

FINANCING AFRICA'S DIGITAL REVOLUTION

A satellite view of the African continent at night, showing city lights and the curvature of the Earth against a starry background.

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INTRODUCTION

Africa is undergoing a seismic shift fueled by rapid digitalisation. In a continent known for its diversity in culture, geography, and economic development, this digital revolution has the potential to harmonise growth across multiple sectors, ranging from finance to healthcare, education, and agriculture. With one of the world's youngest and fastest-growing populations, Africa is ripe for a tech-driven transformation, creating new opportunities for entrepreneurship, innovation, and economic growth.

However, despite this promise, the path to digitalisation is fraught with challenges—chief among them is financing. The sheer scale of investment required to support this transformation across the continent is immense, and addressing the digital divide is critical to ensuring that the benefits of the revolution are widely shared. This article explores the current state of Africa's digital economy, the importance of financing in enabling this transformation, the major sources of funding, the key challenges, and the future outlook.

AN OVERVIEW OF AFRICA'S DIGITAL ECONOMY

Africa's digital economy is witnessing rapid and widespread growth, driven by various factors such as improved internet access, vibrant startup ecosystems, and evolving policy frameworks. In 2012, the digital economy contributed approximately 1.1% (US\$30 billion) to Africa's Gross domestic product (GDP), a figure that rose to 4.5% (US\$115

billion) by 2020¹. This upward trajectory is expected to continue in the coming years. A 2020 study by Google and the International Finance Corporation (IFC) projected that the digital economy could account for US\$180 billion (5.2%) of Africa's GDP by 2025 and US\$712 billion (8.5%) by 2050, with key drivers including better internet connectivity, growing tech talent, and improved regulatory frameworks (including the African Continental Free Trade Area (AfCFTA))².

However, this growth is not uniform across the continent. While some countries are advancing rapidly, others lag behind. For example, in UNCTAD's³ 2020 e-commerce readiness index, South Africa scored 56.5 points, significantly higher than Niger's 5.6, highlighting disparities in digital infrastructure and readiness. The International Telecommunication Union (ITU) reported that by 2022., internet penetration across sub-Saharan Africa averaged 40%⁴, with some countries exceeding this, such as Kenya, where mobile penetration exceeds 85%, driven by its well-established mobile money ecosystem⁵.

The rise in smartphone usage has been another crucial factor in Africa's digital transformation, with over 600 million users by 2022⁶. Mobile technology remains the dominant force behind this adoption. According to the GSMA's 2022 Mobile Economy Report, sub-Saharan Africa is home to 515 million mobile phone subscribers, making it one of the world's fastest-growing mobile markets⁷. With the expansion of 4G networks and the upcoming 5G rollouts in several countries, analysts believe that the region is set for further digital inclusion. According to the GSMA's 2023 Mobile Economy Report, 5G is expected to benefit the Sub-Saharan Africa economy by US\$11 billion in 2030, accounting for more than 6% of the overall economic impact of mobile.⁸ The COVID-19 pandemic could also be credited for playing a significant role in accelerating the shift to digital services, as millions of Africans increasingly relied on online platforms for shopping, banking, healthcare, and education.

¹ Kende, M. *Promoting the African Internet Economy*. (2017)

² e-Economy-Africa 2020, Africa's 180 billion internet economy, IFC and Google Report, available at: https://www.ifc.org/wps/wcm/connect/publications_ext_content/ifc_external_publication_site/publications_listing_page/google-e-economy

³ United Nations Conference on Trade and Development (UNCTAD)

⁴ International Telecommunication Union (ITU), "ICT Facts and Figures 2022," 2022 available at <https://www.itu.int/itu-d/reports/statistics/2022/11/24/ff22-internet-use/>

⁵ Communications Authority of Kenya, "Quarterly Sector Statistics Report," 2022 available at <https://www.ca.go.ke/sites/default/files/2023-06/Sector%20Statistics%20Report%20Q1%202022-2023.pdf>

⁶ GSMA, "The Mobile Economy Sub-Saharan Africa 2022," 2022 available at <https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-economy/wp-content/uploads/2022/10/The-Mobile-Economy-Sub-Saharan-Africa-2022.pdf>

