



NANYANG
TECHNOLOGICAL
UNIVERSITY
SINGAPORE

NTU-SBF
Centre for African Studies
Nanyang Business School



Africa Digest

Trends and Issues in Business

Vol. 2019 - 08

Contents

1. Trends of China in Africa	2
2. Africa investing in Africa	5
3. Fintech and Mobile Money Trends in Africa	8
4. Investments and Economics in Africa.....	11
5. Developing Africa's Pharmaceutical Industry	14

1. Trends of China in Africa

China continues its drive to increase its presence and influence on the African continent. Its initiatives cover a broad range of sectors and include trade agreements, FDI actions and infrastructure building and financing. Many African countries that embraced China's BRI programme, continue to support China in one way or another. The sections below provide information on the continuation of China increasing its footprint in Africa.

GENERAL EXPOSURE AND INVESTMENT

The Export-Import Bank of China (China EximBank) provided over US\$87 billion to fund projects in 46 African countries. These are mostly major projects that provide prominent economic and social benefits to Africa. The bank currently focuses on energy in Africa: clean energy, new energy, and the development and utilization of renewable energy.¹

The Chinese business delegation that recently visited the eastern Cape Province of South Africa, concluded eight cooperation agreements, and indicated their interest in developing the Port St Johns harbour. The goals of their visit were to strengthen trade relations, explore investment opportunities and build cooperation in economic development, culture, education and science and technology, including vehicle and machinery manufacturing, electricity management, marketing and tourism.²

South Africa's President Cyril Ramaphosa expressed his support for China in the trade war with the USA. This expression of support was reportedly initiated by the telecommunication giants Vodacom, MTN and Cell C, who sought assistance in dealing with the US ban against Huawei. Ramaphosa expressed his concern regarding the potential effects of the Huawei ban on South Africa's 5G developments. Huawei is quite popular in South Africa, growing its market share from 11.26% in 2017 to 16.6% in May 2018 and 22.9% in June 2019.³

China has a very favourable view of President Ramaphosa, reportedly viewing him as South Africa's "last hope". However, China's ambassador to South Africa shared his perception that the government must firm up its investment laws to secure more Chinese investments.⁴

In April 2019, China was the top destination for South Africa's exports of US\$7.3 billion, representing 10.8% of that total. China has to date invested approximately US\$13.6 billion in South Africa.

ENERGY INVESTMENTS

China financed the construction of a hydropower plant that, together with smaller projects, will increase Uganda's electricity generation capacity by 55.5% by this December. The increase will largely come from 600 MW generated by the Karuma hydropower plant under construction by China's Sinohydro Corp, and financed by a US\$1.7 billion loan from China's Exim bank. Another project, also financed and built by China, the Isimba hydropower plant, was commissioned last year. In addition to Karuma, five small hydropower projects with a combined capacity of 51 MW will be completed and connected to the grid by December.

Uganda's grid currently reaches only 23% of the country's 40 million people. Uganda expects a sharp increase in energy demand following recent oil finds in the country and welcomes this increase in supply. "Commissioning the Karuma Hydropower Project ... shall be another milestone to the energy generation capacity for industrialization and economic development," said Energy Minister Irene Muloni.⁵

In Zambia, a Chinese company recently launched an ethanol processing plant at the cost of US\$9 million, which will help the country tackle fuel scarcity and reduce poverty. The investment will create 200 direct jobs and will benefit another 600,000 people. The plant will use agricultural products, including cassava and maize, to produce ethanol and by-products such as liquid fertilizer, biofuel, and carbon dioxide. The investment will also help Zambia reduce its ethanol imports.

China's ambassador to Zambia stated that China was willing to share its industrialization experience with Zambia and pledged to attract more Chinese investment to the country.⁶

INVOLVEMENT IN THE ICT AND DIGITAL SPACE

Kenya's government showed support for China, announcing it would not block the Chinese firm Huawei from rolling out its 5G network in Kenya. The Kenyan government earlier partnered with Huawei to build a smart

city in Konza Technopolis, as part of its efforts to establish the country as a technology hub. Four undersea fibre cables will feed the smart city's new tier four data centre.⁷

In Nigeria, Chinese companies, Sequoia China, IDG Capital, and Source Code Capital, funded mobile payments platform start-up OPay with US\$50 million. Opay, founded by Norwegian browser company Opera, will use the capital primarily to grow its Nigerian digital finance business and support Opera's growing commercial network in Nigeria. This includes the motorcycle ride-hail app, ORide, and a food delivery service portal, OFood. A consortium of Chinese investors acquired Opera in 2016.⁸

China's Alibaba concluded an agreement with Flutterwave, a B2B fintech start-up based in Lagos and San Francisco, to promote digital transactions between Alipay and African merchants. Flutterwave enables African companies to send payments to other firms around the world. Alibaba's Alipay digital wallet has more than 1 billion active users. Flutterwave's support will enable Alipay to support payment activities estimated at ~US\$200 billion between Africa and China. In turn, Flutterwave can now provide its merchants with access to more than 1 billion users on the Alibaba platform.

Flutterwave connects African countries such as Nigeria, Kenya, South Africa, Ghana, Uganda and Rwanda with one another, easing cross-border payments for its client companies.⁹

MANUFACTURING INVESTMENTS

The South African Minister of Trade and Industry, Ebrahim Patel, announced towards the end of June 2019 the government's signing of 93 trade deals, worth more than US\$1.9 billion, with various Chinese entities. A Chinese entity is also building South Africa's first new light-vehicle manufacturing plant in more than 45 years in the Eastern Cape.¹⁰

China not only seeks to enter the car manufacturing market in South Africa but also made a strong move into the electric car market in Egypt. Several Chinese vehicle manufacturers are targeting Egypt as a market for green vehicles. The Zhejiang Geely Holding Group will soon be producing electric cars in Egypt. Geely is the owner of various well-known brands such as Lotus, Lynk & Co, Proton, and Volvo.

Chinese car manufacturer Dongfeng will provide technical guarantees to the Egyptian authorities for the manufacturing of products such as batteries for electric cars. Not a newcomer to Egypt, Dongfeng will partner with Foton, another Chinese vehicle manufacturer specializing in the production of buses, trucks and tractors. The two companies will manufacture 2,000 electric buses in Egypt over four years.¹¹

China increased its footprint in the Ethiopian manufacturing sector and will collaborate with the Ethiopian government to build a new US\$300 million industrial park in the country. Construction may start as early as late 2019. The Chinese government will provide 85% of the funding through concessional loans, with the Ethiopian government providing the balance. The industrial park will target firms engaged in equipment manufacturing and will create approximately 25,000 jobs for Ethiopians. It is part of Ethiopia's vision to transform its economy from being largely agrarian into an industrialized one by 2025.¹²

MINING INVESTMENTS

The Tanzanian government awarded licences to Chinese companies for the construction of a mineral smelter and two gold refineries in Tanzania, worth more than US\$100 million. Some 37 companies expressed interest in this project. Tanzania will also award special mining licences to two companies, whose individual investment will exceed US\$100 million, to build large-scale mines.

China's involvement is an interesting development against the backdrop of the long dispute between the Tanzanian government and Acacia Resources, a gold producer linked to Canadian gold mining firm Barrick Gold. The Tanzanian government refused to ever deal with Acacia again.¹³

The entry of China into Kenya's crude oil business signals a new milestone for Chinese interests in Kenya. The government allocated the contract for the sale of its first crude oil export to ChemChina (UK) Ltd, a Chinese state-owned petroleum multinational. This US\$12 million deal will give China an access advantage when Kenya moves to commercial production of its oil reserves. September 2019 marks the shipment of 200,000 barrels of crude from Mombasa. Crude oil exports could help Kenya to reduce its massive trade imbalance with China.¹⁴

TRANSPORT INFRASTRUCTURE INVESTMENTS

Two Chinese contractors, the China Civil Engineering Construction Company (CCECC) and the China Railway 15th Bureau, will build a 3.2km long bridge, valued at US\$265 million, over the Gulf of Mwanza on Lake Victoria in Tanzania. The bridge, intended to facilitate trade among countries in the East African region, will connect Tanzania to Rwanda, the DRC, and Burundi via road and will reduce transport time significantly, thereby improving connectivity among countries in East Africa.¹⁵

POINTS OF INTEREST

- Africa did not adopt the US ban on China's Huawei, reportedly based on national security grounds. Quite the opposite is the actual case. Various African governments continue to do business with Huawei, as has the African Union and other supra-national entities.
- The most visible projects managed in Africa by China appear to be financing and constructing infrastructure, with transport infrastructure the most prominent, followed by increasingly visible energy generation activities. There has been an increase in the number of renewable energy projects supported by China as well.
- China remains Africa's largest trade partner, and its FDI stock levels on the continent are increasing significantly as well.
- Kenya entered the oil production and export sector, with its first oil exports going to China. It must learn from the mistakes countries such as Nigeria and Angola have made in the past regarding their crude oil exports, especially to China. Oil producing countries on the African continent must adopt a strategy to add maximum value before exports take place. This could require building refineries or petrochemical plants, etc. Given its current level of participation in Africa, China may play a major role in the development of such capabilities. China participated in building the Dangote Refinery. Sinopec, China's leading energy and chemical company, announced towards the end of July 2019 that it had completed an atmospheric tower for the Dangote refinery.
- China's participation in the vehicle manufacturing sector is an interesting development. The well-known MNCs such as Toyota, Nissan, Peugeot, VW, Kia, Hyundai, etc., with Tata and Mahindra from India picking up speed, are the brands that gain the most attention. China's brands will have a tough time positioning themselves in Africa in a meaningful way. They will also not only have to compete against these global brands but also against brands that have their origins in Africa. Countries such as Ghana and Uganda have developed their own home-grown brands in an attempt to stimulate the "made in Africa" programmes they have adopted. It is likely that Chinese brands will enter African markets with a low cost strategy, later on morph into the best-cost strategy, then perhaps move to more upper-end brands much later on.

