

ECOSYSTEM REPORT:

NIGERIA'S STARTUP SCENE





About Ventures Platform Foundation

Ventures Platform Foundation is a leading source of capital, capacity building, support, and advocacy for under-served entrepreneurs, communities, and institutions, enabling them to enhance the creation of wealth and development in Africa.

The Foundation is interested in creating inclusive and sustainable wealth in Africa by building the capacity of entrepreneurs and innovators to leverage technology to create sustainable solutions to the continent's most urgent problems.

The Foundation invests in startups across multiple sectors through the Ventures Platform fund, providing them with pre-seed or seed capital while also providing support across the board.



About TechCabal

TechCabal is a pan-African publication focused on high-quality coverage of startups, technology, and innovation across the continent. TechCabal covers the business of technology, the core players, the ecosystem, and the real human effects of tech across Africa.

TC Insights

This report was produced by TC Insights, TechCabal's research, data analytics and consulting unit. TC Insights produces data-driven and sector-specific reports across all industries where tech is being utilized, from fintech to education, health, transportation and beyond. This information feeds its reporting and industry analysis.

TC Insights' sector-specific reports provide insight into the key players, business trends, customer clusters, regulatory issues, and problem-solving opportunities in each tech sub-sector. Additionally, the unit conducts primary and desk research to create custom reports to answer specific client questions about the continent's tech industry.

Analysts

- Olanrewaju Odunowo - Lead Analyst
 - Boluwatife Sanwo - Junior Analyst
 - Edidiong Udom - Junior Analyst
 - Ugochukwu Modum - Junior Analyst
-
-



About the Japan International Cooperation Agency (JICA)

The Japan International Cooperation Agency (JICA) is charged with coordinating the Official Development Assistance for the Government of Japan in developing countries across the world.

One of JICA's main missions is Human Security, which is the concept that "All individuals are entitled to freedom from fear, freedom from want, and the freedom to live in dignity, and the global community and each country must prioritize building a world that secures these essential freedoms."

JICA in Nigeria commits to realizing a better life for Nigerian people through the promotion of high-quality and inclusive economic and social development of the country. We have always been standing by and thinking together with Nigerians since the establishment of the JICA Nigeria Office in 1977. Our cooperation also supports Nigeria to achieve internationally agreed goals such as Sustainable Development Goals (SDGs).

As the implementing agency of Japan's official development assistance, JICA recognizes that it must play a larger role in building resilient societies through the trust that has been built over many years.

JICA's vision is "Leading the world with trust," and following this, the Agency is committed to strengthening its collaborations with partner countries to advance the establishment of a more stable and prosperous world.

An Overview of Project NINJA

In January 2020, JICA launched Project NINJA (Next Innovation with Japan) to support entrepreneurs around the world.

The objectives of the initiative are to strengthen the startup ecosystem and to foster collaboration between Japan and the startups in each continent. This would entail innovating together and co-creating sustainable and prosperous economic growth.



It is JICA's first attempt to provide comprehensive and tailored support to entrepreneurs at every stage of their business development. Support is provided from the initial stages of starting a business, such as developing an entrepreneur's inspiration or idea into a prototype; registering companies; promoting the growth of the business model through contests such as this one, and even matching the company with businesses overseas.

The NINJA Project consists of six activities. These are:

- A. Idea contest
- B. Incubation program
- C. Business contest
- D. Acceleration program

- E. Open innovation (promotion of business collaboration between Japanese companies and local startups)
- F. Policy proposals.

The inclusion of "with Japan" in NINJA implies that Japan will continue to innovate with entrepreneurs in developing countries to co-create a sustainable and prosperous economy and society.

To make a significant contribution to achieving the Sustainable Development Goals (SDGs), JICA will also promote collaboration between entrepreneurs in developing countries and Japanese companies, investors, and research institutions.

NINJA Business Plan

Competition in response to COVID-19

The coronavirus pandemic threatened health, affected the flow of economic and urban activities, and raised several other issues in society.

The world as we know it has had to undergo rapid, successive changes, such as activating lockdowns in most countries, putting appropriate preventive measures in place, ensuring that information provided on infection status is accurate and that food distribution is safe and efficient. Remote work and learning have also become the order of the day. Livelihoods have been badly affected, lives have been lost and health systems have been overwhelmed.

Society is unravelling in new ways, and as such, what JICA aims to do is to support the growth of startups aiming to develop new technologies and provide solutions that utilize existing/emerging technologies.

“JICA believes that the business model created by this initiative can become the standard model in the next generation (post-COVID-19 era),” said

Nao Fuwa, Expert in Startup Ecosystem and Innovation, JICA.

This year, the competition was conducted in 19 African countries, namely Angola, Burkina Faso, Botswana, Cameroon, Ivory Coast, Egypt, Ethiopia, Ghana, Kenya, Madagascar, Mauritius, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Tunisia, Uganda, and Zambia. Although 2,713 unique applications were received, only 69 companies were selected, eight of them being from Nigeria.

As expected, many of the applications were from companies in the healthtech sector; in Nigeria alone, four of the selected companies were focused on digital health.

Contents

List of tables	08	Talent	36
List of figures	09	Capital	38
An overview of the selected startups in Nigeria	10	Regulation	39
TradeBuza	12	Infrastructure	44
Emergency Response Africa	13	An analysis of the six geo-political zones	45
Routemasters	14	South-West zone (Lagos and Ogun States)	47
Utiva	15	South-East zone (Enugu and Imo)	58
Gradely	16	South-South zone (Rivers and Akwa-Ibom)	62
Lifestores Pharmacy	17	North-West zone (Kaduna and Kano)	66
MyClinic	18	North-Central zone (Abuja, Plateau and Kwara)	72
An analysis of Nigeria's startup ecosystem	19	North-East zone (Borno and Adamawa)	78
A review of Nigeria's geographic landscape	20	Key players, weaknesses and opportunities in the Nigerian startup ecosystem	82
A review of Nigeria's economic landscape	23	Key players	83
A review of Nigeria's startup ecosystem	26	Strengths	87
What are the factors catalysing growth in Nigeria?	29	Opportunities	90
The pillars of Nigeria's tech ecosystem	36	Weaknesses and challenges	93

Contents

A review of funding information	103
2016	106
2017	106
2018	107
2019	108
2020	108
2021	109
Funding by Verticals	110
Lessons from Japan	112
Conclusion	115
Appendix	117
A list of incubators, accelerators and hubs in Nigeria	117
A list of private equity and venture capital investors in Nigeria	131
Acknowledgements	136
Abbreviations	137
References	138

List of Tables

Table 1: Lagos is the highest ranked startup city in Nigeria	30
Table 2: Fintech sub-sectors in Nigeria and example companies	31
Table 3: Some Nigerian startups and their newest markets	33
Table 4: Nigeria's population by geo-political zone	47
Table 5: Regulatory bodies in Nigeria and their functions	87
Table 6: A list of incubators, accelerators and hubs in Nigeria	125
Table 7: A list of private equity and venture capital investors in Nigeria	132

List of Figures

Fig 1: Nigeria has the largest population in Africa	19
Fig 2: Nigeria's population has grown at a fairly constant rate for 20 years	20
Fig 3: The South-East is the smallest region in Nigeria	21
Fig 4: Nigeria's geographic landscape at a glance	21
Fig 5: Nigeria has the highest GDP in Africa	22
Fig 6: Like many other African countries, Nigeria had a negative growth rate in 2020	23
Fig 7: Nigeria's economic landscape at a glance	23
Fig 8: Nigeria's fluctuating inflation rate from 2000 - 2020	24
Fig 9: Nigeria's entrepreneurship system suffered a major decline in 2017	25
Fig 10: Nigeria's startup landscape at a glance	26
Fig 11: Mobile internet penetration in Nigeria to reach 65% by 2025	27
Fig 12: The pandemic caused a dip of over 50% in Nigeria's equity funding in 2020	31
Fig 13: Nigeria has the highest number of tech hubs in Africa	37
Fig 14: Nigeria has the third highest number of developers in Africa	38
Fig 15: Nigerian telcos lost over 16 billion naira to the ban on SIM card sales	44
Fig 16: These are Africa's fastest growing cities	48
Fig 17: In 2017, Lagos-based startups raised more money than others in Africa	49
Fig 18: As of 219, Lagos had the best startup ecosystem in Africa	50
Fig 19: 48% of tech hubs in Nigeria are in the South-West	60
Fig 20: Over 50% of Nigerians are below the age of 20	91
Fig 21: The number of Nigerian companies in the YCombinator program (2009-2021)	96
Fig 22: Nigerian startups have raised over \$1.5bn in five years	110
Fig 23: Nigerian startups received the highest % of funding in Africa between 2016 and 2020	111
Fig 24: Fintech startups receive the highest amount of funding in Nigeria	117
Fig 25: So far in 2021, 76% of funding into Nigerian startups went to fintech	118

An overview of the selected startups in the NINJA Business Plan Competition in response to COVID-19

01

An Overview of the selected startups in Nigeria

The NINJA Business Plan competition sought solutions in sectors that were addressing the COVID-19 pandemic including health, disaster management, education, food and agriculture, finance and logistics.

In Nigeria, although 50% of the selected startups were in the healthcare industry, the other startups came from sectors directly related to social issues emphasized by the pandemic in Africa, such as transport/logistics, education and agriculture.

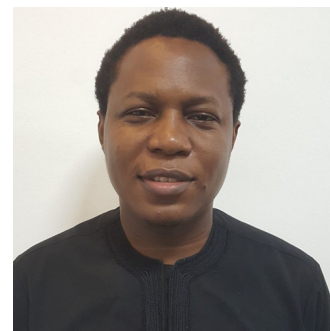
The other four - Emergency Response Africa, RxAll, Lifestores Pharmacy and MyClinic are in healthcare.

In the following section, we highlight the startups participating in the program and what they do.

The eight startups selected from Nigeria include TradeBuza, an agritech company, RouteMasters, a startup operating in the transport sector, Gradely Technology, an edtech startup, and Utiva, a tech talent development company.

TradeBuza

Founder/CEO - Nonso Eze
Sector: Agritech
Founded: 2019



Nonso Eze

TradeBuza is a cloud-based web and mobile platform for out-growers, commodities aggregators, exporters and agricultural processors. In the founder's words, the startup is "building a data and API infrastructure for agriculture finance and agriculture operations". Typically, the startup's clients are agri-businesses who work without eCommerce and who require the platform to digitize some of their last-mile processes.

TradeBuza's suite of services includes API services and custom data capture, to allow farm monitoring, farm validation and automated payments, among other offerings.

What are the startup's expectations of the program?

On how the NINJA competition has impacted his startup so far, Eze said, "One, we were able to demonstrate how we had leveraged our solution to try to solve the critical problem our clients were facing."

"Secondly, the competition was set up to support the proof of concept for the key product each

selected startup was working on. For us, that key product was our agro-API solution which allows us to leverage satellite imagery, remote-sensing tech, agro-economic science and some other key technologies," he stated.

Eze believes leveraging JICA's support will allow them to deploy and scale this product adequately. However, TradeBuza is not solely focused on the funding JICA is providing, as Eze believes that funding is the least among the reasons why startups fail. He believes it is important to lay more emphasis on building the competence of founders, adding to their capacity and knowledge base.

"Through the JICA partnership, we believe that we will be able to gain a few insights on a number of the key issues for startups around finance, operational excellence, business strategy, growth, and business development."



Folake Owodunni

Co-founder/CEO - Folake Owodunni

Sector: Healthcare

Founded: 2016

Emergency Response Africa (ERA) is a healthcare technology company that provides fast, safe, and affordable emergency medical care. The startup uses technology to connect emergency victims to first responders and hospitals in the community, ensuring they can receive proper care in only a few minutes.

“We recognized that access to emergency medical care has been a long-standing issue in Nigeria, and it applies broadly across Africa. Our goal is really to apply technology to the problem, to be able to connect emergency victims with first responders and vehicles that are close to them,” said Owodunni.

On how the startup operates, Owodunni stated,

“We have first responders that use motorcycles, and we’re also building a network of first responders and vehicles, which means that at any point when you call, you should be getting someone close by rather than across town.”

What are the startup’s expectations of the program?

Owodunni says that the highlight for her company was the opportunity to explore strategic partnerships with Japanese organizations.

“One of the most attractive things about the program is that it’s supported by the

Japanese government, and is meant to be a conduit for potential strategic partnerships with companies in Japan,” she said

“This was attractive because there’s a huge mobility component to our business. Also, we know Japanese vehicles to be trusted and reliable,” Owodunni stated.

“So, one area we’re interested in is in finding

auto companies we can collaborate with to either come up with a medical transportation model that works for our environment or find a way to leverage their expertise in that sector.”

“This will help solve some of the medical transportation challenges we have,” she added. Also, on the business side, she believes joining the program presents opportunities to potential partners like insurance companies to make their lifesaving services available to more people without the associated financial catastrophes that medical emergencies often come with.



Co-Founder - Seye Odukogbe
Sector: Transport and mobility
Founded: 2021*



Seye Odukogbe

Routemasters is building different data sources to understand and solve the problem of public transportation in Nigeria.

What are the startup's expectations of the program?

Odukogbe believes that the support from JICA will be valuable in further developing the product. He also hopes for the company to get connected to the Japanese investors as well as the right partners in the transport and mobility space.

“We hope to leverage on these connections beyond just the grant or capital provided,” Odukogbe says.

The product has not formally launched yet but hopes to do so in 2021.

Utiva



Eyitayo Ogunmola

Founder/CEO - Eyitayo Ogunmola

Sector: Edtech

Founded: 2017

According to CEO, Eyitayo Ogunmola, Utiva is a one-stop shop for everything related to technology education. The platform creates an opportunity for young people to pick up technology skills like data science, cybersecurity, cloud computing and others, and makes it affordable and easy for anyone to learn.

According to Ogunmola, a key difference between Utiva and other platforms is that participants learn not only by watching pre-recorded videos but also by interacting and collaborating. Also, the program is instructor-led.

What are the startup's expectations of the program?

"For us as a learning organization, what we are very interested in is some level of exchange of best practices with other types of learning institutions in Japan," Ogunmola said.

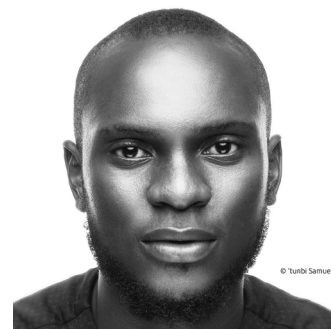
"This can come in form of providing virtual apprenticeship and virtual internship opportunities to our students". According to him, these institutions could also support by sharing

some of the tools that they use and sharing ideas on how their learning content and curriculum should be designed.

Ogunmola also hopes that the JICA program will open up the Japanese space for the African market.

"We're seeing that already with more Japanese investment companies investing in Africa."

He added African tech companies like Utiva will now have more opportunities to raise capital from angel investors and venture capital firms in Japan.

GRADELY

Boye Oshinaga

Co-founder/CEO - Boye Oshinaga
Sector: Education
Founded: 2019

Gradelly is a learning app that helps schools and parents create personalized learning paths for students so that they can improve academically. “We have an app for parents and students at home, and after school, they can start the diagnostic test. After that, the system recommends extra practice, animated video lessons, and one-on-one tutoring sessions where needed,” Oshinaga explained.

Schools use the app to integrate digital learning into their core processes, including after school discussions, sharing of learning resources, and so on. Gradelly comes with content that's tailored to the local context, and Oshinaga believes this is what differentiates them from other learning apps..

What are the startup's expectations of the program?

“We know what we're looking for,” Oshinaga told us. “JICA is sponsoring an experimental effort to build in an area we are interested in. Thus, the funding will enable us to build more local content and assess the impact on learning,” he said.

“It will help us see if there's a difference in one format of content delivery versus the other in terms of how children improve academically,” he added.



Bryan Mezue

Co-founder/CEO - Bryan Mezue
Sector: Healthcare
Founded: 2017

Lifestores is committed to improving access to primary healthcare for Nigerians and Africans at a lower cost by working directly with manufacturers and developing tech-enabled inventory and customer management solutions, including its chronic disease management program. “Pharmacists have a hallowed role in the community when it comes to healthcare, and because of their central role, they need more support around making sure the medicines they’re dispensing are authentic,” said Mezue.

“They also need help with capturing data from patients. So, when we think about expanding access to primary healthcare, we think a big part of that is helping pharmacies be more efficient,” Mezue says. Thus, Lifestores is a platform that allows pharmacies to coordinate themselves, optimize their procurement and other processes.

What are the startup’s expectations of the program?

According to Mezue, securing beneficial partnerships are key for the company.

“If we’re looking for places to test our tech or to have partners in telemedicine, there are a lot of good Japanese companies out there,” he said. “Some of these partners are also engaged in the distribution of pharmaceutical goods and JICA has facilitated conversations between them and Lifestores.”

He also noted that Japanese investors have been among the company’s most active supporters since its last fund-raise. Additionally, the program has been a mind-opener to the possibilities of collaborations between Japan and Africa.

“There’s a lot of peer collaboration from the program as well, and we hope to get more of that over time by being affiliated with JICA,” he added.



Aliyu Bello



Abubakar Mohammed

Co-founders - Abubakar Mohammed and Aliyu Bello

Sector: Healthcare

Founded: 2019

MyClinic is a healthtech company focused on building technology solutions in the healthcare sector.

Since its launch, the startup has built telemedicine software that enables Nigerians to consult qualified doctors anywhere and at any time. The startup has also launched a hospital automation solution.

What are the startup's expectations of the program?

According to the co-founder, Aliyu Bello, the program offers a great opportunity in terms of exposure and funding. "Funding is important; you can't run away from it." He also added that the insights that will come from Ventures Platform on the tech ecosystem in Nigeria are

also a benefit of the program.

"I expect that the advice that they will offer will play a significant role in our growth over the next six or seven months."

Bello also highlighted the fact that they have the opportunity to develop unique partnerships with Japanese companies.

An analysis of Nigeria's startup ecosystem

02

Ecosystem
Report:
Nigeria's
Startup Scene

An analysis of Nigeria's startup ecosystem

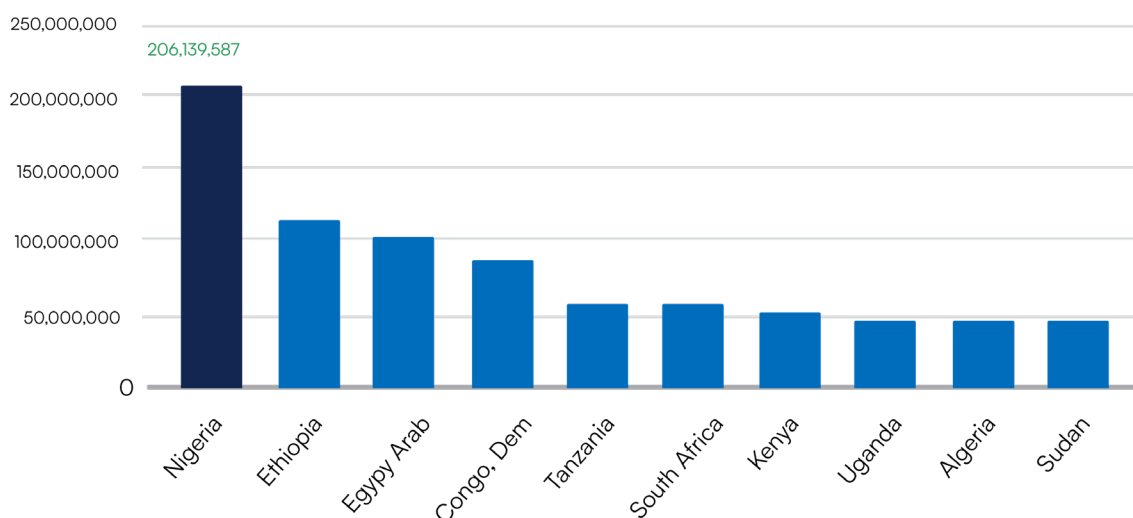
Nigeria is one of the biggest countries in Africa where tech and entrepreneurship are concerned, if not the foremost. However, despite its vibrant ecosystem, its diversity may be debatable - most operators are in fintech and located in the South-West zone.

A review of Nigeria's geographic landscape

Nigeria is a country of [over 210 million people](#) located on the western coast of Africa¹. With 36 states and a Federal Capital Territory, Nigeria is not only the most populous country in Africa, but it also has a fast-growing population.

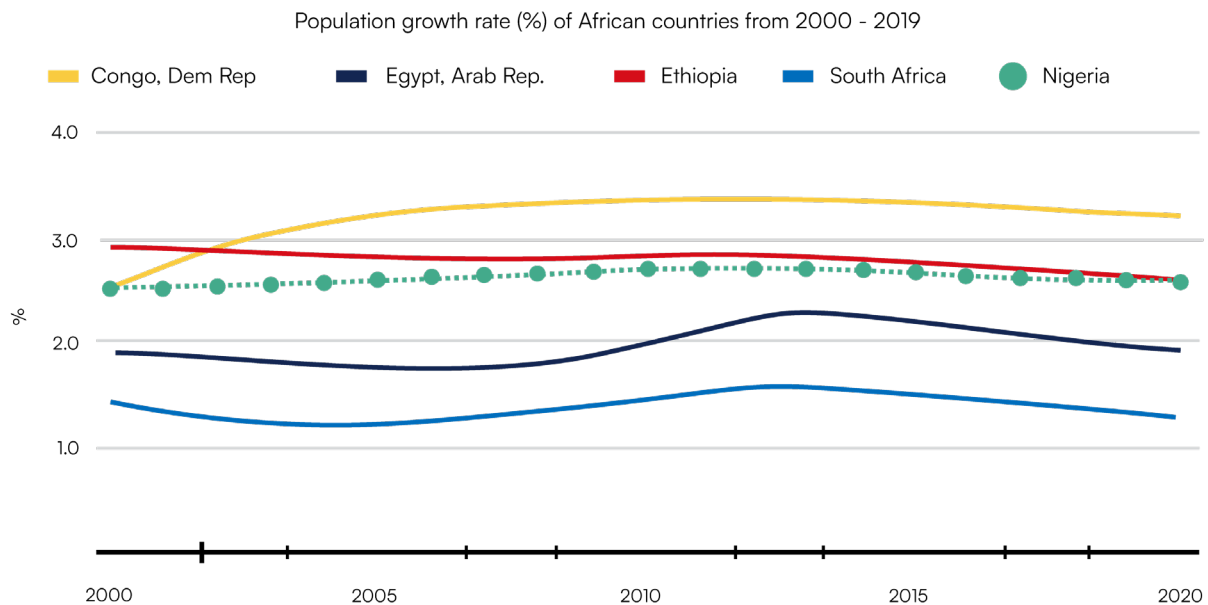
Nigeria has the largest population in Africa

Country Population in 2020



Source: World Bank

Nigeria's population has grown at a fairly constant rate for 20 years



Source: World Bank

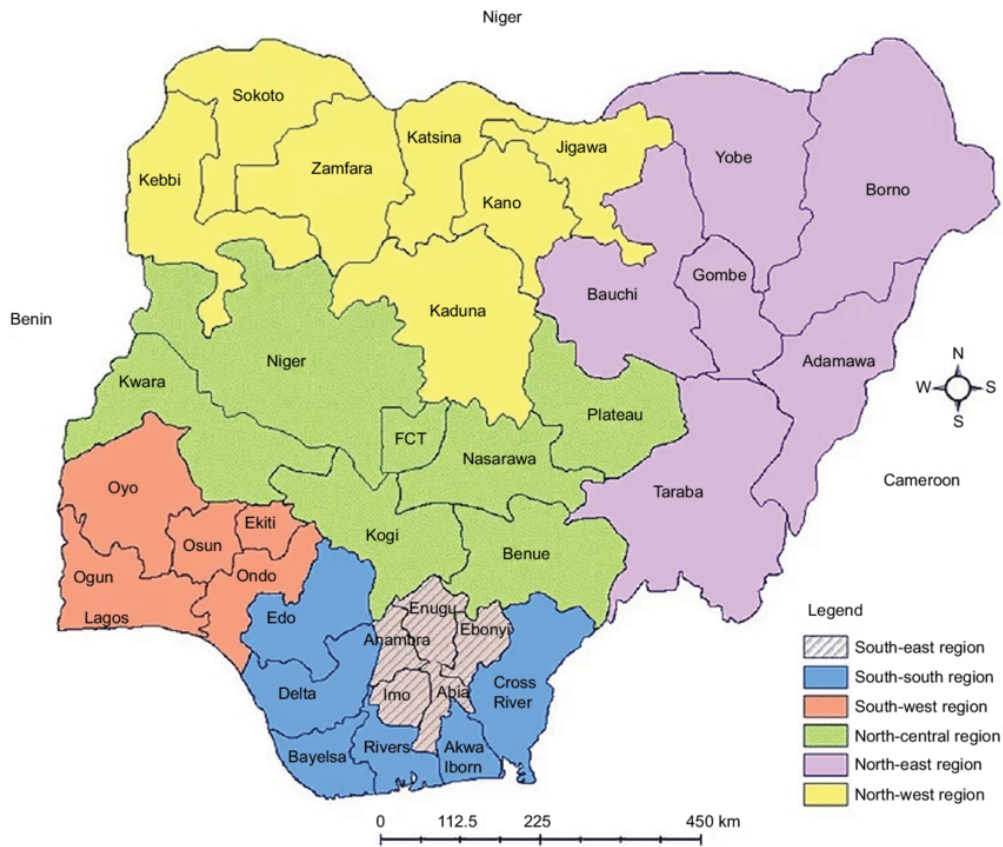
Nigeria's national capital is in Abuja, although Lagos State is considered its commercial, economic, and technological capital.² Nigeria is bordered to the west by Benin, to the north by Niger, to the east by Cameroon and Chad, and the south by the Gulf of Guinea.³

5. North-West/NW (Jigawa, Sokoto, Zamfara, Kebbi, Kaduna, Kano, Katsina)
6. North-Central/NC (Benue, Niger, Nasarawa, Kogi, Plateau, Niger, FCT (Abuja))

Nigeria's states are grouped into six geo-political zones. These are:

1. South-West/SW (Lagos, Ogun, Oyo, Ekiti, Osun, and Ondo states)
2. South-South/SS (Bayelsa, Akwa-Ibom, Edo, Rivers, and Delta states)
3. South-East/SE (Enugu, Imo, Ebonyi, Anambra, Abia, and Cross-River states)
4. North-East/NE (Borno, Adamawa, Yobe, Gombe, Taraba, Bauchi)

The South-East is the smallest region in Nigeria



Nigeria’s geographic landscape at a glance

923,769km²

Geographical area⁴

2.5%

Population growth rate (2019)⁵

210 million

Population (2021)¹

7

Population rank⁴ (2019)

401 million

Projected population (2050)⁶

52%

Urban population* as at 2018 (%)¹

48%

Rural population**¹

2.6%

Percentage of total world population¹

18.1 years

Median age (2021)¹

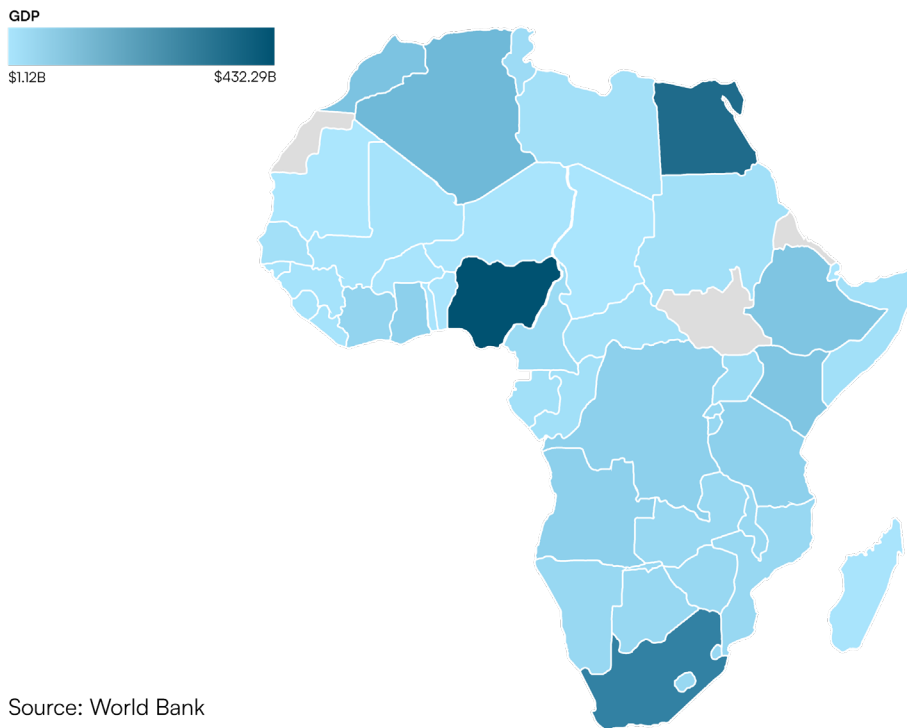
*Population living in areas classified as urban according to the criteria used by each country.

**Population living in areas classified as rural according to the criteria used by each country.

A review of Nigeria's economic landscape

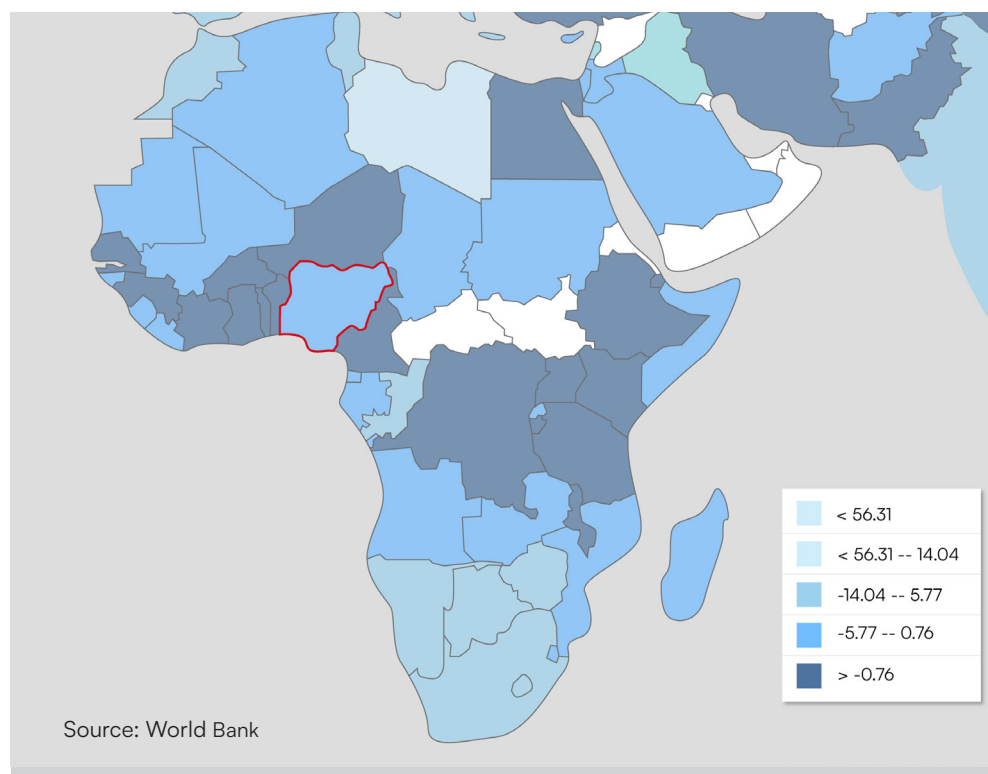
With a GDP of \$432 billion, Nigeria has the largest economy in Africa ⁷. However, it does not have an impressive growth rate. In 2019, its GDP grew by only 2.5% and fell even lower in 2020 to -1.79% due to the falling oil prices. ⁹

Nigeria has the Highest GDP in Africa



Like many other African countries, Nigeria had a negative growth rate in 2020

The rate (%) at which African countries grew in 2020



Although Nigeria's economy entered a recession in 2020, it was estimated to grow by [1.5%](#) in 2021 and [2.9%](#) in 2022.⁸ This was based on an expected recovery in the price of crude oil, which is one of the pillars of Nigeria's economy. Nigeria remains the largest oil producer in Africa and the world's eighth-largest oil producer.