⁷ GSMA, "State of the Industry Report on Mobile Money," 2022

⁸ GSMA, "The Mobile Economy Sub-Saharan Africa 2023," 2023 available at <https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-economy/wp-content/uploads/2023/10/20231017-GSMA-Mobile-Economy-Sub-Saharan-Africa-report.pdf>

THE ROLE OF FINANCING IN AFRICA'S DIGITAL REVOLUTION

Africa's digital revolution stands out as one of the most remarkable economic transformations on the continent. It has opened a world of possibilities for growth and development across various sectors. The surge in mobile phone usage, internet connectivity, digital payments, e-commerce, and technological innovations has created exciting new pathways for both business and social progress. However, to truly unlock the potential of this revolution, we must focus on ensuring that financing is available and accessible. This funding is essential for scaling digital initiatives and developing the necessary infrastructure to support them. Some of the key roles of financing in Africa's digital revolution are discussed below:

i. Enabling Infrastructure Development

The foundation of Africa's digital transformation rests on adequate infrastructure, including broadband networks, data centers, and electricity grids. Financing plays a crucial role in building this digital infrastructure, which is often capital-intensive and requires long-term investment. The financing of submarine cables, terrestrial fiber networks, and mobile broadband towers has largely been supported by Foreign Direct Investment (FDI), Development Finance Institutions (DFIs), and Public-Private Partnerships (PPPs).

For example, the African Development Bank (AfDB) has played a critical role in financing infrastructure projects like the Central African Backbone Project, which aims to enhance regional connectivity⁹. Also, a consortium of partners that include Facebook, MTN, Vodafone and Orange is funding the 2Africa cable¹⁰, and Google and its co-investors are privately funding the Equiano project¹¹. Similarly, PPP models, such as Kenya's Konza Technopolis¹², demonstrate how government involvement, paired with private sector financing, can spur the development of tech hubs and smart cities.

However, inadequate access to financing often slows the deployment of infrastructure, particularly in rural or underserved areas. Mobile network operators (MNOs) and internet service providers (ISPs) in countries like Nigeria, Ghana, and South Africa often rely on blended financing models that combine

⁹ AfDB. (2021). *Central African Backbone Project*. African Development Bank

¹⁰ Available at - <https://www.kapitalafrik.com/2021/08/16/facebook-partners-with-mtn-vodafone-and-orange-for-its-2africa-project/> accessed on 4th October 2024

¹¹ Available at - <https://www.zdnet.com/article/google-announces-equiano-a-private-subsea-cable-from-europe-to-africa/> accessed on 4th October 2024

¹² <https://www.ifc.org/content/dam/ifc/doc/2010/2014-kenya-konza-technology-city-ppp-brief.pdf> accessed on 4 October 2024.

public grants, private capital, and multilateral funding to overcome the high costs associated with deploying last-mile connectivity in these regions.

ii. **Supporting Startups and Innovation Ecosystems**

Africa's burgeoning startup ecosystem is a core driver of the digital revolution. Startups are responsible for innovative solutions in financial technology ("Fintech"), health technology ("HealthTech"), agricultural technology ("AgriTech"), and education technology ("EduTech"), which cater to Africa's unique needs. However, startups often face significant barriers to accessing the early-stage financing required to scale their operations. Venture Capital (VC) and Private Equity (PE) have increasingly flowed into Africa's tech ecosystem in recent years, although challenges remain in reaching wider areas of the continent.

For instance, 2021 saw African startups raise a record \$5.2 billion in VC funding, with sectors like fintech taking the lead¹³. Companies like Flutterwave, Jumia, and M-Pesa have received substantial funding, allowing them to scale and offer services that include digital payments, e-commerce, and financial inclusion solutions. In 2020, Stripe made a major acquisition in Nigeria by acquiring Paystack for \$200 million, thereby underscoring the global interest in Africa's fintech sector. Overall, this influx of venture capital/investment has not only propelled startups but has also encouraged the development of tech ecosystems in cities like Lagos, Nairobi, Cape Town, and Cairo.

Still, the disparity between the availability of capital for startups in these urban hubs versus rural or underdeveloped regions remains an issue. Many investors hesitate to fund companies outside of the more established tech ecosystems, thereby limiting the reach of Africa's digital revolution.

iii. **Boosting Financial Inclusion through Digital Payments**

One of the standout aspects of Africa's digital transformation is the expansion of mobile money services and digital payment platforms. Mobile money platforms like M-Pesa in Kenya, Orange Money in West Africa, and MTN Mobile Money across various countries have dramatically increased financial inclusion by offering services to populations previously unbanked or underserved by traditional banking systems.

