN AFRICA'S DISRUPTIVE FINANCIAL REVOLUTION

By **Dave Van Niekerk**, Founder and Executive Chairman, MyBucks



There are many factors contributing to 'Rising Africa'. However, FinTech stands out, in some cases stands alone, as the dynamic industry continues to disrupt the global finance institutional status quo.

Despite the boons of the Fourth Industrial Revolution, the vast majority on the continent, our prospective clients, still have not had the opportunity to develop relationships with 'brick and mortar' banks out of sheer disconnection or lack of physical access; nor have they held credit histories in certain cases and so they remain in the exterior of the continent's unbridled potential.

However, with the emergence of entities like MyBucks and MyBucks technology, we are leapfrogging the west in technological scalability and like to think we have taken a central role in financial inclusion and Africa's financial liberation or 'new dawn', prose and politics aside.

Our already millions'-strong Pan-African clientele clearly agree with us and are playing an active role in this process.

Launched in 2011, MyBucks now hosts a footprint in 13 African countries where we offer digital financial services driven by cutting edge, artificial intelligence ('A.I.') machine learning technology, catering to earners of all increments and walks of life. Mobile phone enterprises have evolved with us and so too embraced wholesomely the innovations of MyBucks, Africa's first FinTech provider. A conducive climate has greatly accelerated our growth and that of the financial sector on the continent.

Of course, the growth of these services does not disrupt harshly the traditional financial system; if anything, we expand it, by offering spirited competition and when working together, servicing the needs of the untapped population at large, providing a service that boosts revenue in a myriad of sectors.

A report by PWC Africa projects that 2018 will mark as a central juncture in the financial revolution that is sweeping across emerging markets around the world of which I speak. The low cost of smartphone and smartphone technologies, coupled with rising youth populations and an increasing availability of internet access are serving as proponents of rapid

access and accordingly, growth.

And where there are fissures in access, we take the fight for financial inclusion to our clients. In some cases, MyBucks has distributed free smartphones in pilot program-regions, with our technology inherently built-in. Using this technology, our clients, existing and new, are able to link multiple accounts, conduct real-time transactions, manage budgets, acquire e-insurance and even get instant spending advice through bespoke offerings and rapid-response support.

Yet the fissures remain - A survey on the '...Access and Usage of Information and Communications Technology (ICT)' by the Zambia Information Technology Authority in collaboration with the Central Statistical Office and the Ministry of Transport and Communications for example, revealed in 2015 86% of the population did not have bank accounts.

Mobile-money services present an opportunity for Zambians, for Africans, and particularly low- income and middle-class earners, those disconnected who would not have otherwise had an opportunity to access traditional financial services in a bank, to use digital finance or attain a line of credit. Our work, disruptive as it may be, offers relief to the unbanked population.

For MyBucks, our mission to alleviate financial stress in this growing industry also opens avenues to offer quick cash, short term loans payable in installments over a period ranging between six to sixty months as well as generating visualized monthly credit reports; a life-changing form of marketplace integration.

It is estimated that nearly 90% of the population in Africa use cash for retail payments, and this is attributed to a lack of electronic transaction infrastructure. This is an avenue fintech firms would be looking to explore in the continued revolution, and rest assured we intend to do so.

MyBucks will continue to take central stage in this financial revolution because we believe it is in our hands to create lasting change. We look forward to keeping your readers well apprised of this winning battle in the weeks, months and years to come.

AFRICAN REGULATORS GET THEIR DUCKS IN A ROW FOR FINTECH ERA

By **David Geral**, Partner and Head of Bowmans Banking and Financial Services Regulatory Practice

John Syekei, Partner and Head of Bowmans Intellectual Property Practice

Christine Michira, Partner in Bowmans' Kenya office

Brian Kalule, Partner in Bowmans' Uganda office

All may seem quiet on the fintech regulation front in Africa but under the surface, there is considerable activity as regulators get their ducks in a row in anticipation of change. Bowmans specialist lawyers in this emerging sector comment on the state of play in Kenya, South Africa and Uganda.

