FinTech Landscape and Impact Assessment Study

2020 Report



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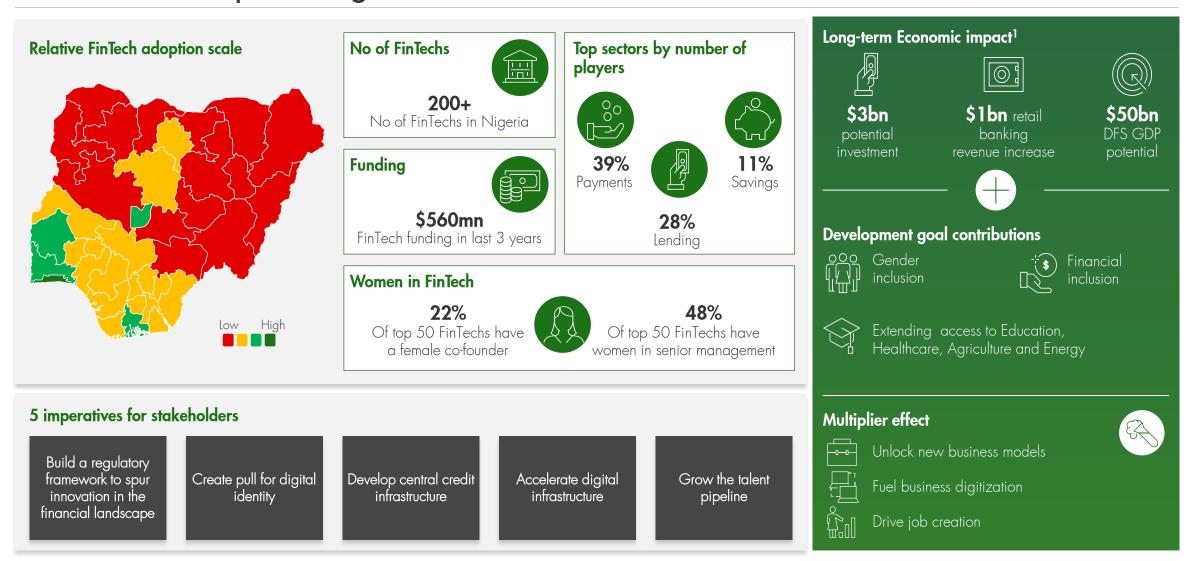
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FinTech landscape in Nigeria





Executive summary



Global FinTech growth is driven by a combination of factors – increased funding, modernized payment infrastructure, the rise of tech players and the sharing of data and technology. Threat of big techs and challenging B2C economics in developed markets are contributing to a gradual shift in FinTech models to B2B and increased collaboration between banks and FinTech



The Nigerian FinTech landscape is attractive and growing, with a concentration in Lagos, focused on banked customers and providing payment and lending solutions. However, dynamics are changing – new pockets of growth are emerging driven by changes in consumer behavior, funding sources, and new business models; leading to an extension of Financial Services to unserved and underserved populations



Despite the increased activity in the FinTech sector in Nigeria and the positive multiplier effect, economic impact to date is low, with FinTech activity accounting for only ~1.25%¹ of retail banking revenues in 2019. A concerted effort by all stakeholders to address structural challenges is required to capture a greater share of Nigeria's \$50bn² Digital Financial Services opportunity, and mitigate emerging risks as the sector evolves. This could help accelerate the ambition to include more individuals into the formal financial system



There are a number of actions that could enhance Nigeria's Digital Financial Services landscape – leading to a higher number of people included into the financial system. However five of them, if well executed could yield the biggest impact – Innovation enablement, Digital ID, Credit infrastructure, Digital infrastructure and Technology talent pipeline



^{1.} FinTech revenue as a percentage of total retail banking revenue

^{2.} Assuming growth rate pre-COVID-19

Definitions



- A technological innovation in the prevailing model of delivering financial services
- Technology-led companies that enter the insurance sector, taking advantage of new technologies to provide coverage to a more digitally savvy customer base
- Companies that address regulatory requirements using technology
- A cryptography-based database technology and enables trustless storage and sharing of data
- Application programmable interfaces (APIs) enable the IT function to conveniently build and implement new applications in the ecosystem
- Global Standing Instruction links Bank Verification Number (BVN) of all depositors to show credit history of debtors with all banks thereby preventing further loan for defaulters



Glossary



- Central Bank of Nigeria
- Nigeria Inter-Bank Settlement System Plc
- Shared Agent Network Expansion Facilities
- Nigerian Communications Commission
- National Insurance Commission
- The Department for International Development
- United States Agency for International Development
- Federal Competition and Consumer Protection Commission



Key questions answered in this report

Chapter

Key questions

Global FinTech landscape



What does the global FinTech landscape look like and what areas do FinTechs play in?

How has funding to FinTech evolved globally and what factors are driving it?

What are the key trends shaping FinTech activity globally?

What are the key enablers for a successful FinTech ecosystem based on learnings from global markets

Nigeria FinTech landscape and its evolution



What is driving the growth of FinTech in Nigeria (size of the market, unmet needs)?

How have FinTech evolved over time to take advantage of the opportunity?

Who are the key FinTech in the market and where do they play?

How has funding to the FinTech space in Nigeria evolved and what are key considerations?

How is the FinTech space in Nigeria likely to evolve?

Impact assessment of FinTech in Nigeria



What are the areas that FinTech can make impact in Nigeria?

What is the potential direct impact that FinTech can make on financial services?

In what ways can FinTech contribute to capturing the overall opportunity from digital financial services?

Recommendations for stakeholders



What are the key imperatives for stakeholders in Nigeria's FinTech landscape?





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Key messages from Global FinTech Landscape (1/2)

Globally, FinTech play both across the banking and insurance value chains with an emerging shift to B2B models



- FinTech activity is concentrated in consumer and SME segments and insurance with most players leveraging APIs and Cloud as their core technology
- There is an emerging shift towards B2B businesses in Western markets, however emerging markets remain attractive for B2C players
- There is a growing emergence of big tech companies focusing on providing one stop solutions to customers through their developing ecosystems
- This is in turn resulting in increased partnerships between banks and FinTech to provide tailored solution to customers

Funding to FinTech players continues to grow and increased attention is being paid to emerging markets



- Globally, \$36 bn invested in 2019 in FinTech players
- Funding is starting to shift to emerging markets as investors search for growth opportunities and markets like India and Indonesia have seen significant funding activity
- Funding to the African ecosystem is also seeing increased traction with a ~73% y.o.y increase in start up funding from 2018 2019 driven by FinTech

Key messages from Global FinTech Landscape (2/2)

Observation of successful FinTech ecosystems suggest 7 key elements that enable the growth and drive a deepening of financial usage across the ecosystem



- 1. Creating an **enabling regulatory environment** to foster innovation
- 2. Fostering innovation by enabling ease of access to APIs and data e.g. Advanced analytics is becoming mainstream and there is growing adoption of open banking
- 3. Enabling global connections and learning with other ecosystems, including growing partnerships between banks and FinTech
- 4. Significant long term funding pool which is evident in the increase in FinTech funding globally
- 5. Building strong tech infrastructure which has facilitated the modernization of payments
- 6. Rise of ecosystem orchestrators, catering to unmet customer needs across the financial services value chain through a range of use cases
- 7. Building a sustainable talent pipeline



FinTech definition: A technological innovation in the prevailing model of delivering financial services

Could be any type of player...

Incumbents (e.g. Banks, Insurance companies etc.)¹

Non-financial services providers (e.g. tech companies)

Startups/New entrants

...and delivering a wide range of financial services

- Payments & Transactions
- Accounts
- Savings & Investments
- Lending & Financing
- Life insurance
- Non-life insurance



Playing in any part of the value chain...

- B₂C
- C2C

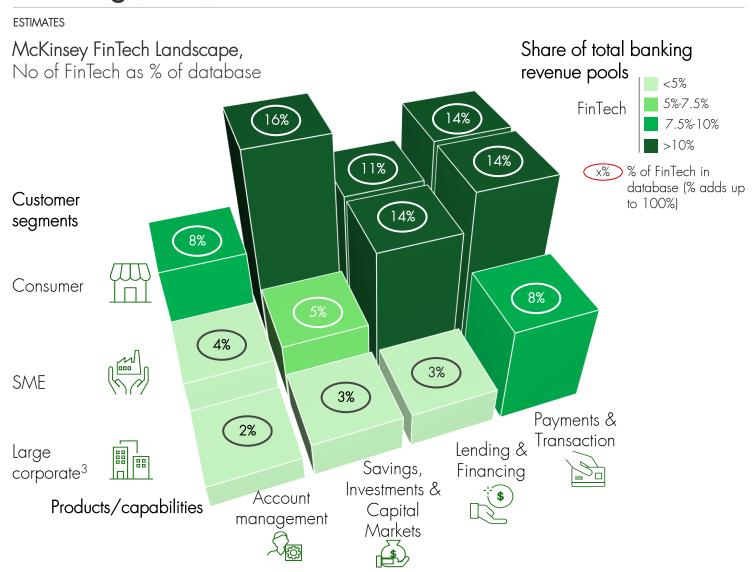
Leveraging technology...