¹³ Startup Genome. *Africa Startup Ecosystem Report (2021)* and <https://www.reuters.com/world/africa/african-startups-drew-record-52-billion-venture-capital-last-year-industry-group-2022-04-19/>, accessed on 4th October 2024.

The success of these platforms can be attributed to investment in Fintech and digital payment systems. Global investors and fintech-focused VC firms have injected substantial funding into these sectors. For instance, in 2021, Wave, a Senegal-based mobile money provider, raised \$200 million in a Series A round, reflecting investor confidence in the fintech space¹⁴.

The role of financing in the digital payments sector goes beyond initial investments. Ongoing financing is essential for fintech companies to expand operations, reach underserved regions, and maintain cybersecurity.

SOURCES OF FINANCING FOR AFRICA'S DIGITAL REVOLUTION

i. Venture Capital and Private Equity

Venture capital is one of the primary sources of financing for Africa's tech startups. According to the African Private Capital Association (AVCA), African tech startups received over \$6 billion in VC funding between 2020 and 2022¹⁵. Leading sectors include fintech, health tech, edtech, and e-commerce, which have attracted interest from global investors like SoftBank, Google Ventures, and Tiger Global. These investors are drawn by the opportunity to invest in a high-growth market with vast untapped potential.

Private equity (PE) firms are also playing a significant role in financing Africa's digital economy. PE firms tend to invest in more mature companies that have established revenue streams and are looking to scale. In recent years, PE firms have made notable investments in African tech companies such as Jumia, Andela, and IrokoTV. While venture capital focuses on early-stage startups, private equity investments are essential for companies that need capital to expand operations or enter new markets.

¹⁴ Startup Genome. *Africa Startup Ecosystem Report (2021)* and <https://www.fintechfutures.com/2021/09/african-fintech-wave-hits-unicorn-status-with-200m-series-a-round/> accessed on 4th October 2024

¹⁵ AVCA, "African Private Capital Association 2022 Venture Capital Report," 2022 available at https://www.avca.africa/media/m3db4yt0/02175-avca-vc-report-2023_4-final-1.pdf accessed on 4th October 2024.

ii. Public Funding and Government Initiatives

Governments across Africa are increasingly recognizing the importance of digitalization for economic development and are taking steps to provide financing and support for the tech ecosystem. For example, Rwanda's Vision 2020 plan identified digital infrastructure as a critical driver of economic growth, resulting in significant government investment in ICT infrastructure. Rwanda is now one of the most digitally advanced countries in Africa, with over 90% of its population covered by a 4G network¹⁶.

Similarly, Nigeria's government has launched several initiatives aimed at supporting the tech ecosystem, including the National Digital Economy Policy and Strategy (NDEPS). The policy aims to increase broadband penetration, promote digital literacy, and support the growth of Nigeria's tech sector¹⁷. Other governments, including Egypt, South Africa, and Kenya, have launched digital transformation strategies that include financial support for startups, the development of tech hubs, and incentives for foreign direct investment (FDI) in digital sectors. Global efforts have also been key as witnessed in February 2022, when the European Union announced a plan to invest up to €150 billion in Africa over the next seven years, in five priority areas, including accelerating the digital transition¹⁸.

iii. Development Finance Institutions and Multilateral Organizations

Development finance institutions and multilateral organisations play a pivotal role in financing large-scale infrastructure projects in Africa. The World Bank has committed billions of dollars to projects aimed at expanding broadband access and improving digital literacy across the continent. In 2021, the World Bank approved a \$500 million program to expand digital connectivity in sub-Saharan Africa, focusing on countries like Tanzania, Mozambique, and Ghana¹⁹. This program is part of the bank's broader Digital Economy for Africa (DE4A) initiative, which seeks to harness the power of digital technologies to drive inclusive growth.