Nigeria's economic landscape at a glance

\$432.29bn

Gross Domestic Product (2020)⁷

-1.79%

GDP growth rate (2020)⁹

28

Position in the global economy¹⁰

105

Position in the Economic Freedom Index (2021)¹¹

\$5,363

GDP per capita PPP (2019)¹²

33%

Unemployment rate (2020)¹³

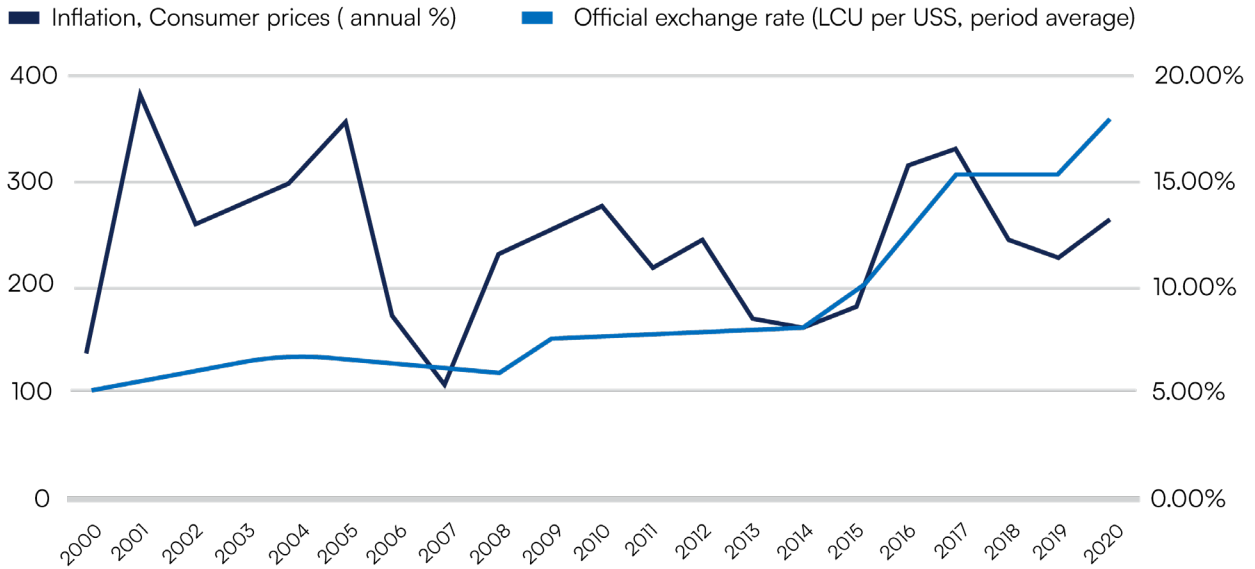
0.37 Points

Score in Human Capital Index (2020)¹⁴

40%

Percentage of population below poverty line¹⁵

Nigeria's currency dropped to a record low of NGN 359 per USD in 2020 while its inflation rate continues to fluctuate



Source: World Bank

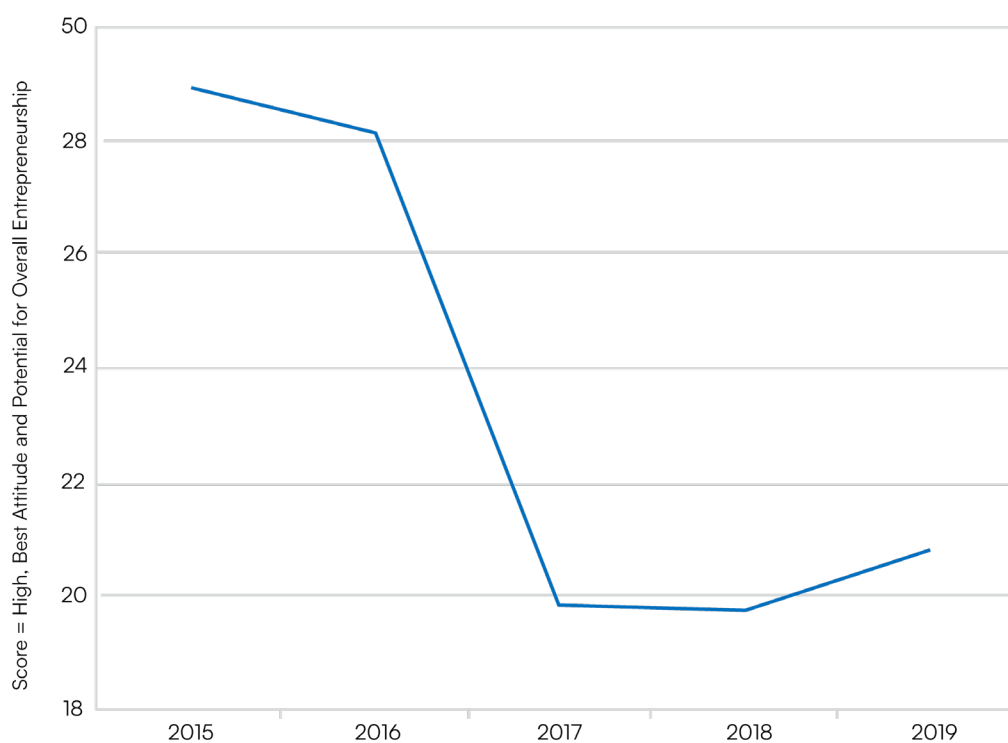
A review of Nigeria's startup ecosystem

Technology in Nigeria has evolved immensely, although the startup ecosystem has come a long way, there's still plenty of room for growth. As of 2020, the country is ranked 101 out of 137 countries in the ease of doing business in the global entrepreneurship ranking (GEI).¹⁶

The GEI is an annual index that compares the health of entrepreneurship ecosystems in 137 countries using indicators such as product innovation and cultural support, showing how each country performs locally (within its continent) and internationally.

Nigeria's GEI ranking suffered a major decline in 2017

Nigeria's score on the Global Entrepreneurship Index from 2015 - 2019



Due to declining scores in networking, opportunity perception and internationalization, Nigeria's GEI score was on a downward slope from 2016 till 2018. Still, Nigeria maintains one of the most developed startup ecosystems in Africa.

Nigeria's startup landscape at a glance

750+

Startups in Nigeria ⁵¹

#3

Ranking in Global Startup Ecosystem Index [Africa] 2021 ⁵²

#1

Lagos Ranking in Global Startup Ecosystem Index [Top Cities-Africa](2021) ⁵²

117

Ranking in Global Innovation Index (GII) ¹⁷

131/190

Ranking in Ease of Doing Business index (2019) ¹⁸

116/140

Ranking in 2018 Global Competitiveness index ¹⁹

\$307m

Equity funding received in 2021 ²⁰

101/137

Ranking in 2020 Global Entrepreneurship Index ¹⁶

61-70

Ranking in Emerging Ecosystem Index (2019) ²¹

0.5%

Research & Innovation expenditure as a percentage of GDP ²²

85.5 million

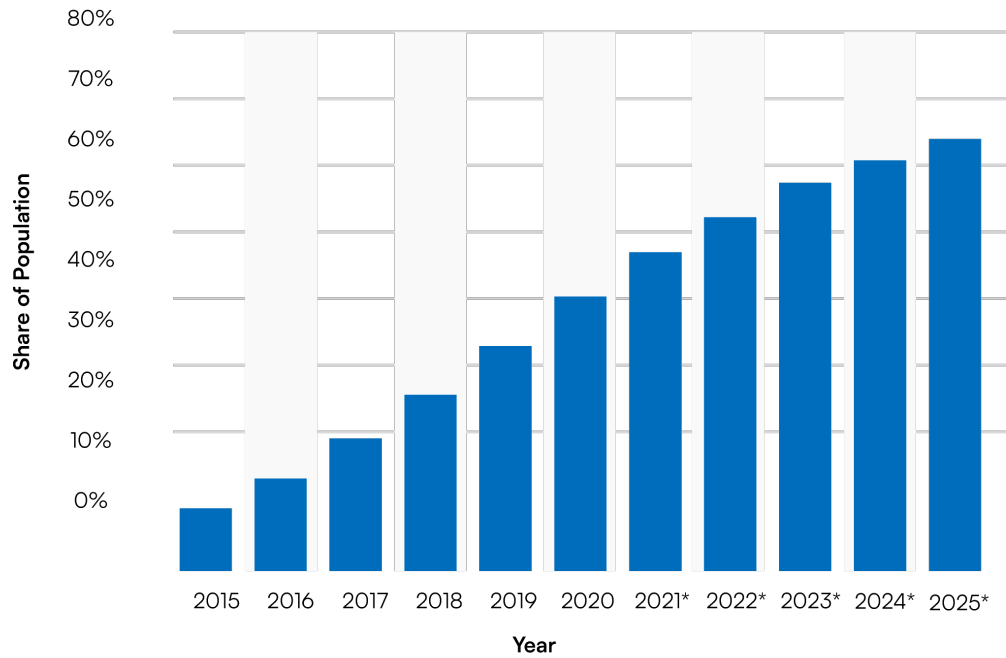
No. of internet users as of January 2020 ²³

36.8%

Financial exclusion rate as of 2019 ²⁴

Mobile internet penetration in Nigeria to reach 65% by 2025

Percentage of mobile internet penetration from 2015 - 2025



visit TEHCABAL.COM for more

* = Projected

SOURCE:
Statista

What are the factors catalysing growth in Nigeria?

There are several reasons for Nigeria's top status in Africa's startup ecosystem. Its significantly large population offers a considerable market opportunity for tech entrepreneurs. Additionally, it has one of the largest startup cities in Africa - Lagos State which includes a growing number of engaging international investors.

Furthermore, it has produced the most unicorns in Africa, and it may soon churn out a third.

An overview of the reasons:

- Huge market opportunity for tech
- Attractive startup cities
- High investment inflow

- Innovation within the sub-sectors
- Observed expansion trends
- Unicorns produced in the space

Below is a deep-dive into these reasons mentioned above.

Huge market opportunity for tech

With 210 million people, Nigeria makes up at least 20% of Africa's population. It is projected to become over 400 million in 2050. Nigeria also has an internet penetration rate of 42%.²³ Even though it is not the highest on the continent, this still translates to 86 million internet subscribers in Nigeria, perhaps more attractive than 37 million in South Africa at a 62% internet penetration rate.²⁵ Still, the attractiveness of a market hinges on more factors than just numbers.

For example, with a population of 32 million people,²⁶ Ghana has only a fraction of Nigeria's market size, yet the country provides a more enabling environment for tech startups to thrive as well as a more stable economic and financial environment. This draws the attention of technology giants looking to expand into

Africa and investors looking to help build on the continent.

"What makes Ghana a unique and great ecosystem is its stability. You can count on stable elections. The Cedi does better than other regional currencies. It's not as difficult to bring in outside capital and source talent locally," said Meghan McCormick, Co-Founder of OZÉ, an enterprise management platform headquartered in Ghana.²⁷

Nigeria has the numbers to its advantage, but how much of this market is truly addressable? As Olu Oyinsan, Managing Partner at Oui Capital said,

“Population will always fix itself, but whether that population is going to be a valuable market is another conversation.”

A large and growing population, well-educated middle class, increasing rate of urbanisation and good economic prospects for the country as a whole combine to create a very positive outlook for Nigeria's retail, residential and commercial development sectors.

Nigeria's growing middle class accounts for [approximately 23% of the population](#) and is

estimated to have a combined buying power above US\$28 billion. ²⁸ Middle-class Nigerians have traditionally shopped abroad, primarily in London and Dubai, for the international brands they can't get locally.

50% of the Nigerian population is under 20 and many within the age group have a good standard of education. Nigerians are by nature adaptable and aspirational, having grown up exposed to international lifestyles via the internet and mobile technologies. Around 63% of the population subscribes to mobile telephony. Approximately 48% has internet access, which is primarily via mobile devices.

Attractive startup cities

If Nigeria is Africa's tech capital - although arguable due to the presence of Kenya - then Lagos is Nigeria's. Lagos is considered a startup city for a few reasons which consists of the large number of startups domiciled in the state, the high population density and the opportunities that come with it amongst other reasons. Yaba, a small but highly active section of Lagos is at the heart of tech development in the city, with clusters of tech startups, educational institutions, and tech communities. For this reason, it is referred to as Nigeria's Silicon Valley, in this case, the “Silicon Lagoon”, or simply “Yabacon Valley”. ²⁹

Apart from Lagos, other major startup cities are Abuja, Nigeria's capital, Ibadan and Abeokuta in the South-Western region, as well as Kaduna in the North-Central region.

However, Nigeria's foremost startup city faces competition from cities [like](#) Nairobi in Kenya, Capetown and Johannesburg in South Africa, and Cairo in Egypt. Other cities like Accra in Ghana, Kigali in Rwanda, Kampala in Uganda and Tunis in Tunisia are also worthy of mention.

A comparison of startup cities in Africa

	Lagos	Nairobi	Capetown	Johannesburg	Cairo
AFRICA RANKING	1	2	3	4	5
GLOBAL RANKING	122 ^{^5}	136 ^{v20}	145 ^{^1}	152 ^{^8}	180 ^{^21}
TOP INDUSTRIES GLOBAL RANKING	E-commerce & Retail #42	Fintech #48	Software and Data #75	Software and Data #80	Transportation #73
	Fintech #43	Foodtech #74	Education #83	Education #115	Fintech #113
	Education #91	Transportation #75	Fintech #88	Fintech #119	Education #119
NUMBER OF STARTUPS	147	118	109	42	121

^v = increase or decrease from previous year

Source: Startup Blink

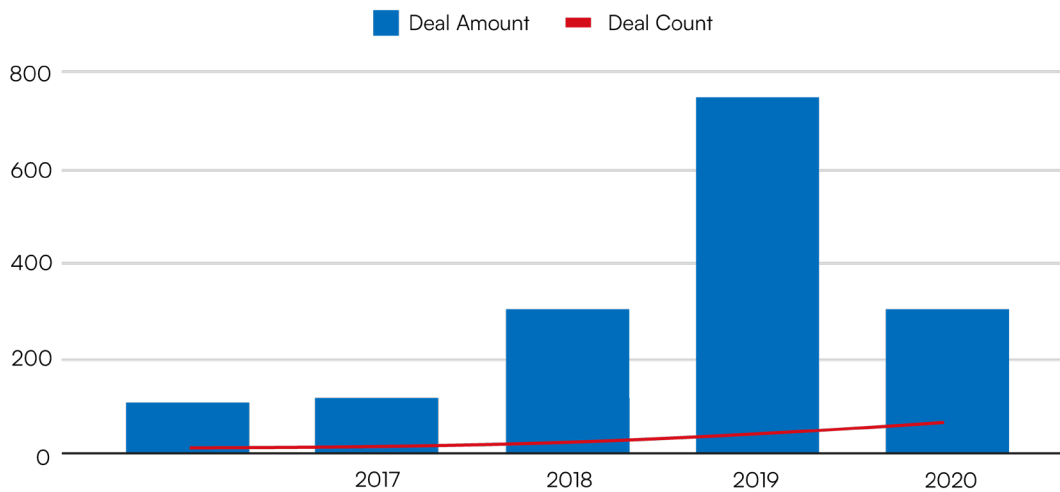
Still, Lagos has produced some of the most successful startups on the continent and remains a most attractive hub for local and global investors. Lagos is ranked the number 1 startup city in Africa based on data from StartupBlink's Global Startup Ecosystem Index. On the global rankings, it sits at 122nd, rising 5 spots from 2020. It is also the highest-ranking African city on any of the industry lists, placing 42nd in the world in eCommerce & Retail and has the most startups in Africa.

High investment inflow

Nigeria has the highest amount of foreign direct investment (FDI) in Africa after Egypt and Ethiopia. This includes all equity investment from foreign companies (startups as well). These investments come from countries like the USA, the UK, China, and France. UNCTAD's 2020 World Investment Report shows that FDI flows to Nigeria were a total of \$3.3bn in 2019, and this was even a 48.5% decrease from \$6.4bn in 2018. ³⁰

2019 was a good year for investments into tech startups; Nigeria received \$747 million in tech startup equity funding, recording a 144% growth rate from 2018. In 2020, Nigeria received 21% of total equity funding for tech startups in Africa - this was \$307m across 71 deals (the highest in Africa). This decline was expected due to the devastating effect of the pandemic on economies and businesses.²⁰

The pandemic caused a dip of over 50% in Nigeria's equity funding in 2020
 Million (USD)



Source: Partech Africa

Innovation within the sub-sectors

Fintech is the most popular and most populated sector in not only Nigeria's tech industry but all of Africa's as well, consisting of over 200 standalone companies, not including solutions offered by traditional banks and telecommunications operators. The payments sub-sector constitutes the largest proportion of all fintech players and houses four moving parts - payment processors, remittance platforms, wallet providers and merchant services.

Fintech sub-sectors and example companies

Sub-sector	Companies
Payments	OPay, paga, paystack, Flutterwave®
Savings	piggyvest, cowrywise
Lending	renmoney, branch

Investments



Digital banking



Crypto



Insurtech



API



Customer experience

The growth of fintech also has derivative effects on other sectors. The adoption of fintech solutions into e-commerce has contributed to creating a seamless customer payment experience. Paystack's online payments solution has provided a simple cost-effective way for merchants to receive payments from their customers. Over 60,000 are signed up on the platform. Fintech also increases lending options for startups from all sectors, aiding in their growth and liquidity. In a statement by the IMF, fintech is described as "the critical stepping stone towards a digital economy for Africa."

Other offshoots of fintech such as cryptocurrency, remittance, and online trading and investment are also on the rise, with bitcoin trading in Nigeria reaching over \$566 million in the last five years and growing 20% annually.

Other active and growing sectors include Cleantech (e.g startups like Rensource, Daystar Power, Starsight Energy, etc), Healthtech (Helium Health, LifeBank, 54Gene, etc), and Transport/Logistics (Gokada, MAX, Kobo360, etc).

Observed expansion trends

Startups in Nigeria are seeking profitability within their home markets and also looking for growth opportunities in other markets. In the last four years, at least four Nigerian startups have expanded into new locations.

Flutterwave announced its expansion into Egypt, Morocco and Tunisia in March 2021, shortly after its \$170m raise.³¹ On the other hand, Terragon, a marketing and data technology company, [acquired](#) marketing-tech company BiZense in 2018 to facilitate its expansion into Singapore.³² Paga [expanded](#) into Mexico and in 2020 acquired an Ethiopian software company to expand into Ethiopia and East Africa;³³ while Lidya [expanded](#) into Poland and Czech Republic in 2019³⁴.

Throughout 2021, more startups began their expansion across the continent.

Nigerian startups are expanding outside of their home markets

Startup	Sector	Newest Market
Autochek	Transportation	Ghana
Daystar Power	Solar Energy	Togo
Paystack	Fintech	South Africa
Flutterwave	Fintech	Ethiopia
Termii	Digital Marketing	Côte D'Ivoire
Helium Health	Healthtech	Kenya

Another growing trend is in Nigerian startups domiciling abroad. Companies like Andela, Flutterwave, Paystack, Branch are foreign by incorporation. The common choice is often the USA, particularly locations like San Francisco, Delaware, and New York City.

One major reason why startups incorporate abroad is to get access to foreign capital. Sometimes, investors may choose not to put their money in local startups if they are not familiar or comfortable with the tax or regulatory framework within that jurisdiction. Thus, they may require startups to be based abroad.

“Many investors are worried about any clampdowns by governments in emerging markets where they operate,” said Tosin Oni, a Principal at EchoVC Partners, a Nigerian VC firm.³⁵ He went on to say that sometimes, investors prefer to invest in countries they understand and can predict.

Startups may also choose to domicile abroad to better position themselves for capital and increase their relevance within the global tech industry. Silicon Valley is considered the tech capital of the world, so startups set up their headquarters in American states to have greater visibility on the international radar.

“America is the deepest capital pool in the world. If you want to raise capital, it makes sense to domicile in America to increase your chances of fundraising success,” said Iyin Aboyeji, Co-Founder of Andela, Flutterwave and Future Africa.³⁶

“If you do intend to raise venture capital and be a globally relevant company, especially in the world of technology, I don't see any other viable way to do it,” he added.

Unicorns produced in the space

Africa has produced at least five tech unicorns, and at least three of them are Nigerian. The e-commerce company, Jumia reached the billion-dollar milestone in 2016, although many argue that Jumia is not exactly an African company based on some considerations.

First, its headquarters are in Berlin, Germany although Nigeria is its African base. Second, its technology and product teams are based in Portugal. Lastly, its senior leadership is based in Dubai in the United Arab Emirates (UAE).³⁷ However, its primary market is African and a majority of its employees are African.

Fortunately, the debate about Nigeria having produced a unicorn ended three years ago in 2019 when Interswitch, a payment processing company founded by Mitchell Elegbe in 2002, became a unicorn.³⁸

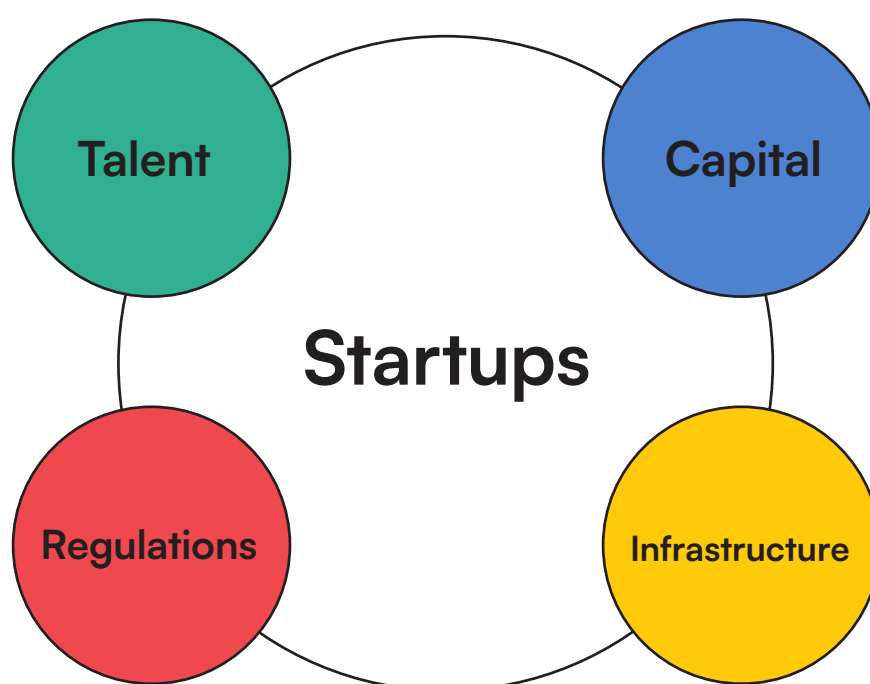
Most recently, Flutterwave, another Nigerian-based payment processing platform, crossed the unicorn mark after raising \$170 million in a Series C round.³⁹ Before this round, the company had raised \$35 million in a Series B in 2020 and \$20 million in a Series A in 2018. In total, Flutterwave has raised over \$225 million and is one of the few African startups to have secured more than \$200 million in funding. Flutterwave was co-founded in 2015 by Iyinoluwa Aboyeji and Olugbenga Agboola.

In August 2021, OPay also [raised](#) \$400m at a \$2bn valuation. As of the time, this was the largest funding round closed by an African startup. This brought its total funding to \$570m

Apart from producing 60% of Africa's unicorns, Nigeria has achieved other major feats in Africa's tech industry. In 2020, Paystack, a payment-tech startup co-founded by Ezra Olubi and Shola Akinlade made an exit worth over \$200m.⁴⁰ The company was acquired by Stripe, a global payments company headquartered in the USA. Stripe had earlier led Paystack's \$8m Series A round in 2018.

The pillars of Nigeria's tech ecosystem

Nigeria's tech ecosystem is built on four key pillars - its talent pool, the availability of capital (investors), regulatory and policy-making institutions, and the infrastructural framework provided by the government and set up by operators. All of these are centred around the startups themselves.

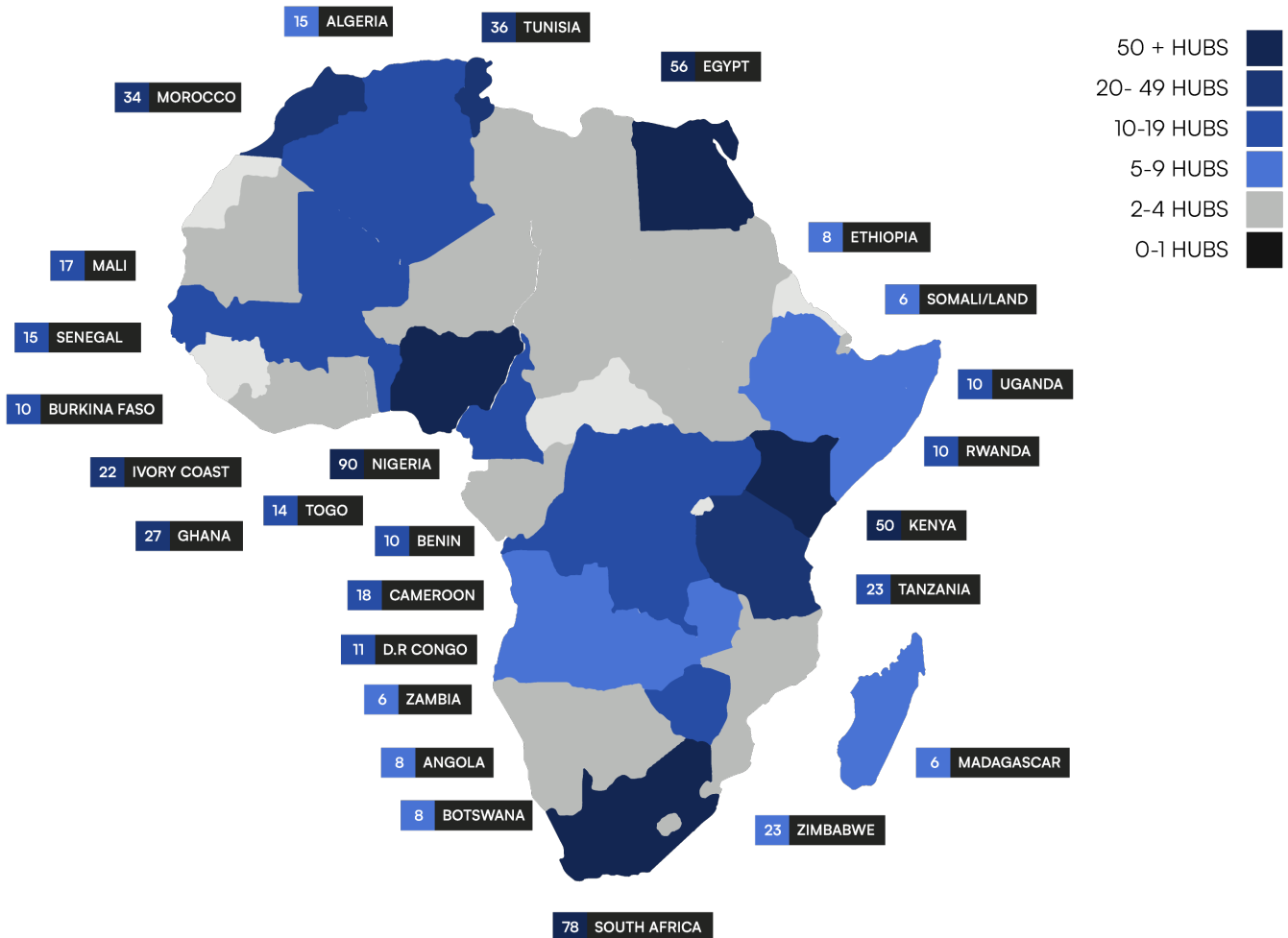


Talent

The development of technical talent in Nigeria can be [traced](#) as far back as 1963 with the launch of the IBM African Education Centre in Ibadan. Over five decades later, there are more than 25 companies focused on developing talent.

Additionally, in terms of tech opportunities, a report released in 2019 showed that of Africa's estimated 643 tech hubs, 90 were based in Nigeria, the highest number for any African country. ⁴¹

Nigeria outranks other African countries in the number of its tech hubs

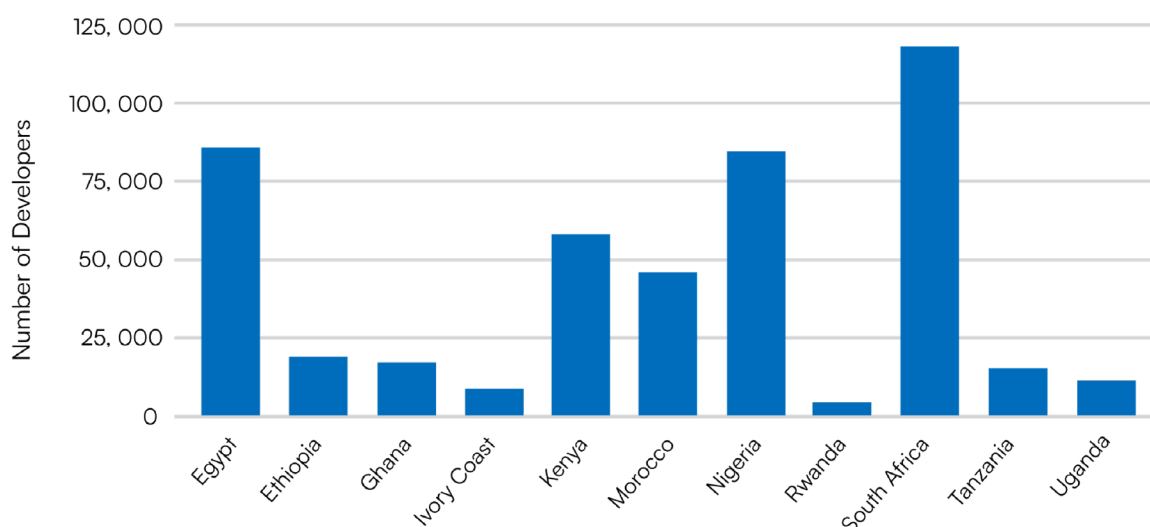


The number has since increased to about a hundred, and these hubs not only serve the purpose of incubating early-stage startups but also provide several training programs to help young people develop technical skills.