- Blockchain
- Data analytics
- APIs
- Cloud

1. Focus of this document will be in non-incumbent players that are typically startups and early stage companies



Globally FinTech are focused on consumer and SME banking (1/2)



Early disruptors focused on the consumer and SME payments space :

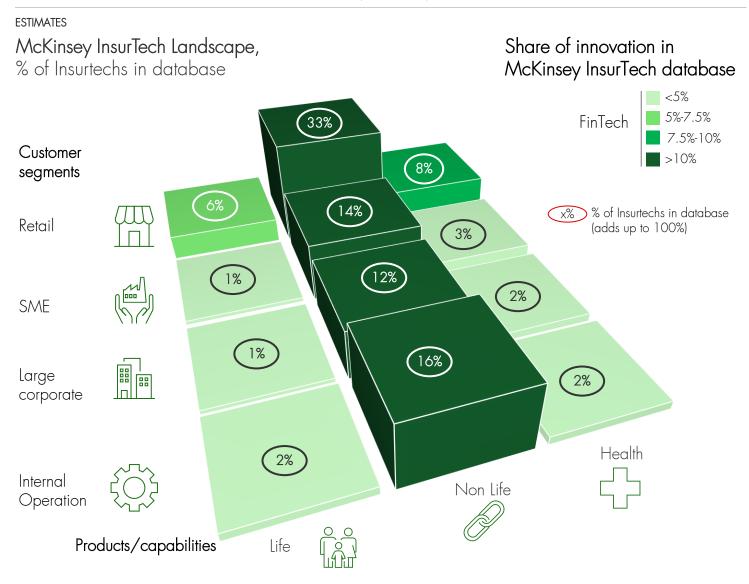
- Payments is a significant market accounting for > 15% of SME/retail segments and continuing to grow
- 90% of customer touch points involve payments
- Cost of entry tends to be lower for payments
- Data from payments has led to newer savings and investment models

Increasing shift towards savings, investments & lending:

- Leveraging technology to make attractive savings and investments models available
- The rise in advanced analytics has given rise to newer FinTech business models in saving and lending
- Data generated by payments and advanced analytics creating new lending models



As well as on insurance (2/2)



InsurTech has attracted significant activity from investors with 25% of FinTech playing in Insurance

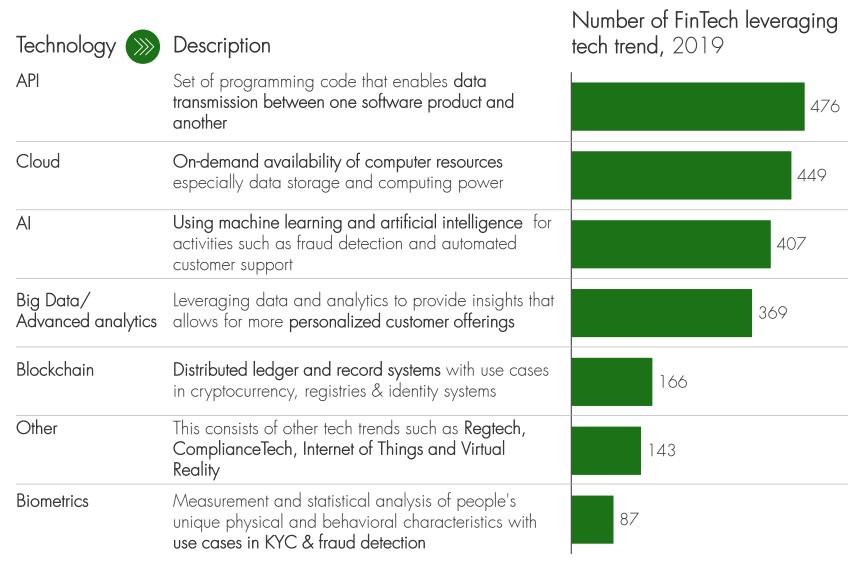
Insurance activity globally is predominantly in the retail and non-life segment, driven mainly by P&C motor insurance with sizeable activity in the Internal operations and non-life segment

Within Insurance, players have focused on the non-life segment (e.g. asset insurance), deploying innovative models around distribution, risk assessment and customer servicing

Global size of Insurtech highlights the opportunity for innovation in Insurance in Nigeria, where activity has been limited



API and Cloud technology are most utilized by FinTech, but Big Data/AA holds potential in emerging markets



API and Cloud remain foundational technology on which many FinTech are built

Big data and advanced analytics have become mainstream globally but still remain early stages in markets like Africa

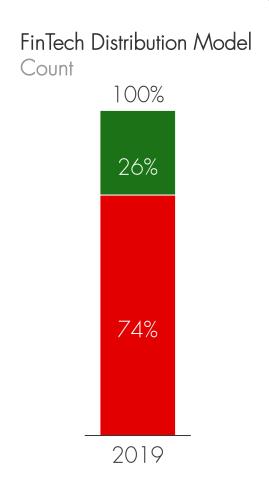
Several new technologies emerging across Regtech, ComplianceTech and Internet of Things



The threat of big techs and challenging B2C economics in developed markets are contributing to a gradual shift to B2B models

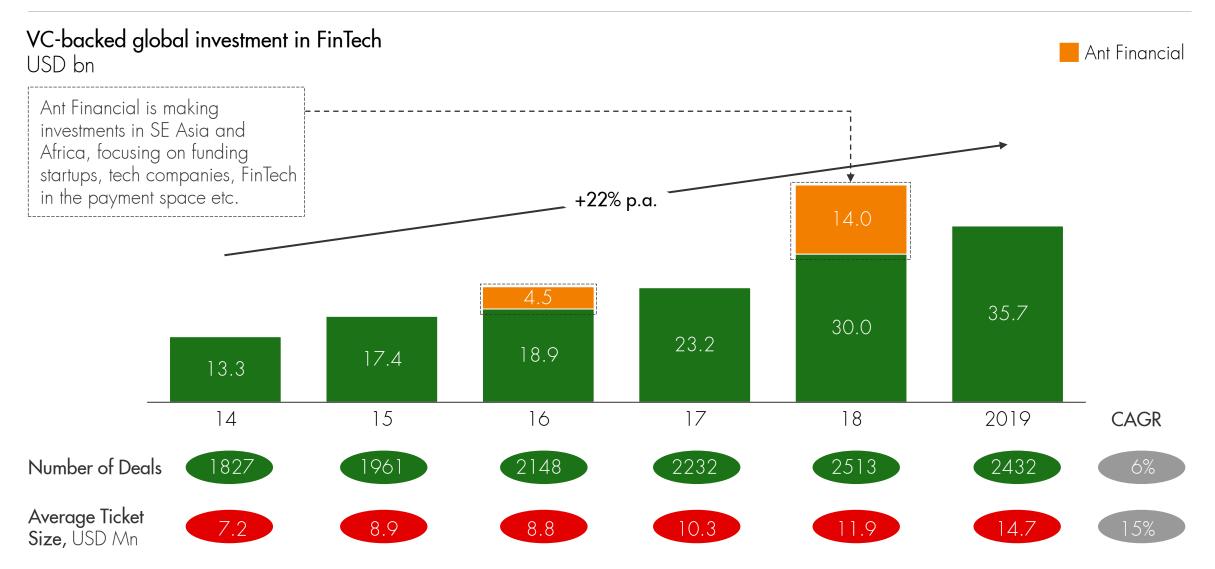
Most FinTechs utilize B2C distribution models...

...in developed markets, there is an emerging shift towards B2B models ...





Global FinTech investment has grown over the years with \$36bn invested in 2019 alone

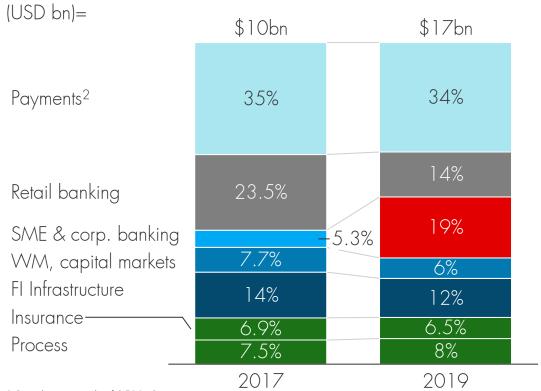




These investments have been concentrated in payments

VC funding remains highly concentrated in payments...