2. Africa investing in Africa

Investors in Africa originate from many countries: the USA, the UK, other EU countries, Russia, Turkey, the GCC states, China, Japan, India and Indonesia, amongst others. However, we also see a number of African countries investing in other African countries. Below are a number of investment targets and opportunities on the continent that involve African corporates and institutional investors.

GROWING AFRICA'S INDUSTRIAL BASE

Earlier in 2019, Egypt announced an industrialization strategy targeting other African markets, especially in the manufacturing, agriculture and infrastructure sectors. Egypt's strategy focuses on boosting Africa's industrial base through value chain integration with its neighbours, thereafter tapping global value chains. This strategy has three elements, i.e. skills development, food and textiles processing, and construction and infrastructure development. Uganda appears to be the initial target. For example, Egypt will export semi-knocked down kits for home appliances to Uganda, where skilled labour will provide further processing. Eventually, Egypt will export completely knocked down kits. For textiles, Egypt will initially process Ugandan cotton, and later establish garment factories in Uganda.¹⁶

In addition to growing the industrial base, as part of this Egyptian industrialisation strategy for Africa, Egyptian investors contemplate investing in value addition in the coffee sub-sector in Uganda, by establishing processing plants in Uganda. Mac Optic Investment will also look upstream to the agricultural side to increase yields and the quality of the coffee. Coffee is currently Uganda's third highest forex earner after tourism and remittances.¹⁷

Egyptian investment is also in demand in Tanzania. The Tanzanian Prime Minister, Kassim Majaliwa, recently invited the Egyptian business community to invest in his country and benefit from newly available tax incentives. Tanzania highlighted opportunities in its agriculture sector, focusing on tropical crops such as tea, sugarcane and coffee. Collaborations among people of the two countries are facilitated by EgyptAir, now supporting Tanzanian visitors with two flights a week.¹⁸

In Kenya, East African consumer goods giant Bidco Africa Group, owned by the Bhimji Shah family, recently launched an industrial park in Nairobi. The industrial park, at the cost of US\$200 million, will host Bidco's beverage and food processing operations. It also comprises a 550,000 litres per day effluent treatment plant and a 90,000 litres per hour water filtration facility. Its 66-kilovolt power station, with the ability to supply 7.5 MW, will provide electricity to the factory..

The complex will host Bidco's new product lines, including a new range of breakfast cereals, while its flagship edible oils products will remain at the firm's other production facilities. The new factory targets the creation of 1,000 direct jobs and 5,000 indirect jobs throughout the Bidco distribution chain.¹⁹

KENYA GROWING ITS EXPORTS TO THE REST OF AFRICA

Kenya recently announced its focus on the African continent to drive export growth, based on its belief that it has a competitive advantage in manufactured goods relative to most other African countries. In 2018, approximately 40% of Kenya's exports went to other African markets. Most are value-added goods, while raw materials form the bulk of its exports to the rest of the world. Kenya's exports are 8% of its GDP, against a target of 15%. Kenya perceived the African Continental Free Trade (AfCFTA) as being to its benefit. Currently, non-tariff barriers and poor transport infrastructure constrain the expansion of Kenya's exports to Africa.²⁰

DEVELOPING THE AFRICAN VEHICLE MANUFACTURING SECTOR

South Africa's automotive sector focuses on the rest of Africa to create new opportunities and establish new markets for its goods and services Ethiopia, as Africa's fastest growing economy with an expected GDP growth rate of 9% for 2019, is a popular target. A recent roadshow to Ethiopia organised by the African Association of Automotive Manufacturers (AAAM), aimed to assist Ethiopia in developing its policy to "support industry and the automotive sector; gain insight into the potential for enhanced manufacturing in Ethiopia; and to build relationships and networks between South Africa's automotive stakeholders and key Ethiopian government and industry figures."

According to the president of AAAM and Managing Director of VWSA, Thomas Schaefer, “the future of the South African automotive industry is symbiotically linked to the future opportunities and growth of Africa”. AAAM has a long-term vision to work with countries who have the political will to develop industries to establish a pan-African automotive industry. Currently, candidates for this initiative include South Africa, Nigeria, Ghana, Kenya, Rwanda and Ethiopia.

Schaefer states that in order to grow the South African export market, its producers must liaise with other African economies and involve them in South Africa’s global value chain. In this way, South Africa can benefit from lower costs than other African countries. South African vehicle makers can also benefit by tapping the large African market of 1.2 billion people.²¹

EXPANDING THE RETAIL SPACE IN AFRICA

Shoprite, Africa’s biggest retailer, opened its City Mall store in Mombasa, the third in Kenya, in August. Shoprite exploited an opportunity created by the eviction of Nakumatt, Kenya’s struggling supermarket chain, due to rental arrears. Shoprite’s other Kenyan stores are at Westgate and Garden City Mall, all opened since December 2018. Shoprite indicated its intent to open two more stores in 2019. The group is bullish about Kenya’s potential and intends to expand its footprint over time.

Shoprite will compete with Tuskys and Naivas (both family-owned retailers, and the largest and second-largest supermarket chains in Kenya, respectively), and Carrefour; all have set up shop in some of Kenya’s biggest malls.²²

STIMULATING THE AGRICULTURE SECTOR

The Zimbabwean government encourages its horticultural producers to explore the potential lucrative fresh farm produce market in Namibia. Namibia’s low rainfall and low humidity limit the productivity of its agricultural sector. Earlier in 2019, a Namibian delegation visited Zimbabwe on a feasibility study of the country’s horticultural sector.

Namibia, from 2010 to 2015, imported fresh produce valued at about US\$60 million per annum. In the 2016/17 season, Namibia imported 47,143 tons of fresh produce and 52,853 tons in the 2017/18 season. Zimbabwe experienced significant growth of its horticultural exports, increasing from US\$50.9 million in 2017 to US\$112 million in 2018, due to a huge increase in exports to the European Union.²³

INCREASING THE PROMINENCE OF THE ICT SECTOR

Kenya-based CoreTec Systems and Solutions, a co-operative software developer, is building a ~US\$6 million online portal to serve Botswana’s co-operative sector. The wireless and cashless platform will be accessible via mobile phones and websites by all co-operative societies in Botswana. The project will enhance the penetration of co-operative services and enable all societies to enjoy similar services at a much lower cost. Saccos (co-operative societies) can now run online portals and USSD platforms via a pay-per-use arrangement, reducing operational costs and provide more services to their members.

The Co-op Management Information Systems will soon be able to provide more services, such as e-commerce, credit risk score management, and payment platforms for transport and agricultural enterprises, among others.²⁴

In South Africa, the Vodacom Group recently announced its plan to spend more than US\$589 million this year on network enhancements, particularly in rural areas in the country. These enhancements include a rural coverage acceleration programme and replacing and modernising base stations and digital services. Over the past six years, Vodacom significantly extended its coverage of South African rural areas, which make up 98.6% of the country’s total land area.²⁵

Kenya’s DPO Group acquired the South African payments processing service PayFast towards the end of July 2019. This is the fifth acquisition of the DPO Group since its inception in 2006. While it is not clear how much the deal is worth, it is reportedly the largest acquisition of a payments processing company in South Africa to date, which ranks it above the R100 million that DPO paid for PayGate in its 2016 merger. PayFast provides consumers with a secure alternative for making online payments, and claims to have the broadest range of shopping cart integrations in Africa.

The acquisition and integration of PayFast will increase the range of payment options available to the DPO Group's business customers, while providing a pan-African solution to PayFast's existing customer base. DPO Group will now serve over 100,000 merchants across 18 African markets.

DPO reportedly intends to expand to ten more African countries; six in Francophone Africa. Potential targets include Senegal, Morocco, Tunisia, Egypt, South Sudan, Mozambique and Angola.²⁶

POINTS OF INTEREST

- Foreign entities at times worry about investing in Africa due to the perceived risks. African corporates, however, know the continent, its opportunities and its risks quite well. Good opportunities are available in growing sectors, such as agriculture, manufacturing and ICT. These sectors also play a role in Africa's industrialisation strategies, such as Ethiopia's economic growth miracle of the past decade. Benefits include, in addition to economic growth, the creation of meaningful jobs and the many benefits flowing from import substitution.
- Africa's vehicle manufacturing sector has been the scene of various developments in the past few years. Not only have we seen investments by the large players in countries such as Kenya, Morocco, Nigeria and South Africa, but also players in Africa getting involved in other countries as well, such as in Ethiopia and Rwanda. What remains to be seen is to what extent other African countries will get involved in South Africa's global value chain. Getting corporates in other African countries to get involved as suppliers will have benefits for the region as a whole. In addition, with regional participation in global value chains, the process of regional economic integration, even at a continental level, will be that much easier as it will demonstrate the real benefits of working together.
- Shoprite's entry into Kenya is an interesting development. Shoprite joined the retail sector in Tanzania in 2001, then exited in 2014 reportedly after the government criticised its imports of most of its goods from South Africa. Such supply chain challenges have been a limiting factor for various South African players in Africa. It seems crucial that foreign players in Africa develop local supply chains as soon as possible. Shoprite has managed to source by far the most of its products in Nigeria and Zambia locally. The question now is whether Shoprite would have expanded into Kenya if Carrefour (French retailer) and Choppies (from Botswana) had not moved into that country. Earlier reports indicated that Kenyan middle class shoppers tend to visit malls, and then buy from the open markets that offer similar products at lower price points. By Shoprite's own admission, the East African market space presented them with their greatest challenge in Africa. Shoprite also intends to expand its presence in Uganda, a strategy similar to that of Carrefour. The battle in Africa between Africa's largest retailer (Shoprite) and global player Carrefour will be interesting. Shoprite has the benefit of local knowledge and first-mover advantage. Carrefour has the benefit of size and a global sourcing strategy.
- African countries not only develop fintech and digital strategies for local use, but also to invest in other African countries. The old saying is "necessity is the mother of invention." Africa seeks to develop smart city strategies that embrace fintech and e-commerce. Many African countries hope to empower their industries and population through development of the smart city concept. Although following in the footsteps of the likes of Amazon and Alibaba in use of e-commerce, it leads in mobile money applications. For Africa, mobile money is not (as in most developed world countries) a "nice to have," but an essential payment solution.