With 83,609 developers as of 2020, Nigeria also has the third-highest number of tech talent on the continent.⁴² This could easily be considered one of the strengths of the startup ecosystem - the abundance of talent as well as access to the high-growth environment that hubs present.

Nigeria has the third highest number of developers in Africa

Number of Developers in 2020 Country



Source: Google/IFC

However, startups don't always have an easy time finding, attracting and retaining talent, especially those with the right skill set. Talent development/outsourcing startups like Utiva are more focused on technical talent, but developers are only a fraction of the skill needs of the average Nigerian startup.

While there is a high percentage of graduate unemployment (Nigeria had a 33.3% unemployment rate in 2020), sometimes, graduates can be unemployable for different reasons, including a substandard education, and startups find themselves in a dilemma of hiring the available or waiting to hire the necessary.

Capital

Nigeria's startup space is dominated by foreign investment. "A lot of money might be coming in, but it comes from abroad," said Segun Aina, president of the Fintech Association of Nigeria.⁴³

This can be attributed to two major causes; one, Nigeria has a paucity of local investors. Two, not all the local investors have the risk appetite to take on investing in local startups. The regulatory environment is fickle and political interference is largely inevitable. This gives credence to the point of startups choosing to have foreign headquarters.

"Local investors didn't start to invest until we had funding from international investors, and I thought that was very interesting," said Odunayo Eweniyi, co-founder and COO of Piggyvest, a fintech startup whose \$1.1m seed round raised in 2018 came from local and foreign investors.

Local investors may also ask startups to lower their valuation before they can invest, and then offer the company a small percentage of their asking figure. Paystack co-founder, Ezra Olubi once spoke of a scenario where an investor had asked that the startup lower its valuation by 90% before they could invest.⁴⁴

However, Iyin Aboyeji believes the problem with local investors is not only rooted in Nigeria's regulatory uncertainty but also in the fact that foreign investors sometimes bring technical expertise that not all local investors have.⁴⁵ This expertise can include knowledge of the startup's core technology or processes, or a general understanding of the opportunities and workings of the sector and traditional financial institutions are highly reluctant to invest in what they can't understand. "The tendency is for us to think of local investments as just a money problem, but when it comes to technology, it's an expertise problem. You want the right kind of money involved and not just anybody and a lot of those investors are not local," he said.

However, local investors have the advantage of understanding the local market better. So, startups need both categories of investors.

"When there are any geopolitical issues in the country, foreign investors will go back to where they came from. So, I think there is a need for local investors to also get very busy and involved. And for the foreign investors, I think that it is key for them to be willing to partner with local investors to help these companies grow," [said](#) Idris Bello of LoftyInc Capital Management.

Regulation

There is a saying that entrepreneurs in Nigeria have become very familiar with. "If your startup can survive in Nigeria, it can survive anywhere else". A different version says, "If you can make it as an entrepreneur in Nigeria, you can make it anywhere else." When startup founders make this statement, one of the things they have in mind is regulation and the irregularity of it.

The average Nigerian entrepreneur may best describe Nigeria's regulatory environment as complicated, and at worst, antagonistic. We take a look at some case studies below.

The tendency is for us to think of local investments as just a money problem, but when it comes to technology, it's an expertise problem.

Existing Regulations

The Fintech industry, for instance, is highly regulated. In 2018, the CBN issued the Regulation for Bill payments in Nigeria and the Electronic Payments and Collections for Public and Private sectors in Nigeria in 2019. These bills were formulated to document minimum standards for bill payment transactions and to ensure adequate protection for the various identified stakeholders. Also, the CBN issued a new licensing regime to categorise payment platforms/fintechs into- Basic, Standard, and Super License. This licensing regime specifies the minimum capital requirement for each tier.

Furthermore, crowdfunding activities within the fintech industry are subject to the regulations of the Security and Exchange Commission.

Also, the CBN released a regulatory framework for sandbox operations in 2020. The sandbox is an opportunity to test innovative financial products and services within a limited regulatory sphere. There is also a regulatory framework for the BVN and a watchlist for the Nigerian Financial System. The framework creates a database of bank customers, who have been involved in questionable activities. Fintech companies are licensed by the CBN and must comply with the following laws:

1. Anti-Money Laundering and Combating the Financing of Terrorism Act, 2013
2. Advance Fee Fraud and other Fraud related offences Act, 2006
3. Corrupt Practices and other related offences Act, 2004
4. Cybercrime Act, 2015

The Nigeria Data Protection Regulation, 2019 is also an important piece of regulation. It ensures that data controllers which include but are not limited to fintechs must protect the privacy of a citizen of the country resident in the country or outside of the country with respect to the collection and processing of personal data.

The Nigeria Startup Bill

Talks around [the Nigeria Startup Bill](#) began in May 2021.⁵⁴ The Nigeria Startup Bill is a joint initiative of stakeholders in Nigeria's tech industry and the Nigerian Presidency to co-create laws and regulations that are clear, friendly and work for the tech ecosystem.

The objective of the bill is to draw out the potential of the digital economy and spur growth in the ecosystem. The final draft of the bill is set to be produced in September 2021.

Case studies

From the bike ban by the Lagos State government to the crypto ban by the Central Bank of Nigeria, several case studies show the often unfriendly nature of Nigeria's regulatory environment.

1. Lagos State's bike ban



A fleet of bicycles owned by Gokada | Source: TechCabal

In December 2019, Safeboda, a Ugandan bike-hailing company announced that it was launching in Oyo State's capital, Ibadan, in January 2020, bypassing Lagos. ⁴⁵ The general sentiment was that this decision was due to the riotous nature of Lagos' transport environment, and the hostile environment created by stakeholders. ⁴⁶

Considering what happened in the month it planned to launch, it was apparent that the startup made the right decision.

On Tuesday, the 27th of January, the Lagos State government announced that it had placed a ban on the activities of commercial motorcycles and tricycles. ⁴⁷ This ban meant that bikes owned by startups like Safeboda - [MAX.ng](https://www.max.ng/) and Gokada could no longer ply roads in major parts of the state, as only courier bikes were now allowed.

This came months after the state government had [informed](#) mobility companies that it was planning to introduce a \$25m licensing fee per 1,000 bikes they owned, and an additional N30,000 per extra bike. ⁴⁸

This resulted in a lot of devastating losses and drastic decisions. One of such decisions was that Gokada had to lay off 80% of its staff to ensure its survival. The startup also had to pivot to delivery and boat services.

2. CBN's crypto ban

On the 5th of February, 2021, the Central Bank of Nigeria issued a circular to commercial banks ordering them to close any accounts transacting with cryptocurrencies, reminding them that *“dealing in cryptocurrencies or facilitating payments for cryptocurrency exchanges is prohibited”*.⁴⁹

The apex bank declared its reason: It saw cryptocurrencies as a threat to Nigeria's financial system, and such a move was necessary to reduce the risk of fraud and money laundering.

This affected the activities of crypto exchange platforms like Luno, BuyCoins, Bundle, as customers were forced to find a way around it. Eventually, these platforms also started to provide an option for people to trade using currencies other than the Naira.

3. The NCC's ban on SIM sales and registration

On December 15th, 2020, the Nigerian Communications Commission released a statement ordering Mobile Network Operators to suspend the mobile numbers of Nigerians who had not yet registered for their National Identification Number (NIN).⁵⁰ This was followed by a ban on the sale or registration of new SIM cards.

The exercise, which was meant to get more people to register for their NINs, proved from the beginning to be an exercise in futility, and for obvious reasons. From the establishment of the National Identity Management Commission (NIMC) in 2007 to May 2020, seven months before the time of the announcement, only 41.5 million of Nigeria's estimated 198 million active mobile lines had their NINs.

Nigerian telcos lost over 16 billion naira to the ban on SIM card sales

12.2%

Average Contribution per quarter of telecoms' industry to GDP in 2020

3

Number of times the NIN registration deadline was extended

N16.8bn

Average Contribution per quarter of telecoms' industry to GDP in 2020

7m+

Number of times the NIN registration deadline was extended

11.8m

Total drop in active GSP subscriptions from Nov '20 - Feb '21

N15,000-N70,000

Salary range of SIM registration agents in Nigeria

visit TEHCABAL.COM for more

DATA:

NCC, ASAN

This was a meagre 20% of the population, yet the NCC had given an ultimatum of two weeks for the remaining 80% to register.

It was glaring that this allotted time would not in any way be sufficient, and what followed was three successive extensions of the deadline until the NCC finally allowed operators to sell and register SIM cards to subscribers who had their NIN.

It wasn't only telcos that suffered the substantial losses that the ban caused; businesses suffered greatly. ⁵¹ If one lost their SIM card in the five months the ban lasted, there was almost no way of getting a new SIM card. If foreigners came into the country to conduct business, there was no way for them to communicate with their Nigerian partners. This resulted not just in lost time, but also in wasted resources trying to obtain SIM cards through alternative but exorbitant means.

To tackle the issue of regulatory flip flops, startup leaders are working with stakeholders in government to create a Nigeria Startup Bill. ⁵² The bill is aimed at improving the business environment for startups. A draft legislation is due for August 2021.

Infrastructure

Infrastructure remains a major problem not just for tech startups but for all kinds of businesses operating in the country. Things like electricity and internet cost/quality have become even more important to companies' growth than before, due to the reliance on remote working as an effect of the COVID pandemic. Communication and collaboration within a company now require employees to have stable electricity and internet access at their locations.

Thus, the existing gaps in infrastructure have become even wider, and situations like an increase in the price of fuel in a country where electricity is mostly shoddy means that more has to be spent on fuelling and servicing generators.

Then, there's also the problem that a lot of commodities, not just data bundles, have become more expensive. These little things mentioned earlier trickle down to numerous side effects, from disgruntled customers who are impatient with the service they're offered, to unsatisfied employees who are mentally exhausted.

An analysis of the six geo-political zones

03

Ecosystem
Report:
Nigeria's
Startup Scene

An analysis of the six geo-political zones

Nigeria's tech industry is deeply rooted in the South-West region, but development is also picking up in other regions.

This analysis of the six geo-political zones covers key players which include operators, investors, ministries, departments and agencies (MDAs) and enablers. The six geo-political zones covered include:

- South-West Zone: Lagos and Ogun States
- South-East Zone: Enugu and Imo States
- South-South Zone: Rivers and Akwa Ibom States
- North-West Zone: Kaduna and Kano States
- North-Central Zone: Plateau and Kwara
- North-East Zone: Borno (and Adamawa)

A SWOT analysis approach was implemented with a focus on the weaknesses and challenges faced in each zone. A key point to note in the Northern region of the country (which includes the North-West Zone, North-Central Zone and the North-East Zone) is the scarcity of investors. This could be due to the perceived prejudice resulting from insecurity in the zone, low level of awareness of tech activities in the states, amongst other reasons. Of all six zones, the North-West zone is the most populated.

Nigeria's population by geopolitical zone

Zone	Population as of 2006 Census
North-West	32,636,594
North-Central	20,369,956
North-East	18,984,299
South-East	16,395,555
South-South	16,931,636
South-West	27,722,432

Source: Open Data for Africa

South-West Zone (Lagos and Ogun States)

The South-West zone is the biggest region in Nigeria when it comes to startups. According to the Office for Nigerian Digital Innovation (ONDI), 55% of startup clusters in Nigeria are in the South-West. Lagos State which is located in the South-West region leads the pack when it comes to startup activity. It is not only the biggest startup region in Nigeria but Africa as well.

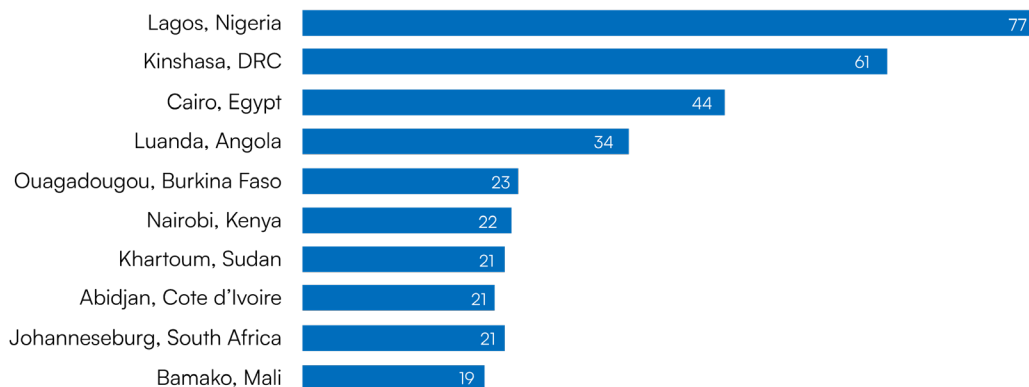
Lagos State

As of 2015, Lagos officially had approximately 25 million inhabitants and is Nigeria's smallest state. ² However, its population is growing [10 times faster](#) than the American cities of New York and Los Angeles and faster than the population of at least 32 other African nations. The state population was estimated to hit the [35 million mark](#) in 2020. ²

Lagos' population is [predicted](#) to increase by 77 people every hour between 2010 and 2030. ³

These are Africa's fastest growing cities

Population growth per hour, 2010-2030



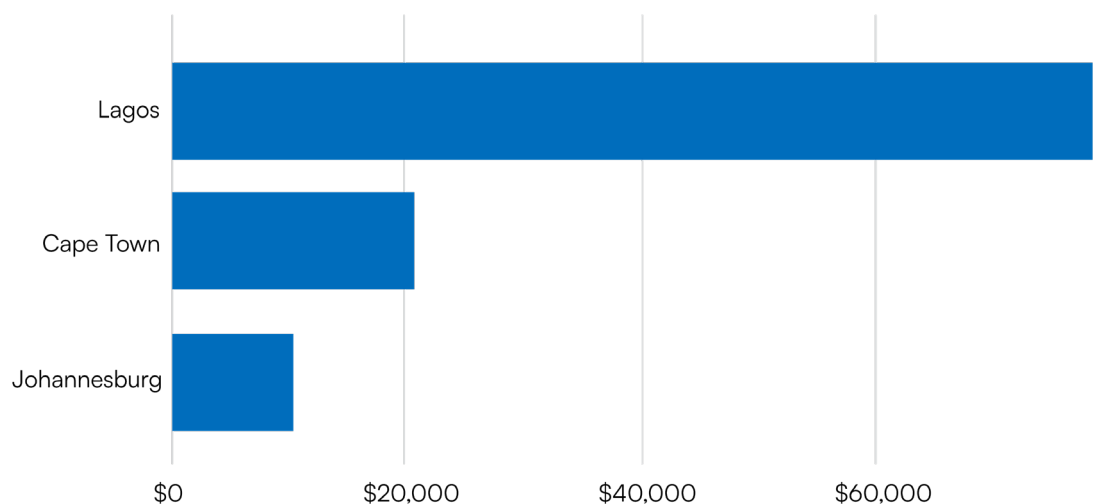
Source: UN World Urbanization Prospects, 2014

Three of Nigeria's biggest startups - Interswitch (which became a unicorn in 2019, following an investment by Visa), Paystack (which was acquired in 2020 by global payments company, Stripe) and Flutterwave (which became Africa's fourth unicorn startup in 2021) - are headquartered in Lagos. Lagos is also home to other successful startups including Paga, Piggyvest, Bamboo, Helium Health, Cowrywise, Kuda, and it hosts global tech giants such as Facebook and Google. Furthermore, Lagos has also been an incubator for some of the continent's biggest startups;

these include the e-commerce platform, Jumia. The ever-bustling city is also a common funding destination for local and foreign investors who are always keeping an eye out for the next big thing out of Africa.

In 2017, Lagos - based startups raised more money than others in Africa

Early-stage funding per startup



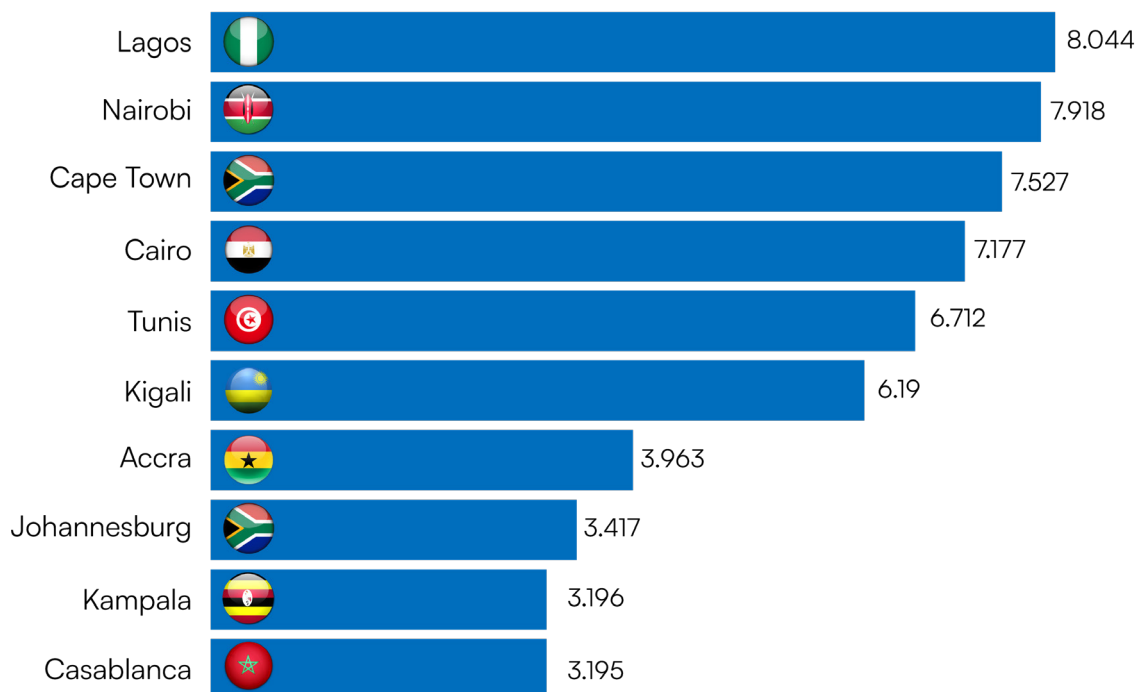
Source: Quartz

“The Lagos startup scene is growing fast; we see Lagos as the ultimate hub for startup investments in Africa in a few years,” Collins Onuegbu, former Director of the Lagos Angel Network had [said](#) in 2016.

⁴ Five years down the line, he couldn't be more correct.

As of 2019, Lagos had the best startup ecosystem in Africa

Score in 2019 Global Ranking of Startup Ecosystems



Source: Startup Blink

Key players

Operators

In the fintech sector, Paystack and Flutterwave are two startups that stand out. Both companies are payment processors and were launched in 2016, unlike Interswitch, a much older payment company that was founded in 2002. OPay (founded in 2018) is another fintech startup that has also stood out in terms of capital raised and functionalities as a mobile payment service.

According to Quartz Africa, fintech is the most dominant component of Lagos' startup space, with the majority of startup funding over the past four years flowing into this sector. However, there are many key players in other sectors:

- Healthtech - 54Gene, LifeBank, Helium Health;
- Agritech - Thrive Agric, Farmcrowdy;
- Cleantech - Rensource, Daystar Power;

- Edtech - Gradely, Prepclass, Utiva;
- Transport and logistics - Kobo360, Gokada, MAX;
- E-commerce - Konga, TradeDepot, Jiji;
- Concierge services - EdenLife

Investors

A lot of the VC and PE firms that fund Nigerian startups are headquartered in Lagos. Notable among them are Ingressive Capital, GreenHouse Capital, Microtraction, Verod Capital Management. Some of them like Future Africa, EchoVC, LeadPath Nigeria are focused on funding early-stage startups, while some like Rising Tide Africa prefer to invest in women-founded startups to reduce the gender imbalance in Africa's tech ecosystem, not just Nigeria's.

Lagos has a good share of angel investors, including Jason Njoku - Founder & CEO of IROKO Partners; Dr Ola Brown, Founder of the Flying Doctors Healthcare Investment Group & Director, Greentree Investment Company; Olumide Soyombo - Co-founder, Voltron Capital.

MDAs

Lagos Innovates which is an initiative of the Lagos State Employment Trust Fund (LSETF) and the Lagos State government is a set of programs aimed at making it easier to build a successful tech startup in Lagos. Lagos Chamber of Commerce (LCCI) works to promote trade and industry within the state.

From time to time, they organize awards that celebrate the achievements of outstanding corporate organisations and personalities who have kept the spirit of commerce and industry alive, not only in the state but internationally.

Although the state's tech industry is supported by the state government, some policies have been implemented in the past that were detrimental to the well-being of startups. The ban on ride-hailing platforms is an example of a recent policy change that negatively affected some startups like Opay and Gokada, amongst others.

Enablers

These include incubators, accelerators and other organizations supporting entrepreneurs to succeed. In Lagos, some of them include Co-creation Hub (CcHub), Enterprise Development Centre (EDC), Passion Incubator amongst others.



Co-creation Hub, Lagos

Image source: Technext

Founded in 2011, CcHub is Nigeria's first open living lab and pre-incubation space, and its incubation program has supported over 90 startups including LifeBank and TradeDepot. Due to the magnitude of the startup scenery in Lagos State, the enablers span from those that support in the:

- **Idea Stage:** This ranges from those that inspire (examples include startup media and inspirational events) to those that educate (examples include best practices, training and feedback) others that validate (examples include team formation support and MVP builders).
- **Launch Stage:** This consists of organizations that help businesses start and provide infrastructure support. They also provide support in developing them and preparing them for funding rounds.
- **Growth Stage:** This covers support in bringing recognition, funding and expansion.

Ogun State

Ogun State is another state in the South-West that has some level of startup activity. Ogun is the only state that borders Lagos. Although it has a population that is five times smaller than Lagos' when it comes to landmass, the reverse is the case; Ogun is about five times the size of Lagos.

Ogun is mostly perceived as an industrial state due to the number of manufacturing companies located in it. The state's startup scene is best described as 'growing' and compares in no way to Lagos; however, the state government is making efforts to improve this narrative.

One move that stands out is the planned [remodelling of at least 21 colleges](#) in different local government areas into tech hubs.⁵

"Although the facility being utilized for these tech hubs was initially meant for another thing, the fact remains that it had been largely abandoned and could not be used for initial purpose, we are converting it to the advantage of our dear State," explained Dapo Abiodun, Executive Governor of Ogun State.⁵

The first of these hubs, the [Ogun Tech Hub](#), was launched in September 2019 and has six key programs. One is the Ogun Innovate Project, which applies to both tech and non-tech entrepreneurs. Another program is the Ogun Technopreneurship Program (OTP) which serves to incubate tech-focused ideas into startups.



Ogun Tech Hub, Abeokuta

Image source: WesternPost

Yet another is the Ogun Kids' Tech Club which imbues children between the ages 8 to 16 with different skills ranging from animation, coding, digital literacy, web design and development. Other programs include the Data Science Nigeria - Artificial Intelligence Bootcamp, Cisco Network Academy, and the AboCoders' Program. AboCoders empowers young women from low-income families with digital skills.

However, even though 21 conversions were planned, the Ogun Tech Hub has been the only one completed so far. Although this is a small setback in the state's digitization goals, people like Victor Adeleye, founder of [Grazac Tech Hub](#) are making efforts to address this. ⁷

Investors

VC/PE investment has not been regular in the state; Pickmeup for instance has raised only \$10k in its four years of operations, and this was from an undisclosed angel investor. However, the startup has made a lot out of it, expanding to Lagos and Ibadan and an impending Ghana expansion.

Some funding comes from incubators and accelerators, one of them is Grazac Tech Hub, which recently [announced](#) that it is offering startups \$30K for 7% equity.

Other funding comes from government-led or government-backed bodies such as the Bank of Industry.

MDAs

The tech ecosystem in Ogun State rests on the back of the [Bureau of Information Technology, Ogun State](#) which was established in 2003¹¹ and the [Ogun State Ministry of Education, Science and Technology](#).¹²

The Bureau of Information Technology support tilts majorly towards Digital Skills empowerment and capacity building. This is done with support from both local and international organizations like IBM. The Ministry on the other hand provides infrastructure support which includes access to their Zonal Offices, Vocational Centre and Colleges. This infrastructure helps to accommodate startups in terms of facilities for training and other related activities.

Enablers

Although 21 college conversions were planned, only one has been completed so far. This is the Ogun Tech Hub.

1. Ogun Tech Hub

This was launched in September 2019 and has six key programs, One is the Ogun Innovate Project, which applies to entrepreneurs in and out of the tech bracket. Another program is the Ogun Technopreneurship Program (OTP) which serves to incubate tech-focused ideas into startups.

Other programs include the Data Science Nigeria - Artificial Intelligence Bootcamp, Cisco Network Academy, and the AboCoders' Program. AboCoders empowers young women from low-income families with digital skills.

2. Grazac Tech Hub

Adeleye transformed Grazac into a tech innovation hub, as he saw that it was a faster path to fostering innovation within the state, a cause he was passionate about.¹³ Apart from being a hub, Grazac also curates the [Ogun Digital Summit](#) in collaboration with the Ogun state government.



Grazac Tech Hub, Abeokuta

Image source: TechCabal

There's also [TechSummit Ogun](#), a platform that converges innovators/entrepreneurs, tech-focused companies and enthusiasts.

Other notable hubs within the state are LEAD (Learning, Enterprise and Development) Resources, which is also the state's first innovation hub, [Online Hub](#), and [720 Degree Innovation Hub](#). There are also communities like [Startup Grind Abeokuta](#) and [Hebron Startup Lab](#), Nigeria's first University-based open living lab for tech and non-tech startups, innovators and investors. Hebron Startup Lab was founded at Covenant University.

Weaknesses and challenges of the tech ecosystem in the South-West

Although the South-west is the most advanced when it comes to innovation and technology, it is not without its problems.

Over-saturation

One doesn't need to observe the southwest zone too closely to notice the imbalance. Lagos, the darling of tech in Nigeria often shadows other states in many things related to tech - startups, investors, talent, hubs. Currently, there are thirty-six (36) tech hubs in Lagos. The next state, Ogun comes at a very far second with only eight (8) hubs.

There is therefore the risk of generalizing when referring to the zone. People may say "The southwest zone is over-saturated" when in fact, they mean "Lagos is over-saturated." This means that startups in adjoining states have to double down on their efforts to position themselves as key players in Nigeria's startup landscape.

However, this over-saturation in one state could also be a good thing for other states as it means

entrepreneurs start to look outside for better prospects.

It is not uncommon to hear startups say they are launching in Akure, the capital of Ondo State or Abeokuta, the capital of Ogun state rather than in Lagos.

Moves like these expose startups to a new market, especially one where they don't have to compete tirelessly to stand out. As most of these states are just building out their tech ecosystem, entrepreneurs get a chance to be a part of something that could potentially be bigger. Still, leaving the megacity of Lagos has its disadvantages especially in the early days, and so founders that make this decision must ensure to have a long-term plan outlined.

Insecurity and a high cost of living

This poses another problem and is a reason why startups leave Lagos. Lagos is the most expensive city to live in Nigeria. According to a 2020 survey that ranked the cost of living in different cities of the world, Lagos ranked [18th out of 209 cities](#) — making it more expensive than London.¹⁴ This cost is felt in the prices of food, the cost of accommodation, the cost of electricity, the cost of transportation and other factors.

When you add to that the hustle and bustle of living in a state like Lagos, it becomes apparent why both entrepreneurs and non-entrepreneurs would move to a state like Oyo without thinking twice. On another flip of the coin, there's the big matter of insecurity. Interestingly, a lot of the insecurity that people feel comes from both armed criminals and the police. The #EndSARS movement of October 2020 revealed tech employees in Lagos have [suffered](#) at the hands of the police.¹⁵ From an employee at Paystack to the co-founder of Helium Health and even the CEO of Bundle Africa, many

people that work in tech in Lagos can testify to this.

Then there's also the incessant attacks by robbers and kidnappers which forces businesses to close early, spend a lot on ramping up security measures or in some cases providing their own security, and spend even more on clearing hospital bills or replacing stolen items.

No matter how promising the industry is, this nature of events is enough to discourage anyone, investor or entrepreneur from setting up in the state. It's also driving existing ones away.

One thing that gives Ogun state an edge over Lagos is that it has a lower cost of living and of doing business compared to the latter. As the private and public sectors intensify their efforts to make its tech industry more appealing, startups may also begin to see reasons why they should set up in the Gateway State, as it is often called.

Lack of exposure in states outside Lagos

According to Adeitan Abimbola, the major challenge that comes with operating in Ogun State, for instance, is the limited technology exposure of the people. "The people are accepting in orientation and technology, but the orientation and exposure of people in the state make it slow to scale," he said.

As a result, startups have to reduce the cost of their services to match the level of exposure. "When we started our ride-hailing service in Abeokuta, people found it difficult to pay the amount we requested," said Abimbola.

With the entrance of services like OPay, this has been improving as people are now more exposed to the use of apps and similar services. "Ogun State has a lot to benefit from the growing ecosystem in Lagos," Abimbola concluded.

Aggressive policies

On Tuesday, the 27th of January 2020, founders and employees of bike hailing startups in Lagos woke up to a nightmare. Why? The Lagos State government had announced a ban on motorcycles and tricycles, and consequently bike-hailing services.¹⁶

Startups like Gokada and [MAX.ng](https://www.max.ng/) suffered devastating effects. The ban had in one night upturned their business models and left them with almost nothing. Today, GoKada and Max are primarily and partly delivery startups respectively.

While one school of thought may say that it speaks to their resilience as a startup which is a good quality, the hard, underlying truth is that the policy environment in Lagos state is not conducive for startups. Yes, MAX and Gokada survived, but what if they had failed? What picture does that paint to a local and international audience?

Opportunities in the South-West zone

Lagos State

The opportunities in Lagos' tech industry are wrapped up in one word - **exposure**. It's one word but it's a big one nonetheless.