Kenya has been among the first to show its hand, homing in on the consumer credit market where conventional bank lending has been taking a back seat to technology-leveraged credit. Since strict legal limits were imposed on the interest rates banks may charge – as a result of the Banking Amendment Act of 2016 – banks have become increasingly reluctant to lend to retail consumers.

The gap left has been eagerly filled by a host of new players that are leveraging technology to provide credit services, including mobile money service providers, microfinance providers, online lenders and even some traditional banks as well.

This new breed of technology-driven lenders and lending services is credited with contributing to a six-fold increase in access to retail credit in Kenya between 2010 and 2016.

The flipside of the coin is growing concern about lending practices that unduly burden borrowers, such as poor debt assessment, resulting in the granting of unaffordable loans, and the high rate of credit bureau listings of individuals who default on nominal sums.

Concerns have also been expressed about the broad spread of interest rates charged, from 13% on the low side to 700% in some cases. Unlike lenders governed by the Banking Amendment Act, there have been no caps on the interest rates charged by other credit providers.

Authorities respond with far-reaching draft legislation

All this has raised alarm bells at the country's National Treasury, amid fears that unrestricted fintech lending could undermine the gains made through the mobile payment industry, which has

helped increase financial inclusion in Kenya to above the global average of 65%.

The response has been the drafting of the Financial Markets Conduct Bill of 2018.

Published for public comments in May 2018, the draft Bill seems set to usher in a new framework for the regulation of the retail financial services market, consisting of four new regulatory bodies: the Financial Markets Conduct Authority, the Financial Sector Ombudsman, the Conduct Compensation Fund Board and the Financial Services Tribunal.

The Financial Markets Conduct Authority in particular would have wide powers. All providers of financial products and services would have to apply to it for mandatory financial conduct licences and the Authority would be able to set maximum interest rates and impose hefty fines on any provider failing to abide by the standards and practices set.

An important feature of the draft Financial Markets Conduct Bill is that it appears to be technology agnostic, applying to all financial services providers regardless of the technology used for delivery.

The draft Bill is still in the early stages of the legislative process, so it is not clear how the establishment of the Financial Markets Conduct Authority would dovetail with the activities of the Central Bank, which administers the National Payments Systems Act, the Banking Act and the Money Remittance Regulations, among others.

However, after the Governor of the Central Bank publicly voiced unease about the Bill, Kenya's Minister of Finance said the proposed new regulator would not impinge on the mandate of the Central Bank, whose views would be considered before the Bill is finalised and presented to Parliament.

An interesting point to note about fintech regulation as it stands in Kenya is that the Capital Markets Authority (CMA) is the regulatory body responsible for blockchain applications, among other things, but cryptocurrency falls under the Central Bank.

Earlier in 2018, the CMA issued a policy paper outlining its plans for a regulatory sandbox and invited innovators to register their projects. The Central Bank, on the other hand, has come out strongly against cryptocurrencies and it remains to be seen whether there will be any takers for the CMA's invitation.

Consumer protection a priority in Uganda

In neighbouring Uganda, meanwhile, consumer protection in the fintech space is also emerging strongly as a flashpoint for regulators and policy-makers.

Fintech services are hugely popular in Uganda, especially among the younger generation. Mobile money services in particular are abundant, used by up to 80% of the population.

However, data breaches and incidents of fintech-related fraud have occurred. Uganda's regulators and lawmakers appear to be worried about this state of affairs, which explains why consumer protection, data privacy and anti-money laundering laws are looming large on their agendas.

Up to now, there have been no legal restrictions on the use and disclosure of personal and private data in Uganda. This gap will be plugged once the Data Protection and Privacy Bill of 2015 is enacted. Just when that might be is not known at this stage, however.

Another upcoming piece of legislation is the National Payment Systems Bill, meant to address the challenges of regulating electronic payment systems such as mobile money, as well as e-commerce transactions in general. However, the Bill has not yet been presented in Parliament and it is not clear when this will take place, leaving the regulatory status quo intact for the time being.

Regulation is a mixed bag

When it comes to fintech, the status quo in Uganda is a mixed bag.