Similarly, the African Development Bank's Digital Infrastructure Initiative aims to bridge the digital infrastructure gap by catalyzing investments in broadband networks, data

¹⁶ Rwanda Ministry of ICT and Innovation, "Vision 2020," 2020 available at https://climatechange.gov.rw/fileadmin/user_upload/Documents/Report/RwandaVision2020.pdf and <https://www.un.org/ohrrls/sites/www.un.org.ohrrls/files/leveraging-investments-in-broadband-for-national-development-2017.pdf> accessed on 4th October 2024

¹⁷ Federal Ministry of Communications and Digital Economy, "National Digital Economy Policy and Strategy," 2020 available at https://ndpc.gov.ng/Files/Policy-National_Digital_Economy_Policy_and_Strategy.pdf

¹⁸ <https://www.diplomacy.edu/resource/report-stronger-digital-voices-from-africa/state-of-african-digital-economy/> accessed on 4th October 2024.

¹⁹ World Bank, "Digital Economy for Africa (DE4A) Initiative," 2021 available at <https://www.worldbank.org/en/programs/all-africa-digital-transformation> accessed on 4th October 2024

centers, and energy solutions²⁰. Multilateral organizations such as the International Monetary Fund (IMF), European Investment Bank and the African Union are also key players, working alongside governments and the private sector to fund digital transformation projects.

COMPARATIVE ANALYSIS OF NIGERIA, KENYA, AND SOUTH AFRICA'S DIGITAL REVOLUTION LANDSCAPE

While many African nations are advancing their digital transformation agenda, Nigeria, Kenya, and South Africa stand out as leaders due to their significant progress in tech ecosystems, fintech, venture capital, and digital infrastructure. Each country exhibits unique strengths and faces distinct challenges in financing its digital revolution. As of 2024, the digital revolution landscape in Nigeria, Kenya, and South Africa have witnessed various growth levels. Discussed below under different broad headings is the comparative study of Nigeria, Kenya and South Africa's Digital Revolution Landscape: -

i. Digital Infrastructure

Nigeria, Africa's most populous country, has made substantial investments in digital infrastructure, but it still faces critical challenges. Broadband penetration remains low, at around 47.3% in 2022, with a significant rural-urban divide²¹. Despite this, Nigeria has ambitious targets to increase broadband penetration to 70% by 2025 as part of its National Broadband Plan. Investments in undersea cables, fiber optics, and 5G networks are critical in achieving this goal. The Nigerian Communications Commission (NCC) has partnered with private companies to expand fiber-optic networks, but more efforts are needed to bridge the infrastructure gap, particularly in underserved regions.

Kenya has long been considered a pioneer in Africa's digital landscape, thanks to its robust mobile network infrastructure and high mobile penetration rates. By 2022, Kenya had a broadband penetration rate of 42%, with the government's Vision 2030 targeting full nationwide internet coverage²². Investments in mobile broadband, particularly 4G and 5G networks, have been central to Kenya's digital growth, enabling widespread mobile money adoption. The country's "Konza Techno City," a flagship project aimed at creating a technology and

²⁰ African Development Bank (AfDB), "Building Digital Infrastructure in Africa," 2021

²¹ Nigeria Communications Commission, "2022 Broadband Penetration Report," 2022 and [BusinessDay ePaper \(pressreader.com\)](https://www.businessday.com.ng) accessed on 4th October 2024

²² Kenya Ministry of ICT and Innovation, "Vision 2030 Digital Infrastructure Report," 2022 and [Digital 2022: Kenya – DataReportal – Global Digital Insights](https://www.digitaleconomy.go.ke) accessed on 4th October 2024

innovation hub, is expected to attract global tech investments and further enhance Kenya's digital infrastructure²³.

South Africa boasts some of the most advanced digital infrastructure on the continent, with a broadband penetration rate of 72.3% in 2023²⁴. The country has well-developed fiber-optic networks, a robust mobile broadband sector, and a rapidly expanding 5G infrastructure. However, high data costs remain a significant challenge, despite government intervention to regulate pricing. South Africa's advanced infrastructure has enabled the country to become a leading hub for data centers, making it attractive for global tech companies like Amazon and Google, which have invested in local data centers²⁵. According to a report from the African Data Centres Association (ADCA), it would take roughly 700 new data centers of 1,000 MW capacity to bring the rest of the continent up to a similar density to South Africa.²⁶

ii. Tech Ecosystem and Startups

Nigeria's tech ecosystem is the largest in Africa, often referred to as "Africa's Silicon Valley." Lagos, in particular, has emerged as a hub for startups, hosting a large number of fintech, e-commerce, and healthtech companies. Nigeria's startup ecosystem raised over \$1.2 billion in venture capital in 2022, accounting for nearly 40% of all startup funding in Africa²⁷. Despite its successes, Nigeria faces challenges related to regulatory uncertainty, high inflation, and currency instability, which can deter investors.