Take XYZ, a local fintech company looking to start up in Lagos. XYZ is not just a fintech company but a payments company. At first glance, it looks like XYZ doesn't stand a chance, because if there's one thing Lagos has in abundance, it's fintech companies that are focused on payments.

In less than a year, XYZ gets accepted into a global accelerator program, and in a couple of years following that, the startup secures a multi-million dollar investment to expand to other African countries. The journey may not be this rosy in reality, but it's a more likely path in Lagos than in any other state.

Ogun State

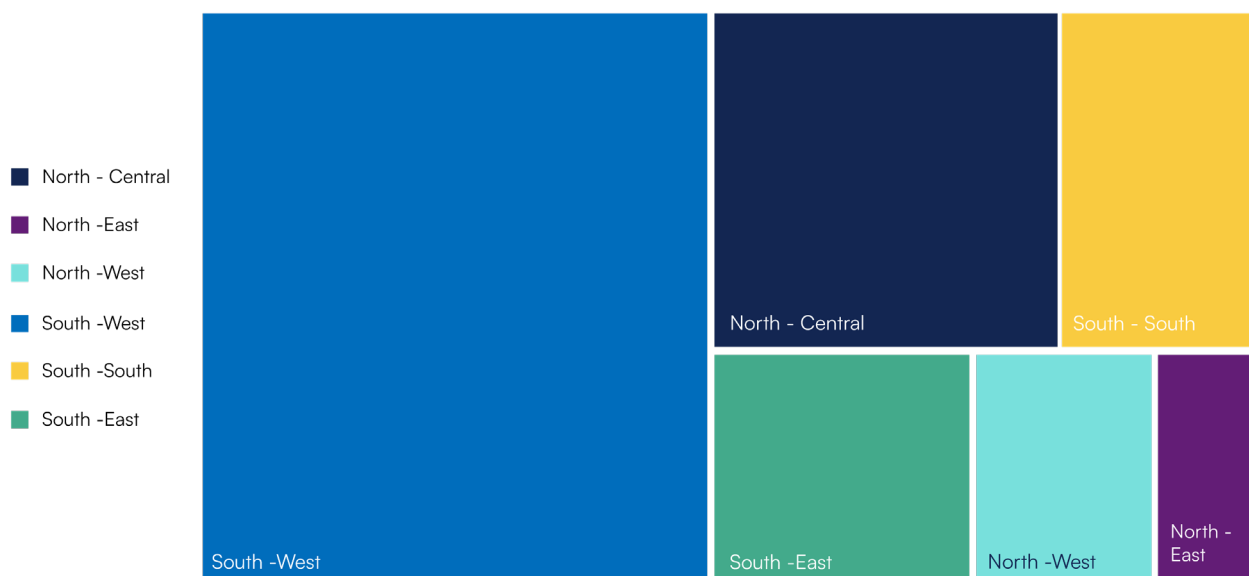
Like a lot of others in Nigeria, Ogun State's ecosystem is young and growing. "The ecosystem in Ogun State is still largely untapped and virgin," said Adeitan Abimbola, co-founder of Pickmeup Services. There's a lot of potential if the current steady pace of growth is maintained.

Startups that set up business in Ogun state will enjoy government support as the state government is eager to position the state as a tech hub that plays a key role in the national and global tech community. This was the thought behind the state government [allocating](#) 2% of its

capital budget to IT infrastructure and industrial training for five consecutive years and waiving the right of way charges for MainOne in 2018. Ogun wants to be the gateway for tech and not just for development

Furthermore, 47 out of the 98 tech hubs in the country are located in the South-West zone, this means startups have a range of options to choose from when it comes to seeking support, mentoring, networking opportunities or even financing.

48% of tech hubs in Nigeria are in the South - West



South-East zone (Enugu and Imo)

Growth in the South-East region is nascent compared to a region like the South-West. However, Enugu and Imo are the most advanced of the states when it comes to tech.

The most popular tech company out of the South-East would be [Hotels.ng](https://hotels.ng), a hotel directory startup founded in 2012 by Mark Essien. Although the startup initially launched in Calabar, the capital of Cross-River, it was eventually moved to Lagos to secure seed funding when it had reached a milestone of 6,000 listings.

This move largely influenced Essien's decision to join a group of stakeholders focused on supporting entrepreneurs in the South-East to ensure that they no longer have to move to Lagos for the reason that he did. Startups move to Lagos mainly because of the proximity it offers to finance, customers, and partners, and because it is the biggest tech scene in Nigeria, but Essien believes this should be a choice and not a necessity.

"It is very important that there is a lot of focus on regional startups. Somebody can stay in Aba and say "I want to build a technology company." and have all the resources necessary to be successful at

their disposal without having to leave for Lagos,” Essien had said at a tech meet-up held in Aba, Abia State.¹⁷

The Southern region is more commonly known for its oil and gas contribution than for tech, particularly the South-South. However, stakeholders like Essien want to change this notion.

Key players in Imo State

Operators

1. ColdHubs

This is a startup building solar-powered walk-in cold rooms that help farmers preserve their produce. It was founded by Nnaemeka Ikegwuonu in 2015. Between 2015 and 2019, ColdHubs had preserved over 20,000 tons of food and had served over 3,000 farmers with the 24 cold rooms it had at the time.

2. Zenvus

Zenvus is an agritech startup that helps farmers be more productive in their activities.¹⁸ It has a suite of six services - zManager, zCapital, zInsure, zCrowdfund, zPrices and zMarkets. It also has an interesting product range including an electronic sensor that monitors soil components.

Zenvus was founded in 2016 by Ndubuisi Ekekwe.

3. Jenviv Limited

Jenviv is a software development company headquartered in Owerri but with a remote team spread across the United Kingdom, Canada, Qatar, Mauritius, and Cyprus. The software development company offers services such as blockchain networks development, data science and artificial intelligence, cybersecurity, affordable cloud storage, etc. to end-users.

Other tech companies include SLOT, a hardware and electronics retail company, Lumena technologies, Proximidia Technologies, etc.

Investors

South-South/East Angel Network (SSEAN) actively invests in startups across Nigeria but is focused on the Southsouth/Southeast region. They provide mentor driven capital to the most innovative founders in the region stated earlier.

SSEAN does not invest directly into businesses — only members can. SSEAN is sector agnostic (though there is a bias for tech startups). Post traction startups that already established product-market-fit at the very early stage and are looking to scale are encouraged to apply.



Uche Aniche - Director, SSE Angel Network

Image source: Rise and Lead Summit

MDAs

Imo State Ministry of Science and Technology has a mandate to support technology in the area of infrastructure support, policy formulation, incubation amongst other areas. In the past, they have organized training for youths to enable them to gain skills to advance in technology.

Key players in Enugu State

Operators

1. Arone

Arone is a health logistics startup facilitating the delivery of essential medical supplies using drones. Arone was launched in 2018 by Chioma Udoh and Emmanuel Ezenwere.

2. Wicrypt

This is a Wi-fi sharing mobile application that allows users to earn money while sharing their data. It

runs on the blockchain platform and was built in 2019 by Ugochukwu Aronu.

3. Clafiya

Clafiya is a health tech startup founded by Jennie Nwokoye and Itoro Inoyo in 2020. The platform leverages USSD code, AI and predictive analytics to connect patients in rural and semi-urban areas to Community Health workers.



L-R: Itoro Inoyo and Jennie Nwokoye- Co-founders, Clafiya

Image source: TechCabal

Investors

South-South/East Angel Network (SSEAN) as mentioned in the previous State also plays an active role in Enugu State. The organization does not invest directly into businesses — only members can. Applications are also open to post-traction startups that already established product-market-fit at the very early stage and are positioning for scalability. SSEAN is sector agnostic (though there is a bias for tech startups).

MDAs

Enugu State Tech Hub and Youth Innovation Center is an Initiative of Enugu State under the supervision of the Enugu State Ministry of Science and Technology to bring technology down to the grassroots of the people of Enugu.

This initiative is intended to provide professional ICT training programmes and other agro-based

courses as well as tech innovation down to the doorsteps of Enugu Youths. The hub is tasked with a mandate to support technology in the area of infrastructure support, policy formulation, incubation amongst other areas.

South-South zone (Rivers and Akwa-Ibom)

Although the states in the South-South zone are primarily oil-dependent states, they have been gradually entering the tech industry over the past few years, due to the efforts of certain individuals.

One of them is Uche Aniche, founder and convener of Startup South. Two others are Tony and Francis Omuk, founders of The Root Hub.

Startup South is a social enterprise and Startup (Innovation-driven Entrepreneurship) ecosystem development organization. It believes in the power of entrepreneurship for development and over the last five years, has supported founders across South-South/South-East, Nigeria to build scalable ventures.

Key players in Rivers State

Operators

1. MyFoodyShop

MyFoodyShop is an online grocery purchase and delivery platform. It was founded in 2017 by Francisca Nwume.¹⁹

2. TideRX

TideRX is a healthtech startup that runs a subscription-based e-prescription model that connects community pharmacies to doctors and hospitals. It was founded in 2020 by Favour Anugoli.²⁰

Investors

South-South/East Angel Network (SSEAN) can also be found to be investors in Rivers State as well since they focus on startups (especially tech-related) in the SouthSouth region.

As mentioned earlier, they provide mentor driven capital to the most innovative founders in the State.

MDAs

The ICT department in Rivers State is responsible for infrastructure support in the State. It aims to provide training in the adoption and use of information and communication technology.

Enablers

1. Startup South

Startup South is a community of startups and businesses, including the tech-enabled ones.²¹ As the name implies, Startup South operates in the Southern region, both South-East and South-West, and so is not confined to any one state.

What Startup South does is to provide startup founders with the mentorship, funding and business support they need to grow and thrive within the region.

This is achieved through hackathons and conferences organized with other stakeholders such as early-stage investors like angel investors and syndicates and policymakers.

In 2018, Aniche also led the founding of the South/South-East Angel network with about 19 other investors. And in 2019, the network made its first investments in an agritech company known as Alphotazi Farms and a solar energy startup called Greenage.

Due to the activities of Startup South, founders in the region have raised over a million dollars (\$1m) in grants and equity as of May 2021, according to Uche Aniche.

Key players in Akwa-Ibom State

Operators

1. Releaf

Releaf was founded in 2017 by Ikenna Nzewi, Isaiah Udotong and Uzoma Bailey Ayogu. The agritech startup invents and operates food-processing hardware that protects smallholder farmers and their produce from post-harvest loss.

2. Ndidiaa

Ndidiaa was founded in 2018 and operates in the e-commerce and retail sector as a food ordering and delivery platform.²³

3. QuickSalary

QuickSalary is a financial solutions company that facilitates instant salary and commission payments using cloud-based technology.²⁴ It was founded by Essien Ekanem in 2020.

Enablers

1. The Root Hub

The Root Hub is an incubator for startups across different industries such as agriculture, ride-hailing and other tech-enabled businesses.²⁵ This is also achieved through the several training sessions and events it regularly organizes. It was founded by Tony Onuk in 2014.

Others include Start Innovation Hub which occasionally partners with The Root Lab. The main purpose driving these hubs and communities is the need to show that there is an opportunity for tech in other Nigerian cities apart from Lagos and that the world needs to start paying attention, starting with the Nigerian government.

Investors

South-South/East Angel Network (SSEAN) is one of the most active investors for startups located in this region. However, for a startup like Releaf, its investors include both Nigerian and international VC firms.

These are Future Africa, Y Combinator, Breakthrough Energy Ventures, Consonance Investment Managers. Some angel investors have also funded the company.

Weaknesses and challenges in the South-East/South-South zones

Brain drain due to the lack of jobs

“There aren't so many opportunities for young people to translate what they learn into results,” says Uche Aniche of Startup South. According to Aniche, job opportunities are scarce and this creates a gap in the region's tech ecosystem. He added that as a result, many of the South-East's talented young people are leaving to places like Lagos where there is a greater concentration of startups, and consequently opportunities. For some, their preferred option is leaving the shores of the country.

“The South (South/south and South-East) is like a breeding ground for talent, but that talent hardly ever stays within.”

Thus, he believes that a lot of the growth waiting to happen to the South East is quite dependent on what the government does to provide more jobs for young people.

Low internet penetration

Another problem is the low level of internet penetration in the zone. 53% of the population with access according to NOI Polls as of October 2019.²⁶ Imo has removed the Right of Way charges, Anambra has removed them completely, and this is improving broadband penetration. However, the states can still do better than their current efforts.

Inconsistent policies

There is a need for the different state governments to have a deeper understanding of what the tech ecosystem is, and how to protect it. This will help them formulate policies that will drive and not hamper growth in the region. This is part of why investors are reluctant to invest within the region.

Low involvement of government MDAs

There is a need for the different state governments to have a deeper understanding of what the tech ecosystem is, and how to protect it. This will help them formulate policies that will drive and not hamper growth in the region. This is part of why investors are reluctant to invest within the region.

Opportunities in the South-East/South-South zones

Uptake of digital skills

There has been some major uptake in the acquisition of digital skills. A lot of people understand that becoming skilled at technology - either as programmers, designers, and so on - is a necessary asset. Some of what is driving this knowledge are communities like the Google Developers Group, Facebook circles, standalone institutions like Startup South and organizations like NIIT, etc. These communities champion the free delivery of digital skills to youths and also connect them to existing opportunities.

It is also influenced by the proximity to information fuelled by access to the internet. There's also an opportunity for tech to leverage sectors like manufacturing and commerce which are very big in the region to drive growth and employability. Additionally, Aniche believes there are growth opportunities in the Business Process Outsourcing space for entrepreneurs.

North-West zone (Kaduna and Kano)

Kaduna State

The Centre of Learning - that's what Kaduna is called. Although this title is based on the number of higher learning institutions in the state, Kaduna is gradually becoming more famous for more than its educational institutions.

The state of [over eight million people](#) boasts one of the most noteworthy tech ecosystems in Northern Nigeria, thanks to the presence of some successful tech hubs and startups.²⁷

A few years ago, this wasn't the story, and the region struggles in comparison with others in the South. However, due to the efforts of some individuals, the fate of the North is changing.

Key players in Kaduna State

Operators

1. Payant

[Payant](#) is a payment-processing startup founded by Aminu Bakori in 2017.²⁸ As of 2018, the company had processed over N1 billion (\$2.6bn) in transactions. Bakori is also the founder of MyFlex and Dot, both payment services, and Friendstie, an enterprise management solution.

2. DigiHealth

[DigiHealth](#) is a healthtech startup that's like Uber but for doctors.²⁹ DigiHealth was founded in 2019 by Emmanuel Bala Musa and Andrew Thomas Kantiok. As of November 2020, the startup had about 100 clients and had onboarded fifteen (15), medical doctors, on its web platform.

3. SchoolMo

SchoolMo is an edtech startup founded by Ifeanyi Morah in 2013.³⁰ The company operates a school information management system that enables the automation of school processes including record keeping, school business operations, communication and fee collection. Leverages USSD code, AI and predictive analytics to connect patients in rural and semi-urban areas to Community Health workers.

MDAs

MDAs in Kaduna include the [Ministry Of Business, Innovation and Technology](#), Kaduna State Investment Promotion Agency (KADIPA), Innovation and Technology and the National Information Technology Development Agency (NITDA).

These help to offer support in the areas of Developmental Regulation, Digital Literacy and Skills, Solid Infrastructure, Service Infrastructure, Digital Services Development and Promotion, Software Infrastructure, Digital Society and Emerging Technologies & Indigenous Content Development and Adoption.

The NITDA has achieved a lot in digital inclusion and literacy. As a result, we are witnessing the emergence of new economic sectors like Fintech, e-Commerce, Venture Capital Investment, Business Process Outsourcing, Data protection Compliance Organizations, IT equipment manufacturing robust software industry.

Kaduna State also has an Office of the Chief Information Officer, Gerald Ilukwe who was appointed in 2019.

Enablers

1. CoLab

The first hub established in Kaduna was [CoLab](#), an innovation hub and co-working space.³¹ CoLab was launched in 2016 by Ismaila Sanusi, a Kaduna-based tech blogger and entrepreneur to bridge the gap between the North and other regions.

The goal for the hub is to unite Kaduna's diverse but randomly distributed tech talent and put them in a place where they are influenced and enabled to produce results.

"We have a bunch of talented people, randomly scattered about. Some have built interesting things but have no idea what to do with them, others have the skill to build but haven't built anything and some are just looking for the opportunity to learn," Sanusi said in an interview.³²

"The goal is to get all these people and more on the same wavelength and let them naturally grow into a force," he added.

Asides from providing a workspace and training opportunities, the hub also organizes hackathons, talks and training sessions with tech professionals from within and out of the country. CoLab's training programmes include a Design School, Code School, Fullstack Developer Track, and some others.

2. Kaduna Digital Entrepreneurship Incubation Program (KADDIP)

KADDIP is a free 6-month incubation program that equips aspiring entrepreneurs to take their idea to market by providing them with training, mentorship and peer-learning opportunities. The program is only open to Kaduna residents between the ages of 18 - 40.

3. Startup Kaduna

[Startup Kaduna](#) is the brainchild of Samaila Goje and Yusuf Zakari.³³ It is a community of entrepreneurs and startups, and it organizes the Kaduna Startup Weekend.

Other hubs/co-working spaces in Kaduna include Alpha Hub (the only hardware-centric hub), [Kada Hive](#), [Kaduna ICT Hub](#) (which was formed from a partnership between Zenith Bank and the Kaduna State Government), and [Lexington Hub](#).

Kano State

Although Kano's tech ecosystem isn't on the same pedestal as Kaduna's, the state has some prominence where tech and the North are concerned.

As the nerve centre of business and commerce in the North, the growth of Kano's startup ecosystem, although gradual, is not surprising. The question rather, is this: Can Kano grow fast enough to keep up with its Southern counterparts?

Key players in Kano State

Operators

1. [eHealth Africa](#)

eHealth Africa (EHA) was founded by Evelyn Castle and Adam Thompson in 2009.³⁴ The company aims to provide communities in developing countries with good healthcare services.

Its mission is to "build stronger health systems through the design and implementation of data-driven solutions that respond to local needs and provide underserved communities with tools to lead healthier lives." Since its launch, EHA has delivered over 24 million vaccine doses.

2. [FlexiSAF](#)

Flexisaf is an edtech startup founded in 2010 by Faiz Bashir, working to improve the overall teaching and lesson experience for educators, students and parents.³⁵ The company is now located in Abuja.

3. [POS4Africa](#)

POS4Africa is a hard-ware focused company that manufactures POS machines and software for enterprises.

MDAs

1. Kano State [Ministry of Education, Science and Technology](#)

The Ministry is led by Hon. Muhammad Sanusi Sa'id Kiru and leads all that is concerned with innovation and tech within the state.³⁷ The Ministry is also tasked with supporting innovators

and entrepreneurs with novel ideas that can contribute to the development of the state.

Part of their support to the startup ecosystem extends to infrastructure, policy and training programmes amongst other areas. An example of this support is enabling entrepreneurs to participate in expositions to showcase their innovative and indigenous products and ideas in science and technology. One of such expositions is the national expo tagged “Harmonizing Science and Technology for Socio-Economic Recovery Amidst COVID-19” in 2021 which the state [reportedly](#) excelled at. ⁴²

Enablers

Kano's tech hub history can be traced to over a decade ago. In 2009, [the first Google Technology User Group \(GTUG\)](#) was founded by Faiz Bashir. These are some of the hubs that have been launched in the state since then:

1. Dicebox Innovation Hub

Popularly known as DI-Hub, this is one of Kano's top hubs. DI-Hub is a privately-owned hub launched in 2017 by Idris Abdulkadir Dangana as an innovation and business incubation hub.³⁸

2. Blue Sapphire Hub

Launched in 2014 by Maryam Lawan Gwadabe, Blue Hub - as it is sometimes called - is the first female-owned innovation hub in Northern Nigeria. ³⁹ Since its inception, the hub has produced over 12 tech-driven startups, produced over 10,000 beneficiaries of its tech program, and created over 3,000 jobs. Blue Hub's services are not limited to incubation programs and workspaces, but it also organizes workshops, seminars and provides ICT consultancy.



Maryam Lawan Gwadabe - Founder, Blue Hub

Image source: (Nigeria Computer Society (Twitter))

3. Startup Kano

This is another hub located in Tarauni local government, Kano. ⁴⁰ Startup Kano is an incubator/accelerator that trains entrepreneurs on how they can secure investment from the public and private sector, as well as on bootstrapping and expansion strategies. Other hubs include Enovate Lab and DD Hub.

4. Code Pyramid

Code Pyramid is a networking and learning community for tech-heads, entrepreneurs and enthusiasts. The community was founded by Ahmad Idris in 2016.

Other enablers

1. Center for Information Technology and Development (CITAD)

CITAD is a Kano-based non-governmental organization created to promote information and communication technologies for development and good governance in the country. ⁴¹ CITAD's work is targeted at facilitating development in Nigeria, and the Centre's long-term goals are to improve political accountability and reduce the risks of violence and instability.

2. Bright Capacity Initiatives for Community Enhancement (BCICE) Kebbi

BCICE provides activities and services aimed at achieving socio-economic empowerment, health development and environmental protection in rural communities. Areas of support include infrastructure provision, training facilitation amongst others

Weaknesses and challenges in the North-West zone

1. Low contribution of government MDAs

Ministries, departments and agencies that ought to be deeply involved in growing out the region's tech sector are not as committed to fulfilling their functions as is obtainable in other zones.

A slightly different narrative can be seen in a state like Kebbi where the Federal Government has made some commitment to the growth of entrepreneurship in the state. One such commitment is the loan of [N2bn](#) (\$5.2m) given by the Federal government. Although this is not targeted at tech entrepreneurs but rather entrepreneurs in general, it's a good step.

2. Low level of awareness

Due to the remoteness of the region, there is not so much awareness of the importance of technology. This is fuelled by the high level of digital illiteracy and exclusion. At best, natives see it as an opportunity for communication when it comes to using apps like WhatsApp. At worst, all the tech

talk is a new cover-up term for fraud.

It's better in the metropolis where people are more exposed, but technology will not flourish with only one party on board. It is therefore important to build a solution that addresses both demographics.

3. Low level of external exposure

In states like Kaduna where the tech ecosystem is more developed compared to others in the region, there isn't so much external awareness of the presence of startups. The fastest name that comes to mind where startups in Kaduna are concerned is Payant, but there are other startups in the state doing important work like SchoolMo, Roundstone Consulting, Sudo and so on.

Sanusi Ismaila, founder of CoLab also talked about a time when people didn't realize that CoLab, the foremost hub in Kaduna was actually in the state, and people that visited the hub would be surprised at the kind of work going on. This is also due to a cultural disadvantage that makes people speak less about their work compared to people in other states and regions.

"I think that ultimately, this will change off of the quality of work that people see in Kaduna over time. It's even beginning to change," Ismaila said.

4. Lack of digital entrepreneurial skills:

Some people may not be well-equipped to venture into tech because they don't have the know-how. Young people especially need to have the right skills invested in them. It's expensive to pay for courses, to pay rent, to buy equipment and these costs can be a major deterrent.

Where courses can be made paid for, they should be; where incubation hubs can be improved upon, they should be; where free data can be made available, it should be. Where there is even a flicker of interest, it is important to fan the flame. The roadblocks of inaccessibility and unaffordability need to be taken out for the region to grow.

Opportunities in the North-West zone

1. Population strength

Based on the results from the 2006 Nigeria census, the North-West had a combined population of approximately 36 million people, making it the most populated region in the country. The region's population at that

time surpassed Ghana's [population in 2020](#) (approximately 31 million people).⁴² Although the region's population has grown much since then, even in 2006 when it was well over the size of a West-African country, it offered a viable market

for business growth.

A lot of the development in the region's ICT sector is targeted at university students, but if some of these efforts are repurposed for secondary school students, it would be a good opportunity to expose them to the usefulness of tech beyond just recreational uses.

North-Central zone (Abuja, Plateau and Kwara)

Abuja

Abuja has a fast-growing startup ecosystem, and entrepreneurs here are lucky to have resources available to help them in their journey. As Abuja is the Federal Capital Territory and not a State, what you would find are communities of people with similar interests coming together to achieve development in tech.

Key players in Abuja

Enablers

1. Startup Grind

This is an event for Startups and founders in Abuja willing to connect, invest, inspire and educate themselves on how to use the current economy to their advantage. An invited entrepreneur would share his/her story in every meeting and answer questions where available.

2. Founder Institute

The Founder Institute is the world's largest pre-seed startup accelerator. Since 2009, we have helped over 5,000 entrepreneurs get the focus and support needed to build a business that matters. Based in Silicon Valley and with chapters across 90 countries, the Founder Institute's mission is to empower communities of talented and motivated people to build impactful technology companies worldwide.

In Abuja, they facilitate meetups like the "Meet the Startup Community Leaders" event that gathers representatives from different entrepreneurial organizations, and top local entrepreneurs, to outline the local resources and provide tips on how to build a startup in Abuja.

MDAs

1. NITDA

The National Information Technology Development Agency (NITDA) is committed to implementing the National Digital economy policy for digital Nigeria. The mandate is to create a framework for the planning, research, development, standardization, application, coordination, monitoring, evaluation and regulation of Information Technology practices in Nigeria.

The National Information Technology Development Agency (NITDA) is committed to implementing the National Digital economy policy for digital Nigeria. The mandate is to create a framework for the planning, research, development, standardization, application, coordination, monitoring, evaluation and regulation of Information Technology practices in Nigeria.

Key players in Plateau State

Operators

1. uLesson

One of the most prominent startups out of Jos is uLesson, an edtech company founded in 2019 by Sim Shagaya. ⁴³ Although uLesson's CEO said that starting up in Jos was one of the smartest decisions he had taken, in 2020, the startup [relocated](#) to Abuja, Nigeria's capital city. He said the move was necessary to access better regional flight connections and attract talent.

As of May 2021, the startup had raised \$10.6m, including a \$3.1m pre-seed [led](#) by TLcom Capital. TLcom also participated in the \$7.7m later round in 2021.

2. Terminus

Terminus is an e-commerce platform leveraging chat as a tool. Terminus received seed funding from nHub in 2017. ⁴⁴



Sim Shagaya - Founder, uLesson

Image source: TechCabal

Enablers

1. nHub

In 2015, Daser David and Kwopnan Maclean founded one of the first technology centres in Northern Nigeria to nurture tech startups in Northern Nigeria. The innovation hub called nHub not only presently offers incubator and accelerator programmes but also provides a range of tech-inclined training sessions and services. ⁴⁵

Thus, nHub is three things in one - a skill acquisition company, an incubator and a tech solution company. The hub also organizes the annual HackJos conference and hackathon, the first of its kind in Northern Nigeria. In 2016, nHub also hosted the NASA Space Apps Challenge.

nHub is also the brain behind Sevocoder, a programming club that is designed to foster interest among young people in software engineering, especially students in secondary schools. The initiative was launched in 2016 to produce 2,000 developers within a few years. nHub also [launched](#) the Jos Angel Network in 2019.

Although Northern Nigeria has been slower than other regions in the adoption of technology, organizations like nHub are working relentlessly to change that narrative.

“We are gradually making progress in terms of creating a tech culture in different ways. This is gradually creating an enabling atmosphere for tech culture to be a norm,” [said](#) Theodore Longji, CEO/Lead, R&D and Partnerships at nHub. ⁴⁶

One of nHub's projects is [Kepler-X](#), a “three (3) year observatory program that addresses vital economic issues through disruptive teaching methods. It uses project-based learning, mentoring and hackathons that would allow students to unleash their creativity.”

MDAs

1. Plateau State Information and Communication Development Agency (PICTDA)

In 2019, Plateau took a step in the right direction for its tech industry through the establishment of the Plateau State Information and Communication Technology Development Agency (PICTDA). ⁴⁷ The Executive Governor of Plateau State, Simon Lalong appointed nHub's co-founder, Daser David as its Director-General.

The Agency aims to achieve a solid foundation through ICT infrastructure architecture, systems design and work processes which will continue to support a robust ICT facility throughout the State. An example of a programme facilitated by the PICTDA is Code Plateau which is designed for young people who want to start their career in IT and kickstart their portfolio of real-life projects that utilizes modern technology stacks.

2. Plateau State Information and Communication Development Agency (PICTDA)

PLASMEDA was established during the administration of Governor Simon Lalong to

complement the initiatives of Sustainable Development Goals (SDGs).⁴⁸ The agency supports broader SME development in the state through demand-side interventions. The governor of the State, Simon Lalong, said that PLASMEDA alone created as many as 50,000 jobs.

Key players in Kwara State

Operators

1. Plat Technologies

Plat is an IT company led by Taofik Abdulkareem that specializes in website design, web application development, website management and maintenance, search engine optimization, e-payment, e-commerce and other services.⁴⁹

2. Mealdeal Nigeria

This is an on-demand delivery platform that allows customers to order online from restaurants and stores.⁵⁰

3. Medtech Africa

Medtech is an Africa-focused healthtech company that was founded by Nelson Igbiriki in 2018. It allows users to easily access accurate and reliable medical care.⁵¹

4. Priceinfo

This is an online price comparison platform that helps users find the lowest priced best quality products from hundreds of online stores in Nigeria.⁵²

Enablers

1. Founders Hub

It's hard to construct a sentence with Kwara and tech without including Founders Hub. The hub which launched in 2016 is Ilorin's premier innovation hub, co-working space and incubation centre.⁵³ This means it operates a hybrid model, common to other tech hubs in the country.

Founders Hub was founded by Adeyinka Adekeye and offers a 1-year incubation session to selected startups where they are offered training, mentorship, and seed funding.



Founders Hub, Ilorin

Image source: Founders Hub

2. Ilorin Innovation Hub

This is the first ICT and technology centre established by the Kwara State Government. ⁵⁴ On April 8, 2021, the State Government [announced](#) that the hub had joined the Afrilabs Network, the largest network of innovation hubs in Africa. The hub includes a co-working space, conference & training facilities, office space for technology companies, as well as computer & hardware stores. Founders Hub was founded by Adeyinka Adekeye and offers a 1-year incubation session to selected startups where they are offered training, mentorship, and seed funding.

The hub also houses a Startup Growth Program, which hybridizes the incubator and accelerator model for early-stage companies. In each cohort of the program, ten startups across fintech, agriculture, education, transportation, government, business process, e-commerce & logistics, artificial intelligence, energy and blockchain will be selected to receive intensive training on how to scale their startups from tech entrepreneurs in their fields.

Two other hubs in Ilorin are the [Mustapha Akanbi Library \(MAL\)](#) Hub founded by Usman Dipo Akanbi & Kamaldeen Kehinde, and [TechHub](#).

MDAs

1. Kwara State Ministry of Education, Science and Technology

The Ministry is responsible for facilitating the development of science and technology to quicken the pace of socio-economic development. It is led by Hajiya Sa'adatu Modibbo Kawu. The Ministry's support to the startup ecosystem includes infrastructure provision, policy creation, training programmes amongst other areas.