VC FinTech Deal value by category¹ Total Funding Pools



^{1.}Based on a sample of 1500 players 2.Ant Financial's giga round excluded

... and investors are increasing funding in late stage businesses VC FinTech Deal counts by stage³ Total Funding Pools Average deal size 2019 (USD bn)=\$23bn \$36bn \$9.3mn 78 82 Early stage \$20.7mn Late stage 19 14 Mature-\$5.9mn

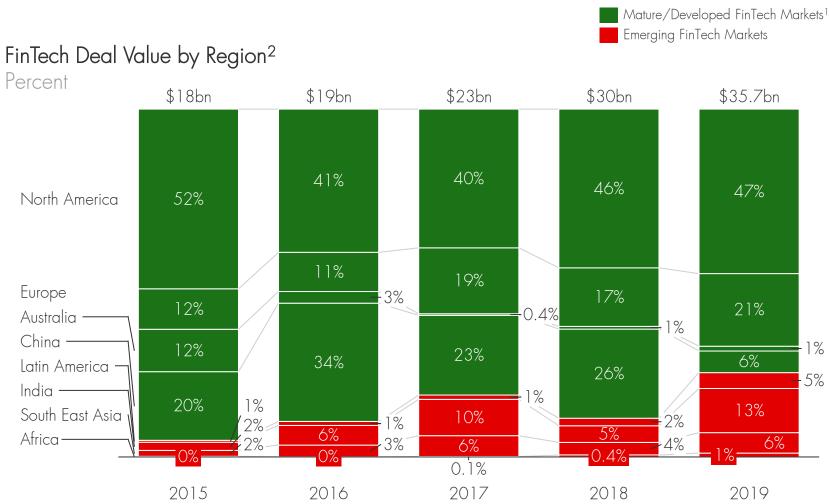
2017



2019

^{3.}Excludes Alipay's 2018 \$14Bn funding. Early stage: Early VC, Seed, Series A / Late: Series B-E, Mature: series F-1 and Late VC; Sum >100% due to rounding error

North America and Europe still dominate bulk of FinTech funding, but there has been an increase in investments into emerging markets



1. 2016. and 2018 data excludes the large funding round for Ant Financial, USD 4.5 and 14 bn

North America has the biggest share of FinTech funding over the years, receiving almost half of the global VC investments in 2019

The share of total funding for companies in emerging markets has grown over the last 3 years with almost 25% of 2019 investments in emerging markets driven by India

In 2019 Indian FinTech funding doubled, driven largely by Chinese investments



^{2.} Sums do not add up to 100 due to rounding errors

US, Europe and China are the leading FinTech ecosystems by funding and number of companies, with India and Indonesia emerging



^{1.} Total funding over last 3 years 2 China excluding Ant Financial's massive funding rounds 3 No. of FinTech added based on Dealroom database (non-exhaustive)



There are 7 key trends shaping the global FinTech landscape, with key implications for extension of finance in Nigeria (1/2)

Key Global Trends



Description

Funding to FinTech is increasing

Modernization of Payments infrastructure

Big tech players continue to encroach

Rise of Super Apps

- FinTech funding is reaching record levels and expected to continue to grow.
- Barring the Ant Financial deal in 2018, the \$36bn invested in FinTech in 2019 was a record
- Strong performance in card transactions in combination with innovations in payment solutions (e.g. real time payments and mobile wallets), regulations (PSD2 and open banking) are driving strong shift from cash payments
- Similar trends are seen in emerging markets where payments is the entry point to FinTech
- Big Tech players ('TechFin') such as Amazon, Google, Facebook & Apple with large customer bases are making bold moves into financial services
- Google and Facebook in particular are aggressively moving into emerging markets such as India where Google Pay dominates the payment market
- In China, two key ecosystem orchestrators have emerged e.g. Alibaba, Tencent, however many FinTech providers globally are developing super apps and emulating the ecosystem players
- This is being replicated in other Asian markets like India (PayTM) and Indonesia (Gojek, Grab)
- Western players such as Uber are also making moves to build super-apps leveraging their core assets



There are 7 key trends shaping the global FinTech landscape, with key implications for extension of finance in Nigeria (2/2)

Key Global Trends



Description

Open banking

• Regulators are playing a stronger role globally to foster and shape innovation e.g. EU push to offset big platforms, PSD2/Open banking and moving beyond sandboxes

Big Data/ Advanced Analytics • FinTech players are using a broader set of use cases across the sector to successfully drive the application of advanced techniques (e.g. deep learning) and wave of new Al business solutions

Shift to B2B models

- Shift towards B2B and partnership focus continues with startups serving more as catalyzers than disruptors; large potential to make financial sector more efficient
- B2C likely to remain attractive in emerging markets



The growth of these FinTech ecosystems has been enabled by 5 key factors (1/3)

Enablers	Initiatives	Description	Examples countries with successful implementation
	Regulatory Sandbox	 Environments that relax specific regulatory and legal requirements to allows FinTech test 	SingaporeUKHong Kong
	Problem statements to address industry pain- points	 Developing and publicizing initiatives to encourage innovative solutions to financial services industry problems 	SingaporeHong Kong
Financial 1) services regulation	Pricing interventions	 Reduction in tariffs and pricing to drive customer adoption of digital products 	■ India
	Fostering data sharing	 Encouraging/mandating sharing of customer data between various parties in the financial services industry 	UKGermanyIreland
	Unbundling licensing	 Issuance of tiered licenses proportionate to scale of activities 	SingaporeIndia

The growth of these FinTech ecosystems has been enabled by 5 key factors (2/3)

Enablers	Initiatives	Description	Examples countries implementation	s with successful
Global	Global Innovation Agreements	 Alliances between regulators and associations in various countries to foster innovation in financial services 	UKUAEAustralia	SingaporeHong Kong
Connections	FinTech Partnerships	 Direct cross border partnerships between FinTech to encourage knowledge sharing and expansion of networks 	IndiaChina	
	Local Investment Initiatives	 Schemes that encourage local investment in FinTech through benefits offered 	UK (UK SEIS)Hong Kong	
(3) Funding	Increased Global Funding	 Increased funding to thriving FinTech ecosystems – a case of capital finding opportunity 	IndiaChina	

The growth of these FinTech ecosystems has been enabled by 5 key factors (3/3)

	Enablers	Initiatives	Description	Examples countries with successful implementation
4)Infro		Broadband coverage	 Ubiquitous broadband coverage and quality and affordability 	IndiaUSA (New York)
	1)Infrastructure	Increased device penetration	 Improved smartphone and mobile phone penetration due to lower prices 	IndiaIndonesia
		Digital infrastructure	 Initiatives that allow easier access to digital payments products e.g. digital ID, eKYC etc. 	■ India
5		University ecosystem	 Ecosystems where tech alumni have strong affiliations with universities and mentor current students 	IndiaUSA (Silicon Valley)
	5)Talent	Training Programs	 National digital training programs to scale up tech talent 	RussiaMalaysia
		Tech Hubs	 Existence of big tech and engineering companies which allows for apprenticeships and development of tech hubs 	■ India



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Nigerian FinTech landscape - key messages (1/2)

The Nigerian financial services space represents significant opportunity for FinTech



- The financial services landscape is attractive with banking in Nigeria accounting for over \$9bn in value pools
- However, most consumers today face with significant pain points:
 - Access to services
 - Affordability
 - Ease of use and products and user experience
- A combination of unmet needs and increased tech penetration creates opportunities for FinTech to grow in Nigeria

FinTech in Nigeria are gaining traction by addressing customer pain points across the value chain and attracting significant funding in the process – leading to an increasing focus on driving financial inclusion



- FinTech activity is concentrated in consumer segments particularly payments and lending with increasing activity in savings & wealth management. However, gaps exist in MSME lending, insurance and pensions.
- FinTech are mainly located in Lagos with limited presence in Abuja with most employing B2C models
- FinTech in Nigeria have evolved from the early players-FinTech 1.0 focused on B2B to the emergence of FinTech 2.0 players focused on niches and the recent emergence of FinTech 3.0 players orchestrating ecosystems
- These FinTech are addressing critical customer pain points around access, affordability and ease of use of financial services which have historically hindered financial inclusion
- Investors have been attracted to the growing innovation in FinTech with over \$1bn invested over the last 3 years
- Customers are also increasingly adopting FinTech products particularly the youth & affluent segment



Nigerian FinTech landscape - key messages (2/2)

Despite the flurry of activity, the amount of impact created by FinTech is still a fraction of the potential



- FinTech can create value across 2 key dimensions
 - Economic impact: Increasing the value pool for financial services by bringing in new customers or increasing usage of existing customers
 - Developmental goals: Helping realize impact of digital financial services through increasing financial and gender inclusivity and enabling the digital economy
- Across these factors, FinTech have made moderate progress on financial inclusion but impact has been limited elsewhere

Given the value at stake, a concerted collaborative effort by key stakeholders will ensure enhancement of the FinTech ecosystem and more realized benefits from the promise of digital financial services



- There are a number of actions that could enhance Nigeria's digital financial services landscape, however 5 of them could yield the biggest impact
 - Foster innovation
 - Develop a credit infrastructure
 - Create a pull for digital ID
 - Increase the tech talent pipeline
 - Expand digital infrastructure
- A concerted and collaborative effort involving CBN, other financial services regulators (NAICOM, PENCOM), NCC, NIBSS, Donors and Foundations could lay the enabling framework to power the next level of growth



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Nigeria has a large population of ~200M people, ~60% are financially included which we have broken into 8 profiles

Methodology

To assess FinTech adoption across Nigeria, we segmented populations into clusters based on common factors that influence FinTech usage