Although regulation does exist, it applies only to certain areas of the fintech market and even in those areas, it tends to be loosely applied. For example, mobile money guidelines were introduced in Uganda in 2013 but are not binding.

What's more, these non-binding guidelines apply to some players in the mobile money space but not to others. Those who provide digital wallets are not

affected. On the other hand, those who provide the platforms for these services are.

Cryptocurrencies are completely unregulated and the Bank of Uganda has issued a warning that anyone trading or investing in cryptocurrency does so at his or her own risk.

Initial coin offerings (ICOs) are also unregulated. It should be said that there has yet to be an ICO in Uganda but should there be one, self-regulation would apply.

The regulators themselves have given several reasons for the rather erratic state of fintech regulation in Uganda.

One is the challenge of where to assign regulatory responsibility given that fintech lies at the intersection of financial services and telecommunications. So far, both the Uganda Communications Commission and the financial regulators, the Bank of Uganda and the Capital Markets Authority, have declined to take a position on whose responsibility fintech regulation should be.

Other reasons given are that fintech innovation is happening so fast that regulators cannot keep up and have gaps in their knowledge, especially about ICOs, making it difficult for them to influence policy. In other words, they cannot regulate what they neither know nor understand. In an effort to improve their knowledge of cryptocurrencies, they are advocating increased private-public collaboration, which could be beneficial for private companies too as it gives them the opportunity to influence fintech policy-making.

Cryptocurrency high on the agenda in South Africa

While consumer protection in the fintech space is of paramount concern in both Uganda and Kenya, South Africa is in a different position. The country already has a raft of consumer protection legislation, which is relatively well enforced, and a highly regulated lending and financial intermediation environment that applies to all financial services providers, regardless of the delivery technology they use. South Africa also has well-evolved legislation targeting bribery, corruption and money laundering, which applies as much to fintech as to conventional financial services.

What appears to be top of mind for financial

services providers and regulators alike is potential use cases and the regulatory position around distributed ledger technologies and cryptocurrencies. Cryptocurrencies and other digital tokens are not subject to specific regulations or the mandate of a single regulator. While the SA Reserve Bank (SARB) does not recognise them as legal tender, it has issued explicit guidelines around virtual currencies and 'e-money', and also led an intensive and comprehensive public-private sector study on inter-bank settlements, called "Project Khokha", whose results were published in June 2018. The SA Revenue Services and the Financial Intelligence Centre (FIC) have also issued notices regarding the applicability of their respective regulatory frameworks to cryptocurrencies, tokens and transactions involving them.

Users, traders and intermediaries have little legal protection from regulators or recourse to regulated remedies, and engage in virtual currency-related activities entirely at their own risk, ultimately governed by basic common law principles of contract and delict (tort). The position is the same with ICOs, which the SARB neither regulates nor supervises, and on which the Companies and Intellectual Property Commission (CIPC) has made no utterance.

What we do know is that the SARB has come together with the country's other financial services regulators, the National Treasury, Financial Services Conduct Authority and FIC, to form an Intergovernmental Fintech Working Group which entails inter-departmental and private sector engagement, so as to engage with industry from an informed and united stance. We also know they have formed special teams to investigate and properly understand blockchain and virtual currencies, and have been taking a keen interest in fintech regulatory approaches around the world.

In turn, the mood in the marketplace is eager and expectant that the next steps in the evolution of fintech regulation will allow for appropriate regulation without stifling innovation and growth. That is surely the hope in many other jurisdictions, including Kenya and Uganda, where fintech has dramatically improved financial inclusion.

"All may seem quiet on the fintech regulation front in Africa but under the surface, there is considerable activity as regulators get their ducks in a row in anticipation of change."

Contributors' Profile



David Geral is a partner in our Banking and Finance Department, and is the head of our Banking and Financial Services Regulatory Practice, Bowmans, South Africa." To read "David Geral, partner and head of Bowmans Banking and Financial Services Regulatory Practice in South Africa.



John Syekei is a partner and heads the Intellectual Property & Technology, Media and Telecommunications practice group at Coulson Harney LLP, Nairobi Kenya. His practice" To read: "John Syekei, partner and head of Bowmans Intellectual Property Practice in Kenya.