For instance, in 2019, the Ministry partnered with the Women's Technology Empowerment Centre (W.TEC) [to send](#) 150 girls to STEM camp to learn skills that will help them evolve into capable tech talents. ⁶⁴

Weaknesses and challenges in the North-Central zone

The weaknesses and challenges in the North-Central zone are similar to what is obtainable in the North-West. These include the low level of support from governmental bodies, low level of awareness and exposure to digital platforms and how to utilize them to enhance productivity, the inability to afford smartphones and data plans.

Where affordability is concerned, the bigger underlying issue is access. Access to digital technologies is limited because of the paucity of data infrastructure and a corresponding limitation in broadband penetration. As [NOI](#) Polls reported, 43% of the population were without access to the internet as of October 2019. ^{54b}

Additionally, there is a risk of lack of continuity when there is a change in government. One administration may decide to put forward a policy or project to boost the growth of the industry, but as soon as that administration steps down from office, that project may suffer because the new administration would rather start their own than continue with the old.

This can breed a cycle of unfinished projects when just one project seen through to the execution and implementation phase would produce very transformative results.

An example [is the](#) Minna Airport City project in Niger State which was initiated in 2008 and reportedly estimated at over \$600 million. ⁶⁶ The project has not been completed till date. Another example [is](#) Plateau State's e-library and the Geographical Information System (PLAGIS). ⁶⁷

Opportunities in the North-Central zone

1. Building on skills gained

Hubs should also train people on entrepreneurial skills - how to translate the skills they gain to a working environment - whether as freelance workers or as part of an organization, how to lead teams, and so on. Technical skills are only a means and not the end.

North-East zone (Borno and Adamawa)

Borno and Adamawa States

The North-eastern zone has the lowest number of tech hubs in Nigeria and the smallest tech industry in the northern region. One of them is located in Adamawa, and that's the Northeast Innovation Hub. Another is located in Borno State. [Startup Borno](#) is a community of tech enthusiasts in Borno State.

The slow development of technology in the region can be attributed largely to the high level of insurgency in the region. There's also Startup Yerwa, the organizer of Django Girls. Django Girls is a one-day free programming workshop that teaches women how to code by providing them with the facilities and learning resources.

"We hope to get as many girls as we can to learn how to code. The world is moving fast and we are in a very critical condition. If we don't do anything to empower them, one day we'll wake up and realize that our girls are brainwashed as they are today," [said](#) Mr Nur Dahiru, the CEO of Startup Yerwa. ⁵⁵

Key players in Borno State

Operators

1. Naijatechspot

Naijatechspot was created by Ibrahim Garba, a student of the University of Maiduguri in 2018. It is a website that serves the sole purpose of relaying tech and tech-related information, from gadget reviews to How-to posts. ⁵⁶

2. Startup Yerwa

Startup Yerwa is an organization that promotes and advocates entrepreneurship by leveraging technology to provide innovative solutions to societal problems. It organizes programmes like Django Girls which is a one-day free programming workshop that teaches women how to code by providing them with the facilities and learning resources.

Enablers

1. Northeast Humanitarian Innovation Hub (NEHIH)

INEHIH was co-founded by Mary Igbazua who also serves as Head of Innovation. Although the hub

is situated in Adamawa, it was created to serve the whole NE region. The hub supports innovative solutions or business ideas targeted at alleviating the impact of the crisis in the region.

2. Uplift Hub

Uplift Hub was co-founded by Mustapha Ango in Bauchi and was created to achieve the Sustainable Development Goals through technology and human capital. The hub's programmes include a DevOps Bootcamp which helps participants find employment as DevOps engineers. ⁵⁷

Other enabling organizations in the state are the:

- Community Resource Centre (CRC): Since it began operations in 2003, the Professor Iya Abubakar Community Resource Centre (CRC) for the North-East, provides basic ICT training to members of the community who cannot afford to attend private institutions where computer courses are offered often at costs that are above the earning power of large percentage of the local population. It was set up as a collaborative partnership between the Bauchi State government and United States governmental agencies.
- Abubakar Tafawa Balewa University (ATBU): Founded in 1988, it is a federal university of technology located in Bauchi, Northeast Nigeria. It is officially recognized by the National Universities Commission of Nigeria and offers courses and programs leading to officially recognized higher education degrees such as bachelor degrees in several areas of study.



Abubakar Tafawa Balewa University, Bauchi

Image source: Vanguard News

MDAs

MDAs in Borno State include the Bureau of Information and Communication Technology (BICT) which is peculiar to Borno; the Ministry of Science and Technology; and the National Information Technology Development Agency (NITDA).

[NITDA's achievements](#) include a huge ICT contribution to Gross Domestic Product from less than 0.5% in 2001 to more than 14% in 2020, catalyzing job creation and igniting innovative activities in the tech ecosystem.

Weaknesses and challenges in the North-East zone

1. Prejudice resulting from insecurity in the zone

Due to the bad press that the entire region receives, there is an underlying prejudice when it comes to Northern Nigerian startups, for instance when trying to raise money.

What this means is that startups in Northern Nigeria have to uncover three layers of prejudice - the first one as an African startup, the second as a Nigerian startup, and then the third as a Northern Nigerian startup

2. Digital illiteracy and exclusion

“Some people don't believe that technology can deliver on all the promises we say it can. I would estimate that outside of the Bauchi metropolis, about 40% of the state's population do not know how to use WhatsApp,” said a lecturer at one of Bauchi's higher learning institutions who preferred to remain anonymous.

According to him, this is also not helped by the high cost and low accessibility of data. “The cost of data is a big issue, particularly in rural communities. Accessibility is also an issue outside the metropolis, as we have weak 3G and 4G bandwidth.”

Also, many people tend to associate tech with fraud, particularly in the rural areas, and usually have a phobia for anything tech-related.

3. Low female participation

Another stakeholder we spoke with in the region confirmed to us that there is a very low level of female participation in tech and this is driven by the cultural and religious seclusion of women from activities outside the domestic setting. At best, one could find women working as sales assistants in hardware shops, but the probability of finding many female founders is very low.

He however told us that this is especially true in rural areas as women appear to be more digitally

included in the metropolises.

Until the limitations keeping women from the entrepreneurial environment are reduced or lifted, then there's not much to expect when it comes to female participation in tech.

4. Lack of agency support

A key player (who preferred to remain anonymous) in the North-East told us that another barrier to growth in the region is that donor agency support is not directed at tech. "We have interventions in women & youth empowerment, healthcare systems, orphans and vulnerable children (OVCs); but not in the promotion of awareness or access to digital skills," he said.

5. Low incentives to acquire skills

There is a general conception of expensiveness attached to digital skills and due to its intangibility, people show a lot of scepticism when it comes to acquiring them, especially in rural areas. "People don't see tech as an enabler of productivity and so don't acquire technical skills to drive the digital economy."

Also, because a lot of the training programs are uncertified - according to information we received from a key player - the incentive to acquire skills are lacking, especially when there is no clear positive outcome.

Opportunities in the North-East zone

1. Enhanced Incentives for skills acquisition

There should be an investment in incentives for skill acquisition especially following the tough terrain present in the region. More hubs should be made available to train people on entrepreneurial skills - how to translate the skills they gain to a working environment - whether as freelance workers or as part of an organization, how to lead teams, and other important learning curves. An initiative to make learning more attractive should be put in place.

Key players, weaknesses and opportunities in Nigeria's startup ecosystem

04

Ecosystem
Report:
Nigeria's
Startup Scene

Key players, weaknesses and opportunities in Nigeria's startup ecosystem

Key players

Operators

When one thinks of the biggest names in the Nigerian tech industry, companies like Flutterwave and Paystack easily come to mind, and for good reason. While Flutterwave became Nigeria's second indigenous unicorn in 2021, Paystack had the biggest acquisition deal in Nigeria's startup history.

However, long before these two were launched, companies like System Specs (founded in 1991 by John Obaro), Interswitch (founded in 2002 by Mitchell Elegbe), and MainOne (founded in 2008 by Funmi Opeke) had dominated the field. These companies set the example of what it means to grow and thrive as a Nigerian startup. Interswitch has lasted nearly two decades in Nigeria's startup environment and is still doing well, becoming the country's first unicorn in 2019.

But each new era comes with its dispensation, and new tech companies like 54Gene, Kuda, Appzone, Bankly, Kobo360, Plentywaka, ThankUCash, Pricepally, Termii are in turn setting a different but equally important example in the tech industry that startups soon can look up to.

Regulators

While a lot of the regulators and policymakers in Nigeria's tech industry are central to all sectors, some are sector-specific.

Regulators	Function	Sector
Central Bank of Nigeria (CBN) ¹	<p><i>The CBN is the foremost monetary authority in Nigeria.</i></p> <p><i>The Bank is also responsible for promoting efficiency in the financial system, ensuring price stability, issuing the legal tender, among other key functions.</i></p>	Financial services

Regulators	Function	Sector
Nigerian Information Technology Development Agency (NITDA) ²	<i>NITDA is responsible for developing, regulating and advising on practices and systems related to Information Technology in Nigeria.</i>	General
Nigerian Deposit Insurance Commission (NDIC) ³	<i>The NDIC carries out a variety of functions. Key among them is ensuring all the deposits of licensed financial institutions. It also supports other monetary institutions in achieving sound banking practices.</i>	Financial services
Federal Ministry of Finance, Budget and National Planning	<i>The Ministry is tasked with formulating fiscal policies, preparing quarterly and annual economy reports as well as annual revenue and expenditure estimates. In addition, the Ministry acts as a supervisor for agencies such as the SEC, NDIC, NAICOM, and others.</i>	Financial services
Securities and Exchange Commission (SEC) ⁴	<i>The SEC is concerned with regulating and developing Nigeria's capital market. This involves determining the prices of issues and overseeing the issuance of securities.</i>	Financial services
National Health Insurance Scheme (NHIS) ⁵	<i>The NHIS was set up to make good healthcare services affordable for Nigerians. It also regulates private health insurance provided by HMOs.</i>	Healthcare

Regulators	Function	Sector
Nigerian Insurance Commission (NAICOM) ⁶	<i>Insurance Commission (NAICOM)⁶ NAICOM is responsible for supervising the conduct of insurance businesses in Nigeria. This involves protecting insurance policyholders, beneficiaries and third parties, as well as approving the rates of insurance premiums.</i>	Financial services
Pharmacists' Council of Nigeria (PCN) ⁷	<i>This council is largely concerned with regulating the activities of pharmaceutical service providers in the country.</i>	Healthcare
National Office for Technology Acquisition and Promotion (NOTAP) ⁸	<i>NOTAP has a range of functions. These include the promotion of intellectual property, evaluating and registering Technology Transfer Agreements, and others</i>	General
Federal Ministry of Health	<i>The Ministry of Health is concerned with formulating and overseeing all policies related to health and healthcare.</i>	Healthcare
Nigerian Communications Commission (NCC) ⁹	<i>The NCC is an independent regulatory body for Nigeria's telecommunications industry. The NCC has the job of creating an enabling and competitive environment for operators, as well as ensuring the efficient provision of telecommunications services throughout the country.</i>	General

Regulators	Function	Sector
Federal Competition and Consumer Protection Agency (FCCPC) ¹⁰	<i>The Commission monitors the activities of service providers and manufacturers. This includes carrying out functions like complaint resolution, research and strategy,</i>	General
Corporate Affairs Commission (CAC) ¹¹	<i>The CAC handles the regulation of new companies in the country.</i>	General

Investors

A large part of late-stage funding that goes into Nigerian startups is from international VC firms, especially from countries like China or the US. Some of the biggest deals in Nigeria's startup history were led by foreign investors. In 2020, 71.2% of funding came from foreign investors and 28.8% [came](#) from local investors.

For example, Wakanow's \$40m raise in 2018 was led by a US-based alternative asset manager, The Carlyle Group. ¹² Opay's \$120m Series B came from Meituan-Dianping, GaoRong, Source Code Capital, and other Chinese investors. ¹³ Flutterwave's \$170m Series C was led by Tiger Global and Avenir Growth Capital; Kuda's \$25m Series A was led by US-headquartered VC firm, Valar Ventures.¹⁴

However, some of the most prominent early-stage investors in the country are homegrown. These include but are not limited to Future Africa, co-founded by Adenike Sheriff, Olabinjo Adeniran and Iyin Aboyeji, who is also co-founder of Andela and Flutterwave; Microtraction, which was founded by Nigerian entrepreneur, Yele Bademosi; SPARK Capital, co-founded by Jason Njoku, with Mary Remmy Njoku and Bastian Gotter; and GreenTree Investment Company, led by Olabode Augusto, Abasiama Idaresit and Dr Ola Brown.

Hubs/Incubators

There are over 90 tech hubs in Nigeria, and while each region has its major hub, some stand out irrespective of their geo-political zone. ¹⁵

One is Co-creation Hub, founded in 2010 by Bosun Tijani. CcHub is a leading tech innovation

centre in Africa and consolidated that position with the acquisition of iHub in 2019. Some of the successful startups in Nigeria today started as ideas at the Hub - LifeBank, BudgIT, Andela, TradeDepot, Piggyvest; and others outside the country.

Then there's Passion Incubator, co-founded by Olufunbi Falayi and Taiwo Ajetunmobi in 2014. PI, as it is often called, has helped birth Riby Finance, AdsDirect and many others.

Another is Ventures Platform, founded by Kola Aina in 2016. It consists of three lines: Ventures Platform Fund, which invests in startups; Ventures Platform Foundation, which offers support and learning opportunities to founders; and Ventures Park, a fully equipped co-working space in Abuja.

Aiivon Innovation Hub, run by CEO Attah Samson Idochie, is a social, digital and creative community of over 60 startups across its offices and co-working spaces in Abuja and Makurdi. In partnership with the British Council, NITDA and other organizations, Aiivon Innovation Hub provides business development support, mentorship, capacity building programs and access to funds to support tech development in West Africa.

Hubs like CcHub, Passion Incubator, Wennovation Hub in the South West, Startup South in the South-South go a long way back. Thus, their longevity and experience in the space have helped them build their reputation.

However, some hubs and incubators are sprouting in many other parts of the country and even though the operations of CcHub and the others are not limited to the states they're located in, it's a promising sign to have more hubs coming up in regions like the North where they were otherwise scarce.

Strengths in the Nigerian Startup Ecosystem

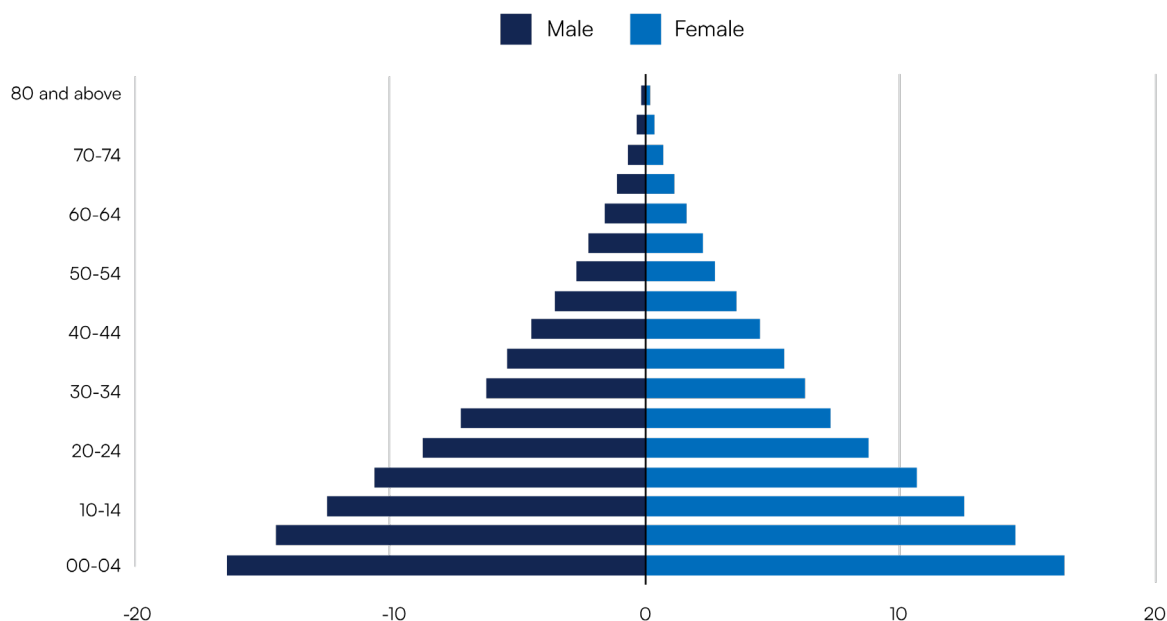
1. Vibrant youth population

Nigeria has a bustling youth population with a lot of potential that the country could harness. The average age in the country is 18 years,¹⁶ compared to countries like Japan where the average age is 48 - years.

“We have many driven young people who, once shown the general direction, are self-starters.”

Over 50% of Nigeria's are below the age of 50

Population pyramid for Nigeria as at 2020



“We have many driven young people who, once shown the general direction, are self-starters,” said Mezue of Lifestores Pharmacy.

Nosa Omusi believes that our vibrant youth population gives us an edge over other countries, especially when it comes to the adoption of tech products. “Young people serve as early adopters of the solutions built by startups. Even if you have all the capital and institutions in the world, you can’t drive adoption or scale a solution without a young population. I think this is probably our biggest strength,” he said.

2. Resilient entrepreneurs

As Nosa Omusi said, entrepreneurs have learned that they may not always get the most from the system, but have however learned to make the most of the little that they’re given. They are faced with high business costs, crumbling infrastructure, unpredictable government policies, a devaluing local currency, lack of adequate funding and so much more and yet, Nigerian entrepreneurs [have](#) found ways to thrive despite the system they are in.

“I think startups that come out of Nigeria successfully are startups that have mastered a wide range of challenges and as a result, they are very well positioned to scale into other African markets and other emerging markets,” stated Omusi.

Although one could say that this resilience is an admirable trait, the question also arises - how much resilience can entrepreneurs have before they become worn out?

3. Large number of tech hubs

There are nearly 100 incubators or hubs open to startups. “There’s a hub to go to, not just in Lagos, but across the country, especially if you want to move into other cities,” noted Odukogbe of RouteMasters.

Although nearly 50% of these hubs are concentrated in the South West - which is not unexpected - more of them are launching in other regions as well.

4. An increasing number of women-focused investment groups

There are a lot of efforts to fund businesses founded by women. One of them is FirstCheck Africa which was launched early in 2021 by Piggyvest co-founder and CEO, Odunayo Eweniyi and former Managing Director of Endeavor, Eloho Omame. Others include GreenHouse Lab, Rising Tide Africa, and the She Leads Africa (SLA) accelerator.

“We’re a women-led company, and to see women-focused investment groups starting up and some of them driven by entrepreneurs themselves, that’s an exciting opportunity,” Owodunni of Emergency Response Africa said.

However, one thing that’s still needed is greater consolidation of these efforts, more collaboration among people interested in supporting entrepreneurs.

5. Domino effect of growth caused by lack of infrastructure in some sectors

“Each friction in the ecosystem has created a domino effect of critical solutions in other sectors,” said Damilola Thompson. For example, the e-commerce sector opened up a path for fintech companies because people needed to make online payments.

“With the launch of e-commerce platforms in Nigeria, there were very few payment infrastructure companies, outside Interswitch, that allowed customers to pay for goods and services online. This led to the advent of KongaPay”

“On the other hand, the inefficiencies in the e-commerce industry naturally created the need for a fulfilment process in the transport and logistics sector, and spurred an opportunity in the food delivery space, for example, JumiaFood. Friction in the fintech sector also highlighted a greater need for fintech solutions like crypto and mobile money, savings and remittances, agency banking and so on.”

Opportunities in the Nigerian startup ecosystem

1. Creating new data layers

“A major opportunity would be creating data layers that enable people to analyze, and understand consumer behaviour in Nigeria, and develop products that cater specifically for consumers,” said Damilola Thompson of EchoVC. This, according to her, would help startups understand consumers better.

Some of the important questions that can also help startups better understand their consumers are: What are the solutions that individuals at the bottom of the pyramid need? What looks exciting that they can do without? What are the price points that work for them? What are their spending limits and so on? These factors would determine their reaction to and uptake of different services that startups throw at them.

2. Maximising talent and young population

There may be an opportunity in developing talent at the university level. “Students have so much energy, passion and drive, it is important that we empower them to channel those traits to the right opportunities, more through practicality, especially as a lot of their education is still focused on traditional learning,” said Thompson.

Students need to be opened up to opportunities that help solve existing problems and be provided with an environment that allows them to innovate and think. This could be as a project in their final year that involves some entrepreneurial effort, just something that helps them be more intentional about the problems that they see and have.

Maya Horgan-Famodu of Ingressive Capital also believes that considering the country's massive youth population, opportunities lie in building tools that allow for remote, decentralized, low-cost, low data education.

“I think increasingly over time, we're going to see more apprenticeships strictly focused on cultivating skills that will be utilized in the workplace,” she said.

3. More innovation in traditional sectors

In Horgan-Famodu's words, “Given the dysfunction of government and their inability to meet the infrastructural needs of the populace, there's a lot of room for innovation in traditional and unsexy sectors like construction, and the FMCG industry.”

“As the average Nigerian household spends a large percentage of income on food, I think that there are interesting plays in the distribution and storage of food, even in nutritional health.”

Horgan-Famodu believes that solving problems with construction or fixing roads and other things that Nigerians see and experience every day represent an untapped opportunity for innovators.

“60% of our Fund 1 portfolio is in the financial services sector, but another big chunk is in SaaS and B2B technology solutions targeting traditional industries, and I think those are just going to continue to grow given the market dynamics,” she added.

4. Opportunity in fintech and e-commerce

Although fintech is Nigeria's most saturated tech sector, Olu Oyinsan of Oui Capital believes there's still a lot of opportunity there, especially in banking the unbanked.

“There's still a big opportunity in financial services. We're only at about 50% of the market.” According to Oyinsan, what it may take for companies to unlock this opportunity could be to move to states or regions less saturated with financial products.

“I know a company that grew their revenue from about \$200K a month to \$3m a month just by leaving Lagos and going to Kano and Abeokuta, offering financial services.”

But Oyinsan says when companies like this arise, something else happens that impedes that move. “When companies like that are on the move, the next thing they hear could be that they now need a specific license to operate, or that they cannot pull that kind of API, for instance, or some other complication.”

Oyinsan believes that this opportunity is linked to an equal one in e-commerce, although as with other sectors, this growth is limited by the quality and availability of infrastructure. “There's still a big e-commerce market to be unlocked, as long as people can pay and receive. However, there are a lot of technology rails to be built around those things.”

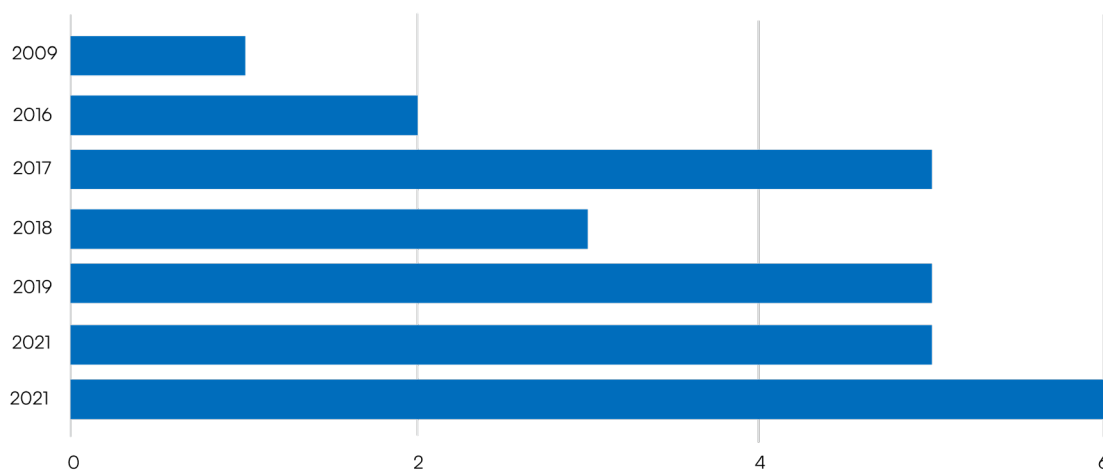
5. Increasing talent, knowledge and capital

According to Olu Oyinsan, three things have changed in recent years that are influencing startup growth. One is increasing knowledge. “There has been a lot more knowledge about how to build digital products, coming from seeing the first companies go to YCombinator in 2016 to now when it's a given for about 5 to 7 Nigerian companies every year.”

” There's still a big opportunity in financial services. We're only at about 50% of the market.

Nigerian companies are increasingly participating in the YCombinator program

Number of selected startups from 2009 - 2021



Source: YCombinator

Oyinsan believes that this increase in knowledge is facilitated by the increasing access to digital products, which is in turn fueled by smartphone and internet penetration. This increased penetration has not only created a ubiquity of information but has also played a key role in growing the market.

“Each internet-connected phone in the hand of a consumer expands the addressable market for digital products by one person. That has significantly influenced how big the market has gotten.”

The second factor is talent. Based on this increase in knowledge, we’ve seen a lot of talent migrating back to the continent to build businesses. “A lot more talent have moved back home and this move is catapulting some of the things we see happening,” he stated.

The third is capital. “There’s more capital available especially at seed stage which allows companies to build better products, reach more consumers and acquire customers. As this happens, international investors see the potential and then become more willing to put more money behind the startups.”

However, he affirms that there’s still a gap to be closed, especially with seed-stage funding. “Capital is four times more available now than it was four, five years ago. But is it enough? No. We need more and more providers of capital, especially at the seed stage.” But as he said, it’s important to note that capital goes where it is welcome. “The more welcome you make capital, the easier it is for people to access it.”

Still, even with the poor government support to the ecosystem, the amount of capital going into Nigerian startups has continued to rise until today because the opportunity surpasses the amount of capital available. “Once equilibrium is achieved between opportunity and available capital, then it stops growing. Capital is only as much as opportunity.” Oyinsan said.

Weaknesses and Challenges of the Nigerian startup ecosystem

On the surface, Nigeria's tech industry looks like it is thriving, and is one of the fastest-growing on the continent. While this may be true, when one looks beneath the surface, one will also find that there are a lot of things inherently wrong within the system.

Some of these things are not beyond the ordinary when you consider the trajectory of growth for technology in other countries. On the other hand, some are factors that are not only peculiar to Nigeria but are problems that should already have been solved.

Furthermore, some challenges could be particular to a sector or geo-political zone.

1. Difficulty in accessing funding

Startups in Nigeria may have a hard time raising funding, especially at a particular stage.

"One of the most difficult stages for a startup is between ideation and when you find the product-market fit; it's sometimes called 'The Valley of Death,'" said Nosa Omusi, Nigeria Country Manager at BFA Global's Catalyst Fund.

"It's easier to attract investment when you've gained some considerable traction. But if you've not found a product-market fit, it's almost impossible. So the question is - How do you get capital to drive growth when at the same time if you can't show growth, you won't get capital? It's a chicken and egg situation," he told us.

"We celebrate a lot of stories of startups who have raised funding, but what about those startups who had greater ideas and were solving bigger problems but were just unable to keep the lights on, who couldn't afford to pay their developers or even fuel their generators?"

What this sometimes results in is entrepreneurs not necessarily trying to build really deep solutions but building specifically to raise some level of funding, because they know they won't have the runway to ideate and scale their original product.

Now, even for startups that successfully pass through this Valley, they have to face the age-old problem of funding not being well-distributed across the different sectors.

For instance, as of May 2021, Nigerian startups had raised a total of \$274m in 29 deals. Of this, fintech startups had received \$207m in 13 deals. It's important to note however, this is positively skewed by Flutterwave's \$170m Series C round.

One of the ways Catalyst Fund tries to solve this is through a bespoke venture-building approach. "This means that we work as an extension of the startup team to solve problems and enable growth in

strategic areas,” Omusi said. The key thing with this approach is that the chosen areas for venture-building are the areas that are most likely to enable growth.

However, there are two challenges with this. One, startups don't always realize the areas where they need the most help. For some startups, it's the product, for others it's user acquisition or retention. If wrongly decided, it could lead to a lot of wasted time and resources.

“Sometimes, the problem with customer acquisition may just mean that you don't have such a great product,” said Omusi.

Two, whoever's in charge of the venture building has to know what it entails. “They have to be specialists with expertise in their sector who understand the local context.” Otherwise, it could be fruitless.

2. Limited government or policy support/Chaotic regulatory system

Take the healthtech or even edtech sector, for example. Healthcare and education are two sectors that the government is primarily involved in. In more developed countries, the development of these sectors is spearheaded by the government, and they mostly back innovative solutions in these sectors.

For founders like Owodunni operating in Nigeria's healthcare sector, especially with the business model of Emergency Response Africa, there's always the risk of the government deciding to do something similar without necessarily supporting the solutions that companies like ERA have already put in place. This, according to Owodunni, can even be a put-off for investors, as it would then mean that they are competing with the government.

“It's very clear that businesses in healthtech have a very important role to play, but there's always a risk if there's no supportive regulatory environment,” Owodunni stated, and this is irrespective of whether businesses even have adequate funding or not.

Furthermore, for sectors that are regulation heavy, the regulatory system is not so forward-thinking and can be described as chaotic. “Instead of first trying to understand what entrepreneurs are trying to build or solve, the typical response for many regulatory organizations is to issue directives banning or prohibiting such services or platforms,” said Damilola Thompson of EchoVC.

“I believe industry regulators should create an open channel that allows free communication with companies to understand what the ultimate goal is and then draft regulations that drive innovation. I also believe entrepreneurs have a responsibility of meeting with the regulators to help them understand what problems are being solved by their solutions, creating a meeting of mind and purpose, and allowing everyone to work together towards the same goal,” she added.

3. Low prioritization of the use of technology in some sectors

Oshinaga of Gradely Technology believes that tech for learning has not permeated the school space yet. In other words, schools do not yet prioritize the use of technology. On the surface, it looks like they are, but they are not. “Edtech has a role to play in making the gatekeepers, which are the schools, do more for learning,” he said.

This weakness can also be observed in the agriculture sector. According to Oshinaga, less than 10% of Nigerian farmers utilize mechanical farming or technological solutions, relying instead on traditional tools and processes. The result has been constant low yields and an inability to meet domestic food demand, leading to a dependence on food imports.