1. We used a 5 step segmentation process to segment the population into clusters

Location

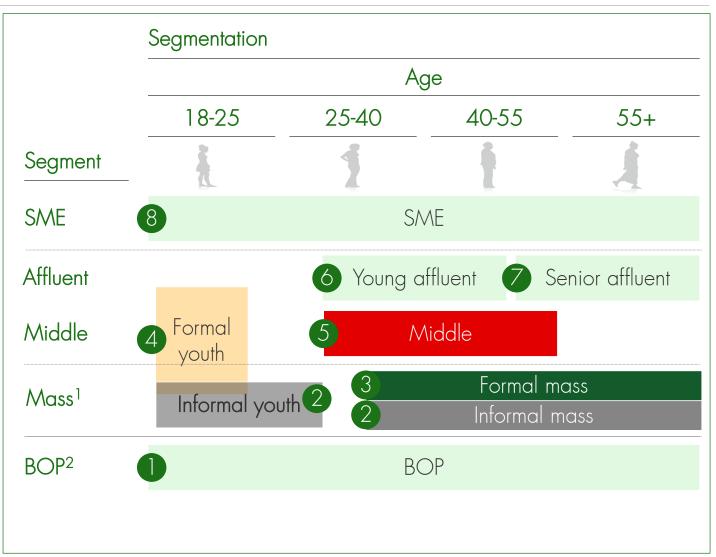
Income

✓ Age

✓ Gender

✓ Occupation

2. Per cluster, we determined the likelihood of FinTech usage using education level and tech knowledge as primary filters



^{1.} Formal mass separated from informal mass despite similar income levels based occupation and educational level, Informal mass and informal youth combined as both earnings and tech knowledge are similar



^{2.} BOP combined across ages group due to similar income level SOURCE: CBN financial inclusion

Overview of profiles

Profiles	Description	Examples		
1 BOP1	Low income individuals, earning <n20k, th="" uneducated<=""><th>Rural dwellers</th><th>Subsistence farmer</th><th></th></n20k,>	Rural dwellers	Subsistence farmer	
2 Informal mass	Individuals earning N20k-N100k, low tech knowledge, focused on basic services and FI	Housewife	Petty trader	Okada riders Artisan/domestic
3 Formal mass	Individuals earning N20k-N100k, medium tech knowledge, formally employed	Teacher	Civil servant	
4 Formal youth	Young adults earning N20k-N100k, relatively tech savvy, low disposable income, interested in savings	Student	Early graduate	Hustler
5 Middle	Individuals earning N100k – N400k, tech savvy, savings focused with occasional investments	Young professional	Freelancer	Mid-level civil servants
6 Young affluent	Individuals earning N400K+, medium- high tech savvy, investment focused	Middle aged professional	Mid-level execs	
SME owner	Earning N400k - N1M+, runs business in Lagos and other medium towns, interested in business expansion opportunities	Large trader	Family business owner	
8 Senior affluent	Educated seniors with N1M+ income, amassed wealth N20M+ focused on convenience, medium tech knowledge	Senior civil servant	Senior execs	Retirees
1. BOP: Bottom Of Pyramid				الم الم

Across the value chain, there are a large number of unmet needs, especially in the mass and SME segments (usually the excluded)

Nigerian financial services revenue pool



- 1. BOP includes rural dwellers and subsistence farmers
- 2a. Mass market includes housewives, petty traders, okada riders, artisan/domestic worker
- 2b. Includes teachers, entry level employees, civil servants
- 3. Youth includes students, early graduates and hustlers

- 4. Middle market include young professionals, mid-level civil servants
- 5. Young affluent includes mid level execs & middle aged professionals
- 6. SME owners includes large traders, freelancers, family business owners
- 7. Seniors include senior civil servants, senior executives and retirees

Key takeaways

Lending presents the biggest revenue opportunity – serving customers across youth, SMEs and affluent

Growth in the mass market and low competitive intensity makes it an attractive market for FinTech

Insurance remains underserved and underpenetrated – opportunities exist in health insurance



Across all profiles, there are significant pain points across the financial services value chain which if solved can foster financial inclusion

Segment Customer pain-points Lack of / limited access to financial services products BOP and informal Pricing of products is greatest barrier to adoption mass Lack of tailored, products to cater to needs of population (account benefits, saving) Formal mass and youth Unaffordable rates for financial services products (lending, insurance) • Poor **user experience** on various platforms Middle and Limited value added services / benefits from using products young affluent Limited access to lending products at favourable rates SME owner Limited access to POS terminals due to high volume requirements Limited availability of value added service such as advisory / Senior estate planning affluent Poor user experience

Fintech offerings to address customer pain points

Fast, affordable payments

Cash in, cash out

Flexible savings & investments

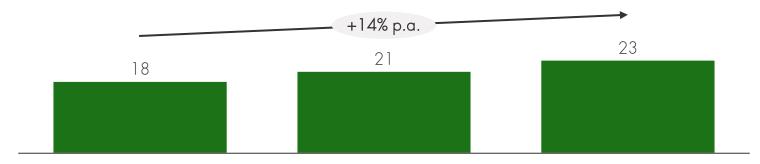
Quick loans



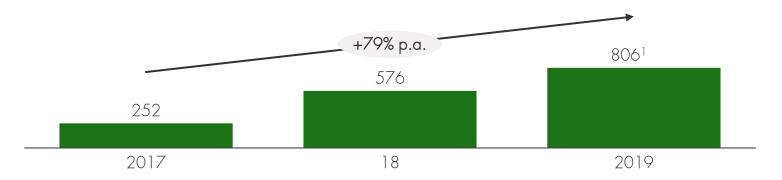
The combination of unmet needs and the growing penetration of smartphones creates an opportunity for FinTechs to grow; which can help drive the extension of Financial services

There is an increase in smartphone penetration and customer comfort with mobile technology...

Number of smartphones, Millions



Mobile payment transaction volumes, Million



- 1. Extrapolated based on mid-year 2019 data
- 2. Dependence on app stores for distribution also has implications/risks for FinTech (e.g. Playstore's recent policy on lending apps)

... and FinTech are leveraging technology to innovate address unmet customer needs

- FinTech are creating new products leveraging the data that smartphones provide e.g. multiple FinTech are using BVN and phone number verification to provide loans to customers – using algorithms on the customer's mobile transactions to determine credit risk e.g. Quickteller
- Mobile data and UX have allowed FinTech to develop products and go to market directly, leveraging app stores² as a distribution platform to reach over 23 million smartphone users
- Digital onboarding is becoming easier as banks and FinTech invest in customer education and leverage agents for one-onone guidance to drive financial inclusion



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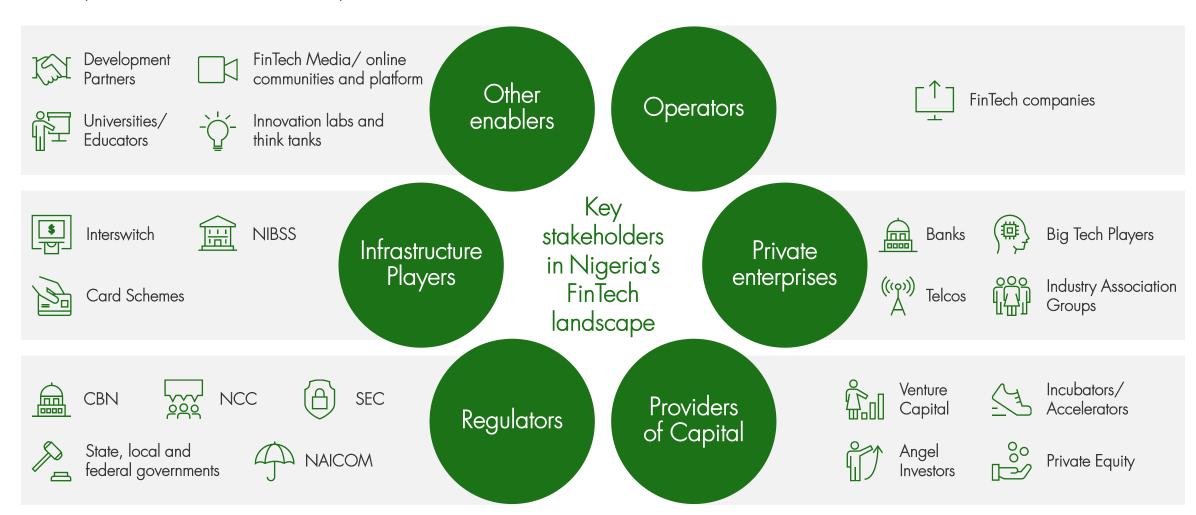
The Nigerian FinTech market is undergoing dynamic development

Description Key indicators Emergence of 200+ FinTechs addressing Nigeria is home to 200+ FinTechs FinTech is a fast-growing various scustomer pain-points FinTech activities are primarily focused on payments with increased market activities in the lending and savings space First Bank's FirstMonie facilitated the Some banks have launched fintech solutions, through inhouse innovations or collaboration opportunities with FinTechs deployment of 200,000+ agents across Traditional banks are reinventing 圌 Nigeria themselves in response GTB's Quickcredit provides access to loans up to N5 mn in 2 minutes 2019 investments include OPay \$170 FinTech investments in Nigeria grew 197% over the past 3 years, The scope of FinTech investment mn and Interswitch \$200 mn driven primarily by foreign investors, particularly Chinese investors keeps growing Foreign-backed fintechs have a pan-Africa expansion strategy, with Flutterwave attracted \$35 mn funding in its Nigeria is becoming an entry point Series B round in 2020 Nigeria as their entry point to Africa and a testing bed for Nigerian fintechs are increasingly exporting their business models to Migo scaled its business to Brazil innovation other emerging markets The regulator has proactively launched initiatives to drive financial Creation of SANEF shared agent network inclusion and push for a cashless economy Issuance of PSB licenses to drive rural The regulator is pushing a penetration of financial services digital agenda Recent reduction in electronic payment charges