Christine Michira is a partner in Bowmans' Nairobi office and heads its Banking and Finance Department. Christine advises on all types of securities transactions, with her practice covering equity, debt, financial regulatory and governance, structured finance and securitisation transactions and the full range of derivative products. She has advised on nearly every type of capital markets offering. Issuers, underwriters and private equity sponsors of all sizes across a range of industries rely on her to help them raise millions in proceeds through a broad array of securities products, from the standard to the most innovative and complex. She has a MBA and a LLB degree from the University of Nairobi, Diploma in Legal Practice from the Kenya School of Law and a Certificate in Corporate Governance from CPS, Kenya.



Brian Kalule is a partner and a member of Bowmans Litigation Practice in Uganda. Brian is an Advocate of the High Court of Uganda. His practice covers a breadth of areas in general commercial litigation that includes banking, insurance, competition law and arbitration. Brian also advises on information and communications technology law. He is a member of the International Bar Association where he is part of the Corporate Law and M&A Committee and a member of the East Africa Law Society. Brian holds an LLB degree from Makerere University, Kampala and a Diploma in Legal Practice from the Law Development Center.

CREDIBILITY OF PRIVATE EQUITY IMPACT INVESTING IN AFRICA

By **Kelsey Tanner**, Senior Private Equity Analyst, RisCura South Africa



Despite being only a decade old as an industry, impact investing globally has shown impressive growth and obtained mainstream acceptance. However, there are some credibility concerns, particularly in Africa, that can be addressed with clear industry guidelines. This could help to accelerate the allocation of investors' capital into impact investments.

Essentially, impact investing is where investments are made with the intention of generating a social or environmental benefit alongside financial returns. Individual and institutional investors pursue impact investing primarily in private capital markets, including closed-end private equity or private debt funds.

Impact investing differs from socially responsible investing, which is the process of selecting or eliminating investments based on screening criteria. For example, an investor may want to avoid companies that have products that may be addictive or dangerous, such as tobacco or firearms. With impact investing, funds actively seek to invest in companies or projects with the potential to have a positive impact on social and/or environmental outcomes. Key impact areas in Africa have typically included education, housing, energy and financial services.

According to a survey published by the Global Impact Investors Network (GIIN), over half of total impact investing assets under management is allocated to emerging markets, with 12% of that going to sub-Saharan Africa. This region was also cited as one of the top three geographies for capital deployments in 2017.

While this is significant, Africa has a multitude of underserved sectors where a social or environmental impact can be made, which can potentially make it a favoured place for impact investing funds to deploy their capital.

However, investors are hesitant to commit capital without sufficient information on impact investment funds, and the impact they are making. This is inherently difficult in Africa where the impact investing market is small compared to global capital markets. With only a few pioneering fund managers, and the system still making forward strides, there is a lack of data at both the fund and investment level.

Some investor concerns include the risk of 'impact

washing' and 'mission drift'. 'Impact washing' is where companies or funds market a social/environmental impact that doesn't exist or is highly exaggerated. 'Mission drift' is when an organisation or company moves away from its social or environmental mission and starts focusing more on their financial returns.

Proposed solutions and industry guidelines, such as independent assessments or third-party verification of investments, are necessary to allow investors to make informed decisions, particularly where there may be a trade-off between impact and financial returns. Increased transparency and accountability can address investors' concerns and establish the credibility of funds' impacting investing actions.

A step in the right direction is to increase the adoption of independently assessed rating systems, such as the Global Impact Investing Rating System (GIIRS), a product of GIIN. GIIRS provides a standard framework for funds to measure their portfolio's impact.

Funds can also incorporate IRIS (Impact Reporting & Investment Standards) in their measurement process. IRIS presents metrics for social and environmental benefits of products and services and allows investors to quantify an investment's impact in a particular sector. Metrics for an impact investment in the education sector could include, for example, the number of schools opened. Using IRIS reduces the need to find or create performance metrics and facilitates easier comparison across funds or investee companies.