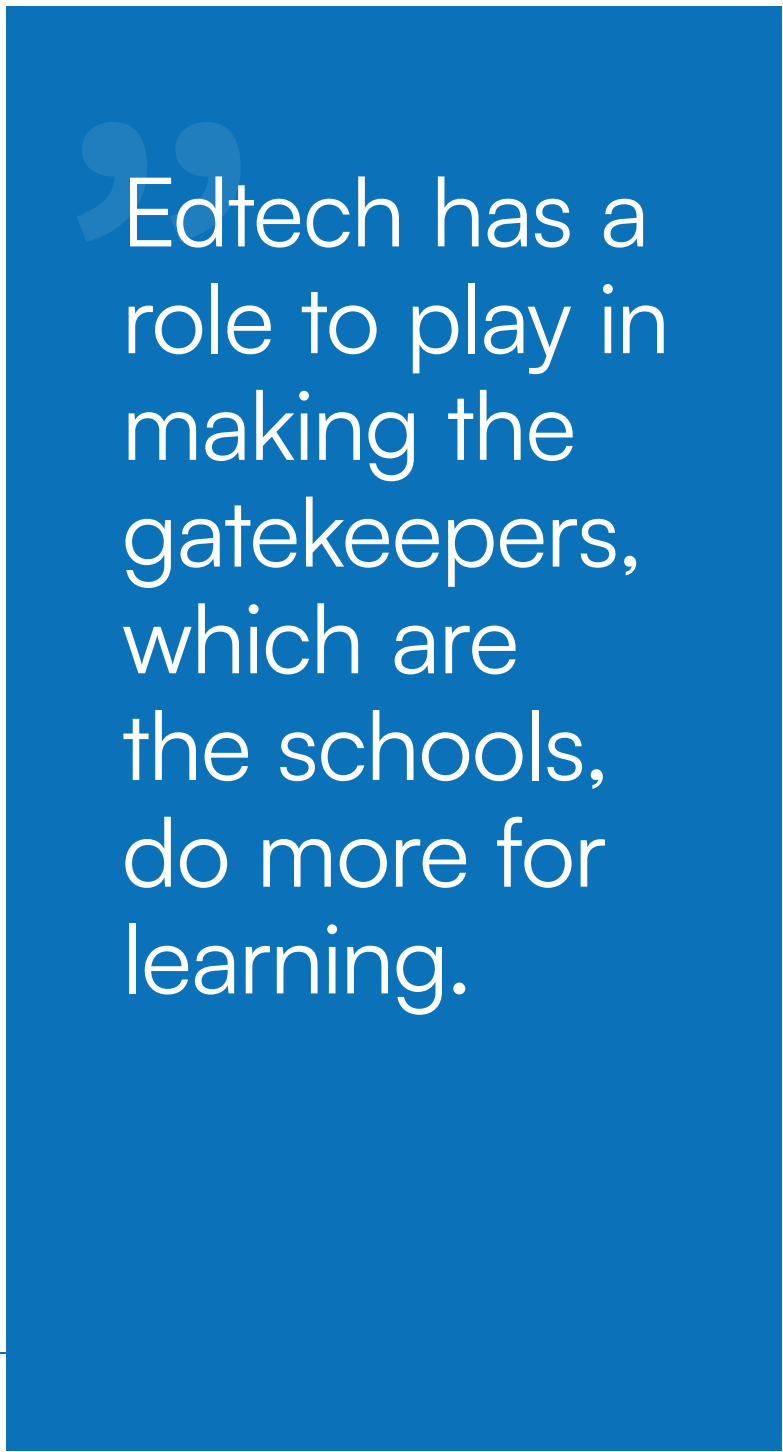
4. Difficulty in scaling

Another challenge that Oshinaga has observed is that until recently, edtech startups have had difficulty scaling. Oshinaga believes that it's a continental and not a national problem. Startups like Sim Shagaya's uLesson are changing the narrative, but that's only one company out of many.

One other thing that Oshinaga equally considers to be a national problem is that too many foreign players have been left to dominate the space. Platforms like Duolingo and Khan Academy are widely used in Nigeria but are not able to tailor their offerings or content to the actual need like a local startup with more context would. This issue is not limited to the edtech sector.

It ultimately results in more foreign companies filling up the sector and churning out the same content, while stifling the growth of local startups that have better to offer. This is an issue particularly common to the edtech sector.

Odukogbe also affirms that the regulatory landscape is a factor that contributes to the difficulty of scaling. Coupled with this is the high cost of doing business, attributed to poor infrastructure, excessive regulations, and multiplicity of levies, among others.



Edtech has a role to play in making the gatekeepers, which are the schools, do more for learning.

“When you think about what it costs to even pay for things, it’s pretty expensive.” These costs can include electricity costs, costs to register property and trade costs, such as import tariffs, cargo clearing and logistics costs.

Another scaling difficulty specifically affects SaaS startups. “Convincing Nigerians to adopt Software-as-a-Service (SaaS) is one of those things that has been hard for us to crack,” said Samuel Adesina, CTO at MyClinic. At the root of this is a strategic lack of trust, and for healthtech startups like MyClinic that require a high trust level, this makes customer acquisition more expensive.

“It takes a lot of money to convert one person or to get a customer to enrol on the platform,” said Abubakar. This was part of the reason the startup had to pivot from being service providers of telemedicine to being technical enablers.

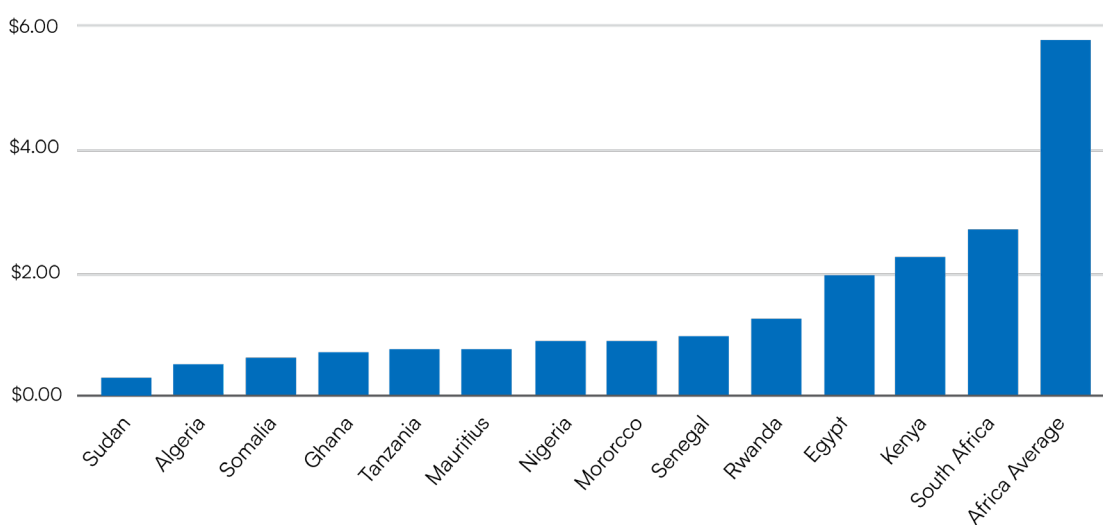
5. Poor infrastructure

For internet infrastructure, this includes both device and internet access. However, according to Oshinaga, this starts to become a limitation as startups expand into rural areas. “There need to be innovative approaches to getting people at the bottom of the pyramid to also participate, or this could create inequality if not well-handled,” he said.

“If internet penetration continues to grow at its present rate, then all will be well. However, it would need to be more affordable, or at least subsidized for education,” he adds. As of 2020, the average cost of one gigabyte of internet data* was \$0.88 (N333.33).

1GB of internet data in Nigeria costs 15% of the continent's average

Average cost of one gigabyte of internet data



“Infrastructural challenges eventually translate to customer pain points,” said Bryan Mezue of Lifestores Pharmacy. Being in Nigeria means that businesses have to build very strong backup offline systems, and this means it takes longer to build and scale the actual product.

“Entrepreneurs typically have to build their economic infrastructure themselves,” says Thompson of EchoVC where infrastructure is concerned. “From stable electricity to conducive working areas, you literally have to build your own rails. Of course, this naturally lengthens the timeline to launch for local startups, and in some cases derails them.”

*Despite the fact that internet cost in Nigeria is at 15% of Africa's average, it is still not affordable for many people, especially those living in rural areas.

6. The struggle to find the right kind of talent

While this is not a weakness that's peculiar to Nigeria, it's a serious problem for entrepreneurs in the country nonetheless. Due to the rot in the country's educational system, it's easy for someone to earn a degree, for instance, without understanding the first thing about what that field entails. A lot of the time, all it takes is knowing the right person in the right place.

The otherwise promising students may have to struggle to get their due recognition, and still struggle when it comes time to build their business. Then, it becomes hard for them to find people who are the right fit for their company as their actual qualifications may not match what their certificates qualify them to do.

“Before Lifestores, I co-founded WAVE Academies, a vocational education social enterprise, and we were often surprised at the mismatch between candidates' paper qualifications and the quality of their writing, punctuation and grammar,” Mezue told us.

“We still see that today, and a significant amount of our time is spent on finding and retaining talent,” he added.

Odukogbe suggests that a solution to this would be directed at the root of the matter, which is the education system. “Instead of advocating for STEM skills, let's advocate for better quality education especially from a young age, because in the next five or ten years, if you want to grow as a company, you're going to need the right kind of people,” he said.

“If you build a business and don't have people to support it that can read and write, then how can you compete internationally?”

Another problem Odukogbe relates to this is the low level of research funding.

“There are not a lot of academic institutions or organizations in the private sector funding research. This affects the level of proper research available that can help advance the ecosystem or solve problems,” said Odukogbe.

Odukogbe believes that a lot will need to improve not only in the educational sector but in the tech industry to build the talent pipeline.

7. Hierarchical nature of the workplace

Although more startups are trying to encourage greater collaboration and team effort in the workplace, traditional Nigerian companies still have a long way to go in getting more people to speak up if they have good ideas. Employees are often afraid to step on the toes of someone higher up than they are on the career ladder. This doesn't help the growth of the company or push it towards its goals.

This lack of collaboration within organizations does not lend itself to the modern tech ecosystem where collaboration and networking between companies foster innovation and mutual growth. Companies can no longer thrive in silos and the flow of information and ideas within and across companies in the ecosystem is crucial.

Startups like Lifestores are working to demolish this narrative. "We've created a culture where ideas are respected regardless of title. If you have the evidence on your side, it's in the company's best interests for your ideas to win. We coach our team to be humble enough to seek out the data and make decisions based on it," said Andrew Garza, Co-founder at Lifestores Pharmacy.

8. Possible misuse of funds by founders

"Sometimes startup founders do not fully understand the kind of responsibility that comes with raising equity financing, especially from an institutional investor," said Damilola Thompson, Vice President at EchoVC. "There are very different responsibilities depending on where you raise from - angels, incubator or accelerator, institutional investors, because each one of these sources has people that they defer to" she went on to add.

For institutional investors, they also have certain rights where the funding is concerned, as these rights give them some edge. For instance, they get to be involved in some of the decisions made by the startup such as establishing a spending limit.



Sometimes startup founders do not fully understand the kind of responsibility that comes with raising equity financing...

“We hear different stories about unplanned and non-business related use of funds made by some founders.” These unguarded decisions come at the expense of the investors, team members and the startup itself. “Everyone suffers for it”

However, this situation is gradually improving. “There are a lot more educational materials and information access out there so more and more people are getting educated about what obtains globally,” said Thompson.

9. The size of the addressable market

Nonso Eze of TradeBuza considers this a very big problem. “No matter how patriotic one wants to be, you just have to come to terms with the fact that Nigeria is a poor country. You see this when you look at the amount of disposable income, the number of poor people in the country.”

Indeed, 40% of the Nigerian population lives below the national poverty line, with the highest 20% accounting for 42.4% of income in the country. Eze believes this is why Nigeria sometimes gets less funding compared to other more established countries

This is not a measure of the size of the population - Nigeria is Africa's most populated country - rather, it is a measure of how much of this population can afford to pay for the services startups like TradeBuza have to offer.

Eze mentioned that the responsibility of changing this falls largely on the government. “The government needs to draw up and implement policies that will help get people out of poverty, spur growth in the economy, and by extension positively impact the different startups trying to solve problems.”

10. Ill-equipped entrepreneurs

“A lot more needs to be done to grow the capacity of founders,” Eze said.

Not all founders can easily access everything they need to build and run their companies. To build a company, you need to know how to build out a team/manage people, how to keep your team motivated especially as a small/young team, how to deal with stakeholders in the industry who might make things difficult i.e. regulators and infrastructure/service providers and even how to build a great workplace culture.

However, founders need to be able to acquire knowledge, get valuable insights and get answers to their questions on what it takes to run a business.

“The more founders that can do that, the greater the likelihood of startup success in the country.” In Nigeria, this proves even more difficult as cultural hierarchies are sometimes incompatible with a flourishing startup environment and there is a lack of access to industry professionals that could offer guidance to founders, especially in the smaller states with fewer startups and hubs.

“Not being able to do this at scale would present another weakness,” he added.

” A lot more needs to be done to grow the capacity of founders.

11. Lack of sufficient quantitative data

“The work that we’re doing is very data-hungry; we’re trying to create data but we also need data to do so,” said Seun Okudogbe when explaining how the lack of data affects what they’re building at Routemasters. This data problem is one that a lot of entrepreneurs in Nigeria are familiar with.

Data about the industry and consumers are often fragmented as there is no unified source, not from the government or private organisations; instead, organizations tend to work in silos. “This means that we have to creatively think of other sources of data,” he added.

The data challenge also affects investors. The data challenge also affects investors. “The situation is even direr for foreign investors looking to invest in local economic sectors. A sector analysis to determine the viability of a sector would be lacking in details, as a result of insufficient data to make a full and well-informed decision,” said Thompson of EchoVC.

Data on Nigeria’s startup ecosystem is both sparse and unevenly distributed. “People actually have this data in silos, but sometimes it’s not structured in a way that people can understand, and sometimes they’re not available publicly. Sometimes, there are also not enough data about people at the bottom of the pyramid.”

A great percentage of the Nigerian market is offline and as such is not visible to startups, investors, or even the government. “If there was more data on those people or the specific solutions they require, that would be useful to the ecosystem.”

12. Skills gap

While Nigeria excels when it comes to training tech talent, the required skills go beyond web development or app design, for example. “You can have tech talent, but you need to run a business. It’s not your programmers that are going to do that,” says Odukogbe.

Nosa Omusi of Catalyst Fund agrees that the skill gap goes way beyond technical skills. “This isn’t just about the number of developers, but applies to the whole spectrum of functional roles in a startup, including growth, finance or business development.”

Sometimes, startups use a lot of grandiose titles for employees. Thus, the Head of Growth in a startup may not measure up to a growth associate in a larger organization, and this is not usually the startup’s fault.

Furthermore, this skill deficiency is not always across the board but could be in certain areas. For instance, a startup may excel when it comes to business development but miss it when it comes to product management.

Can an increase in funding solve this problem? “Funding can be a solution because capital helps you hire talent. However, it’s not directly proportional because sometimes you can have funding and still not get the best talent,” noted Omusi.

“Perhaps, a more effective solution would be fixing the loopholes in the educational system - building a system that is not geared towards employment but instead, entrepreneurship. This sort of change will produce more graduates who are innovative and problem solvers,” he added.

13. Talent poaching

“The Nigerian tech ecosystem is becoming a victim of its success,” said Abubakar Sadiq of MyClinic.

“Although we’re getting a lot of global recognition, this exposure is also highlighting the depth of skill and potential that Nigerian developers have, and this has the side effect of increasing the cost of acquisition of talent for local Nigerian companies,” he continues.

But Odukogbe thinks that acquisition isn’t the real problem. “Attracting talent isn’t the problem, but retaining them is. How do you retain that good engineer or Ops person?”

Young, ambitious talent will easily migrate to international companies that offer better pay, better prospects, better living conditions and other benefits.

Knowing that these prospects exist internationally, people tend to join local startups with unrealistic earning expectations. "People do not understand that if you're part of a startup, you have to pull your weight. As a startup, uncertainty is the rule of the day," said Aliyu Bello of MyClinic.

"This (talent retention) problem is in part affected by a lack of funding. It's easier to hire and keep great people when you're well-funded," Abubakar added.

"You have to compete with companies that are earning revenue in dollars while you're earning revenue in naira in a precarious economic situation. The only way startups can compete is to sell to the international market so they can earn (in) forex," he said.

14. Startups not properly incentivizing their executive team

According to Maya Horgan-Famodu, Founder and Partner at Ingressive Capital, one mistake that Nigerian startups often make is that they don't take the time to properly know their potential co-founders or senior talent and instead just go ahead to compensate them with equity upfront, often without drafting a suitable Founders' Agreement or Contract.

What this means is that if for any reason those people leave the company, they take a lot of the benefits that could have gone to more 'loyal' employees.

"If things don't work out between founders and co-founders or senior executives, all of a sudden, there's a big chunk of equity left to members who are no longer part of the vision while the remaining members are scrambling between what's left," she said.

However, according to Mohammed Felata, Product and Innovation Manager at Ventures Platform, this has begun to change. "In recent years, the proliferation of hubs and startup programs has given more early-stage founders access to legal documents like the founders' agreements. This has helped avoid some of the basic mistakes we used to see in the community."

15. Not understanding the deal terms before receiving venture funding

As startups are often eager to raise money to finance growth and operational needs, they could be quick to accept funding without working with a reputable law firm to validate the potential deal.

"If anything is other than the standard, safe or traditional deal, it's important to have an experienced venture capital and startup lawyer review the material because there are some terms that could mess up founders, their business and their decision-making ability over time," said Horgan-Famodu.

A review of funding information

05

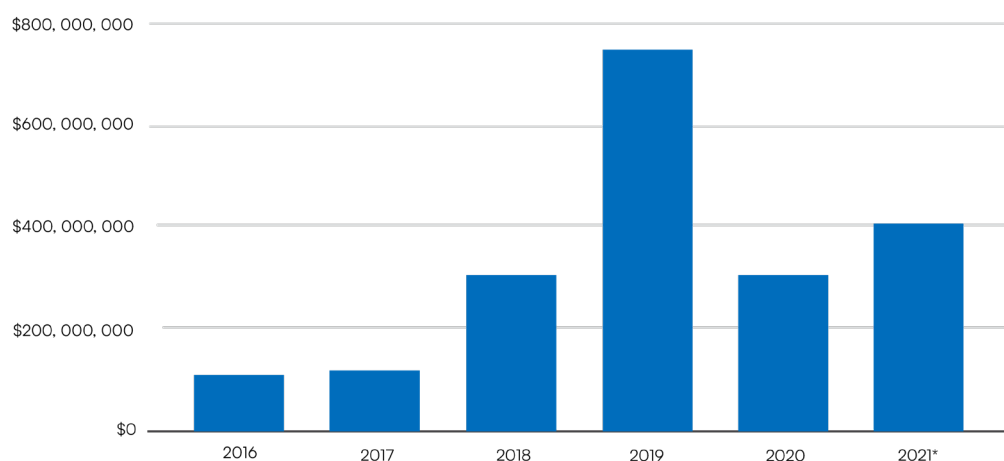
Ecosystem
Report:
Nigeria's
Startup Scene

A review of funding information

Between 2016 and 2020, Nigerian startups received a total of \$1.58 billion in VC money. ¹ As of August 2021, they had raised \$405 million. ²

Nigerian startups have raised over \$1.5bn in five years

Funding received by Nigerian startups from 2016 to 2021



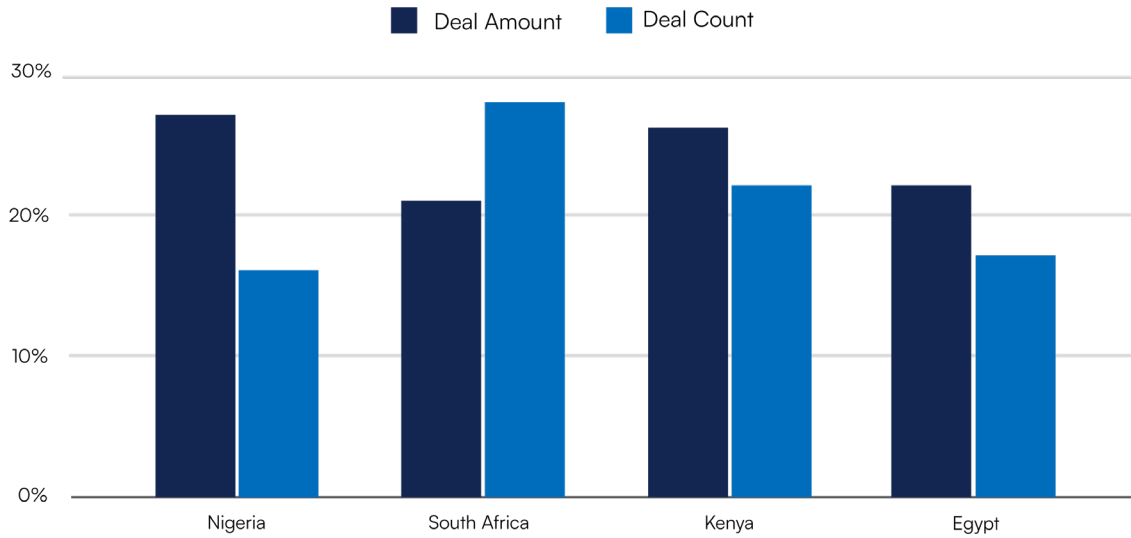
*As of August 2021

Source: Partech/TechCabal

In terms of deal amount, the average percentage of funding that went to Nigerian startups between 2016 and 2020 was 27%, making Nigerian startups the most funded in Africa, closely followed by Kenya. However, in terms of deal count, Nigerian startups only closed 165 out of a total 978 rounds between 2016 and 2020, meaning that they raised the least equity rounds of all the Big 4 countries in Africa - South Africa (245), Kenya (194) and Egypt (166). ³

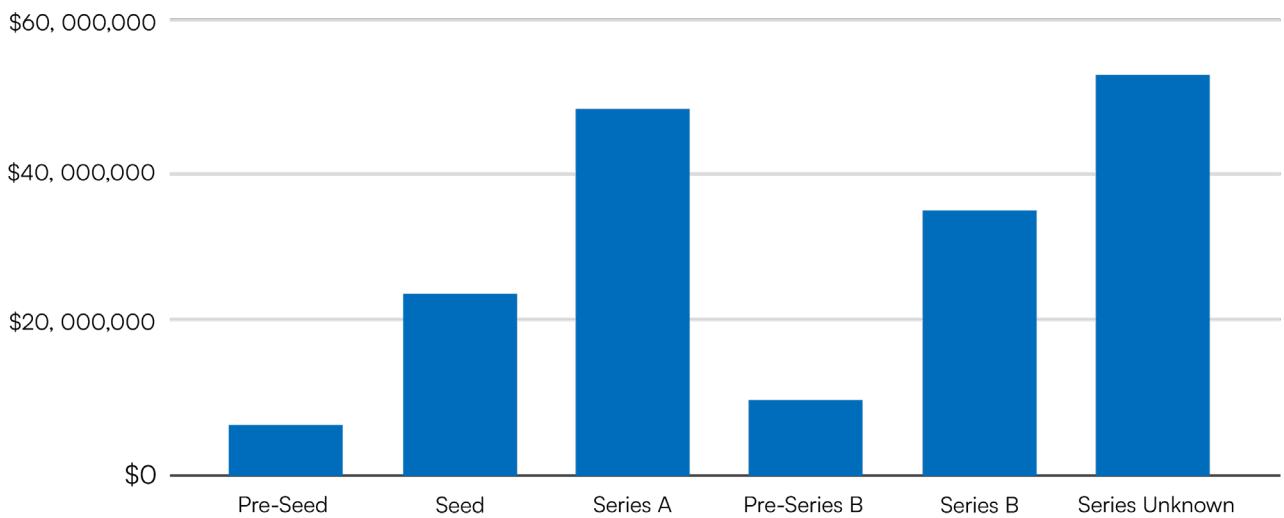
Nigerian startups received the highest percentage of funding in Africa between 2016 and 2020

Average count and amount of funding deals that went to African startups from 2016-2020



In 2020, Series A startups accounted for 27% (\$48m) of the total funding received

Funding received by startup stage in 2020 (USD)



Source: TechCabal funding data

A look at the last five years

2016

In 2016, Nigerian startups raised \$109 million, approximately 30% of investment into African startups that year. This amount was raised in 16 equity rounds, approximately 17% of the total number of deals. ⁴

These were some of the biggest deals of 2016:

1. **iROKOTv's \$19m round:** The startup founded by Jason Njoku kicked off the year with a mega deal in January worth \$19m. The deal was not an all-cash deal but comprised capital funding and content development. Investors [included](#) French media giant, CANAL+, and Kinnevik AB. ⁵
2. **Andela's \$24m Series B:** In June, the Chan Zuckerberg initiative - the social investment fund started by Facebook founder Mark Zuckerberg and his wife, Priscilla Chan - led a round of funding into talent development and outsourcing startup, Andela. ⁶ Other firms that participated in the round were GV, the Venture Capital investment arm of Alphabet Inc. and existing investors such as Spark Capital, Omidyar Network, Learn Capital and CRE Ventures.
3. **ToLet's \$1.2m round:** PropTech startup, [ToLet.com.ng](#) raised \$1.2m from Frontier Digital Ventures in September. ⁷ [According](#) to the CEO, Fikayo Ogundipe, the new funds were used to improve the platform's technology offering to property seekers and listing agents. The rest of the funds were channelled into improved marketing efforts and aggressive expansion across Nigeria over the following 12-18months.”
4. **Paystack's \$1.3m seed:** Newly-founded fintech, Paystack closed off the year by [securing](#) \$1.3m from a myriad of local and international investors including Blue Rinc Capital, Pave Investments, KIBS-CFY Partners, Tencent, Comcast Ventures and Singularity Investments. ⁸ Spark, M&S Partners, Tokyo Founders Fund, Michael Siebel, Justin Kan, Olumide Soyombo, Leonard Stiegeler and some angels also participated.

2017

The amount raised in 2017 was a mere 5% improvement from what was observed in 2016, with startups raising \$115m, 20% of total investment. The number of deals also increased slightly, from 13 to 17. ⁹

These were some of the biggest deals of 2017:

1. **Flutterwave's \$10m Series A:** Flutterwave [raised](#) a Series A round with \$10m in August and this was led by Greycroft Partners and Green Visor. ¹⁰ The round was completed in 2018 with a \$10m follow-on investment.
2. **Andela's Series C:** In November, Andela [raised](#) \$40m in Series C funding from CRE Venture Capital, a pan-African venture firm, with participation from DBL Partners, Amplo, Salesforce Ventures, and Africa-focused TLcom Capital. ¹¹
3. **Farmcrowdy's \$1m seed:** In December, agri-financing startup Farmcrowdy [raised](#) \$1m in seed funding from Techstars, Cox Ventures and Social Capital. The funding was used to scale its operations into 20 Nigerian states. ¹²

2018

Funding in 2018 nearly doubled both in count and size as startups raised \$306m spread over 26 deals. This made Nigeria the second highest-funded country in Africa. There were also quite some big deals as 12 start-ups closed rounds equal to or higher than US\$5m. ¹³

These were some of the biggest deals of 2018:

1. **Frontier Group raised \$148m:** The parent company of Cars45, a Nigerian-based automotive marketplace first [raised](#) a whopping \$89m from the Naspers-owned OLX group in May. ¹⁴ With this acquisition, the firm was able to acquire WeBuyAnyCar, an American-based company.

In the same month, the Berlin-based firm [announced](#) another \$58 million in funding — \$41 million in equity and \$17 million in debt funding — to continue expanding its business into Africa, Latin America and Asia. ¹⁵ This time around, the investment was led by Balderton Capital and TPG Growth, with the participation of Fraser McCombs Capital and Autotech Ventures.
2. **Mines' \$13m round:** In August, credit-as-a-service platform, Mines closed a \$13m Series A round led by The Rise Fund, Velocity Capital, Western Technology Investments, First Ally Capital, X/Seed Capital, NYCA Partners, Persistent Capital, Singularity Investments, Trans Sahara Investments, and the Bank of Industry. ¹⁶
3. **Paystack raised \$8m:** In the same month, Paystack raised \$8m in Series A funding led by global payments leader, Stripe, and joined by Visa, with follow-on investment from Tencent and Y Combinator. ¹⁷
4. **\$40m into Wakanow:** Online travel Agency, Wakanow wrapped up the year with a major deal worth \$40m which was backed by the Carlyle Group in December. ¹⁸

2019

2019 was a stellar year for African startups, Nigeria included. Total funding raised was \$2.02 billion and out of that, \$747 million went to Nigerian startups (37%). However, Nigeria was 4th place in deal count.¹⁹

These were some of the biggest deals of 2019:

- 1. Andela's Series D:** Andela [raised](#) a \$100m round led by Generation Investment Management, the investment firm of former US Vice President, Al Gore.²⁰ This was Andela's fifth round since it raised a \$331,000 seed round in 2014.
- 2. MAX raised \$8m:** In June, former bike-hailing startup Max. ng [closed](#) a Series A round made up of \$6m VC and \$1m in grants.²¹ Novastar Ventures led the round while Breakthrough Energy Ventures, Zrosk Investment Management, Alitheia Capital and Yamaha were participating investors.
- 3. OPay's \$170m rounds:** Nigeria-based fintech company OPay first [raised](#) \$50 million in July from some of China's biggest investors including Meituan-Dianping, Source Code Capital, IDG Capital, Sequoia China and GSR Ventures.²²

In November, the company [raised](#) another \$120 million in Series B funding. This came from existing investors as well as Softbank Asia, BAI, Redpoint and GaoRong.²³
- 4. Kobo360 raised \$30m:** In between OPay's two rounds, logistics startup Kobo360 [closed](#) a \$30m Series A round. \$20m came from Goldman Sachs, Asia Africa Investment and Consulting Pte, as well as existing investors such as TLcom Capital, Y Combinator and the International Finance Corporation. \$10m came in working capital from some Nigerian commercial banks.²⁴
- 5. Rensource raised \$20m:** In December, energy company Rensource [raised](#) \$20m as part of its efforts to power Nigerian SMEs. The round was co-led by CRE Venture Capital and Omidyar Network, both existing investors.²⁵

2020

2020 would have gone on like any other year, but then the pandemic brought a disruption that upturned many businesses. Understandably, this left a dent in funding and slashed ticket sizes. Nigeria was however number one on total equity funding as startups raised \$307 million (21%) across 71 deals.²⁶

These were some of the biggest deals of 2020:

1. **Flutterwave's \$35m round:** Flutterwave started the year with [a \\$35m](#) Series B round in January. This came from Greycroft and eVentures. Participating investors were Visa, Green Visor, CRE Venture Capital and FIS. ²⁷
2. **54Gene raised \$15m:** In April, biotech startup 54Gene [completed](#) a \$15m round to scale its operations across Africa. The round was led by Adjuvant Capital and brought the startup's total funding to \$19.5 million. ²⁸
3. **TradeDepot's Series A:** In July, Nigerian e-commerce startup TradeDepot [raised](#) a \$10m Series A round. The round was co-led by Partech Ventures and the International Finance Corporation (IFC), Women Entrepreneurs Finance Initiative and MSA Capital. ²⁹
4. **Paystack's acquisition:** The biggest news of the year came in October when US payments giant Stripe acquired Paystack. The deal was [reportedly](#) worth over \$200 million and remains the biggest acquisition in Nigeria's startup history. ³⁰
1. **Autochek's \$3.4m pre-seed:** Large pre-seed rounds aren't common, but in November, Autochek [raised](#) one. The funding round was led by TLcom Capital and 4DX Ventures. Golden Palm Investments, Lateral Capital, Kepple Africa Ventures, and MSA Capital also participated as well as some local angel and seed investors. ³¹

2021

So far, these are some of the major deals in 2021

1. **Flutterwave Series C:** Flutterwave once again has the largest deal of the year with its [\\$170M](#) Series C funding, co-led by Avenir Growth Capital and Tiger Global Management. With this deal, the company hit a valuation of over \$1billion. The company plans to use the funding to quicken customer acquisition in its present markets as it also continues to expand. ³²
2. **Fairmoney's \$42m round:** In July, Nigerian micro-lending startup Fairmoney [completed](#) a \$42m round to diversify its current offerings and expand its operations. The round was led by Tiger Global and brought the startup's total funding to \$54.4m. ³³
3. **Daystar Power's \$38m round:** Daystar Power started the year with a [\\$38m Series B round](#) in January. This came from IFU with participation from Morgan Stanley, STOA and PROPARCO. The company then received an additional \$20m in debt funding from the International Finance Corporation in July. ³⁴
4. **Kuda Bank raised \$80m in two rounds:** Fintech startup, Kuda [raised](#) a \$25m Series A round. It was led by Valar Ventures, the firm co-founded and backed by PayPal's co-founder Peter Thiel. ³⁵
The neobank backed this up with a [\\$55m](#) Series B round in August.³⁶ This funding was led by existing investors Target Global and Valar Ventures. With this round, the company hit a valuation of \$500m.