3. Fintech and Mobile Money Trends in Africa

As indicated in previous digests, the fintech and mobile money sub-sector in Africa is booming. Local players have access to financing from abroad, where foreign investors are keen to pursue growing mobile money applications. New players entering the sector must battle for market share. Not only the telecommunications companies but also the banks now target the previously unbanked people of Africa for their next growth phase. Below are some of the more pertinent trends during the last month or so.

FINTECH INCREASING ITS PROMINENCE IN AFRICA

GSMA research reveals that Sub-Saharan Africa is the fastest-growing investment zone for financial technology companies. With a forecasted total subscriber base of over 600 million by 2025, the region will become ripe for mobile disruption in financial services. The large group of unbanked population is the driving force of this growth.

According to Mike Smits, co-founder of uKheshe, a microtransaction platform, financial inclusion is not only about technology disruption, but also about solving greater economic problems. Consumers need simpler, more cost-effective ways to complete simple tasks such as sending or receiving money and buying airtime. Small-scale entrepreneurs that benefit from fintech will pass their benefits on to the community.²⁷

Access to financial services has been a major barrier to achieving the financial inclusion target. According to Enhancing Financial Innovative and Access (EFInA), 36.8% of Nigerian adults still have no access to financial services as of 2018. This makes the achievement of the Central Bank of Nigeria's financial inclusion target of 80% of the adult population by 2020 unlikely. CBN subsequently revised its financial inclusion target to 95% by 2024.

Commentators in the country see fintech companies as playing a significant role if CBN is to achieve this target by 2024. Fintech providers can capitalize on their large customer bases to offer customers other financial services. They currently fill gaps between financial services companies and customers, disrupt key financial service segments, and enable digital payments, digital insurance, banking, wealth management services, and regulations, and create spaces in which to sell financial products.²⁸

NEW PLAYERS IN THE MARKET

Mauritius recently launched its first national mobile payment platform. The country's my.t money is a cloud-based mobile payment solution platform provided by PCCW Global from Hong Kong. Providing payment and non-payment transactions, the platform will help close the digital divide and serve the unbanked part of the population. The my.t platform will also include elements such as education, commerce and finance, transportation and government social welfare. At the launch of my.t money, the CEO of the Mauritius Telecom holding company stated its objective to positively disrupt the payments industry. At the time of the formal launch, the start-up already had 200,000 customers, 1,000 merchants and 200 loyalty partners.²⁹

The Central Bank of Nigeria recently awarded a licence to an MTN subsidiary, Yello Digital Financial Services, to distribute financial services through its existing agents. This happened as MTN awaits approval to launch its own Payment Service Bank in the country. The licence allows Yello to extend the scope of its existing products to include financial services, and recruit new agents to sell both banking and communications products.

According to the CEO of MTN Nigeria, Ferdi Moolman, obtaining the Super Agent Licence is a very important first step in leveraging its infrastructure to scale their fintech initiatives. MTN Nigeria awaits the approval of its Payment Service Bank Licence, which will enable them to offer a broader and deeper range of financial services.³⁰

It is not only telecommunications companies that are tapping into the opportunities provided by mobile money platforms. In Kenya, Standard Chartered Bank recently announced its intention to enter the mobile loans segment in the near term, given the growing popularity of the platform in Kenya. Local banks have already for a while been competing in this sub-sector. KCB-M-Pesa (KCB Group), M-Shwari (Commercial Bank of Africa), Equitel (Equity Group), M-Co-op Cash (Co-operative Bank), Timiza (Barclays) and Whizz (HF Group) are examples of the commercial bank-backed mobile loan applications already providing instant loans. There has also been a significant increase in the number of unregulated credit-only mobile loan applications, such as Branch International (USA-based), Tala Kenya and Opera Group-owned OKash.³¹

While not a new player, OPay just introduced its OTrike tricycle hailing service in the cities of Aba and Kano in Nigeria. Since starting operations in Nigeria in 2018, Opay diversified its product offerings into motorcycle ride-hailing, ORide and food delivery service, OFood. The US\$50 million investment recently received from Chinese companies Opay's drives innovation strategy, as reported below.³²

OBTAINING FINANCING FOR OPERATIONS

Africa's fintechs are increasingly attractive to investors from beyond the continent.

Cape Town-based fintech start-up LulaLend closed a US\$6.5 million Series-A round led by the World Bank's IFC and Quona Capital. LulaLend provides short-term loans to small businesses via an online platform. The company will use the investment to develop its tech and data team and improve its ability to reach more small businesses to finance. Its objective is to build a US\$100 million loan book as quickly as possible. Quona Capital will join LulaLend's board.³³

OPay, a mobile payments start-up founded by Norwegian browser firm Opera, secured US\$50 million funding from three Chinese companies – Sequoia China, IDG Capital, and Source Code Capital. Opay will use these funds to grow its digital finance business and support Opera's growing commercial network in Nigeria, and position Opera as a multi-service commercial Internet platform on the continent.³⁴

REGULATORY CONSTRAINTS LIMITING FINTECH PLAYERS

At times, Fintech players find themselves at the receiving end of regulatory injunctions. Kenya's Betting Control and Licensing Board (BLCB) recently instructed Safaricom to stop processing payments for sports betting companies, potentially shutting down a lucrative revenue source. This directive will impact over 12 million customers. Online sports betting companies reached combined revenue of US\$2 billion in Kenya during 2018.

Given the popularity of sports betting in Kenya, the government became concerned about its social impact, and introduced regulations to limit betting, including banning advertising outdoors and on social media. The gaming companies rely on Safaricom's network to take bets, communicate with users and process payments on its M-Pesa mobile cash platform.

The BLCB announced that licences for all 27 betting firms were not renewed, pending the outcome of an ongoing inquiry about their suitability to continue to operate in Kenya.³⁵

A CONTRASTING PERSPECTIVE

A report by ratings agency Moody argues that commercial banks might soon lose their customers to the growing popularity of the fintech firms in the sector. Moody believes this situation will result from the lack of infrastructure that commercial banks need to provide competitive web payment solutions. The latter will allow customers to place deposits and carry out transfers using an e-wallet, without needing access to banks. This is especially true for retail banking.

However, some stakeholders in Nigeria express the opinion that fintechs will be unable to displace banks in the battle for market share. Another point of view is that fintechs are not the only ones with access to financial technology, while banks are the only players that can generate scale. (Aside from telecoms companies, that is.)

Others note that without a know-your-customer (KYC) database, fintechs must collaborate with banks to enjoy benefits from increased market space. Certain banks already partner with fintechs by purchasing their tech services. Another view is that fintechs may never be able to lend money.

POINTS OF INTEREST

- Mobile money applications launched by mobile telephony companies have steadily raised the levels of financial inclusion. Initially, these companies had to struggle to obtain approval for their businesses, but now central banks actively create opportunities for non-banks, such as telecommunications companies, to become involved in banking the former unbanked.

- Foreign and local banks also target this market segment with their own applications. In countries such as Kenya, they face an uphill struggle given the large proportion of people that use M-Pesa, and who often lack trust in the formal banking sector.
- What is also interesting is the belated understanding amongst banks that fintech and mobile money present the very real threat of disintermediation. As the saying goes, people need banking products but not necessarily banks. Mobile money applications have been in place for close to two decades. However, banks in Africa only launched their counter-initiative in 2017 with Pesa-link. The banks have a massive backlog, and are still far behind in the battle for market share.
- Many view Nigeria as the market with the greatest growth potential. Initially there were many impediments in this country, but when the Central Bank of Nigeria (CBN) created a licencing process to regulate and smoothen the procedures for mobile money banking, many of these disappeared. With a population of close to 200 million people, and a relatively low level of penetration to date, the growth potential for mobile money in this country is huge indeed.
- It is equally interesting to observe stakeholders continuing to believe that banks do not have much to fear from mobile telephone players. One baffling argument is that only banks have the ability to generate scale. Given the huge number of clients for mobile telephony, the argument about scale is, at best, uninformed. Not only do mobile telephony players have the infrastructure that provides access to scale, they also opened the contest by providing products typical to banks and insurance companies. The brisk adoption of these products by consumers will place even more pressure on banks serving the retail banking environment.
- This is not a new situation. However, most banks have been asleep, and the fact that they are only now waking up to the threat, raises questions as to their strategic awareness and sustainability in Africa's digital future.

4. Investments and Economics in Africa

Africa's governments seemingly struggle to find their optimal investment strategy. While some liberalize their regulatory frameworks, others adopt an even more centralised approach. We see some adopting a strategy of privatising their state-owned enterprises, while others attempt to confront challenges by nationalising certain assets. Many also adopt strategies to stimulate their economic growth by providing incentives such as industrial parks and special economic zones.

FROM PRIVATISATION TO NATIONALISATION

The Ethiopian government in July 2019 started on its privatisation process, announced in 2018 by Prime Minister Abiy Ahmed. To begin, the country would grant two telecom licenses to private firms and sell a minority stake (49%) in Ethio Telecom. Most of Ethiopia's major industries are government-owned, and the government excluded foreign businesses from banking, retail and other key sectors. For many years, the communications sector was closed to external parties, but foreign players are now able to acquire shareholding in these state-owned enterprises. Ethiopia will also sell parts of its agricultural sector (including state-owned sugar projects) to external parties. Foreign firms can now enter the sector via a direct acquisition, by means of a JV or through public-private partnerships.