Kenya's tech ecosystem, centered around Nairobi's "Silicon Savannah," has seen rapid growth, especially in fintech and agritech. The country raised over \$750 million in startup funding in 2022, with a significant focus on mobile payment solutions and digital lending²⁸. Kenya's conducive regulatory environment, particularly for fintech, has attracted global investors. However, startups in the agritech and healthtech sectors often struggle with funding, highlighting the need for more diversified investments beyond fintech.

²³ Kenya's Konza Technopolis: An Ambitious tech hub targeting innovation and jobs - We are Tech accessed on 4th October 2024

²⁴ <https://www.africanews.com/2023/07/18/here-is-why-south-africa-is-the-most-internet-addicted-country-in-the-world/> accessed on 4th October 2024

²⁵ Why investors are bullish on South Africa's data centre industry | TechCabal accessed on 4th October 2024

²⁶ Africa Data Centres Association Report and <https://allianz.africabusinesscommunities.com/tech/tech-news/africa-needs-1000mw-and-700-data-center-facilities-to-meet-demand-report/> accessed on 4th October 2024

²⁷ Disrupt Africa, "African Tech Startups Funding Report," 2022 available at <https://old.disruptafrica.com/wp-content/uploads/2023/02/The-African-Tech-Startups-Funding-Report-2022.pdf> and How Nigerian startups attracted \$1.2bn in funding this year - Technext (technext24.com) accessed on 4th October 2024.

²⁸ Partech Africa, "2023 Africa Tech Venture Capital Report," 2023

South Africa's startup ecosystem is well-established but tends to lag behind Nigeria and Kenya in terms of venture capital inflows. In 2022, South African startups raised approximately \$500 million, with fintech, e-commerce, and edtech leading the charge²⁹. South Africa's relative economic stability, well-developed infrastructure, and large consumer base make it attractive for startups. However, funding is often concentrated in Cape Town and Johannesburg, leaving startups in other regions underfunded.

iii. **Fintech and Financial Inclusion**

Nigeria's fintech sector is the largest in Africa, with companies like Flutterwave, Paystack, and Kuda leading the charge. The sector attracted over \$600 million in investment between 2014 and 2019 alone³⁰. Mobile money adoption in Nigeria has been slower than in East Africa due to regulatory bottlenecks. However, the Central Bank of Nigeria's (CBN) continuous regulatory reforms on Payment Service Banks (PSBs) are expected to drive mobile money adoption, particularly in rural areas. Nigeria also leads the continent in the number of fintech unicorns, underscoring the sector's potential.

Kenya is widely recognized as a global leader in mobile money and financial inclusion, thanks to the success of platforms like M-Pesa. By 2022, over 85% of the adult population in Kenya was using mobile money, making it one of the most financially inclusive countries in the world³¹. Kenya's fintech sector continues to innovate, with companies like Tala and Branch providing digital lending services. However, there is still room for growth, particularly in expanding fintech services beyond mobile payments to areas such as savings, insurance, and wealth management.

South Africa's fintech sector is growing rapidly, with a strong focus on digital payments, lending, and insurance. Companies like Yoco and Jumo have gained significant traction, and the country has seen a rise in fintech investments, though not on the scale of Nigeria or Kenya. Mobile money adoption in South Africa has been slower, partly due to the well-established banking sector and higher smartphone penetration rates. However, fintech is playing a crucial role in expanding financial inclusion, particularly in underserved communities³².