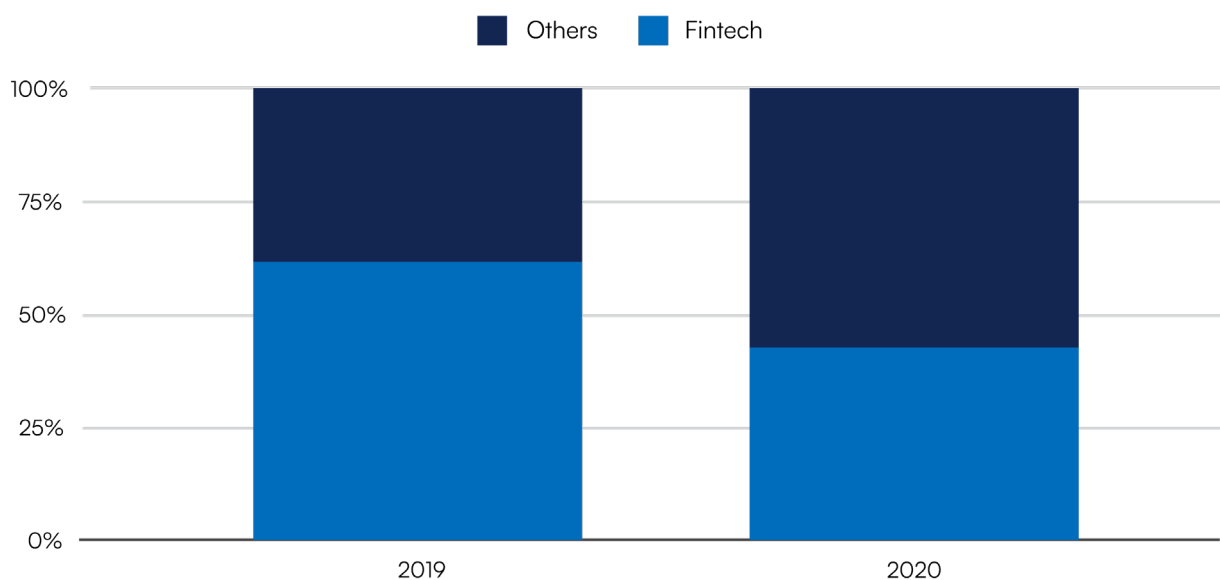
Funding by verticals

Fintech is the most funded sector in Nigeria, and the biggest acquisitions in Nigeria have been of fintech startups - Visa's \$200m [acquisition](#) of a 20% stake in Interswitch in 2019,³⁷ and Stripe's \$200m acquisition of Paystack in 2020.³⁸

Additionally, Nigeria's two indigenous unicorns, Interswitch (2019) and Flutterwave (2021) are both unicorns. It looks like unicorn bells may soon ring again with startups like Paga and [TeamApt](#), both fintechs.³⁹

Fintech startups receive the highest amount of funding in Nigeria

Percentage of funding that went to fintech vs other sectors in Nigeria in 2019 and 2020

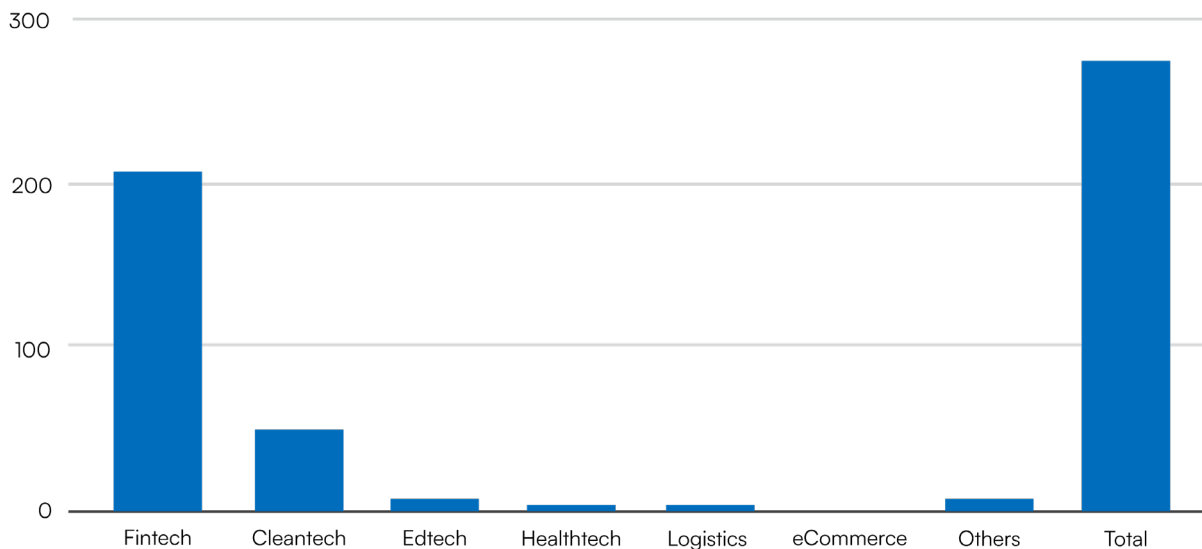


Source: Partech Africa

As of August 2021, Nigerian startups had raised over \$405m in 39 deals; \$315m (78%) went to fintech startups in 19 deals.

So far in 2021, 76% of funding into Nigerian startups went to fintech

Amount to funding into Nigerian startups in 2021 (Million USD)



*As of June 2021

Source: TechCabal Insights

Lessons from Japan

06

Ecosystem
Report:
Nigeria's
Startup Scene

What can Nigeria learn from Japan to support growth in her startup ecosystem?

“Nigeria’s ecosystem and market are growing very fast,” said Takuma Terakubo, CEO and General Partner at Uncovered Funds. He added that five years ago, internet penetration in Nigeria was quite different compared to now. According to him, due to the pace of the ecosystem’s development, there are many opportunities to be leveraged.

Terakubo said that in Japan, however, there’s a mature economy that is driven by large corporations as opposed to what we see in Nigeria where startups are championing growth. There is a need to learn from Nigeria, on allowing for disruptive changes from smaller entities (startups) that would help impact positively in the economy as a whole.

“For Nigeria, the focus should be on building strong systems to support the startups as they grow. With Japan, the strong point is on operations and implementation and this is something important that Nigeria can learn,” said Terakubo.

“On the other hand, it is difficult to get ideas to penetrate and be generally accepted in the grassroots

In terms of politics, market changes, and so on, Nigeria is not an easy market compared to other African countries such as Kenya and South Africa...

in Japan when compared to Nigeria and this is due to the big nature of the economy in Japan,” Takeshi Watanabe, CEO at Mobility 54 stated.

Terakubo mentioned how with Uncovered Funds, all of the current portfolio companies within Africa have successfully raised over \$1M in follow-on funding rounds within a year of their investment. Achieving product-market fit and overwhelmingly committing to the numbers to grow the business will help startups raise follow-on rounds in a short time. As startups are in a battle

for capital and time, this point is important for venture capitalists as well.

“In terms of politics, market changes, and so on, Nigeria is not an easy market compared to other African countries such as Kenya and South Africa. However, Nigeria has the potential to grow at an explosive pace due to its overwhelming population and economic scale among African countries.”

According to Terakubo, Nigeria needs a mechanism to attract investment from across the world. “We are already well aware of Nigeria’s market potential and its many talented entrepreneurs, but investing in the country from a financial and legal perspective is another story.”

“Valuation is quite sophisticated compared to other African countries and this is part of the reasons for the delay in our investments in Nigeria,” said Takeshi Watanabe, CEO at Mobility 54. “There is a unique industry environment in Nigeria when it comes to the mobility sector as compared to Kenya for instance. Change in regulation especially as regards mobility and logistics has also contributed to the delay in the Nigerian market,” he added, citing the ban of motorcycles in Lagos as an example of a regulatory hindrance.

Currently, most of the investors in African startups come from Europe, the United States, China, and Japan. Terakubo added that creating a tax treaty and other mechanisms that make it easier for foreign investors to invest in Nigeria will be a factor in attracting more funding to the country’s startup ecosystem in the medium to long term.

Conclusion

One word that consistently comes to mind where tech in Nigeria, and Africa as a whole, is opportunity. There's opportunity in the population size and diversity, in the quality of ideas, in the resilience of teams, in the startups themselves. However, opportunity is nothing without collaborative effort to harness it.

Startups must understand that to build successfully, they must achieve cohesion with regulatory stakeholders and push more towards achieving this goal. Regulators must also understand that startups are the heart of the economy and be more supportive of innovation in all ramifications.

Investors also have a part to play in building out the ecosystem. For instance, when we consider seed-stage deals, there aren't so many purely Nigerian funds involved on that end. A lot of the funding is external and this puts power and ownership in the hands of foreigners. While foreign investors bring a certain quota to the table, it's important to have more seed-stage investors interested in supporting businesses to scale, and not just looking to make interest.

It goes without saying that there should be an improvement in the quality of infrastructure. There has to be. Out of all of Nigeria's infrastructural problems, if there could only be a lasting solution to power, a lot would improve for startups and even for the economic output if something as simple as electricity could be fixed once and for all.

Hubs also need to be supported. Not only do they help in grooming early-stage startups, but they're also responsible to some extent for training and building up talent, asides startups like Andela and TalentQL are specifically tailored to this. Governments should not only build more hubs but should be equally committed to fostering growth in the existing ones

Founders should be more open with one another. Although clusters have their uses, there shouldn't be too many of them such that early-stage startups are left feeling isolated or excluded. There are enough problems to solve in Nigeria and different ways to solve them without startups having to feel threatened.

Lagos is the largest tech city in Nigeria, but to further enhance the Nigerian ecosystem, the decentralization of technology (spread of technology) into other cities is very important. JICA supports this movement. The country needs to take action towards enhancing the startup ecosystem of other states and building tech cities in other regions. This will stop the over-saturation of Lagos and provide support to the startups in the neglected parts of the country.

The beauty of an ecosystem is that each involved party recognizes its role and makes no delay in running with it; not trying to out-perform others but identifying and fulfilling their unique responsibility. That is how to beat the odds. That is how to drive growth.

Appendix

06

Ecosystem
Report:
Nigeria's
Startup Scene

A list of incubators, accelerators and hubs in Nigeria

There are at least 98 hubs/incubators based in Nigeria. The majority of them are based in the South-West (47), followed by the North-Central (19), South-South (11), South-East (10), North-West (7), and North-East (4).

Zone	State	Name	Location	Website
North-Central	Abuja	Ventures Platform	29 Mambilla Street, Maitama	venturesplatform.com
North-Central	Abuja	IC7 Africa	18 Manzini Street, Wuse Zone 4	instagram.com/ic7africa
North-Central	Abuja	The Tangent Eco Hub	11 Adzope Crescent, Wuse 2	ghraizi-group.com
North-Central	Abuja	Startpreneurs A	Bright Star Plaza, 50 Ebitu Ukiwe Street, Jabi	startpreneurs.com.ng
North-Central	Abuja	Startpreneurs B	Leadway House, Plot 1061, Central Business District	startpreneurs.com.ng
North-Central	Abuja	StoneBricks Hub	10 Danube Close, Off Danube Street, Off IBB Boulevard, Maitama	stonebrickshub.com
North-Central	Abuja	TD4PAI	Crafind House, Plot 32 Off Lanto Road, Pasali New Extension	http://td4pai.org/

Zone	State	Name	Location	Website
North-Central	Abuja	BD Hub	Discovery Mall, Adebola Adetokunbo Crescent, Wuse 2	http://bdhub.com.ng/
North-Central	Abuja	Aiivon Innovation Hub	167 Adetokunbo Ademola Crescent, Wuse 2	hub.aiivon.com
North-Central	Abuja	Harmony Innovation Hub	M.M. Alkali Street, Off 442 Crescent, Citec Villas Gwarinpa	hub.aiivon.com
North-Central	Abuja	Civic Innovation Lab	50 Ademola Adetokunbo Crescent, Wuse 2	civicilab.com
North-Central	Abuja	The Smart Hub	Suite E16, Emab Plaza, Wuse 2	thesmarthub.com.ng
North-Central	Abuja	Box Office Hub	Discovery Centre, 215, Ademola Adetokunbo Crescent, Wuse 2	www.boxofficeng.com
North-Central	Jos	nHub	3rd Floor, TAEN Business Complex, Opposite former NITEL Office, Yakubu Gowon Way	nhubnigeria.com

Zone	State	Name	Location	Website
North-Central	Kwara	Mal Hub	House 6, Agba Dam Link Road, GRA, Ilorin	malhub.com.ng
North-Central	Kwara	Ilorin Innovation Hub	Ahmadu Bello Way, GRA, Ilorin, Kwara State	ilorininnovationhub.com
North-Central	Kwara	TechHub	5000 Tunde Idiagbon Rd, By The Gate of University of Ilorin Permanent Site, Ilorin, Kwara State	techhub.ng
North-Central	Kwara	Founder's Hub	12 Onikanga Street, Ilorin	foundershub.xyz
North-East	Adamawa	Northeast Humanitarian Innovation Hub	NE Innovation Campus, No 3 Legom Close, Off Kashim Ibrahim Way, Jimeta 640221, Adamawa, Nigeria	northeasthub.org
North-East	Bauchi	Uplift Hub	1st Floor Isa Yuguda House Adjacent Chartwell Hotel, Jos - Bauchi Road, Bauchi	uplift.ng

Zone	State	Name	Location	Website
North -East	Borno	Startup Borno	Borno (online community)	www.facebook.com/StartupBorno/
North -East	Borno	Startup Yerwa	Maiduguri (online community)	www.facebook.com/startupyerwa/
South -South	Rivers	KoWorkNG	77, Evo Road, Port Harcourt	koworkng.com/
South -South	Rivers	Focus Hub	No 20 Tip-Top street, off Psychiatric Road, Rumuigbo, Port-Harcourt	focushub.net
South -South	Rivers	Ken Saro-Wiwa Hub	24 Aggrey Road, Port Harcourt	www.kensarowiwafoundation.org/innovation_hub.php
South -South	Rivers	Olotu Square	Olotu Square No 1 Khana Street D-Line Port Harcourt	www.olotusquare.co
South -South	Rivers	SnapilABS	SnapilABS Pavillon House, East West Road, Alakahia	snapilabs.com

Zone	State	Name	Location	Website
South-South	Cross-River	Idea Hub	Emporium C, Tinapa Knowledge City, Tinapa, Adiabo	www.idea-nigeria.org
South-South	Cross-River	LiftHub	6A, Housing Estate Road, Off Ndidem Usang Iso Road, Calabar	thelifthub.org
South-South	Delta	DS-iHub	No 1, DBS Junction Okpanam Road, Beside South-South Zenith Bank, Asaba	dsihub.org.ng
South-South	Akwa-Ibom	The RootHub	Opposite Ibom Hall, AKEES Plaza, IBB Avenue, Uyo	www.theroothub.com
South-South	Akwa-Ibom	Start Innovation Hub	3rd Floor, Ibom eLibrary Complex, IBB Avenue, Uyo	starthub.com.ng
South-East	Enugu	Binary Hills	36 Garden Avenue, GRA 400261, Enugu	binaryhills.org
South-East	Enugu	Enugu Tech Hub	No 2 Upper Presidential Road, Independence Layout, Enugu	www.enugutechhub.en.gov.ng

Zone	State	Name	Location	Website
South -East	Enugu	Genesys Tech Hub	Lifestyle and Golf City, KM 7 Port Harcourt - Enugu Expressway, Ugwuaji, Enugu	www.genesystechhub.com
South -East	Abia	Innovation Growth Hub	62, Asa Road, 450211, Aba	https://ighub.com.ng/
South -East	Abia	Rad5 Tech Hub	4th Floor, 7 Factory Road by Eziukwu Junction Aba	http://rad5.com.ng/
South -East	Anambra	Devamplify Hub	1st Floor, Grace and Faith House Opp. State Library, Aroma Awka	www.devamplify.com
South -East	Enugu	Roar Nigeria	University of Nigeria, Nsukka,	www.unn.edu.ng
South -East	Imo	TechHub Africa	3 Yar'adua Drive, by Concorde Junction, off PortHarcourt Road, New Owerri	www.facebook.com/techhubafrica
South -East	Imo	Oluaka Institute	New Owerri, Obinze	oluakaacademy.org
South -East	Imo	Oluaka Institute	New Owerri, Obinze	oluakaacademy.org

Zone	State	Name	Location	Website
South -East	Imo	Heartland Incubation Hub	Obinze, Along Owerri-Port-harcourt Expressway, Opposite Whitehouse Bus Stop, Owerri, Nigeria	heartlandincubator.com/about-us/
South -East	Kaduna	Colab	4 Barnawa Close, Off Challawa Crescent, Barnawa	colab.com.ng
North -West	Abia	Rad5 Tech Hub	4th Floor, 7 Factory Road by Eziukwu Junction Aba	http://rad5.com.ng/
North -West	Kaduna	Kaduna ICT Hub	No. 47, Kanta road by independence way Kaduna State	kadhub.com/
North -West	Kaduna	Lexington Hub	No 3, Dr Yahaya Hamza Street, off Tafawa Way, Ungwan Rimi, Kaduna	www.facebook.com/lexingtonhub/
North -West	Kano	Arewa Tech Hub	Behind Danbare primary school, along Mobil filling station opposite BUK new site, Kano - Gwarzo Rd, 701713, Kano	www.arewatechub.com.ng

Zone	State	Name	Location	Website
North -West	Kano	Di-Hub	45B Lamido Crescent, Nassarawa GRA, Kano	di-hub.com
North -West	Kano	Startup Kano Hub	Sahel Garden, Beside Azman Filling station, Opp Al-Yuma House, Maiduguri road	startupkano.com
North -West	Kano	Blue Sapphire Hub	No 231, ABH street Sharada Road, Gadun, Kano	bluesapphirehub.com
South -West	Lagos	360 Creative Hub	34 Ajao Road off Olufemi Str. off Ogunlana drive Surulere	www.360creativehub.com
South -West	Lagos	Co-Creation Hub	6th Floor, 294 Herbert Macaulay Way, Sabo, Yaba	cchubnigeria.com
South -West	Lagos	iDEA Hub	296 Herbert Macaulay Way, Sabo, Yaba	www.idea-nigeria.org
South -West	Lagos	Leadspace A	70 Olonode Street, off Hughes Avenue, Alagomeji, Yaba	theleadspace.co/

Zone	State	Name	Location	Website
South -West	Lagos	Leadspace B	17 Akinsanya Street, Beside FRSC Building, Ojodù	theleadspace.co/
South -West	Lagos	LitCaf	1st Floor, E-Center, Commercial Avenue, Sabo, Yaba	litcaf.com/
South -West	Lagos	Passion Incubator	34 McNell Road, off Montgomery Road, Yaba	passionincubator.ng
South -West	Lagos	Seedspace	23 Agodogba Ave, Ikoyi	www.seedspace.co/ cities/seedspace-lagos/
South -West	Lagos	TPX Hub	16, Alfred Olaiya Street, Off Oroleye Crescent, Opebi, Ikeja	www.tpxhub.com.ng
South -West	Lagos	iDEA Hub	296 Herbert Macaulay Way, Sabo, Yaba	www.idea-nigeria.org
South -West	Lagos	Wennovation Hub	11a, Rev Ogunbiyi Street, off Oba Akinjobi Street, Ikeja GRA	wennovationhub.org
South -West	Lagos	CapitalSquare A	2nd Floor, The Garnet Building, Lekki - Epe Express Road, 101245, Lekki	capitalsqua.re

Zone	State	Name	Location	Website
South -West	Lagos	CapitalSquare B	225b Ikorodu Crescent, Dolphin Estate, Ikoyi	capitalsqua.re
South -West	Lagos	Venia Business Hub	8, The Providence St, Lekki Phase I 101283	veniabusinesshub.com
South -West	Lagos	Terra Kulture	1376, Tihamiyu Savage St, Victoria Island	www.terrakulture.com
South -West	Lagos	Cre8 Space	6, Agoro Odiyan, Victoria Island,	www.cre8.work
South -West	Lagos	Cranium One	1, Towry Close, Eti-Osa	cranium-one.com/
South -West	Lagos	Seedspace Lagos	23, Agodogba Avenue, Parkview Estate	www.seedspace.co/lagos-nigeria/seedspace-lagos/
South -West	Lagos	ReDahlia	43b, Emina Crescent, Toyin Street, Ikeja	redahliaworkspaces.com
South -West	Lagos	ReDahlia	43b, Emina Crescent, Toyin Street, Ikeja	redahliaworkspaces.com

Zone	State	Name	Location	Website
South -West	Lagos	Stranger Lagos	3, Hakeem Dickson Street, Lekki Phase 1	www.strangerlagos.com
South -West	Lagos	WorkBay A	3-9, Olu Koleosho Street, Off Simbiat Abiola Way, Ikeja	workbay.ng/
South -West	Lagos	WorkBay B	14A Bayo Dejonwo Street, Maryland Estate	workbay.ng/
South -West	Lagos	WorkBay C	Plot 23, Kunle Ogunba Street off Admiralty way, Lekki Phase 1	workbay.ng/
South -West	Lagos	NG Hub	Montgomery Road, Yaba, Lagos	nghub.fb.com/
South -West	Lagos	V8 Valley	7b, Dr S Ezekuse Close, Lekki Phase 1	v8africa.com
South -West	Lagos	eeSpace	Cardinal Building, 3 Ijaiye Rd, Ogba, Ikeja	eespace.com.ng
South -West	Lagos	AI Spaces	Suite 203E, City Hall, Catholic Mission Street	ai-spaces.com

Zone	State	Name	Location	Website
South-West	Lagos	The Lighthouse	35, Moloney street, obalende, Lagos Island	thelighthouse.com.ng
South-West	Lagos	WorkStation	7, Ibiyinka Olorunbe Close, Victoria Island	www.workstationng.com
South-West	Lagos	Smart X Business Hub	6B, Mobolaji Bank Anthony Way, Behind Keystone Bank, Maryland	smartxbusinesshub.com
South-West	Lagos	African Hub	4, Sule Abuka Street, Opebi	africanhub.co/
South-West	Lagos	SME Hub	51-52, Ogba-Ijaiye Road, beside UBA Bank, Ogba	smehub.site123.me/
South-West	Lagos	The Circumference	2nd Floor, TAPA House 45 Abosede Kuboye Crescent, off Eric Moore Road, Surulere	www.thecircumference.com.ng/
South-West	Lagos	The Village	371, Borno Way Spencer, Yaba	village.ng/
South-West	Lagos	FastLaunch	9B, Adedotun Dina Crescent, Mende, Maryland	fastlaunch.org/

Zone	State	Name	Location	Website
South -West	Lagos	Silver Ark	2nd Floor, 47, Iwaya Road, Onike, Yaba	silverarkspaces.com/
South -West	Lagos	Vibranium Valley	42, Local Airport Road, Ikeja	venturegardengroup.com/
South -West	Ogun	Hebron Startup Labs	KM. 10 Idiroko Road, Canaan Land, Ota	covenantuniversity.edu.ng/
South -West	Ogun	LEAD Resources	27,Oke-Ola street, off Elite Road, Behind Federal Medical Center Abeokuta, Ogun State	leadresources.com.ng/
South -West	Ogun	Online Hub	7, Mercy Drive off Kuforiji Olubi, Quarry Road Abeokuta, Ogun State.	onlinehubng.com/
South -West	Ogun	Grazac Tech Hub	PROHUB, Salawu Olabode Avenue, Ewang Road, Idi-aba, 110124, Abeokuta	www.grazac.com.ng/
South -West	Ogun	720 Degree Innovation Hub	ADUN House, 85, Ijemo Agbadu Road, National Library Building, Ake, Abeokuta	village.ng/

Zone	State	Name	Location	Website
South -West	Ogun	Ogun Tech Hub	Kobape road, Abeokuta	oguntechhub.com.ng
South -West	Ogun	Rockspace Nigeria	7, Mercy Drive, Off Kuforiji Olubi, Quarry Rd, Abeokuta	rockspace.ng/
South -West	Ogun	First Pavilion Technologies	4, Law castle 3rd Floor opposite Fidelity Bank, Agboole Aro, Omida, Abeokuta, Ogun State	firstpavitech.com/
South -West	Oyo	ALF Tech Hub	Entrepreneurship Development Centre, Samonda, along Sango-UI Road, Ibadan. Oyo state	alftechhub.com/
South -West	Oyo	Wenovation Hub	3rd floor, Alpha & Omega Building, Queen Elizabeth Road II, Mokola, Ibadan	wenovationhub.org
South -West	Oyo	LPI Innovation Hub	Tech Road, Appleton Rd, Ibadan	lpihub.org/

A list of private equity and venture capital investors in Nigeria

Name	Category	Location	Website
Verod Capital	PE	Daystar Power, Tangerine Life	www.verod.com
Alitheia Capital	PE	Paga, Lidya, MAX	www.alitheiaidf.com/
MBO Capital Management	PE	AfyA Care	www.mbocapital.com
AfricInvest Capital Partners	PE	Palmpay, Migo	www.africinvest.com
African Capital Alliance	PE	Global Accelerex, eTranzact	acagp.com/
GreenHouse Capital	VC	CredPal, Helium Health, MAX, Prepclass, Migo	greenhouse.capital
CcHub Growth Capital Fund	VC	Taeillo, Edves, Riby, Lifebank	https://gc.fund/
LeadPath Nigeria	VC	Paystack, Mono, Piggyvest, TeamApt, PushCV	leadpath.com.ng/

Name	Category	Location	Website
Microtraction	VC	Cowrywise, BuyCoins, 54Gene, Termii, Riby	www.microtraction.com
Future Africa	VC & PE	Rise, MDaas Global, Bamboo, Andela,	https://future.africa/
EchoVC Partners	VC	LifeBank, Riby, Printivo, Mines	www.echovc.com
Lighthouse Capital	VC	Undisclosed	lighthousecapital.ng
TLcom Capital	VC	Okra, Autochek, Andela, Kobo, Terragon Group	tlcomcapital.com/
Trium Networks	VC	Clane, Sparkle	www.trium.ng/
Greentree Investment	VC	Big Cabal Media, Precurio, Paystack	www.greentreeinvestmentcompany.com
Itanna	VC	TradeBuza, Indicina, PowerCube, Appzone	https://itanna.co/
Ingressive Capital	VC	SeamlessHR, Evolve Credit, Mono, OnePipe, Bamboo	ingressivcapital.com

Name	Category	Location	Website
Chrysalis Capital	VC	Bankly, Helium Health, Bamboo, Raise	thechrysaliscapital.com
Novastar Ventures	VC	MAX	novastarventures.com
Oui Capital	VC	AWABike, Clane, TeamApt, MVXchange	ouicapital.vc/
Niche Capital	VC	Plentywaka	www.linkedin.com/company/niche-capital
Beta Ventures	VC	AjoCard	beta.ventures
All On	VC	Arnergy, Auxano Solar	www.all-on.com/
Zedcrest Capital	VC	Utiva, Zenfix, Helium Health, ProNov, Amare Medicare	zedcrest.com/
Ventures Platform	VC	Thrive Agric, Kudi, ThankUCash, Tizeti, Gradely	www.venturesplatform.com
Ingressive Capital	VC	SeamlessHR, Evolve Credit, Mono, OnePipe, Bamboo	ingressivecapital.com

Name	Category	Location	Website
EMFATO	VC	Farmcrowdy, Plentywaka	www.emfatoholdings.com/
Flying Doctors Healthcare Investment Company	VC	LifeStores Pharmacy, MDaas, Helium Health	fdinvestmentcompany.com/
LoftyInc Capital Management	VC	Andela, ScholarX, Flutterwave, RelianceHMO	loftyinccapital.vc/
Chinook Capital	VC	YouVerify	www.chinook-capital.com/
Zrosk Investment Management	VC	Fibre, Send, MAX	www.zrosk.com/
Timon Capital	VC	Schoolable, Appzone, Autochek	www.timoncapital.com
Unicorn Group	VC	Undisclosed	www.unicornmaking.com/about-us/
Adlevo Capital	VC	Interswitch, Paga	www.adlevocapital.com/
Spark.ng	VC	Paystack, Ogavenue, Medsaf, Hotels.ng, ToLet.com.ng	http://spark.ng/

Name	Category	Location	Website
Kairos Angels	Angel	Helium Health, Termii, Bamboo	www.kairosangels.com/
Lagos Angel Network	Angel	Mines, Big Cabal Media	lagosangelnetwork.net/
Rising Tide Africa	Angel	Eden, Emergency Response Africa, Bankly, Riby	risingtideafrica.com/
First Check Africa	Angel	Healthtracka	www.firstcheck.africa/
Catalyst Fund	Accelerator	Cowrywise, Indicina	bfaglobal.com/catalyst-fund/
MEST Africa	Accelerator	Loystar, Curacel, Judy	https://meltwater.org/