While standardisation allows for comparability, there are still difficulties as impact areas vary significantly between investors. Furthermore, since this is currently a voluntary exercise, and standardised systems may prove onerous, funds may prefer to use frameworks or metrics that are not aligned to external methodologies. This approach will likely still be still useful for investors, as ultimately investors want transparency on impact strategy and results.

The adoption of objective, comparable measurement standards is one of the enablers of sound financial markets. By leading adoption of these standards, and addressing concerns around transparency and credibility, impact investing into the African continent can be significantly accelerated.

RAISING INVESTMENT CAPITAL IN AFRICA- EMERGING TRENDS

By **Linda Onyango**, Associate Partner, MNCapital Africa Advisory South Africa



The term “Africa Rising” is slowly replacing the words the “Dark Continent” in conversations referring to Africa. A continent that was once ignored is now a bee hive of entrepreneurship activity and innovation. African entrepreneurs and companies have capitalized on the continents social problems such as hunger, inadequate housing, unemployment, illiteracy, poor distribution networks, poor healthcare systems, inadequate electricity, and financial inclusion among others to create mega companies and innovations. This has seen an increase in the demand of investment capital in almost all sectors of the economies.

The flow of investment capital into Africa has so far been in the form of grants, venture capital, private equity and private debt instruments from private equity (PE) funds, development finance institutions (DFIs), high net worth individuals, sovereign wealth funds and numerous family offices across the world. In 2016 there were a total of 602 Foreign Direct Investment (FDI) projects attracting investment capital of USD 92.3 billion representing a 40% increase from 2015. Foreign direct investments into Africa accounted for 12% of global FDI in 2016. The top sector of investment in Africa is the real estate sector a shift from the traditional energy and extractives sector. In terms of number of FDI projects South Africa leads with 105 projects (17.4%), Morocco 80 projects (13.2%), Egypt 69 projects (11.4%), Nigeria 49 projects (8.1%) and Kenya 38 projects (6.3%).¹

The African private equity and venture capital ecosystem has significantly changed over time. In 2017 alone, the total number of private equity deals amounted to USD 3.8 billion for a total of 149 deals in that year. This represents a 65.2% increase since 2012 when the value of deals amounted to USD 2.3 billion. Furthermore, there is an emergence of stronger exit opportunities with Africa

Venture Capital Association reporting number of 49 PE firms in Africa exiting in 2017. The dominant exit route is accounted to trade sales to strategic investors, followed by secondary buy outs (sales to other PE funds).² Disjointed regulation, immature capital markets and low levels of market capitalization compared to the developed world, result in low usage of IPOs as a PE exit route. During the period 2010 to 2017, IPOs resulting from PE exits as a percentage of total IPOs averaged just 16% in terms of volume and 23% in terms of value; in comparison, over the same period, PE exits in the United States and the United Kingdom averaged 39% and 36% terms of volume, respectively, and 44% and 45% in terms of value, respectively.

In the past, African PE funds have been mainly funded by DFIs but we are beginning to see traditional institutional investors such as insurance companies and pension funds becoming an increasingly common source of PE funds. There have been amendments in pension regulations in various countries. In Nigeria there has been an inclusion of PE as a specified asset class for pension fund investment while in South Africa the percentage of total assets under management that pension funds can invest in PE has been increased from 2.5% to 10%.

Increasingly sophisticated features and capital structures are also emerging. Primarily the primary source of funding in African PE has historically been equity finance with a simple capital structure. Unique structures such as mezzanine debt is becoming a key component in the capital structures of African companies. Although specific forms of ‘mezzanine debt’ in a European context are generally clearly defined, in African countries it represents more broadly to subordinated debt or unsecured senior debt. Due to increased complexities of companies’ investment needs in Africa,

1. Financial Times. (2017). Africa Investment Report. London: Financial Times Publishers. Retrieved from: <http://itemsweb.esade.edu/wi/Prensa/TheAfricaInvestmentReport2017.pdf>

2. Africa Private Equity and Venture Capital Association (2017). 2017 Annual African Private Equity Data Tracker: AVCA Publishers. Retrieved from: <https://www.avca-africa.org/research-publications/data-reports/>

we continue to see a broader use of share classes and debt instruments including convertible instruments, loan notes, warrants, high yield instruments, and payment in kind (PIK) notes. The use of use of warranty and indemnity insurance which has been common in global M&A transactions is also an area that is being adopted in PE transactions in Africa. Historically, insurers' have been wary of emerging markets, however, there are reports that this is a growing area.