²⁹ Ibid

³⁰ GSMA, "The Mobile Economy Sub-Saharan Africa 2022," 2022

³¹ Safaricom, "M-Pesa Annual Report," 2022

³² South African Reserve Bank, "Fintech Regulatory Sandboxes: A Progress Report," 2022 and <https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/programme/mobile-money/smartphone-device-financing-a-catalyst-for-mobile-money-growth-in-an-era-of-fintech-apps/>, accessed on 4th October 2024

iv. Regulatory Environment

Nigeria's regulatory environment has recently undergone significant reforms aimed at revolutionising its fintech and digital economy. Key developments include the implementation of the National Digital Economy Policy and Strategy (NDEPS), the CBN and SEC regulatory sandbox programme, the enactment of the Nigeria Start-up Act 2022, and the CBN's recent lifting of the ban on cryptocurrency transactions. These efforts indicate that Nigeria is gradually redirecting its policy focus toward fostering innovation in the fintech and digital economy while maintaining regulatory oversight to protect investors and ensure financial stability.

Kenya's regulatory framework has been more conducive to innovation, particularly in the fintech sector. The government has taken a hands-off approach to mobile money, allowing M-Pesa to flourish with minimal interference. However, as the sector matures, there are growing calls for increased regulation to protect consumers and ensure financial stability³³. The Kenya Innovation and Startup Bill is a positive step towards creating a more structured environment for tech startups and investors.

South Africa has one of the most robust regulatory frameworks in Africa, but this can be both a benefit and a barrier. The country's well-established financial sector is tightly regulated, which has slowed the adoption of new fintech solutions such as mobile money. However, South Africa has made strides in creating regulatory sandboxes for fintech startups, allowing them to test new products in a controlled environment before full-scale implementation³⁴. Despite this, the regulatory environment remains complex and can be a deterrent for foreign investors.

³³ GSMA, "State of the Industry Report on Mobile Money," 2022

³⁴ Ibid and <https://www.resbank.co.za/content/dam/sarb/publications/media-releases/2022/fintech-iwfg-sandbox-report/IWFG%20First%20Regulatory%20Sandbox%20Report%20October%202022.pdf> accessed on 4th October 2024

CHALLENGES HINDERING THE DIGITAL REVOLUTION IN AFRICA

Despite the progress, Africa's digital revolution still faces significant challenges. Key barriers include:

i. Inadequate Infrastructure

While progress has been made, Africa still faces significant infrastructure challenges that hinder its digital transformation. Broadband internet remains prohibitively expensive in many parts of the continent, particularly in rural and remote areas. According to the Alliance for Affordable Internet, the cost of 1GB of mobile data in Africa is, on average, 7.12% of monthly income—far above the global affordability target of 2%³⁵. This high cost prevents many Africans from accessing the internet and participating in the digital economy.

In addition to internet affordability, electricity is another critical challenge. Many parts of Africa, particularly sub-Saharan Africa, experience frequent power outages, making it difficult to maintain reliable internet access and support data centers. According to the World Bank, around 600 million people in Sub-Saharan Africa³⁶ lack access to electricity, which poses significant challenges for sustaining reliable power for digital networks and data centers. The absence of a stable energy infrastructure hampers the expansion and optimisation of digital services, slowing economic growth and limiting digital inclusion across the continent.

ii. Regulatory Barriers and Market Fragmentation

Africa's regulatory environment can also be a significant barrier to digital growth. The continent is a patchwork of regulatory frameworks, with each country maintaining its own rules and regulations for technology companies. This fragmentation can make it difficult for startups to scale across borders, as they must navigate complex and often inconsistent regulations in different countries.

Regulatory hurdles are particularly challenging in sectors like fintech, where different countries have varying rules on data protection, cross-border payments, and financial services. Startups must work closely with regulators to

³⁵ Alliance for Affordable Internet, "2021 Affordability Report," 2021 and <https://edition.cnn.com/2019/10/22/africa/internet-affordability-africa/index.html#:~:text=The%20A4I%20defines%20affordability%20as,a%20fifth%20of%20average%20earnings> accessed on 4th October 2024

³⁶ <https://www.worldbank.org/en/programs/energizing-africa/overview> accessed on 4th October 2024.

ensure compliance, which can be time-consuming and costly. Additionally, inconsistent regulations can deter foreign investors, who may perceive Africa as a high-risk market due to regulatory uncertainty.

iii. Political and Economic Instability

Political and economic instability in some African countries can also pose challenges for financing the digital revolution. Countries experiencing conflict or political unrest often face disruptions in infrastructure development and foreign investment. Currency fluctuations and inflation in countries such as Zimbabwe, Nigeria and South Sudan make it difficult for startups to plan for the future and access affordable financing.