Acknowledgements

In no particular order, we would like to appreciate the following individuals and organizations who provided useful insight and were an invaluable addition to this project:

- Boye Oshinaga - Co-founder/CEO, Gradely
- Aliyu B. Aliyu - CEO, MyClinic
- Abubakar H. Mohammed - Co-founder/COO, MyClinic
- Samuel Adesina - CTO, MyClinic
- Folake Owodunni - Co-founder/CEO, Emergency Response Africa
- Seye Odukogbe - CEO, Routemasters
- Bryan Mezue - Co-founder/CEO, Lifestores Pharmacy
- Andrew Garza - Co-founder/COO, Lifestores Pharmacy
- Nonso Eze - Co-founder/CEO, TradeBuza
- Eyitayo Ogunmola - CEO, Utiva
- Uche Aniche - Convener, Startup South
- Essien Ekanem - Co-founder, QuickSalary
- Adeitan Abimbola - Co-founder, Pickmeup
- Dotun Olowoporoku - Early-stage VC investor
- Nosa Omusi - Nigeria Country Manager, Catalyst Fund
- Damilola Thompson - Vice President and Co-Director, Corporate Development, EchoVCPartners
- Maya Horgan-Famodu - Founder & Partner, Ingressive Capital
- Olu Oyinsan - Managing Partner, Oui Capital
- Takuma Terakubo - CEO and General Partner, Uncovered Funds
- Takeshi Watanabe - CEO, Mobility54

Abbreviations

CBN -	Central Bank of Nigeria	FDI - Foreign Direct Investment
GDP -	Gross Domestic Product	
GEI -	Global Entrepreneurship Index	
MDAs -	Ministries, Departments and Agencies	
NCC -	Nigerian Communications Commission	
NOI -	Ngozi Okonjo Iweala	
NIN -	National Identification Number	
NW -	North West	
NE -	North East	
NC -	North Central	
OIIE -	Office for ICT Innovation and Entrepreneurship	
PE -	Private Equity	
SE -	South East	
SS -	South South	
SSEAN -	South South/East Angel Network	
SW -	South West	
NIIT -	National Institute of Information Technology	
CITAD -	Center for Information Technology and Development	
UNCTAD -	United Nations Conference on Trade and Development	
VC -	Venture Capital	

References

A. An analysis of Nigeria's startup ecosystem

1. Nigeria Population (2021) - Worldometers
<https://www.worldometers.info/world-population/nigeria-population/>
2. Nigerian economy: Why Lagos works - Financial Times
<https://www.ft.com/content/ff0595e4-26de-11e8-b27e-cc62a39d57a0>
3. Nigeria - Wikipedia <https://en.wikipedia.org/wiki/Nigeria>
4. Nigeria - Britannica
<https://www.britannica.com/place/Nigeria>
5. Population growth (annual %) - Nigeria - World Bank
<https://data.worldbank.org/indicator/SP.POP.GROW?locations=NG>
6. Forecasted population in Nigeria in selected years between 2025 and 2050 - Statista
<https://www.statista.com/statistics/1122955/forecasted-population-in-nigeria/>
7. GDP (current US\$) - Nigeria
<https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=NG>
8. Nigeria Economic Outlook - AfDB
<https://www.afdb.org/en/countries-west-africa-nigeria/nigeria-economic-outlook>
9. GDP (annual %) - World Bank
<https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=NG>
10. Nigeria to become ninth-largest economy as world population shrinks - China Global Television Network (CGTN)
<https://news.cgtn.com/news/2020-07-15/Nigeria-to-become-ninth-largest-economy-as-world-population-shrinks-S7zJvuqynS/index.html>
11. 2021 Index of Economic Freedom - The Heritage Foundation
<https://www.heritage.org/index/country/nigeria#:~:text=Nigeria's%20economic%20freedom%20score%20is,freest%20in%20the%202021%20Index.>
12. Overview of Nigeria - US News
<https://www.usnews.com/news/best-countries/nigeria>
13. Nigeria Unemployment Rate Rises to 33%, Second Highest on Global List - Bloomberg
<https://www.bloomberg.com/news/articles/2021-03-15/nigeria-unemployment-rate-rises-to-second-highest-on-global-list>

14. Human Capital Project - World Bank
<https://www.worldbank.org/en/publication/human-capital>
15. Nigeria releases new report on poverty and inequality in country - World Bank
[https://www.worldbank.org/en/programs/lsm/brief/nigeria-releases-new-report-on-poverty-and-inequality-in-country#:~:text=The%20National%20Bureau%20of%20Statistics,naira%20\(%24381.75\)%20per%20year.](https://www.worldbank.org/en/programs/lsm/brief/nigeria-releases-new-report-on-poverty-and-inequality-in-country#:~:text=The%20National%20Bureau%20of%20Statistics,naira%20(%24381.75)%20per%20year.)
16. Global Entrepreneurship Index - Global Entrepreneurship and Development Institute (GEDI)
<https://thegedi.org/global-entrepreneurship-and-development-index/>
17. African tech ecosystems of the future - the dawn of a new era - FDI Intelligence
<https://www.fdiintelligence.com/article/79638>
18. Lagos displaces Nairobi as Africa's top startup city - NIPC
<https://www.nipc.gov.ng/2021/06/19/lagos-displaces-nairobi-as-africas-top-startup-city-enugu-makes-the-global-ranking-for-the-first-time/>
19. Nigeria - WIPO
https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2020/ng.pdf
20. Doing Business 2020
<https://assets.kpmg/content/dam/kpmg/ng/pdf/tax/doing-business-2020.pdf>
21. Nigeria Competitiveness Rank - Trading Economics
<https://tradingeconomics.com/nigeria/competitiveness-rank>
22. 2020 Africa Tech Venture Capital Report - Partech Ventures
<https://partechpartners.com/2020-africa-tech-venture-capital-report/>
23. Global Startup Ecosystem Ranking Report - Startup Genome
<https://startupgenome.com/report/gser2020>
24. FG to Spend 0.5% of GDP on Research, Innovation - ThisDay Live
<https://www.thisdaylive.com/index.php/2021/03/16/fg-to-spend-0-5-of-gdp-on-research-innovation/>
25. Digital 2020: Nigeria - DataReportal
<https://datareportal.com/reports/digital-2020-nigeria>
26. Roadmap 2020: Nigeria's Financial Exclusion Rate Currently 36.8% - CBN - Proshare
<https://www.proshareng.com/news/Data%20&%20Financial%20Inclusion/Roadmap-2020--Nigeria-s-Financial-Exclusion-Rate-Currently-36.8Percent--CBN/47466>
27. Digital 2020: South Africa - DataReportal
<https://datareportal.com/reports/digital-2020-south-africa>
28. Ghana Population (2021) - Worldometers Ghana Population (2021).

29. The Great Debate: Why Ghana may be the Best Country to Launch and Scale Your Tech Startup - MEST Africa
<https://medium.com/the-gps/the-great-debate-why-ghana-is-the-country-for-your-tech-startup-e30cc3ac295>
 30. An Overview of Nigeria - The Persianas Group
<http://www.persianasgroup.com/the-market/overview-of-nigeria/>
 31. Yabacon Valley - Wikipedia
https://en.wikipedia.org/wiki/Yabacon_Valley
 32. Bestcitiesforstartups-StartupBlink
<https://www.startupblink.com/startupecosystem/>
 33. World Investment Report 2020 - United Nations Conference on Trade and Development (UNCTAD)
https://unctad.org/en/PublicationsLibrary/wir2020_en.pdf
 34. Nigerian fintech Flutterwave to expand to North Africa after raising \$170m - The Africa Report
<https://www.theafricareport.com/71003/nigerian-fintech-flutterwave-to-expand-to-north-africa-after-raising-170mn/>
 35. TechCabal Daily, 657 — Nigeria's Terragon Acquires Singaporean Company, Bizense -TechCabal
<https://techcabal.com/2018/11/13/techcabal-daily-657-nigerias-terragon-acquires-singaporean-company-bizense/>
 36. Paga CEO, Tayo Oviolu on global expansion, and the new competition - TechCabal
<https://techcabal.com/2020/03/16/paga-oviolu-partnerships-expansion/>
 37. TechCabal Daily — Nigerian fintech startup, Lidya is expanding into Europe - TechCabal
<https://techcabal.com/2019/10/15/techcabal-daily-nigerian-fintech-startup-lidya-is-expanding-into-europe/>
 38. Why your favourite African startups are incorporating abroad - TechCabal
<https://techcabal.com/2019/12/12/why-your-favourite-african-startups-are-incorporating-abroad/>
 39. Why African tech startups are increasingly domiciling overseas - Disrupt Africa
<https://disrupt-africa.com/2020/03/10/why-african-tech-startups-are-increasingly-domiciling-overseas/>
 40. Jumia: The e-commerce start-up that fell from grace - The British Broadcasting Corporation (BBC)
<https://www.bbc.com/news/world-africa-52439546>
 41. Visa's Interswitch deal set to go through in Q1 2020 after regulatory approval - TechCabal
<https://techcabal.com/2019/11/13/visas-interswitch-deal-set-to-go-through-in-q1-2020-after-regulatory-approval/>
-

42. Led by SoftBank, Nigeria's OPay raises \$400m - TechCabal
<https://techcabal.com/2021/08/23/led-by-softbank-nigerias-opay-raises-400m/>
 43. Stripe acquires Nigerian fintech startup, Paystack for over \$200 million - TechCabal
<https://techcabal.com/2020/10/15/stripe-acquires-paystack/>
 44. Inside Nigeria's Technical Talent Landscape in the last ten years - TechCabal
<https://techcabal.com/2020/07/15/inside-nigerias-technical-talent-landscape-in-the-last-ten-years/>
 45. Africa's Booming Tech Hubs Are "Backbone of Tech Ecosystem" Having Grown 40% This Year - Forbes
<https://www.forbes.com/sites/tobyshapshak/2019/07/11/africas-booming-tech-hubs-are-backbone-of-tech-ecosystem-having-grown-40-this-year/?sh=5a9f459724c2>
 46. e-Conomy Africa 2020 - Africa's \$180 Billion Internet Economy Future - International Finance Corporation
https://www.ifc.org/wps/wcm/connect/publications_ext_content/ifc_external_publication_site/publications_listing_page/google-e-conomy
 47. Nigeria Unemployment Rate Rises to 33%, Second Highest on Global List - Bloomberg
<https://www.bloomberg.com/news/articles/2021-03-15/nigeria-unemployment-rate-rises-to-second-highest-on-global-list>
 48. Why foreign investments will keep dominating Nigeria's startup space - TechPoint Africa
<https://techpoint.africa/2020/11/26/foreign-investments-nigeria-startup/>
 49. <https://twitter.com/Ox/status/1326563107800543232>
 50. Idris Bello talks raising capital in Africa - BizCommunity
<https://www.bizcommunity.com/Article/196/845/216395.html>
 51. Regulation for bill payments in Nigeria -- CBN
<https://www.cbn.gov.ng/out/2018/bpsd/regulation%20for%20bill%20payments%20in%20nigeria.pdf>
 52. Regulation on Electronic Payments and Collections for Public and Private sectors in Nigeria -CBN
<https://www.cbn.gov.ng/Out/2019/PSMD/Regulation%20on%20Electronic%20Payments%20and%20Collections.pdf>
 53. Framework for regulatory sandbox - CBN
<https://www.cbn.gov.ng/out/2021/ccd/framework%20for%20regulatory%20sandbox%20operations.pdf>
 54. The Nigeria Startup Bill
<http://www.startupbill.ng>
 55. SafeBoda bypasses Nigeria's commercial capital in its market foray - TechCabal
<https://techcabal.com/2020/03/04/safeboda-launches-in-nigeria/>
-

56. SafeBoda Nigeria: The road to launch - Babajide Duroshola
<https://medium.com/safeboda-nigeria/safeboda-nigeria-the-road-to-launch-62a42df760b8>
57. BREAKING: ORide, MAX.ng, Gokada and others banned from major areas in Lagos -TechCabal
<https://techcabal.com/2020/01/27/oride-maxng-gokada-banned-in-lagos/>
58. Lagos state is considering a N25 million license for bike hailing startups - TechCabal
<https://techcabal.com/2019/07/22/lagos-state-is-considering-a-n25-million-license-for-bike-hailing-startups/>
59. Here's how Nigerian cryptocurrency exchanges are responding to CBN's Ban - TechCabal
<https://techcabal.com/2021/02/19/heres-how-nigerian-cryptocurrency-exchanges-are-responding-to-cbns-ban/>
60. NCC orders suspension of numbers registered without NIN and stops SIM card sale - TechCabal
<https://techcabal.com/2020/12/18/on-ncc-new-sim-card-regulation/>
61. The hidden costs of NCC's suspension of SIM registration - TechCabal
<https://techcabal.com/2021/04/09/sim-registration-suspension/>
62. The Nigeria Startup Bill
<https://www.startupbill.ng/>

B. An analysis of the six geo-political zone

1. <https://nitda.gov.ng/subsidiaries/>
2. About Lagos
<https://lagosstate.gov.ng/about-lagos/>
3. These are Africa's fastest-growing cities - World Economic Forum
<https://www.weforum.org/agenda/2016/05/these-are-africa-s-fastest-growing-cities/#:~:text=The%20population%20of%20Lagos%20is,fastest%2Dgrowing%20city%20in%20Africa.>
4. Africa's tech industry found a home in Lagos - Uncubed
<https://uncubed.com/daily/lagos-africas-largest-economy-is-also-a-startup-incubator/>
5. A Model College In Ogun State Has Been Remodeled Into A Tech Hub — And There's At Least 20 More To Go - Weetracker
<https://weetracker.com/2019/09/10/ogun-tech-hub/>
6. About the Ogun Tech Hub
<https://oguntechhub.com.ng/>
7. About Grazac Tech Hub
<https://www.grazac.com.ng/>

8. About Pickmeup
[Pickmeup | Most Affordable Rides](#)
 9. About Ayocer
<https://ayocer.com/about>
 10. About RubiLabs
<https://www.rubilabs.com/>
 11. About the Bureau of Information Technology, Ogun State
<https://www.facebook.com/ogsgbit/>
 12. Ministry of Education, Science and Technology, Abeokuta
<https://www.ogunstate.gov.ng/mest/>
 13. Grazac is giving \$30K for 7% to attract startups in Ogun State - TechCabal
<https://techcabal.com/2021/03/12/ogun-states-tech-ecosystem-is-about-to-get-a-ma> keover/
 14. https://twitter.com/tc_insights/status/1316030163704975360
 15. Mercer's 2021 Cost of Living city ranking - Mercer
<https://www.mercer.com/our-thinking/career/cost-of-living.html>
 16. The multifaceted implications of a ban on Okada and tricycles in Lagos - TechCabal
<https://techcabal.com/2020/02/14/lagos-ban-okada-tricycles-not-solving-problems/>
 17. Ogun State ICT Policy - TechPoint Africa
<https://techpoint.africa/2018/12/19/ogun-state-ict-policy/>
 18. Nigeria's next generation of startups are being redefined in the southeast, not just in Lagos - Quartz Africa
<https://qz.com/africa/1140797/nigerias-next-generation-of-startups-are-being-redefined-in-the-southeast-not-just-in-lagos/>
 19. About Zenvus
<https://www.zenvus.com/>
 20. About Arone
<https://www.aronedelivery.com/>
 21. About Wicrypt
<https://wicrypt.com/>
 22. About Clafiya
<https://clafiya.com/>
 23. About MyFoodyShop
<https://myfoodyshop.com/>
-

24. About TideRX
<https://www.tiderx.com/>
 25. About Startup South
<https://startupsouth.org/>
 26. About Releaf
<https://www.releaf.africa/>
 27. About Ndidiaa
<https://twitter.com/ndidiaa>
 28. About QuickSalary
<https://quicksalary.co/>
 29. About The Root Hub
<https://theroothub.com/>
 30. Social Media Poll Result Release — About 120 Million Nigerians Have Access to The Internet — New Poll Reveals - NOI Polls
<https://noi-polls.com/social-media-poll-result-release/>
 31. About Kaduna State - Kaduna State Bureau of Statistics
<https://kdbbs.ng/>
 32. About Payant
<https://payant.ng/>
 33. About DigiHealth
<https://www.digihealth.cloud/>
 34. About SchoolMo
<https://schoolmo.ng/>
 35. About CoLab
<https://colab.com.ng/about/>
 36. A new tech hub is hoping to inspire an ecosystem in northern Nigeria - Quartz
<https://qz.com/africa/821936/colab-a-new-tech-hub-in-kaduna-hopes-to-inspire-an-ecosystem-in-northern-nigeria/>
 37. About Startup Kaduna
https://www.facebook.com/startupkaduna/about/?ref=page_internal
 38. About eHealthAfrica
<https://www.ehealthafrica.org/>
 39. About FlexiSAF
<https://www.flexisaf.com/>
-

40. About POS4Africa
<https://pos4africa.com/about-us/>
 41. About Kano State Ministry of Education, Science and Technology
<https://www.kanostate.gov.ng/?q=ministry-education-science-technology-innovation>
 42. Science Minister hails Kano govt for scientific innovation - Nigerian Tribune
<https://tribuneonlineng.com/science-minister-hails-kano-govt-for-scientific-innovation/>
 43. About Dicebox Innovation Hub
<https://di-hub.com/about>
 44. About Blue Sapphire Hub
<https://bluesapphirehub.com/>
 45. About Startup Kano
<https://startupkano.com/about-us/>
 46. About CITAD
<https://www.citad.org/>
 47. COVID-19: 549 Kebbi entrepreneurs to receive N2bn FG loan - Malami - The Vanguard
<https://www.vanguardngr.com/2020/12/covid-19-549-kebbi-entrepreneurs-to-receive-n2bn-fg-loan-%E2%80%95-malami/>
 48. Ghana Population (2021) - Worldometer
[https://www.worldometers.info/world-population/ghana-population/#:~:text=Ghana %202020%20population%20is%20estimated,\(and%20dependencies\)%20by%20population.](https://www.worldometers.info/world-population/ghana-population/#:~:text=Ghana%202020%20population%20is%20estimated,(and%20dependencies)%20by%20population.)
 49. About uLesson
<https://ulesson.com/>
 50. Ex-Konga boss Sim Shagaya's uLesson raises \$3.1 million ahead of 2020 launch
<https://techcabal.com/2019/11/26/ex-konga-boss-sim-shagayas-ulesson-raises-3-1-million-ahead-of-2020-launch/>
 51. About Terminus
https://twitter.com/terminus_ng/status/878227507815661568?s=20
 52. About nHub
<http://nhubnigeria.com/>
 53. nHub - Jos incubator eyes tech hub for Northern Nigeria - Technology Times
<https://technologytimes.ng/nhub-eyes-tech-hub-northern-nigeria/>
 54. About PICTDA
<https://pictda.plateaustate.gov.ng/>
 55. About PLASMEDA
<https://twitter.com/plasmeda?lang=en>
-

56. About PLASMEDA
<https://twitter.com/plasmeda?lang=en>
 57. About Plat Group
<https://www.platgroupng.com/>
 58. About Mealdeal Nigeria
<https://www.crunchbase.com/organization/mealdeal-nigeria>
 59. About Medtech Africa
<https://www.medtech.africa/>
 60. About Priceinfo
<https://www.crunchbase.com/organization/priceinfo>
 61. About Founders Hub
<https://www.facebook.com/foundershubng/>
 62. About Ilorin Innovation Hub
<https://ilorininnovationhub.com/>
 63. <https://twitter.com/followKWSG/status/1379943448241958916>
 64. Send 150 Girls to STEM Camp in Nigeria - Global Giving (W.TEC)
<https://www.globalgiving.org/projects/w-tec-girls-technology-camp/reports/?pageNo=1>
 65. Listenership Poll report - NOI Polls
<https://noi-polls.com/wp-content/uploads/2019/11/Social-Media-Poll-Report.pdf>
 66. Abandoned projects in Niger State - The Nation Online
<https://thenationonlineng.net/abandoned-projects-niger-state/>
 67. Long list of abandoned projects in Plateau - The Nation Online
<https://thenationonlineng.net/long-lists-abandoned-projects-plateau/>
 68. Two tech events that will define the ecosystem in Borno - The Northerner
[https://thenortherner.com.ng/2017/09/12/two-tech-events-will-define-ecosystem-bor no/](https://thenortherner.com.ng/2017/09/12/two-tech-events-will-define-ecosystem-bor-no/)
 69. About NaijaTechSpot
<https://naijatechspot.net/>
 70. About Uplift Hub
<https://uplift.ng/>
 71. NITDA at 20 - NITDA's achievements contribute to nation's GDP - NITDA
<https://nitda.gov.ng/nitda-at-20-nitdas-achievements-contribute-to-nations-gdp-dr-p> antami/
-

C. Key players, weaknesses and opportunities in Nigeria's startup ecosystem

1. [About CBN](#)
2. [NITDA — National Information Technology Development Agency](#)
3. [NDIC — Protecting Your Bank Deposits](#)
4. [The Securities and Exchange Commission, Nigeria | Official Website of The Securities and Exchange Commission, Nigeria](#)
5. National Health Insurance Scheme — [National Health Insurance Scheme](#)
6. [National Insurance Commission](#)
7. [Pharmacists Council of Nigeria: Home](#)
8. [NOTAP: Welcome to National Office for Technology Acquisition and Promotion](#)
9. [Nigerian Communications Commission - NCC holds sensitization campaigns as the world marks 10th anniversary of Girls in ICT day](#)
10. [Federal Competition and Consumer Protection Commission - Federal Competition and Consumer Protection Commission](#)
11. <https://www.cac.gov.ng/>
12. Wakanow raises \$40m, one of the highest single rounds by a non-online-retail business in Nigeria - TechPoint Africa
<https://techpoint.africa/2018/12/21/wakanow-raise-40-m/>
13. Flutterwave raises \$170M, at a \$1B plus valuation - TechCabal
<https://techcabal.com/2021/03/10/african-fintech-company-flutterwave-raises-170m-now-valued-at-over-1b/>
14. Kuda raises \$25m to provide digital-only banking services to every African - TechCabal
<https://techcabal.com/2021/03/18/kuda-bank-series-a-25-million-dollars/>
15. TechCabal Data Nigeria: Average age of the population from 1950 to 2050 - Statista
<https://www.statista.com/statistics/382229/average-age-of-the-population-in-nigeria/>
16. Median Age 2021 - World Population Review
<https://worldpopulationreview.com/country-rankings/median-age>
17. Median Age 2021 - World Population Review
<https://worldpopulationreview.com/country-rankings/median-age>

D. A review of funding information

1. Presenting the 2020 Partech Africa Report: The African Tech ecosystem is still accelerating with 359 equity rounds (+44% YoY) to a total funding of US\$ 1.43B (-29% YoY) - Partech Partners <https://partechpartners.com/press-room/presenting-2020-partech-africa-report-african-tech-ecosystem-still-accelerating-359-equity-rounds-44-yoy-total-funding-us-143b -29-yoy/>
2. TechCabal funding data
3. Presenting the 2020 Partech Africa Report: The African Tech ecosystem is still accelerating with 359 equity rounds (+44% YoY) to a total funding of US\$ 1.43B (-29% YoY) - Partech Partners <https://partechpartners.com/press-room/presenting-2020-partech-africa-report-african-tech-ecosystem-still-accelerating-359-equity-rounds-44-yoy-total-funding-us-143b -29-yoy/>
4. Africa Tech Startups raise 367m in 2016 - Partech Partners https://partechpartners.com/documents/8/2017.02.28_-_Africa_Tech_Startups_raises_367M_in_2016_FINAL.pdf
5. iROKOTv Just Raised \$19 Million, Total Funding Now At \$40 Million - TechCabal <https://techcabal.com/2016/01/25/irokotv-just-raised-19-million-total-funding-now-at-40-million/>
6. Andela Raises \$24 Million From Mark Zuckerberg And Priscilla Chan's Fund To Train African Engineers - Forbes <https://www.forbes.com/sites/alexkonrad/2016/06/16/andela-raises-24-million-from-zuckerberg-chan-initiative-and-gv/>
7. ToLet.com.ng just raised over N500 million - TechPoint Africa <https://techpoint.africa/2016/09/20/tolet-raises-1-2-million/>
8. Nigerian Fintech Startup Paystack Raises \$1.3 Million - Forbes <https://www.forbes.com/sites/mfonobongnsehe/2016/12/19/nigerian-fintech-startup-paystack-raises-1-3-million/?sh=335d95fe4192>
9. African Tech Start-ups Raised US\$ 560 Million in VC funding in 2017, a 53% YoY Growth - Partech Partners <https://partechpartners.com/news/african-tech-start-ups-raised-us-560-million-vc-funding-2017-53-yoy-growth/>
10. Flutterwave raises \$10 million in Series A funding round - TechPoint Africa <https://techpoint.africa/2017/08/01/flutterwave-raises-10-million-dollars/>
11. BREAKING: Andela raises \$40m from CRE VC, DBL, Salesforce, TLcom, others in Series C round - TechCabal <https://techcabal.com/2017/10/10/andela-raises-40m/>
12. Farmcrowdy raises \$1M round to bring Nigerian farmers online and to market - TechCrunch

<https://techcrunch.com/2017/12/18/1579210/>

13. Partech Africa publishes its annual report: 2018 was a Monumental Year for African Tech Start-ups with US\$1.163B raised in equity! - Partech Partners
<https://partechpartners.com/press-room/partech-africa-publishes-its-annual-report-2018-was-monumental-year-african-tech-start-ups-us1163b-raised-equity/>
14. TechCabal Daily — Frontier Car Group has raised a huge sum from Naspers' OLX - TechCabal
<https://techcabal.com/2019/11/12/techcabal-daily-cars45-has-raised-a-huge-sum-from-naspers-olx/>
15. Frontier Car Group raises another \$58M for its used-car marketplace for emerging economies - TechCrunch
<https://techcrunch.com/2018/05/01/frontier-car-group-raises-another-58m-for-its-used-car-marketplace-for-emerging-economies/>
16. Offering a white-labelled lending service in emerging markets, Mines raises \$13 million - TechCrunch
<https://techcrunch.com/2018/08/10/offering-a-white-labeled-lending-service-in-emerging-markets-mines-raises-13-million/>
17. Announcing Paystack's \$8 million Series A Round - Paystack
<https://paystack.com/blog/company-news/paystack-seriesa>
18. Wakanow raises \$40m, one of the highest single rounds by a non-online-retail business in Nigeria - TechPoint Africa
<https://techpoint.africa/2018/12/21/wakanow-raise-40-m/>
19. The Partech Africa Report is here, and it's the best yet with US\$2.02B raised! - Partech Partners
<https://partechpartners.com/news/2019-partech-africa-report-here-and-its-best-yet-us-2-02-b-raised/>
20. TechCabal Daily, 701 — Andela Raises \$100m in Latest Funding Round Led By Al Gore's Investment Firm - TechCabal
<https://techcabal.com/2019/01/24/techcabal-daily-701-andela-raises-100m-in-latest-funding-round-led-by-al-gores-investment-firm/>
21. Max Wants to Introduce Electric Bikes After Raising \$7 million Funding - TechCabal
<https://techcabal.com/2019/06/20/max-ng-wants-to-introduce-electric-bikes-after-raising-7-million-funding/>
22. Some of China's Most Innovative Companies are now Backing Nigeria's OPay - TechCabal
<https://techcabal.com/2019/07/15/some-of-chinas-most-innovative-companies-are-now-backing-nigerias-opay/>
23. OPay does it again: fintech raises \$120 million Series B round
<https://techcabal.com/2019/11/18/opay-does-it-again-fintech-raises-120-million-series-b-round/>

24. Kobo360 raises US\$ 30M, sets its sights on the \$1.3 trillion intra-African trade opportunity - TechCabal <https://techcabal.com/2019/08/14/kobo360-raises-us-30m-sets-its-sights-on-the-1-3-trillion-intra-african-trade-opportunity/>
 25. Rensource, renewable energy startup, raises \$20m to power more Nigerian SMEs - TechCabal <https://techcabal.com/2019/12/18/rensource-renewable-energy-startup-raises-20m-to-power-more-nigerian-smes/>
 26. Presenting the 2020 Partech Africa Report: The African Tech ecosystem is still accelerating with 359 equity rounds (+44% YoY) to a total funding of US\$ 1.43B (-29% YoY) - Partech Partners <https://partechpartners.com/press-room/presenting-2020-partech-africa-report-african-tech-ecosystem-still-accelerating-359-equity-rounds-44-yoy-total-funding-us-143b -29-yoy/>
 27. Flutterwave raises \$35 million for business expansion across Africa - TechCabal <https://techcabal.com/2020/01/21/flutterwave-raises-35-million-for-business-expansion-across-africa/>
 28. 54Gene closes \$15 million Series A round to scale its African DNA research operations - TechCabal <https://techcabal.com/2020/04/14/54gene-series-a/>
 29. After raising \$10m, Nigerian e-commerce startup TradeDepot is expanding to financial services - TechCabal <https://techcabal.com/2020/07/16/after-raising-10m-nigerian-e-commerce-startup-tradedepot-is-expanding-to-financial-services/>
 30. TechCabal Daily — The big chop - TechCabal <https://techcabal.com/2020/11/19/techcabal-daily-safaricom-split/>
 31. Flutterwave raises \$170M, at a \$1B plus valuation - TechCabal <https://techcabal.com/2021/03/10/african-fintech-company-flutterwave-raises-170m-now-valued-at-over-1b/>
 32. Fairmoney raises \$42 million Series B, bags banking licence to deepen digital bank ambitions - TechPoint Africa <https://techpoint.africa/2021/07/02/fairmoney-raises-42m-seriesb/>
 33. Nigeria Solar Firm Gets \$38 Million to Expand in West Africa - Bloomberg <https://www.bloomberg.com/news/articles/2021-01-12/nigeria-firm-gets-38-million-to-expand-solar-access?srnd=premium-africa>
 34. Kuda raises \$25m to provide digital-only banking services to every African - TechCabal <https://techcabal.com/2021/03/18/kuda-bank-series-a-25-million-dollars/>
 35. Kuda, the African challenger bank, raises \$55M at a \$500M valuation - TechCrunch <https://techcrunch.com/2021/08/02/kuda-the-african-challenger-bank-raises-55m-at-a-500m-valuation/>
 36. Visa's Interswitch deal set to go through in Q1 2020 after regulatory approval - TechCabal <https://techcabal.com/2019/11/13/visas-interswitch-deal-set-to-go-through-in-q1-2020/>
-

37. Stripe acquires Nigerian fintech startup, Paystack for over \$200 million
<https://techcabal.com/2020/10/15/stripe-acquires-paystack/>

37. TechCabal funding data