As more and more capital flows into the African continent, these investment opportunities still remains largely untapped by African companies. On the buy side, many companies have limited information on the available funders, what they provide and how they can contact them. On the sell side, many investors complain of a limited pipeline of good quality deals in Africa. The investors we speak to insist that invest that capacity building on investment readiness in order to attract investment capital is still required. For African companies that manage to attract an investor there is evidence from our work that many negotiations fail before they started. Negotiations tend to quickly deteriorate into marketplace haggling, rather than staying on the big picture ambition where everybody makes money. Perhaps there is need for more lawyers who are actually trained and experienced in transaction advisory in the continent.

The risk element which drives availability of capital and pricing in most of the investments decisions remains an important challenge in Africa. Many African countries are riddled with war, bad governance etc which influence country risk and ultimately the pricing of investments. The starting point in terms of pricing for many debt investors is the rate at which the African governments borrow from international markets. This rate is usually an indication of a country's risk. In Kenya for example, the recent Eurobond borrowing of about 8% to Euro creates a high starting point for Kenyan companies looking to borrow from international investors. Most investors will add a premium on the starting point to further reflect the industry and individual company risk. This brings the ultimate borrowing price to a price that is sometimes well over the price that is offered by the in country commercial banks. Furthermore, illiquid domestic exchanges and foreign exchange risk still pose an

additional pricing challenge for both the investor and the investee

For the small and medium enterprise (SME) segment in Africa, short term private financing opportunities still remain largely untapped. Purchase order and invoice discounting financing which offer a good option for funding early stage companies that are unable to secure bank financing due to lack of audited financials, equity, collateral, etc. is still largely unavailable and the demand for this type of credit far outweighs the supply.

Exim bank financing especially for Export/ Import of goods also remains largely untapped by African companies. This financing centers around an insurance policy from the supporting Eximbank in the country from which the products are being purchased insuring against a default by the ultimate buyer. This insurance is then used to obtain a loan from a bank that lends partially on the basis of this insurance. Because the Eximbank will have a strong credit rating, the ultimate cost of financing is usually significantly cheaper for the company or project sponsor.

Emerging digital funding options for startups and SMEs such as crowdfunding and peer to peer lending is also on the rise. According to a World Bank 2013 report,³ the crowdfunding industry in Africa will be a \$96 billion industry by 2025 representing a growth rate of 300% per year. Donation based platforms is currently the main form of crowdfunding activity in Africa though has been some increasing activity around equity-based and debt-based platforms in South Africa, Kenya and Ghana. According to the 2017 report by Cambridge Centre for Alternative Finance, peer-to-peer business lending is the third largest financing model in Africa. The total lending using this method totalled US\$16 million in volume over a two-year period between 2014 and 2015. Kenya and South Africa raised US\$16.7 million and US\$15 million respectively from online channels in 2015.⁴

The African continent is filled with challenges and opportunities in equal measure. The next generation of millionaires in the continent will be those that will be able to capitalize on the existing investment capital and use it to convert the social problems into mega companies.

3. World Bank. (2013). Crowdfunding's Potential for The Developing World. Washington DC: World Bank Publishers. Retrieved from: <https://openknowledge.worldbank.org>

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Abuja, Nigeria

12 Chari Close,
off Gana Street by Bobo
FCT Maitama, Abuja, Nigeria
T: +234 (0)805 1514 455
T: +234 (0)812 740 0801
T: +234 (0)805 178 1833

Lagos, Nigeria

1-A Chris Maduiké Street,
Lekki Phase 1
Lagos, Nigeria
T: +234 (0)1 212 0876
F: +234 (0)1 320 4730

London, UK

1C Barnes High Street,
London SW13 9LB, UK
T: +44 (0)20 8878 0212
F: +44 (0)20 8878 9060



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