While many African countries are politically stable, the perception of instability can deter investors from entering certain markets. To mitigate these risks, investors often demand higher returns or focus on more stable regions, leaving startups in less stable countries with limited access to capital.

FINANCING CHALLENGES AFFECTING AFRICA'S DIGITAL REVOLUTION

i. Limited Access to Venture Capital

Although venture capital investment in Africa has grown significantly in recent years, it remains relatively limited compared to other regions. In 2022, African startups received just 1% of global venture capital funding, despite the continent's vast potential³⁷. Also, according to the 2023 Venture Capital Report of the African Private Capital Association, both the volume and value of venture capital investment decreased by close to a third in 2023, marking the first decline the industry has seen in a decade. This funding gap means that many promising startups struggle to scale their operations or expand into new markets. Access to capital is particularly challenging for startups outside major tech hubs like Lagos, Nairobi, and Cape Town, where investors tend to concentrate their efforts.

The lack of venture capital also limits the availability of later-stage financing for more mature companies. While early-stage funding has increased, growth-

³⁷ TechCrunch, "Africa's Fintech Boom and Its Funding Challenges," 2022

stage startups often struggle to secure the larger investments needed to scale their operations across the continent.

ii. Lending Risks/ High Cost of Lending

Financing challenges are a major bottleneck in the growth of Africa's digital economy, particularly in accessing affordable credit. Traditional financial institutions perceive startups, particularly in the digital and technology sectors, as high-risk ventures due to their limited track records, lack of tangible assets for collateral, and unpredictable cash flows. The result is either the denial of credit or extremely high borrowing costs to mitigate perceived risks.

Commercial lending rates in Africa are some of the highest globally. In Nigeria, for example, the average lending rate is estimated to be about 17% to 20%³⁸, with rates reaching higher for smaller firms or startups in riskier sectors such as technology. This poses a significant hurdle for new businesses trying to scale.

iii. Foreign Exchange Risk

Another major challenge is foreign exchange (FX) risk, which disproportionately affects startups that rely on foreign investors or those with cross-border operations. Most African countries, including Nigeria, South Africa, and Kenya, experience significant currency fluctuations due to factors such as economic instability, inflation, and global commodity price volatility. This exposes businesses to substantial FX risks when borrowing in foreign currencies or receiving foreign direct investments (FDI).

For example, African startups often receive funding in foreign currencies such as the US dollar or the euro. However, revenues generated are typically in local currencies. Depreciation of the local currency can significantly increase the cost of repaying loans or reduce the value of foreign investments when converted back to hard currencies. In countries like Nigeria, which experienced a nearly 70% depreciation of its currency in recent years³⁹, businesses relying on foreign capital have seen the real value of their investments severely reduced. Hedging mechanisms are often inaccessible to small digital businesses due to their cost

³⁸ <https://www.ceicdata.com/en/indicator/nigeria/bank-lending-rate> accessed on 4th October 2024.

³⁹ <https://www.bloomberg.com/news/articles/2024-09-13/why-nigeria-s-naira-currency-ngn-usd-slumped-and-why-it-matters> accessed on 4th October 2024.

or complexity. This increases the risk of default on foreign loans and makes foreign capital injections less attractive for startups that are unable to manage FX risks effectively.

OPPORTUNITIES AND FUTURE OUTLOOK

Despite the foregoing challenges, Africa continues to embrace the digital revolution, as various opportunities are emerging that could significantly shape the continent's digital economic landscape. The future outlook is promising, driven by technological advancements, with a growing emphasis on emerging technologies. Below are some key opportunities and perspectives for the future of Africa's digital landscape:

i. Youth-Driven Innovation

Africa's demographic advantage, with 70% of its population under the age of 30, is one of the continent's greatest assets in driving digital innovation⁴⁰. Young Africans are more likely to embrace new technologies and are at the forefront of digital entrepreneurship. Many of the continent's most successful tech startups, including Flutterwave, Andela, and Jumia, were founded by young entrepreneurs who saw opportunities to solve local problems using technology.