The process of allowing foreign and private investors to obtain ownership of state-owned enterprises in Ethiopia is part of a new strategy to attract new players to the economy.³⁶

The many reforms adopted in Ethiopia since Prime Minister Abiy Ahmed took office in 2018, are starting to bear fruit. A new study by EY recently named Ethiopia as East Africa's most attractive target for foreign investment. EY's report found that Ethiopia had attracted more foreign investment in 2018 than Kenya and Tanzania combined.

In addition to the above-mentioned privatisation strategy, foreign investors also seem attracted by Ethiopia's dynamic business environment and a huge untapped domestic market. It also has quite affordable electricity available, while Ethiopia Airlines is connecting the country globally very successfully. Its industrial parks or SEZ's have proven to be very successful as well. Coca Cola and Hyundai are some of the global corporations eager to gain market share in the country.³⁷

While the Ethiopian government was embarking upon a privatisation strategy, the Kenyan parliament recently voted to nationalise listed airline Kenya Airways in order to save it from mounting debts. Kenya Airways was privatised 23 years ago. It had to restructure US\$2 billion of debt in 2017 due to a failed expansion drive and a slump in air travel. In addition, it also needed cash for fleet and route expansion amid growing competition from Ethiopian Airlines and Emirates.

The Transport Committee recommended the formation of an Aviation Holding Company to run Kenya's aviation sector, together with four subsidiaries, i.e. the Kenya Airports Authority (KAA), Kenya Airways (KQ), the Jomo Kenyatta International Airport (JKIA) and an Aviation Services College. The holding company would also receive tax concessions for a specified period and be exempt from paying excise duty on all goods, including jet fuel. These measures will allow the airline to sell cheaper tickets.

The Transport Committee are of the opinion that the balance sheet of the aviation holding company will be healthier than Kenya Airways alone.

The nationalisation of Kenya Airways will require the Kenyan Treasury (who holds a 48.9% stake) to buy out about 80,000 shareholders. Banks hold a 38.1% stake, while Air France-KLM has a 7.8% shareholding. The shares held by the banks will be converted into 10-year Treasury bonds. The process of taking back full control will take 21 months.^{38 39}

FROM LIBERALISATION TO PROTECTIONISM

The Majority Leader in Ghana's parliament, Mr Osei Kyei-Mensah-Bonsu, called upon the government to strictly enforce the legislation that reserves the retail sector for Ghanaians only, as well as the law that requires foreigners who wished to do business in Ghana, to invest a minimum of US\$1 million and employ at least 12 Ghanaian citizens. Foreigners who want to do business in Ghana must regularise their stay and register the business they intend to operate.

Local traders recently locked the shops of some Nigerians who they accused of engaging in local retail trade in violation of the law prohibiting foreigners engaging in the retail sector. Investigations into the incident found that foreigners traded in items for which they were not registered, and that many of the items sold were sub-standard. Ghanaians who fronted for foreigners were accused of breaking the laws of the country.⁴⁰

STIMULATING ECONOMIC GROWTH THROUGH INDUSTRIAL PARKS

Uganda recently announced its readiness to set up two industrial technology parks to enhance its science and technology capacity. The government was interested in establishing a machining and manufacturing centre, and the National Technology Innovation Centre to make automotive spare parts. This development was part of a strategy supporting domestic value addition to translate innovations into viable commercial projects. The country views innovation as essential to avoid economic deterioration, and to address social and environmental challenges. Uganda has the benefit of a young workforce and a pool of competent and motivated entrepreneurs.⁴¹

Earlier in September 2019, Nigeria's President Buhari approved the establishment of seven new industrial parks to support the Nigerian Industrial Revolution plan. The parks will be located in each of Nigeria's six geo-political zones, i.e. Lekki in Lagos; Makurdi in Benue State; Benin, Edo State; Ilorin, Kwara State; Sokoto; Gombe and Abakiliki in Ebonyi.

The new industrial parks in Nigeria have the potential to boost infrastructure development in general and create a total of 350,000 direct jobs, with approximately one million indirect jobs for the country.

Due to the importance of industrial parks (or free trade zones) the government has threatened to revoke the licences of inactive Free Trade Zones (FTZs) in Nigeria. The country currently has three types of investments in FTZs:

- Private development, with the zone run by the private sector.
- Public-Private Partnership (PPP), between the government and the private sector.
- Public zones, which are owned by the government.

According to government officials, managing the FTZ's owned by the state governments will be a challenge. Some have received deadlines: should they not begin operating within a year, the government will revoke their licenses.⁴²

REHABILITATING NIGERIA'S REFINERIES VERSUS CREATING NEW CAPACITY

Nigeria will start with the reparation of its four government-owned oil refineries in January 2020 and hopes to achieve optimum refining capacity by 2022. Nigeria is the largest oil and gas producer in Africa. Despite having a combined capacity to refine 445,000 barrels per day of crude oil, it has only managed an average capacity utilization between 15 and 25% per annum. Subsequently, between 70 and 80% of its petroleum products demand has been met through imports.⁴³

On the other side of the equation, the Dangote Refinery represents a US\$12 billion private investment by the Dangote Group. It has the capacity to process 650,000 barrels per day of crude oil, and will be Africa's biggest oil refinery. The project is expected to generate 9,500 direct and 25,000 indirect jobs. The Group stressed the point that Africa does not need foreign investors to revamp the downstream sector and that African investors could emulate Dangote. Government involvement was also not a necessity, as Dangote had not waited for the government to regulate the downstream sector before starting the construction of its refinery.

However, it does seem that while Dangote may be able to handle such a large-scale project, most, if not all other African countries, would require international investors to transform the structure of their economies. Investment in critical infrastructure is moving ahead with a variety of local and international sponsors. Examples include:

- Aramco (Saudi Arabia) aims to build an oil refinery and petrochemical complex in South Africa.
- The China National Offshore Oil Corporation will take a stake in the East African Crude Oil Pipeline (valued at US\$3.5 billion).
- South Africa's state-owned Strategic Fuel Fund recently put out a tender to start planning of an oil refinery in South Sudan.

- South Africa's state-owned logistics firm Transnet recently signed a cost-sharing agreement with the IFC for an LNG storage and regasification terminal. ⁴⁴

Should Africa move beyond the mere exporting of crude oil (and subsequent importation of refined products) to value-adding, the value of Africa's 126 billion barrels of proven oil reserves will be multiplied many times. The creation of many direct and indirect jobs downstream from pumping crude oil will make a significant contribution to reducing the unacceptably high unemployment rates found on the continent.

POINTS OF INTEREST

- Many commentators laud the opening of the economy of Ethiopia. Prime Minister Abiy Ahmed received much praise for these steps. The Ethiopian economy shows strong growth, as a result of its privatisation initiatives. Privatising state-owned enterprises is not a new strategy in Africa, or other developing countries. Recently Vietnam has embarked upon this strategy as well.
- What seems to a bit difficult to understand, is the opposite view where governments are adopting a nationalisation strategy to safeguard the existence of certain assets, such as is the case with Kenya's airline. Governments should preferably not get involved in running commercial enterprises. There are very few examples globally where this has worked. In such cases, governments had appointed competent private sector management with a clear profit mandate, and a strong focus on transparent and good governance. Unfortunately, in Africa too frequently corruption is an animal that sticks out its head and disturbs the efficient and effective running of operations of these state-owned enterprises. A clear example is available in South Africa where its energy generator, Eskom, is only kept standing through government guarantees, as is the case with its national airline, SAA. One is inclined to say that the last thing Kenya Airlines needs now, is to be nationalised.
- The situation with Nigeria's four oil refineries has long been a topic of debate and discontent. Many commentators have suggested that they be privatised to increase the quality of their governance and to remove them as a burden on Nigeria's budget. The Nigerian government, however, has stuck to their guns and are now looking at renovating and updating the refineries after failing to do anything for a number of years. The Dangote refinery on its own has the capacity to refine 665,000 bpd, while the four state-owned refineries up to now have rarely (not for a long while, in any case) met their combined 445,000 bpd capacity because of neglect, mismanagement, and periodic attacks on the oil industry by militants. However, upgrading the refineries was needed to be done as the poor conditions they found themselves in would probably have deterred investors from getting involved in the refining sub-sector. As it is, exporting crude oil just to import refined products later on, does not make economic sense.
- Africa has been doing its best to position itself as the world's new factory after escalating labour costs had dimmed the attraction of China. Countries such as Ethiopia, Kenya and Uganda have been developing industrial parks (also functioning as export processing zones or free trade zones) to increase their attraction for foreign investors. These industrial parks provide the benefit of electricity, water, infrastructure, tariffs and tax incentives. As stated by the Chinese ambassador to Ethiopia in 2017, Africa's governments must get their house in order to attract manufacturing companies from abroad. Some have taken this advice to heart and are acting accordingly.

5. Developing Africa's Pharmaceutical Industry

Africa is primarily an importer of pharmaceutical products, with little local production. It mostly imports generic versions of prescription drugs, in view of the cost implications of the original product. With a population of 1.2 billion set to double to 2.4 billion by 2050, and a strongly growing consumer class, the need for medication is set to grow strongly as well. Also, Africa's population is in many instances adopting a Western lifestyle. The latter often leads to Western lifestyle diseases, such as Diabetes Type 2. With Western pharmaceutical MNC's tapping into the huge market (and needing local partners to help them), and with African governments seeking to boost local production, there are many opportunities in this sector for foreign and local investors.

AFCTA PROVIDES POTENTIAL TO INCREASE PRODUCTION

There has recently been a call for an increase in Africa's domestic production of pharmaceutical products. According to the Economic Commission for Africa (ECA), stakeholders recently agreed that the AfCFTA provides an opportunity for economies of scale. This has until now been a constraint that has been limiting the production of pharmaceuticals in Africa.

Issues that would drive the productivity of the sector, include the strengthening of regulatory frameworks crucial for the development of the pharmaceutical sector, encouraging domestic production with a regional focus, domestic reforms, and efficient and safe logistics chains.