EFInA

The FinTech landscape in Nigeria is composed of several stakeholders across the private & public sector

Primary stakeholders in the ecosystem

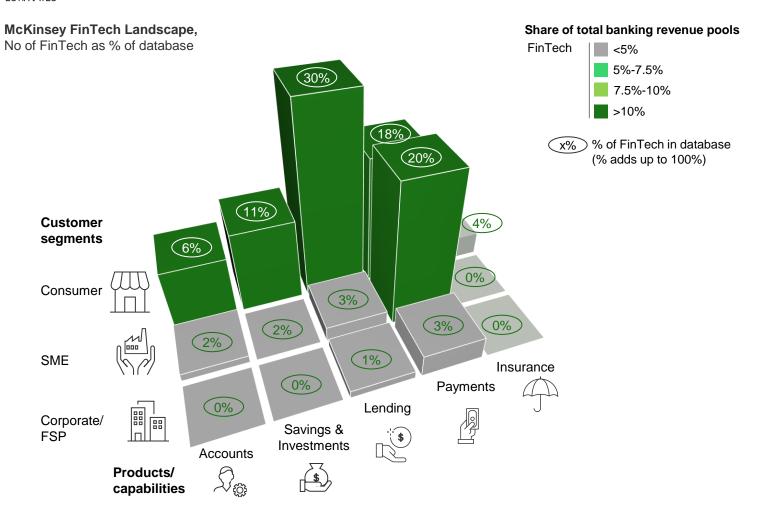


FinTech activity in Nigeria has evolved from focusing on B2B to a growing number of B2C-focused and ecosystem players

2000 - 2007 2007 - 20182019 - present FinTech 1.0 FinTech 2.0 FinTech 3.0 Paystack* paga cellulant CowryWise **System**Specs Key players JUMIA Flutterwave® piggyvest carbon eTranzact » palmpau **7**Interswitch Core focus B2B services enabling banks CBN launched PSV 2020 to drive Ecosystem players offering full cashless economy and other financial institutions array of financial and nonfinancial services e.g. ridemainly in payments Prominence of mobile payments hailing, music B2C players focused on specific niches Regulation Cashless policy, financial inclusion/ NA NA SANEF Infrastructure EurOPay MasterCard and NIBSS Instant Payment NA Visa (EMV) to enable pin and MasterCard Internet Gateway chip card transactions MasterCard Payment Gateway

Nigerian FinTechs are primarily focused on payments and consumer lending across formal and informal segments





Key insights

Payments have served as the entry point for most FinTechs

- ~90% of customer touch points are in payments
- Lower barriers to entry in payments
- ~15% of revenue pools are in payments

Lending has also seen growth in FinTech activity

- Large unmet demand
- Leverage of analytics on available customer data (e.g. phone data, payment data) to determine lending risk
- Reduced barrier to entry (players leveraging MFB and State Money Lender Licenses)

Rising activity in wealth management:

- Unmet need for better return
- Payments disruption enabling increased customer control over their money

Gaps still exist in "non-low hanging fruits" areas, specifically MSME lending and insurance



FinTech activity has initially been focused on the youth and middle segments; although there has been some efforts in the informal (excluded and included) segments

Concentration of activities

	ВОР	Informal Mass	Formal Mass	Formal youth	Core Middle	Young Affluent	SME owner
Accounts	paga' your cash, anywhere, anytime	paga' your cash, anywhere, anyfime	your cash, anywhere, anylline	your cash, senyerhere, senyeriere KK kuda.	K kuda.		prospa
Payments	cellulant*	paga' your cash, anywhere, anytime OPay	Quickteller	○ OPay	Quickteller	⋖ barter	Paystack [®]
	your cash, anywhere, anytime OPay	© palmpay	OPay Palmpay	palmpay Quickteller	wallets wallets wallets africa		Flutterwave®
Lending		MINES.IO	QuickCheck KwikCash carbon renmoney	© KwikCash Renmoney QuickCheck QuickCheck Social Lender	QuickCheck carbon branch renmoney KwikCash	⊘ carbon	© carbon Lidya ♣ schoolable
Savings & investments	© SmartTeller	Social Lender	© CowryWise	⊚ CowryWise	© CowryWise chaka piggyvest RISE	chaka RISE &	
Insurance		GRIDI			Wealth.ng AutoGenius	To inter INC	

The youth and middle segment have seen early activity due to the low hanging opportunity arising from many unmet needs (e.g. credit) and the higher propensity to switch to digital alternatives

There has been increasing focus on the mass segments particularly in lending & payments as players have been attracted by the size of the segment and regulatory focus on financial inclusion

Gaps still remain at bottom of pyramid as very few commercially viable use cases have been developed to serve this segment

The MSME segment beyond payment has also seen **limited activity**



FinTechs are developing innovative value propositions across the financial services value chain (1/2)

NOT EXHAUSTIVE Products	Sub-category	Core value proposition	Example players	Indication of traction
Payments	Wallets	Easy to sign up, easy to use stored value wallets using mobile phones and incorporating key use cases for customers across transportation, food & digital services	OPay pagar your cash, asywhen, asyline cellulant ste is reacte	OPay processes ~\$10m of transactions daily Paga processed \$2bn of transactions in 2019
	Processors	Simplified channels to allow MSMEs and corporates receive online payments from customers	Paystack* Finterswitch Clinical Control Clinic	Flutterwave processed over \$5bn of transactions in 2019 Paystack processes over NGN 10bn of transactions monthly
	Remittances	Easy, instant cross-border transfers at a fraction of cost & time of conventional players- often leveraging cryptocurrency	Bit Pesa SureRemit CHIPPER	ChipperCash has over 600 thousand active customers and 3 million transactions monthly
	Merchant service providers	Merchant terminal providers allowing merchants receive offline payments	Global Accelerex CTISERVE	PTSPs serve over 120 thousand merchants in Nigeria, though merchants are mainly acquired by banks
Savings	Savings	Automated, disciplined and high return savings for middle class customers & millennials	CowryWise piggyvest	Piggyvest has acquired ~1 million customers, saving over NGN 1 bn monthly
	Wealth management	Offer customers investment options in diverse industries on online platform at attractive rates (significantly higher than banks savings accounts)	RISE trove treating, simplified. We although the chaka	Crowdfunding platforms particularly in agriculture have raised over \$25mn from retail investors in last 3 years



FinTechs are developing innovative value propositions across the financial services value chain (2/2)

NOT EXHAUSTIVE Products	Sub-category	Core value proposition	Example players	Indication of traction
Lending	Retail lending	Instant, unsecured, short term loans to retail customers leveraging alternative credit scoring algorithms and data	© corbon	Carbon disbursed over \$35.6M in loans in 2018
	MSME lending	Quick, unsecured working capital loans to MSMEs with minimal documentation	Lidya schoolable	Lidya has disbursed over 10 thousand loans valued at ~\$12mn to 2 thousand MSMEs
	Lending infrastructure	Lending platform for banks and other lending players to simplify lending process and provide risk assessment	Igo Indicina Social Lender	Migo has originated more than 3 million loans to over 1 million customers in Nigeria since 2017
Services	Personal finance	Automated expense tracking, budgeting and investments leveraging machine learning	KliQr Herzy Fromy Better	REACH tracks expenses for over 50 thousand users
	Merchant solutions	Value added services for MSMEs and merchants such as inventory management, loyalty & accounting	LOYSTAR thank to cash	ThankUCash has processed over \$5.5m in transactions on its loyalty platform
	Financial institutions	Platforms and services for financial services providers to leverage to provide digital services to their customers e.g. software, automation	■ RIBY teamapt	Riby has 1.1M members and 30k co-ops Team Apt serves over 26 African banks
Distribution		Technology enabled, easy to setup and low cost models to scaling agent networks	Paycentre Capricar Digital Capricar Digi	Kudi processes over NGN 1bn per day in transactions
Accounts		Fully digital banking services leveraging smartphones	K kuda. ♣Rubies ♣	Alat has signed up over 350 thousand users since launch
Digital insurc	ance	Insurance marketplaces	Cossova	Limited traction among players

As the Nigerian financial services market evolves, banks are adopting new strategies to remain competitive

- Build partnerships with FinTechs, opening up their infrastructure for FinTechs to integrate and drive innovation
- E.g. Ecobank hosts an annual fintech challenge, Access bank's Fintech Foundry which funds and accelerate the growth of Fintech startups











- Compete with different FinTech players as well as industry peers with Fintech propositions
- E.g. First Bank's FirstMonie to drive agent banking and GTB's Quickcredit for loans in just 2 minutes