This youthful energy is driving the growth of tech hubs and innovation centers across the continent. Countries like Nigeria, Kenya, South Africa, and Egypt are home to thriving tech ecosystems that nurture young entrepreneurs through incubators, accelerators, and mentorship programs. These hubs provide the resources and networks needed for young innovators to turn their ideas into scalable businesses.

ii. Growth in Emerging Technologies

Emerging technologies such as blockchain, artificial intelligence (AI), and the Internet of Things (IoT) are opening up new opportunities for Africa's digital economy. Blockchain technology, in particular, holds promise for sectors such as finance, supply chain management, and governance. For example, companies like BitPesa are using blockchain to facilitate cross-border

⁴⁰ United Nations, "World Population Prospects 2022," 2022 and <https://www.un.org/ohrlls/news/young-people%E2%80%99s-potential-key-africa%E2%80%99s-sustainable-development#:~:text=Statement%20from%20the%20High%20Representative%20for> accessed on 4th October 2024.

payments⁴¹, while startups like 4G Capital are using AI to assess credit risk for microloans⁴².

Agriculture, which remains the backbone of many African economies, is also being transformed by digital technologies. IoT devices are being used to monitor crop health and improve irrigation⁴³, while AI-powered platforms are helping farmers optimise yields and reduce waste⁴⁴. These technologies have the potential to revolutionize agriculture and other key sectors, making them more efficient and sustainable.

iii. Collaboration Between Public and Private Sectors

The future of Africa's digital revolution will depend on close collaboration between the public and private sectors. Governments must continue to invest in digital infrastructure and create enabling environments for innovation, while the private sector must provide the capital, technology, and expertise needed to drive growth. Public-private partnerships (PPPs) will be essential in bridging the infrastructure gap and ensuring that digital services reach even the most remote areas of the continent.

Multilateral organizations, DFIs, and global investors must also play a role in supporting Africa's digital transformation. By working together, stakeholders can create a more inclusive digital economy that benefits all Africans, regardless of their location or socioeconomic status.

⁴¹ <https://www.thecitizen.co.tz/tanzania/business/tanzania-works/-bitpesa-delivering-cross-boarder-payments--2596862> accessed on 4th October 2024.

⁴² Blockchain Africa Conference, "Blockchain Innovation in Africa," 2022 and <https://businessday.ng/opinion/article/ai-revolutionising-startups-a-leap-forward-for-nigeria-and-africa/#:~:text=4G%20Capital%20%28Kenya%29%3A%20An%20AI-powered%20fintech%20company%20providing,4G%20Capital%20empowers%20entrepreneurs%20and%20fosters%20economic%20growth> accessed on 4th October 2024.

⁴³ <https://www.octasoftware.com/blog/iot-in-agriculture#:~:text=IoT%20in%20agriculture%20gathers%20real-time%20data%20on%20different,resource%20utilization%2C%20automate%20irrigation%2C%20and%20forecast%20pest%20infestations> accessed on 4th October 2024

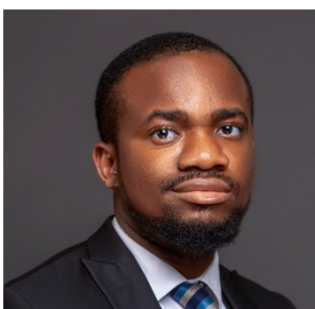
⁴⁴ <https://www.mckinsey.com/industries/agriculture/our-insights/from-bytes-to-bushels-how-gen-ai-can-shape-the-future-of-agriculture> and <https://www.agribusinessreview.com/news/precision-agriculture-maximising-yields-and-sustainability-with-ai-nwid-1047.html#:~:text=Resource%20management%20Optimisation%20stands%20as%20a%20linchpin%20benefit,and%20fertiliser%20requirements%2C%20effectively%20reducing%20waste%20and%20cost> accessed on 4th October 2024

CONCLUSION

Africa's digital revolution is well underway, driven by rapid technological adoption, youthful innovation, and a growing startup ecosystem. However, the challenges the continent faces in financing this transformation, from inadequate infrastructure to limited access to venture capital are not without solutions. To overcome these challenges, strategic investments in digital infrastructure, financial inclusion, government interventions and regulatory reforms are essential.

Financing Africa's digital future will require the concerted efforts of governments, investors, development institutions, and the private sector. With the right support and investments, Africa has the potential to leapfrog traditional development models and become a global leader in digital innovation. As the continent continues on its path toward digitalization, the opportunities for growth and prosperity are immense, but only if financing can keep pace with the rapid changes occurring across Africa's digital landscape.

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