Currently, most regions of sub-Saharan Africa import 70 to 90% of their medication, with the concomitant pressure on budgets and foreign exchange. Only a handful of companies (mostly small) in Africa produce for the local market. In sub-Saharan Africa, they are largely active in just nine of 46 countries.⁴⁵

The growth in the sector has been spectacular over the past two decades. Data from the African Development Bank, the World Bank and the World Health Organization indicate that the value of Africa's pharmaceutical industry (including North Africa) increased from US\$4.7 billion in 2003, to US\$20.8 billion in 2013 and to US\$40 billion in 2018, with an expected increase to US\$65 billion by 2020.

The above call by the ECA follows upon a call in November 2018 by the President of the Association of Ghana Industries, Dr Yaw Adu Gyamfi, for a business-enabling policy framework to enable the pharmaceutical industries to tap into the huge growth potential in the pharmaceutical value chain. Many opportunities in this value chain have not been fully exploited, due to, amongst others, excessive imports and unfair competition. Other limiting factors included high production costs, underdeveloped infrastructure, an absence of new technologies/equipment for productivity enhancement, and weak regulations and institutions.⁴⁶

According to the ECA Director, the AfCFTA has made the market size as a limiting factor irrelevant, especially in the local production of generic medicine on the African continent.⁴⁷

DEVELOPING MANUFACTURING CAPACITY FOR GENERIC CANCER MEDICATION

LEAF Rwanda recently announced it had signed a deal with US Contract Manufacturing Organisation (CMO), to manufacture its first complex generic cancer medicine, LEAF-1404, in Rwanda. CMO will be responsible for both the clinical and large-scale commercial production of LEAF-1404. LEAF Rwanda plans to market LEAF-1404 in both Africa and Europe. LEAF Rwanda will train drug manufacturers from Rwanda and across Africa in the USA, in preparation for its "current Good Manufacturing Practices" (cGMP) compliant drug manufacturing plant, still to be built in Kigali.

Global cancer statistics indicate that 90% of Kaposi Sarcoma cases in the world occur in Africa. However, neither Caelyx/Doxil, a chemotherapy drug that has been available for over 20 years in the West for the treatment of ovarian cancer, breast cancer, and Kaposi Sarcoma, nor its generic version, LEAF-1404, is approved in Europe or Africa, and 'Caelyx/Doxil' itself is not accessible to patients in Africa.⁴⁸

INCENTIVISING LOCAL PRODUCTION

Africa's impact on global drug production is negligible, as only 3% of global drug production comes from the continent. South Africa and Morocco manage to meet between 70% and 80% of their own pharmaceutical needs. However, in Central Africa, some 99% of the drugs in circulation are imported from abroad, particularly from Asia. This has a negative impact on the prices of medication in Africa, as well as the supply of stocks and the risk of the development of fake or lower quality products on local markets.⁴⁹

Multinational pharmaceutical companies are excited by the strong growth prospects exhibited on the African continent, given the stagnant market conditions in developed markets. Africa has a massive disease burden, with a large reservoir of infectious diseases, particularly malaria, tuberculosis, and AIDS, in addition to polio, meningitis, cholera, pandemic influenza, yellow fever, measles, hepatitis, and tetanus. Lifestyle diseases such as cardiovascular diseases, diabetes, and cancer are also exhibiting high growth rates, due to the adoption of Western lifestyles.

While South Africa is currently the best established market for pharmaceutical manufacturing in sub-Saharan Africa, the local manufacturing markets in East and West Africa are relatively well developed with good growth potential. Technology transfer is important for the development of the manufacturing sector in Africa, particularly as the disease burden is changing.

Generic medication is gaining market share at the expense of branded products. In South Africa, Egypt, Algeria, Morocco, Nigeria, and Kenya, generics grew at a compound annual growth rate of 22.3% between 2004 and 2011, significantly faster than the 13.4% for pharmaceuticals as a whole. This trend looks set to continue due to the low costs of generics relative to branded products.

Foreign multinationals are advised to enter into partnerships with African companies such as manufacturers, packaging companies, and distributors. This entry strategy will help foreign multinationals deal with Africa's many markets, their wide range of consumer preferences, price points, manufacturing, distribution infrastructures, and different regulatory environments. Partnerships with governments are also deemed to be important, to determine research priorities, secure funding and to provide public-awareness campaigns, etc.⁵⁰

In Tanzania, the government has raised the price preference to locally manufactured medical supplies from 15% to 25% as an incentive to attract more investors into the pharmaceutical sector. This means that a locally produced medicine priced at Sh125 will be the preferred product even though the imported product could be available at a price as low as Sh100. This follows upon a government initiative in May 2019 when it abolished 16 charges and cut 23 fees payable to the government. Pharmaceutical manufacturers also pay only 20% corporate tax compared to 30% by other companies.

These initiatives have been driven by the fact that the country imports between 85 and 90% of the medical supplies. Tanzania's annual pharmaceutical purchases increased by 20% to reach US\$1 billion in 2018/19, up from US\$800 million in 2017/18. In spite of having a huge market, unfortunately for Tanzania most of the revenue leaves the country to foreign pharmaceuticals who export to Tanzania.⁵¹

DEALING WITH FAKE DRUGS

According to a EU-funded report, thousands of people in sub-Saharan Africa die annually because of fake and poor quality medication. African governments have launched various initiatives, such as the Anti-counterfeit Network Africa, which was launched in Uganda in February 2016. In addition, the popularity of the Customs Watch system, a surveillance request system that involves the recording of trade marks with Customs, is increasing in Africa. Countries such as Algeria, Côte D'Ivoire, Kenya, Mauritius, Morocco, South Africa, Sudan and Tunisia are all participating. Others, such as Ghana and Egypt, are providing an informal Customs Watch service. In 2008, Kenya created an Anti-Counterfeit Agency. In spite of these measures, fake drugs and poor quality drugs are still a major problem.⁵²

The Mozambican authorities have indicated that 12% of medicine on sale in Mozambique are fake. While the average percentage of fake medication globally is 10%, this figure in Africa can be as high as 30%, which is a serious public health issue. Corruption reportedly played a serious role in facilitating the entry of fake medication into Mozambique.⁵³

In Uganda, 10% of medications prescribed have counterfeit copies publicly available on the market. The Ugandan government recently partnered with blockchain start-up MediConnect to trace fake drugs in the country. MediConnect's blockchain-based platform was designed to deal with various issues in the pharmaceutical sector. The platform enables the recording of prescription medication, thus identifying counterfeit medication and preventing their distribution in the pharmaceutical supply chain.⁵⁴

POINTS OF INTEREST

- Africa's pharmaceutical industry clearly provides a huge investment opportunity. Generic manufacturers from abroad, such as Cipla from India, have long seen this as an opportunity. However, they mostly manufacture in their home countries and then export to Africa. With its new

focus on industrialization, job creation and knowledge and technology transfer, African governments are putting in place policies to stimulate the development of production facilities for the generic medication in Africa. Some governments have even propagated the establishment of pharmaceutical R&D facilities in their countries.

- With the huge current market (size of the population), the envisaged growth and the lack of funds, it is quite clear why Africa has a preference for the generic medication. With the urbanization of Africa's population and the significant growth in the consumer class, the need for medication can and will only increase. Foreign producers need to understand the playing field, and should look for partners they can involve in local manufacturing in Africa. Licensing could be another entry strategy with potential. One example that comes to mind, is that of Beacons Pharmaceuticals from Singapore. The Beacons SPAH business model provides for a "plug and play" modality that can be put up anywhere in the world. With the unique feature of this model, it makes it ideal for implementation in Africa. The set-up costs are also considerably lower than the normal facilities.
- Fake and low quality medications in Africa are killing people at a huge rate. Not enough seems to be done to curb this phenomenon. While corruption plays a role, the lives of people are at stake and the deaths cannot be justified by the profits made. Governments need to be put under pressure to deal with this situation.
- Some countries are going so far as to ban the importing of medicine from abroad. In the first half of 2017, the Ghanaian government banned the importation of 49 medicines, potentially boosting local production and creating jobs. New applications for the registration of a medicine on the restricted list would not be accepted. The local pharmaceutical industry now has the capacity, both in terms of quality and quantity, to produce a certain category of medicine.
- In addition to the factors mentioned above, it also seems clear that a short supply of highly trained production pharmacy personnel is constraining the production of medicine in Africa. So is a lack of primary industries producing pharmaceutical grade raw materials in commercial quantities.
- The pharma products now being produced in countries such as Ghana and Ethiopia would typically be generic products. It will have various benefits, such as import substitution, job creation, economic growth, etc. The growth in this sector can be expected to gain momentum over time.
- Improving the capacity of the local pharmaceutical industries in the field of generic medicine is vital for improved and sufficient medical facility supply. This could be done by the collaborative efforts of all stakeholders. The improvement of the industries would help to increase supply, substitute imports and save foreign currency. Similarly, attracting foreign investment to the sector through knowledge and technology transfer is important. Creating meaningful job opportunities for Africa's youth and more highly skilled people is an important advantage of this development.