Strategic options for incumbents

- Reinvent themselves leveraging digital technologies to change operating model and deliver new proposition to the market distinct from existing mode
- E.g. Wema Bank built ALAT, the first digital bank in Nigeria



Reinvent yourself







 E.g. some banks are making equity investments in Fintechs









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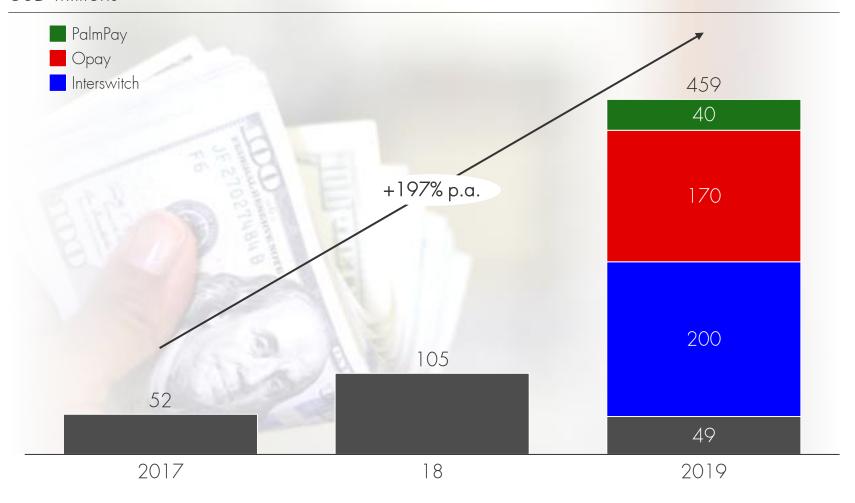
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FinTech funding in Nigeria has grown at ~197% over the past 3 years

Funding in Nigeria USD millions



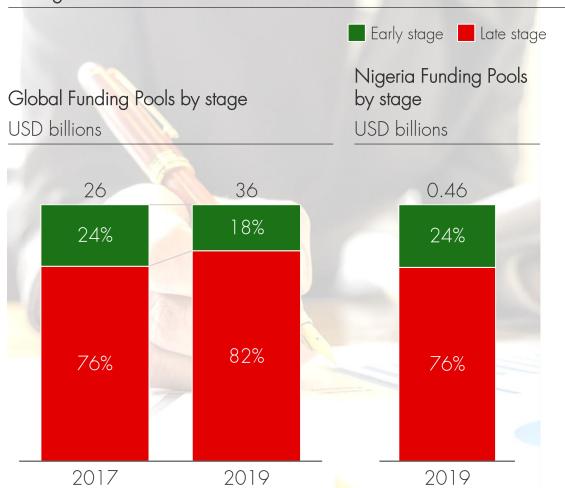
Key insights

- Funding has grown
 190% over the past 3
 years driven by increased foreign investments
- 2019 investments were driven largely by Visa's \$200M investment in Interswitch and Chinese capital in OPay (\$170M) and Palm Pay (\$40M)



Funding is concentrated on later stage investments and there is a perceived gap in pre-seed funding partly due to limited local participation

For deals >\$1 mn, funding split by stage in Nigeria mirrors global average...



However, there is a perceived gap in pre-seed funding (<\$1 mn) partly driven by limited local participation

Issues highlighted by FinTech and investors

Gap in pre-seed funding

"Funding to the industry has improved but it is still difficult for entrepreneurs to raise pre-seed capital of \$50-\$100k"

"People are asking for unreasonable equity up to 30% for pre-seed rounds"

FinTech founder

FinTech founder

Limited local participation

"Nigerian investors don't yet understand the venture asset class"

Local VC

"Less than 5% of investments are from local sources"

FinTech founder

Limited support system for early stage FinTech

"Many FinTech founders locally are not prepared upfront for the requirements of fundraising"

FinTech leader

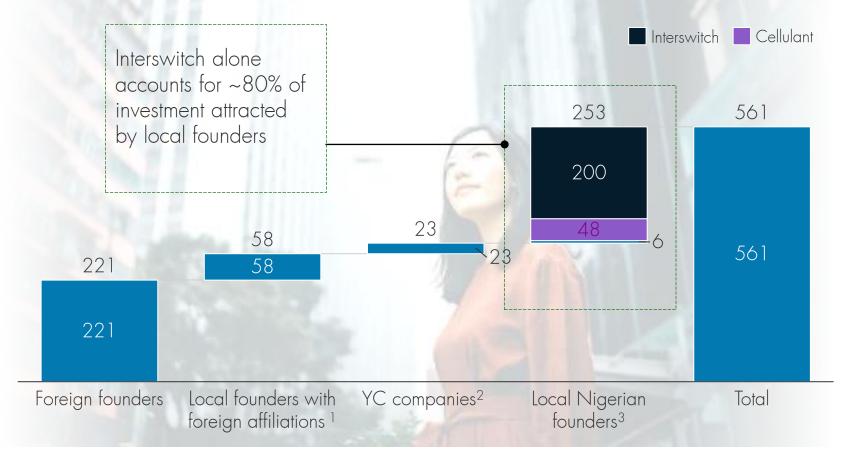
"There are very few technology lawyers or support structure for entrepreneurs here"

Local VC



This is reflected in the fact that >50% of the funding has gone to companies with foreign affiliations

Funding value of top 20 FinTech investments in Nigeria by founder, 2018-2019 USD millions



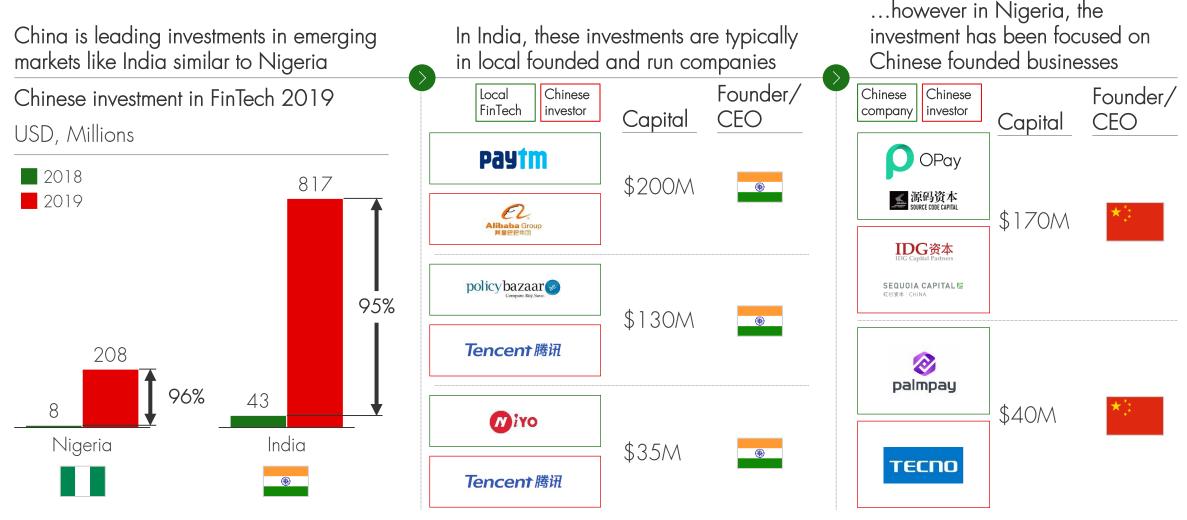
- 1. Founders with foreign/Western college education and/or professional work experience
- 3. Local founders with no foreign/Western college and/or professional work experience
- 2. Y combinator companies

Key insights

- Accessibility to funds and preparedness differentiates diaspora founders from local founders, who leverage their networks and deliver funding pitches based on requirements of international investors
- Foreign accelerators like YC Combinator & 500
 Start-ups have helped few FinTech to bridge the preparation and access gap
- ~84% of funds invested in foreign or foreign affiliated FinTech excluding Visa into Interswitch)



China is ramping up investments in emerging markets like India, however, unlike India, Chinese investment in Nigeria has been focused on Chinese founded businesses



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Key messages from customer adoption of FinTech products



- Highest adoption in Lagos among middle and affluent customers, early traction in the South and nascent activity in the North
- Customers across segments have the highest FinTech adoption in Lagos, driven by increased awareness, proximity to technology and access



- Successful players leverage use cases such as transport, food & bills
- Quickteller and OPay are most widely known & used products and have successfully grown their customer base through use cases integrated with customers lifestyles like transport, food & bill payments



- Referrals driving adoption especially for women
- Even with minimal marketing, women play a critical role in driving
 FinTech adoption through referral programs, particularly savings



Trust in FinTech is growing

 Customers are increasingly trusting to FinTech and 40% of lower income and underbanked customers trust FinTech and/or agents the same as or more than banks