Author: Mr Johan Burger
Editor: Dr. A. Lee Gilbert
Editor-in-chief: Prof. Sam Park

ADDITIONAL READINGS

1. Trends of China in Africa

- Anon. 2019. China to invest in South Africa's Eastern Cape. *Fresh Plaza*. 17 September 2019. Available at <https://www.freshplaza.com/article/9144337/china-to-invest-in-south-africa-s-eastern-cape/>. Accessed 20 September 2019.
- Anon. 2019. Ethiopia, China to build new \$300m industrial park. *FANBC*. 13 August 2019. Available at <https://fanabc.com/english/2019/08/ethiopia-china-to-build-new-300m-industrial-park/>. Accessed 20 September 2019.
- Anon. 2019. China EximBank funds over 600 bln RMB in African projects. *XinhuaNet*. 18 July 2019. Available at http://www.xinhuanet.com/english/2019-07/08/c_138209012.htm. Accessed 20 September 2019.
- Business Daily. 2019. Kenya sells its first oil to China. *The East African*. 16 August 2019. Available at <https://www.theeastafrican.co.ke/business/Kenya-sells-its-first-oil-to-china/2560-5238298-11cx5or/index.html>. Accessed 16 August 2019.
- Christian, A. 2019. Flutterwave ties up with Alipay to foster payments between Africa and China. *Weetracker*. 30 July 2019. Available at <https://weetracker.com/2019/07/30/flutterwave-ties-up-with-alipay-to-foster-payments-between-africa-and-china/>. Accessed 20 September 2019.
- Famuyiwa, D. 2019. Opay secures \$50 million capital raise from Chinese investors. *Nairametrics*. 12 July 2019. Available at https://nairametrics.com/2019/07/12/okay-secures-50-million-capital-raise-from-chinese-investors/?utm_source=Nairametrics+Newsletter&utm_campaign=4780bc8685-EMAIL_CAMPAIGN_2018_04_29_COPY_01&utm_medium=email&utm_term=0_c96c21e814-4780bc8685-110451065&mc_cid=4780bc8685&mc_eid=d816619318. Accessed 20 September 2019.
- John, F. 2019. Tanzania to build US \$265m bridge ion Lake Victoria. *Construction Review Online*. 6 August 2019. Available at https://constructionreviewonline.com/2019/08/tanzania-to-build-us-265m-bridge-on-lake-victoria/?utm_source=newsletter&utm_medium=email&utm_campaign=egypt-to-develop-its-first-ever-vertical-forest-project-in-new-administrative-capital&utm_term=2019-08-08. Accessed 20 September 2019.
- Li Xia. (ed.) 2019. Chinese firm launches ethanol processing plant in central Zambia. *Xinhuanet*. 25 July 2019. Available at http://www.xinhuanet.com/english/2019-07/25/c_138257790.htm. Accessed 20 September 2019.
- Mbewa, D.O. 2019. Kenya will not block Huawei roll out of 5G network: government official. *CGTN Africa*. 18 July 2019. Available at https://africa.cgtn.com/2019/07/18/kenya-will-not-block-huawei-roll-out-of-5g-network-government-official/?utm_source=Africa.com&utm_campaign=b92cf38740-EMAIL_CAMPAIGN_2018_06_22_02_06_COPY_01&utm_medium=email&utm_term=0_12683c81a6-b92cf38740-29147709. Accessed 20 September 2019.
- McKay, D. 2019. Tanzania awards mining licences to Chinese companies worth more than \$100m. *Mining Mix*. 25 July 2019. Available at <https://www.miningmx.com/news/markets/37706-tanzania-awards-mining-licences-to-chinese-companies-worth-more-than-100m/>. Accessed 20 September 2019.
- Orderson, C. 2019. Ramaphosa's stance on US/China trade war may be too closed to the fire. *The Africa Report*. 3 July 2019. Available at <https://www.theafricareport.com/14892/ramaphosas-stance-on-us-china-trade-war-may-be-too-close-to-the-fire/>. Accessed 20 September 2019.
- Reuters. 2019. Uganda says its power generation capacity will jump 55% by year-end. *Creamer Media's Engineering News*. 18 September 2019. Available at https://www.engineeringnews.co.za/article/uganda-says-its-power-generation-capacity-will-jump-55-by-year-end-2019-09-18/rep_id:4136. Accessed 20 September 2019.
- Takouleu, J.M. 2019. Egypt: Geely Auto to develop electric car production line. *Afrik 21*. 17 September 2019. Available at <https://www.afrik21.africa/en/egypt-geely-auto-to-develop-electric-car-production-line/>. Accessed 20 September 2019.
- Winning, A. and Bavier, J. 2019. Ramaphosa is "last hope" for South Africa, Chinese diplomat says. *Yahoo Finance*. 30 July 2019. Available at <https://finance.yahoo.com/news/ramaphosa-last-hope-south-africa-170523853.html>. Accessed 20 September 2019.

2. Africa investing in Africa

- Anon. 2019. Vodacom to invest more than \$589 mln on South Africa network this year. *Reuters*. 16 August 2019. Available at <https://af.reuters.com/article/investingNews/idAFKCN1V60IV-OZABS>. Accessed 26 September 2019.
- Anon. 2019. Shoprite's third Kenya outlet opens August. *Business Daily Africa*. 23 July 2019. Available at https://www.businessdailyafrica.com/corporate/companies/Shoprite-s-third-Kenya-outlet-opens-August/4003102-5207704-t6fs1f/index.html?utm_source=traqli&utm_medium=email&utm_campaign=bdafrica_newsletter&tid=3K7kcXA8XxMBEfyVQ0mwXjhxzmfOS.YPq.J5Cag. Accessed 26 September 2019.
- Anon. 2019. SA's car industry eyes Africa for growth. *Wheels24*. 18 July 2019. Available at https://www.wheels24.co.za/News/Industry_News/sas-car-industry-eyes-africa-for-growth-20190718. Accessed 26 September 2019.

Anon. 2019. Egypt in big investment drive in Uganda. *Uganda Investment Authority*. 15 March 2019. Available at <https://www.ugandainvest.go.ug/egypt-in-big-investment-drive-in-uganda/>. Accessed 26 September 2019.

Kariuki, J. 2019. Kenya firm bags Sh620m Botswana sacco's IT deal. *Business Daily Africa*. 25 July 2019. Available at <https://www.businessdailyafrica.com/markets/marketnews/Kenya-firm-bags-Sh620m-Botswana-saccos-IT-deal/3815534-5210472-qfyidw/index.html>. Accessed 26 September 2019.

Moneim, D.A. 2019. Tanzanian PM calls on Egypt's business community to invest in Tanzania. *Ahram Online*. 9 July 2019. Available at <http://english.ahram.org.eg/NewsContent/1/64/337666/Egypt/Politics-/Tanzanian-PM-calls-on-Egypt's-business-community-t.aspx>. Accessed 26 September 2019.

Mpala, D. 2019. DPO acquires SA's Payfast in reported multi-million rand deal. *Ventureburn*. 30 July 2019. Available at <https://ventureburn.com/2019/07/dpo-group-acquires-payfast/>. Accessed 26 September 2019.

Nahamya, J. 2019. Egyptian investors reveal plans to invest in coffee value addition in Uganda. *Soft Power*. 13 July 2019. Available at <https://www.softpower.ug/egyptian-investors-reveal-plans-to-invest-in-coffee-value-addition-in-uganda/>. Accessed 26 September 2019.

Njoroge, R.N. 2019. Kenya to focus on Africa to drive export growth. *IOL*. 14 July 2019. Available at <https://www.iol.co.za/business-report/international/kenya-to-focus-on-africa-to-drive-export-growth-29098074>. Accessed 26 September 2019.

Nsehe, M. 2019. Wealthy Bhimji Shah family of Kenya builds \$200 million industrial park. *Forbes*. 27 July 2019. Available at <https://www.forbes.com/sites/mfonobongnsehe/2019/07/27/wealthy-bhimji-shah-family-of-kenya-builds-200-million-industrial-park/#75e3e9cf4cf1>. Accessed 26 September 2019.

Nsingo, D. 2019. Farmers urged to explore Namibia agric market. *The Sunday News*. 28 July 2019. Available at https://agriculture.einnews.com/article_detail/491925463/Wnak6LR8bd6FmPbd?n=2&code=rpMqS26UQMEUBV6&utm_source=NewsletterNews&utm_medium=email&utm_campaign=Agriculture+News&utm_content=article. Accessed 26 September 2019.

3. Fintech and Mobile Money Trends in Africa

Anon. 2019. The rise of Sub-Saharan Africa as a fintech hub. *Tech Dot Africa*. 13 August 2019. Available at <https://tech.africa/ukheshe-micro/>. Accessed 22 September 2019.

Anon. 2019. SA fintech Lulalend raises \$6.5m from the IFC, Quona Capital. *Ventureburn*. 26 June 2019. Available at <https://ventureburn.com/2019/06/sa-fintech-lulalend-raises-6-5m-from-the-ifc-quona-capital/>. Accessed 22 September 2019.

CSL Stockbrokers. 2019. Fintechs to drive CBN's financial inclusion target. *Nairametrics*. 14 August 2019. Available at https://nairametrics.com/2019/08/14/fintechs-to-drive-cbns-financial-inclusion-target/?utm_source=Nairametrics+Newsletter&utm_campaign=0c9bdc8e1-EMAIL_CAMPAIGN_2019_02_26_05_19_COPY_77&utm_medium=email&utm_term=0_c96c21e814-0c9bdc8e1-110451065&mc_cid=0c9bdc8e1&mc_eid=d816619318. Accessed 22 September 2019.

Donkin, C. 2019. MTN Nigeria unit bags licence to sell financial services. *Mobile World Live*. 30 July 2019. Available at https://www.mobileworldlive.com/featured-content/money-home-banner/mtn-nigeria-unit-bags-licence-to-sell-financial-services/?ID=a6g1r000000z8XMAAY&JobID=265752&HE=9bb66bcb33f0fc0ae9a534ab794c1d64ce5fbd30606449dedf b174f0d6a277e3&utm_source=sfmc&utm_medium=email&utm_campaign=MWL_M_20190801&utm_content=https%3a%2f%2fwww.mobileworldlive.com%2ffeatured-content%2fmoney-home-banner%2f-mtn-nigeria-unit-bags-licence-to-sell-financial-services%2f. Accessed 22 September 2019.

Famuyiwa, D. 2019. Opay secures \$50 million capital raise from Chinese investors. *Nairametrics*. 12 July 2019. Available at https://nairametrics.com/2019/07/12/okay-secures-50-million-capital-raise-from-chinese-investors/?utm_source=Nairametrics+Newsletter&utm_campaign=4780bc8685-EMAIL_CAMPAIGN_2018_04_29_COPY_01&utm_medium=email&utm_term=0_c96c21e814-4780bc8685-110451065&mc_cid=4780bc8685&mc_eid=d816619318. Accessed 22 September 2019.