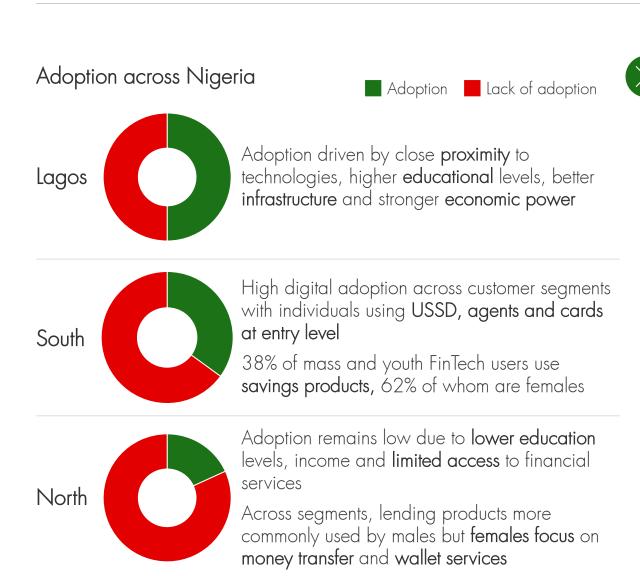


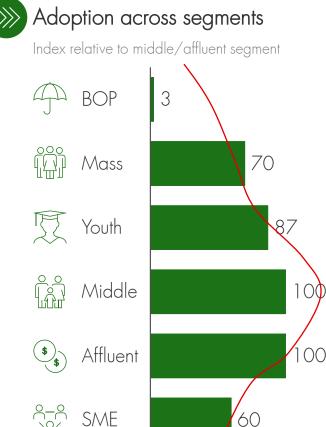
Customers value accessibility and convenience

FinTech adoption is largely driven by convenience and access to products/services which address specific unmet needs



I: FinTech adoption is highest in Lagos and growing in the South, however, adoption in the North remains nascent





Senior

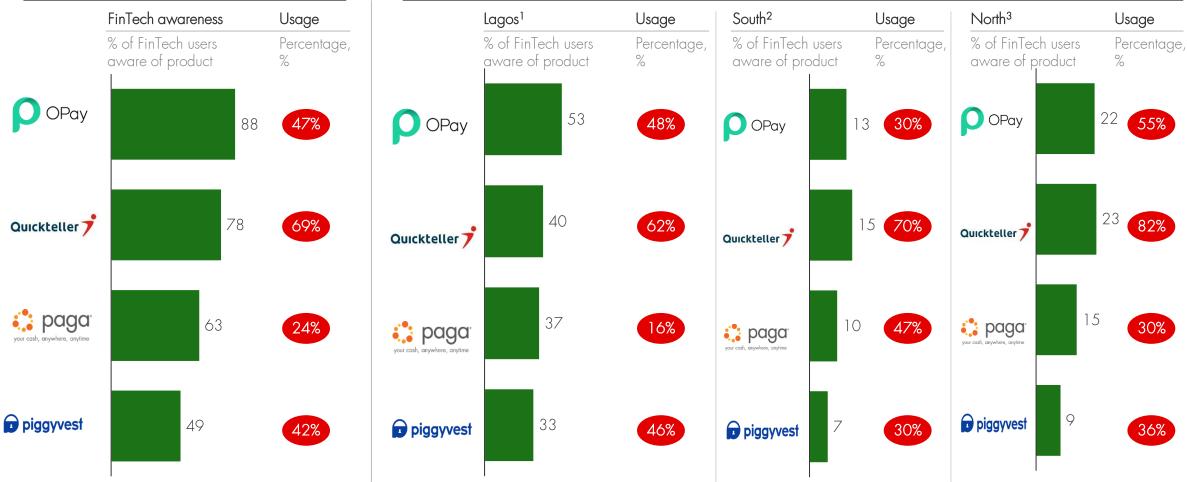
- Fast adoption of FinTech products in mass customers as they become financially inclusive
- FinTech offer the most products to middle segment customers who are likely to explore multiple products and have higher tech knowledge
- Adoption decreases with affluent and senior affluent individuals who are more likely to use their banks for financial services

II: OPay and Quickteller are some of the most widely recognized and used FinTech solutions⁴

Customer awareness on FinTech products is increasing across Nigeria...



... OPay is the most recognized in Lagos while Quickteller dominates the North and South



Mainland, VI, Lekki, Ikoyi, Yaba, Tejuosho markey, UniLag,

2. Abia 3. Abuja, Kano, Maiduguri, Jos, Kaduna 4. Out of 19 FinTech – OPay, Paga, Quickteller, Palmpay, Barter, Wallets, Carbon, Branch, Renmoney, Kwikcash, Lidya, Cowrywise, Piggyvest, Flutterwave, Wealth.ng, Chaka, Bamboo, Trove



II: Players like OPay and Quickteller became relevant to users by addressing critical use cases and adapting their products to local context

OPay and Quickteller successfully penetrated the market with high customer recognition and usage through relevant use cases, customer education and local context adaptation

Use case



- OPay focused on offering transportation and food which account for ~50%1 of spending at discounted prices to capture customers
- Quickteller gained customer across the country through its use case of bill payments such as electricity bill, cable, internet as well as wallet payments for airtime and data top-up

Customer education



- OPay invested in customer education by **employing 10,000 agents** who acted as foot soldiers to educate customers on OPay products
- Quickteller rolled out a vast network of "Paypoint agents" and recruited members of the community (business owners, NYSC members, job seekers etc.) to be agents, educating customers on Quickteller usage and incentivizing individuals to register and enroll new customers onto the platform

Contextualization



- OPay tailored its services to local context by providing "Keke" services for transportation and Hausa in Northern Nigeria to cater to customer needs
- Quickteller leveraged partnerships with its billers to push Quickteller payment to their customers e.g. cable providers, electricity companies, educational institutions etc.
- Based on customer survey responses

II: OPay is attempting to embed itself in the lifestyle of mass and youth customers

Tunde the hustler's interaction with OPay throughout day







- Wakes up
- Takes ORide to town for his daily trade
- Tops up ORide account with N 1000 for the week



Buys airtime using OPay app

Buys breakfast at local restaurant MamaSam and pays with OPay QR and gets N50 cash back



G



Needs a short NGN 20,000 loan to buy materials for a contract. Applies and get loan through OKash



Places bets on Bet9ja event for himself through OPay app



Sends money to his mother for her upkeep and mother picks up money from agent



Visits his clients for repairs and clients pay him via USSD

On his way home, requests an ORide, gives driver N3000 to top up his own wallet



Saves the N3000 in OWealth account as daily savings



Visits local bar through ORide





II: Other FinTech products are increasingly gaining traction especially among SME owners

Chima the SME owner's interaction with fintech products

ILLUSTRATIVE



Takes Bolt ride hailing service to travel to his mini-market in Yaba



Generates customer invoices and applies for N200,000 quick loan on Lidya to purchase inventory



Pays supplier via Flutterwave for inventory delivery





Deposits N50,000 in Piggyvest account – N20,000 savings and N30,000 in agriculture investment





Deposits money in account via agent to avoid queues at the bank



Walk-in customers pay for merchandise using Quickteller, Paga, cards on POS or cash





Orders food on Jumiafood and pays online with JumiaPay



Closes shop and deposits money in business account at local bank branch



Takes Uber home



III: FinTech adoption has been driven by referrals, with women playing a critical role in adoption, especially around savings products

FinTech referral in Nigeria



Products often referred



Customer quotes

55% of customers

heard about FinTech products through a friend

65% of women

using FinTech in Lagos heard about a FinTech product through their friend

60% of women

using FinTech in the North heard about products through referrals







I joined because my friend sent me a referral code and when I invited someone else, I got N 1000 reward Piggyvest customer, Lagos

We all entered Quickteller's customer referral to win NGN 1M. So I registered a lot of people Quickteller customer, South

My friends share any promo they have with me. It's part of the sisterhood

Cowrywise customer,
Lagos

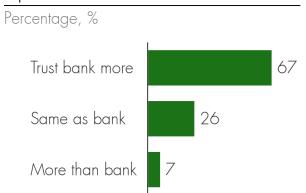


Trust in FinTechs in Nigeria is growing, although customer trust remains higher in banks

Customers trust in FinTechs is growing...



... and ~33% trust FinTech more than or equal to banks for swift transactions



... particularly amongst lower income segments

Percentage of FinTech users who trust same as or more than banks, %



51% of youth and mass customers trust FinTech the same as banks



SME owners trust FinTech due to fast settlements

Increased trust is driven by 4 factors, primarily agent relationships

11

1 Agents

People trust me because I am a member of the community and they know their money is safe Agent, Lagos

Better experience / accessibility

It's convenient, fast , reliable, and the occasional bonus N300 after every use

OPay user, Lagos

3 Pricing / transparency

I know how much they charge me unlike banks that will just be deducting charges

Paga user, South

Ease of money withdrawal

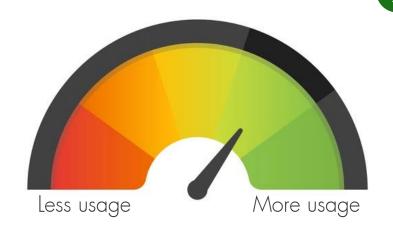
When we get paid for our goods, we withdraw our money from the wallet unless we have other agric. products to buy

Cellulant user, North

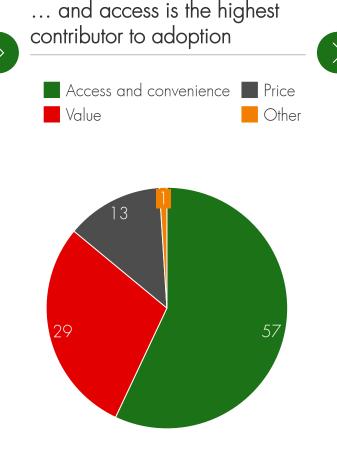


V: Customers value access and convenience, which has driven increased FinTech usage over the past 6 months

FinTech usage has increased over past 6 months...