Kene-Okafor, T. 2019. Opay continues to expand as 'OTrike' launches in Aba and Kano. *TechPoint Africa*. 20 August 2019. Available at <https://techpoint.africa/2019/08/12/okay-continues-to-expand-as-otrike-launches-in-aba/>. Accessed 22 September 2019.

Miriri, D. and Malalo, H. 2019. Kenya has ordered Safaricom to shut down betting payments, here's why. *CNBC Africa*. 11 July 2019. Available at <https://www.cnbc.africa.com/news/east-africa/2019/07/11/kenya-has-ordered-safaricom-to-shut-down-betting-payments-heres-why/>. Accessed 22 September 2019.

Munda, C. 2019. StanChart sets sights on mobile lending window. *Business Daily Africa*. 16 July 2019. Available at https://www.businessdailyafrica.com/corporate/companies/StanChart-sets-sights-on-mobile-lending/4003102-5198710-jo6ftm/index.html?utm_source=traqli&utm_medium=email&utm_campaign=bdafrica_newsletter&tid=1eW8dSt0EUMBz iqPuVyw8CZoRqLRNpEf7LqfZRBkOQ. Accessed 22 September 2019.

PH. 2019. Mauritius launches mobile money service. *How Africa*. 31 August 2019. Available at <https://howafrica.com/mauritius-launches-mobile-money->

[service/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+howafrica+%28How+Africa+and+More%29](#). Accessed 22 September 2019.

4. Investments and Economics in Africa

AFP. 2019. Ethiopia to sell minority stake in telecom, issue licenses: minister. *The East African*. 5 July 2019. Available at https://www.theeastafrican.co.ke/business/Ethiopia-to-sell-minority-stake-in-telecom-issue-licenses/2560-5184918-jobc8sz/index.html?utm_source=newzmate&utm_medium=email&utm_campaign=2318&tqid=l.mma2I2XV8BBROTBaQ2hzPwotD7UinlpfLKYi.mQbA. Accessed 27 September 2019.

Anon. 2019. Nigeria to begin rehabilitation of four oil refineries in 2020. *NIPC*. 26 September 2019. Available at https://nipc.gov.ng/2019/09/26/nigeria-to-begin-rehabilitation-of-four-oil-refineries-in-2020/?mc_cid=e481819bb2&mc_eid=5996ec09d0. Accessed 27 September 2019.

Anon. 2019. Buhari approves seven new industrial parks. *NIPC*. 20 September 2019. Available at https://nipc.gov.ng/2019/09/20/buhari-approves-seven-new-industrial-parks/?mc_cid=615e3843b5&mc_eid=5996ec09d0. Accessed 28 September 2019.

Anon. 2019. Foreigners cannot engage in retail business. *Business Ghana*. 22 July 2019. Available at <https://www.businessghana.com/site/news/business/192040/Foreigners-cannot-engage-in-retail-business>. Accessed 27 September 2019.

Henry, N. 2019. This country has toppled Kenya as the top destination for foreign investments in East Africa. *Weetracker*. 10 September 2019. Available at <https://weetracker.com/2019/09/10/ethiopia-topples-kenya-as-top-foreign-investment-destination-in-region/>. Accessed 27 September 2019.

Miriri, D. 2019. Exclusive: Kenya Airways goes full circle with two-year nationalization plan. *Reuters*. 25 July 2019. Available at <https://www.reuters.com/article/us-kenya-airways-restructuring-exclusive/exclusive-kenya-airways-goes-full-circle-with-two-year-nationalization-plan-idUSKCN1UK22M>. Accessed 28 September 2019.

Mutai, E. 2019. Parliament approves bid to nationalise Kenya Airways. *Business Daily Africa*. 23 July 2019. Available at <https://www.businessdailyafrica.com/economy/Parliament-approves-bid-to-nationalise-Kenya-Airways/3946234-5207816-117nbh1/index.html>. Accessed 28 September 2019.

Nduli, M. 2019. Downstream revival: the Dangote refinery's impact beyond Nigeria. *Africa Oil and Power*. 1 August 2019. Available at <https://africaoilandpower.com/2019/08/01/downstream-revival-the-dangote-refinerys-impact-beyond-nigeria/>. Accessed 28 September 2019.

Tentena, P. 2019. Uganda to set up two technology industrial parks. *EABW Digital*. 13 September 2019. Available at <https://www.busiweek.com/uganda-to-set-up-two-technology-industrial-parks/>. Accessed 27 September 2019.

5. Developing Africa's Pharmaceutical Industry

Alexandre, A. 2019. Uganda to deploy MediConnect's blockchain platform for tracing fake drugs. *Coin Telegraph*. 22 July 2019. Available at <https://cointelegraph.com/news/uganda-to-deploy-mediconnects-blockchain-platform-for-tracing-fake-drugs>. Accessed 28 September 2019.

Anon. 2019. All set for Horn of Africa trade forum focusing on region's pharmaceutical industry. *CNBC Africa*. 26 June 2019. Available at <https://www.cnbc africa.com/apo/2019/06/26/all-set-for-horn-of-africa-trade-forum-focusing-on-regions-pharmaceutical-industry/>. Accessed 28 September 2019.

Anon. ND. The changing face of the pharmaceuticals market in Africa. *Africa Business Pages*. ND. Available at <https://news.africa-business.com/post/the-changing-face-of-the-pharmaceuticals-market-in-africa->. Accessed 29 September 2019.

APA. 2019. Mozambique: Living dangerously on fake medicines. *Political Analysis*. 12 July 2019. Available at <https://www.politicalanalysis.co.za/mozambique-living-dangerously-on-fake-medicines/>. Accessed 28 September 2019.

Bizimungu, J. 2019. Rwanda pharmaceutical firm inks deal to make cancer drugs. *The New Times*. 13 July 2019. Available at <https://www.newtimes.co.rw/news/rwanda-pharmaceutical-firm-inks-deal-make-cancer-drugs>. Accessed 28 September 2019.

Danso, G. 2019. African Free Trade Agreement could give impetus to domestic pharmaceutical production. *Ghana Business News*. 2 July 2019. Available at <https://www.ghanabusinessnews.com/2019/07/02/african-free-trade-agreement-could-give-impetus-to-domestic-pharmaceutical-production/>. Accessed 28 September 2019.

GNA. 2018. AGI calls for deliberate action to grow pharmaceutical industries. *Ghana Business News*. 21 November 2019. Available at <https://www.ghanabusinessnews.com/2018/11/21/agi-calls-for-deliberate-action-to-grow-pharmaceutical-industries/>. Accessed 28 September 2019.

Masare, A. 2019. Tanzania offers pharmaceutical investors new incentives. *The Citizen*. 19 July 2019. Available at <https://www.thecitizen.co.tz/news/-Tanzania-offers-pharmaceutical-investors-new-incentives/1840340-5202702-87hy3s/index.html>. Accessed 28 September 2019.

Mutembe, D. 2018. East Africa: the next pharmaceutical manufacturing platform. *Arab Health*. 11 November 2018. Available at <https://www.arabhealthonline.com/magazine/en/latest-issue/2018-issue-6/east-africa-next-pharmaceutical-manufacturing-platform.html>. Accessed 29 September 2019.

Tanani, M. 2018. Strengthening efforts to support the pharmaceutical sector in Africa. *Ideas for Development*. 3 April 2018. Available at <https://ideas4development.org/en/support-pharmaceutical-sector-africa/>. Accessed 29 September 2019.

REFERENCES

1. *Trends of China in Africa*

- ¹ http://www.xinhuanet.com/english/2019-07/08/c_138209012.htm
- ² <https://www.freshplaza.com/article/9144337/china-to-invest-in-south-africa-s-eastern-cape/>
- ³ <https://www.theafricareport.com/14892/ramaphosas-stance-on-us-china-trade-war-may-be-too-close-to-the-fire/>
- ⁴ <https://finance.yahoo.com/news/ramaphosa-last-hope-south-africa-170523853.html>
- ⁵ https://www.engineeringnews.co.za/article/uganda-says-its-power-generation-capacity-will-jump-55-by-year-end-2019-09-18/rep_id:4136
- ⁶ http://www.xinhuanet.com/english/2019-07/25/c_138257790.htm
- ⁷ https://africa.cgtn.com/2019/07/18/kenya-will-not-block-huawei-roll-out-of-5g-network-government-official/?utm_source=Africa.com&utm_campaign=b92cf38740-EMAIL_CAMPAIGN_2018_06_22_02_06_COPY_01&utm_medium=email&utm_term=0_12683c81a6-b92cf38740-29147709
- ⁸ https://nairametrics.com/2019/07/12/opay-secures-50-million-capital-raise-from-chinese-investors/?utm_source=Nairametrics+Newsletter&utm_campaign=4780bc8685-EMAIL_CAMPAIGN_2018_04_29_COPY_01&utm_medium=email&utm_term=0_c96c21e814-4780bc8685-110451065&mc_cid=4780bc8685&mc_eid=d816619318
- ⁹ <https://weetracker.com/2019/07/30/flutterwave-ties-up-with-alipay-to-foster-payments-between-africa-and-china/>
- ¹⁰ <https://www.theafricareport.com/14892/ramaphosas-stance-on-us-china-trade-war-may-be-too-close-to-the-fire/>
- ¹¹ <https://www.afrik21.africa/en/egypt-geely-auto-to-develop-electric-car-production-line/>
- ¹² <https://fanabc.com/english/2019/08/ethiopia-china-to-build-new-300m-industrial-park/>
- ¹³ <https://www.miningmx.com/news/markets/37706-tanzania-awards-mining-licences-to-chinese-companies-worth-more-than-100m/>
- ¹⁴ <https://www.theeastafrican.co.ke/business/Kenya-sells-its-first-oil-to-china/2560-5238298-11cx5or/index.html>
- ¹⁵ https://constructionreviewonline.com/2019/08/tanzania-to-build-us-265m-bridge-on-lake-victoria/?utm_source=newsletter&utm_medium=email&utm_campaign=egypt_to_develop_its_first_ever_vertical_forest_project_in_new_administrative_capital&utm_term=2019-08-08

2. *Africa investing in Africa*

- ¹⁶ <https://www.ugandainvest.go.ug/egypt-in-big-investment-drive-in-uganda/>
- ¹⁷ <https://www.softpower.ug/egyptian-investors-reveal-plans-to-invest-in-coffee-value-addition-in-uganda/>
- ¹⁸ <http://english.ahram.org.eg/NewsContent/1/64/337666/Egypt/Politics-/Tanzanian-PM-calls-on-Egypt's-business-community-t.aspx>
- ¹⁹ <https://www.forbes.com/sites/mfonobongnsehe/2019/07/27/wealthy-bhimji-shah-family-of-kenya-builds-200-million-industrial-park/#75e3e9cf4cf1>
- ²⁰ <https://www.iol.co.za/business-report/international/kenya-to-focus-on-africa-to-drive-export-growth-29098074>
- ²¹ https://www.wheels24.co.za/News/Industry_News/sas-car-industry-eyes-africa-for-growth-20190718
- ²² https://www.businessdailyafrica.com/corporate/companies/Shoprite-s-third-Kenya-outlet-opens-August/4003102-5207704-t6fs1f/index.html?utm_source=traqli&utm_medium=email&utm_campaign=bdafrica_newsletter&tqid=3K7kcXA8XxMBEY_fyVQ0mwXjhxzmZmFOS.YPq.J5Cag
- ²³ https://agriculture.einnews.com/article_detail/491925463/Wnak6LR8bd6FmPbd?n=2&code=rpMgS26UQMEUBV6&utm_source=NewsletterNews&utm_medium=email&utm_campaign=Agriculture+News&utm_content=article
- ²⁴ <https://www.businessdailyafrica.com/markets/marketnews/Kenya-firm-bags-Sh620m-Botswana-saccos-IT-deal/3815534-5210472-qfyidw/index.html>
- ²⁵ <https://af.reuters.com/article/investingNews/idAFKCN1V60IV-OZABS>
- ²⁶ <https://ventureburn.com/2019/07/dpo-group-acquires-payfast/>

3. *Fintech and Mobile Money Trends in Africa*

- ²⁷ <https://tech.africa/ukheshe-micro/>
- ²⁸ https://nairametrics.com/2019/08/14/fintechs-to-drive-cbns-financial-inclusion-target/?utm_source=Nairametrics+Newsletter&utm_campaign=0c9bdcd8e1-EMAIL_CAMPAIGN_2019_02_26_05_19_COPY_77&utm_medium=email&utm_term=0_c96c21e814-0c9bdcd8e1-110451065&mc_cid=0c9bdcd8e1&mc_eid=d816619318
- ²⁹ https://howafrica.com/mauritiu-lauches-mobile-money-service/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+howafrica+%28How+Africa+and+More%29
- ³⁰ https://www.mobileworldlive.com/featured-content/money-home-banner/mtn-nigeria-unit-bags-licence-to-sell-financial-services/?ID=a6g1r000000z8XMAAY&JobID=265752&HE=9bb666bcb33f0fc0ae9a534ab794c1d64ce5fbd30606449dedfb174f0d6a277e3&utm_source=sfmc&utm_medium=email&utm_campaign=MWL_M_20190801&utm_content=https%3a%2f%2fwww.mobileworldlive.com%2ffeatured-content%2fmoney-home-banner%2fmtn-nigeria-unit-bags-licence-to-sell-financial-services%2f
- ³¹ https://www.businessdailyafrica.com/corporate/companies/StanChart-sets-sights-on-mobile-lending/4003102-5198710-jo6ftm/index.html?utm_source=traqli&utm_medium=email&utm_campaign=bdafrica_newsletter&tqid=1eW8dSt0EUMBziqPuVyW8CZoRqLRNpEf7LqfZRBkOQ
- ³² <https://techpoint.africa/2019/08/12/opay-continues-to-expand-as-otrike-launches-in-aba/>
- ³³ <https://ventureburn.com/2019/06/sa-fintech-lulalend-raises-6-5m-from-the-ifc-quona-capital/>
- ³⁴ https://nairametrics.com/2019/07/12/opay-secures-50-million-capital-raise-from-chinese-investors/?utm_source=Nairametrics+Newsletter&utm_campaign=4780bc8685-EMAIL_CAMPAIGN_2018_04_29_COPY_01&utm_medium=email&utm_term=0_c96c21e814-4780bc8685-110451065&mc_cid=4780bc8685&mc_eid=d816619318

³⁵ <https://www.cnbc africa.com/news/east-africa/2019/07/11/kenya-has-ordered-safaricom-to-shut-down-betting-payments-heres-why/>

4. Investments and Economics in Africa

³⁶ https://www.theeast african.co.ke/business/Ethiopia-to-sell-minority-stake-in-telecom-issue-licenses/2560-5184918-iobc8sz/index.html?utm_source=newsmate&utm_medium=email&utm_campaign=2318&tqid=l.mma212XV8BROTBaQ2hzPwotD7UinlpfLKYi.mQbA

³⁷ <https://weetracker.com/2019/09/10/ethiopia-topples-kenya-as-top-foreign-investment-destination-in-region/>

³⁸ <https://www.businessdailyafrica.com/economy/Parliament-approves-bid-to-nationalise-Kenya-Airways/3946234-5207816-117nbh1/index.html>

³⁹ <https://www.reuters.com/article/us-kenya-airways-restructuring-exclusive/exclusive-kenya-airways-goes-full-circle-with-two-year-nationalization-plan-idUSKCN1UK22M>

⁴⁰ <https://www.businessghana.com/site/news/business/192040/Foreigners-cannot-engage-in-retail-business>

⁴¹ <https://www.busiweek.com/uganda-to-set-up-two-technology-industrial-parks/>

⁴² https://nipc.gov.ng/2019/09/20/buhari-approves-seven-new-industrial-parks/?mc_cid=615e3843b5&mc_eid=5996ec09d0

⁴³ https://nipc.gov.ng/2019/09/26/nigeria-to-begin-rehabilitation-of-four-oil-refineries-in-2020/?mc_cid=e481819bb2&mc_eid=5996ec09d0

⁴⁴ <https://africaoilandpower.com/2019/08/01/downstream-revival-the-dangote-refinerys-impact-beyond-nigeria/>

5. Developing Africa's Pharmaceutical Industry

⁴⁵ <https://www.ghanabusinessnews.com/2019/07/02/african-free-trade-agreement-could-give-impetus-to-domestic-pharmaceutical-production/>

⁴⁶ <https://www.ghanabusinessnews.com/2018/11/21/agi-calls-for-deliberate-action-to-grow-pharmaceutical-industries/>

⁴⁷ <https://www.cnbc africa.com/apo/2019/06/26/all-set-for-horn-of-africa-trade-forum-focusing-on-regions-pharmaceutical-industry/>

⁴⁸ <https://www.newtimes.co.rw/news/rwanda-pharmaceutical-firm-inks-deal-make-cancer-drugs>

⁴⁹ <https://ideas4development.org/en/support-pharmaceutical-sector-africa/>

⁵⁰ <https://news.africa-business.com/post/the-changing-face-of-the-pharmaceuticals-market-in-africa->

⁵¹ <https://www.thecitizen.co.tz/news/-Tanzania-offers-pharmaceutical-investors-new-incentives/1840340-5202702-87hy3s/index.html>

⁵² <https://www.arabhealthonline.com/magazine/en/latest-issue/2018-issue-6/east-africa-next-pharmaceutical-manufacturing-platform.html>

⁵³ <https://www.politicalanalysis.co.za/mozambique-living-dangerously-on-fake-medicines/>

⁵⁴ <https://cointelegraph.com/news/uganda-to-deploy-mediconnects-blockchain-platform-for-tracing-fake-drugs>



**NANYANG
TECHNOLOGICAL
UNIVERSITY**
SINGAPORE

NTU-SBF
Centre for African Studies
Nanyang Business School

NTU-SBF Centre for African Studies

The NTU-SBF Centre for African Studies (CAS) is to develop thought leadership and capacity for doing business in Africa. It includes bringing Africa to Southeast Asia and Singapore and helping Singapore to be positioned as the gateway into Southeast Asia. As such, CAS aims to build and expand its local and international profile by means of publications, conferences, seminars and business forums through collaboration with local businesses, other research entities and business schools in Singapore and Africa.
<http://www.nbs.ntu.edu.sg/Research/ResearchCentres/CAS>



**NANYANG
TECHNOLOGICAL
UNIVERSITY**
SINGAPORE

**Nanyang Centre for
Emerging Markets**
Nanyang Business School

Nanyang Centre for Emerging Markets

The Nanyang Centre for Emerging Markets (CEM) is a new initiative by Nanyang Business School to establish global thought leadership on business-related issues in emerging markets. It conducts research on pressing and timely business issues in emerging markets through a global research platform of leading scholars and institutional partners. It closely interacts with corporate partners to identify research topics and manage the research process. Its research outputs include valuable and relevant implications for sustained profitable growth for local and multinational companies in emerging markets. It delivers a variety of research reports and organizes forums, seminars, CEO roundtables, conferences, and executive training programmes for broad dissemination of its research outputs.
<http://www.nbs.ntu.edu.sg/Research/ResearchCentres/CEM>

Partner Organizations



Contact Information:

Que Boxi

Email: cas@ntu.edu.sg

Phone: +65 65138089

Address: S3-B1A-35 Nanyang Business School

Nanyang Technological University

50 Nanyang Avenue Singapore 639798