54% of customershave increased their FinTech usage over the past 6 months



Rationale for usage

Access and convenience

I can pay all my bills, do my transfers on my phone without going to the branch

Youth, East



When I cannot go to the bank, I go to the agent around here and can immediately see the money in my account

SME owner, East

Value / service It gives me the discipline to save and restrict when I can withdraw the cash

Middle customer, Lagos



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The FinTech space is expected to continue to grow, particularly across 5 sectors (1/2)

		Why	Early indicators	Opportunities
	Online payments	 Digital economy is expected to continue to grow with many merchants accepting online payments and other commercial use cases emerging 	 Online payments have grown at 28% CAGR over last 3 years Flutterwave is processing over \$5bn in transaction volumes after 3 years Paystack processes over 25% of all online payments in Nigeria daily 	 Escrow services for e-commerce Vertical solutions e.g. for health, education
Growing sectors	Retail lending	 Despite growth, there's still significant under-penetration of retail lending Could be the entry point for mass & BOP segments into digital financial services 	 8 out of the top 10 financial apps in the Google Play store in Nigeria are lending apps Online lenders continue to record 80-100% annual growth in credit disbursed 	lending)P2P lending (e.g. via cooperatives)
Early bets	Wealth management	 With payments becoming seamless and information being democratized, consumers have more control over their money and will start to look for higher returns 	 In the last 6 months, 6-8 players have entered the wealth management space Crowd funding platforms have raised \$10M+ from retail investors 	 Robo-advisory to help people make investment decisions Alternative investment platforms (e.g. real estate, SME financing)

The FinTech space is expected to continue to grow, particularly across 5 sectors (2/2)

Why Early indicators **Opportunities** POS payments are 6X the size and Cash is still significant in the Offline payments infrastructure Nigerian market but CBN push growing faster than online payments at platform (similar to UPI¹) 40% CAGR (vs 28% for online for cashless is making cash more Merchant acquisition expensive (e.g. NIP transactions payments) Merchant service providers (e.g. less than NGN 20k costs less Offline Consumers are already making retail POS, loyalty) than an ATM withdrawall payments using mobile apps and payments As mobile wallets become more USSD, but process still has friction for mainstream, people will need use merchants cases to drive more offline White transactions spaces Underserved market that is Retail lenders like Carbon are starting to Invoice discounting explore the MSME lending space arowina Value chain financing SME focused lenders like Lidya and Increasing digitization of Credit scoring & lending for **MSME** payments (via both online & Lendigo are emerging, though still SMEs lending offline payments) will make it relatively small in size

easier to lend to MSMEs

it easier to fund SMEs

National asset registry will make

^{1.} Unified Payment Infrastructure

Based on emerging trends and learnings from other markets, 3 archetypes of FinTechs will continue to exist in Nigeria

	Description	Indonesia examples	India examples	Nigerian examples
Ecosystem orchestrators	 Large, deeply funded players, operating as a platform/superapp that acts as a gateway for customers to a wide range of services beyond financial services (e.g. transportation) 	GO&JEK	Paytm	P OPay
(Fintech 3.0)	 These type of players could also be 'TechFin'- technology companies with existing customer bases that offer financial services as an add-on offering 			
Mid-sized	 Longer tail of medium sized businesses who are focused on executing on individual verticals (e.g. payments, savings) or geographies (e.g. Northern Nigeria) or segment (e.g. SMEs) 	MOKA O	LENDINGKA₹T ¬ Pine Labs	piggyVest
niche players (Fintech 2.0)	 Experience in other markets suggest, these type of players thrive in their domain of expertise, solve distinctly local problems and are often acquisition targets for the larger players 	Redivo Buy now, Pay later	policy bazaar for Insurance compare klya? CRED digit	■ paystack
DODl-l	 FinTech focused on enabling banks, telcos, corporates or other FinTech to improve their offering 	Maiz	redcarpet 🚢	P
B2B enablers (Fintech 1.0)	 Could start out as B2B or have pivoted from a B2C model 			

with a great product but limited traction and challenging

EFInA

Source: Expert interviews, Web search

economics

3 broad elements will determine likely winners but importance will differ by archetype

			Ecosystem	Low Medium High Very hig Degree of importance		
Key elements		Characteristics of successful players	orchestrators	Niche players	B2B enabler	
Right strategic bet	Playing in the right sector	 Playing in large, relatively untapped market with significant potential to grow 	•			
	Scalable business model	 B2C business model with a low cost and scalable distribution model 				
	Clear customer needs	 Identified a clear set of unmet customer need where customers have demonstrated willingness to adopt 	s O			
Clear value proposition	Product market fit	 Great user experience (i.e. built and customized for local context e.g. local language, social commerce) with resulting high degree of user adoption 				
- ·· -	Strong founding team	 Founding team with strong track record of execution and with the right mix of skills tailored for the sector of focus 	J	J		
Execution	Deep funding pool	 Access to significant funding pools from foreign or local investors to fund rapid scale and customer acquisition 				

EFInA

SOURCE: Expert interviews, Team analysis 62

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In the long term (5-10 years), FinTechs can create impact on three broad dimensions – economic impact, development goals, and multiplier effect

FinTech activity in Nigeria could impact the economy by:

- Expanding the revenue pools by ~18% in additional retail revenues
- Attracting up to \$3bn in foreign direct investment from global investments in FinTech
- Contributing to the Digital Financial Services GDP uplift of \$50bn by 2025 driven by increased productivity, increased capital and increased labor hours from digitization
- Enabling increased consumer consumption and MSME growth through innovation on new lending models



Unlock economic impact



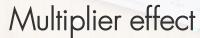
& accessibility across development goals

Digital financial inclusion can positively impact the livelihood of Nigerians by:

- Providing financial service products to rural communities and unbanked populations
- Enabling digital and financial inclusion of women which drives increased spending on education, healthcare and raised quality of human capital in the economy
- Leveraging technology to increase coverage extension through pay-per-use and lower cost solutions in education, healthcare, agriculture, etc.

Increased FinTech activity could indirectly impact the economy by:

- Unlocking new business models beyond financial services (e.g. logistics)
- Fueling the growth of e-commerce
- Increasing job creation and STEM talent pipeline



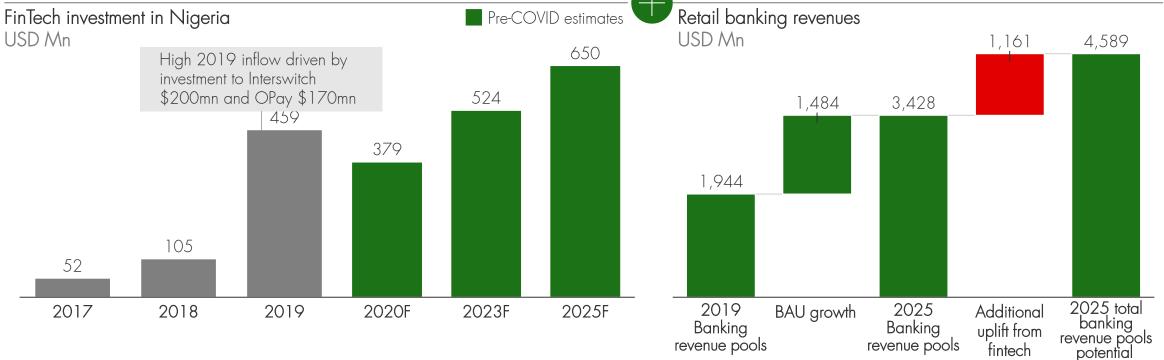


FinTechs could add up to ~\$3bn through investments into the economy and ~\$1bn in additional revenues to the financial services industry in the long term



FinTech have accounted for $\sim\!10\%$ of direct investment into Nigeria from 2017-2019 and can contribute pre-COVID -19 estimates of up to \$3bn²

... with potential impact to increase retail banking revenues by ~\$1bn by 2025



- Payments have the potential to financial survives revenues \$1 bn driven by FinTech activities
- While forward funding projections depend on the complex interplay between economic activity, investor sentiment and
 evolution of the COVID crisis, we expect to see a downward trend in Nigeria, similar to global trends



^{1.} Payments, Savings, Lending (excludes wealth management)

^{2.} Sum of \$3bn includes projected figures on chart for years 2020,2023 and 2025 and figures for 2021-\$422mn, 2022-\$470mn and 2024-\$583mn Source: Nigeria Bureau of Statistics, McKinsey Global Banking Pools, team analysis,



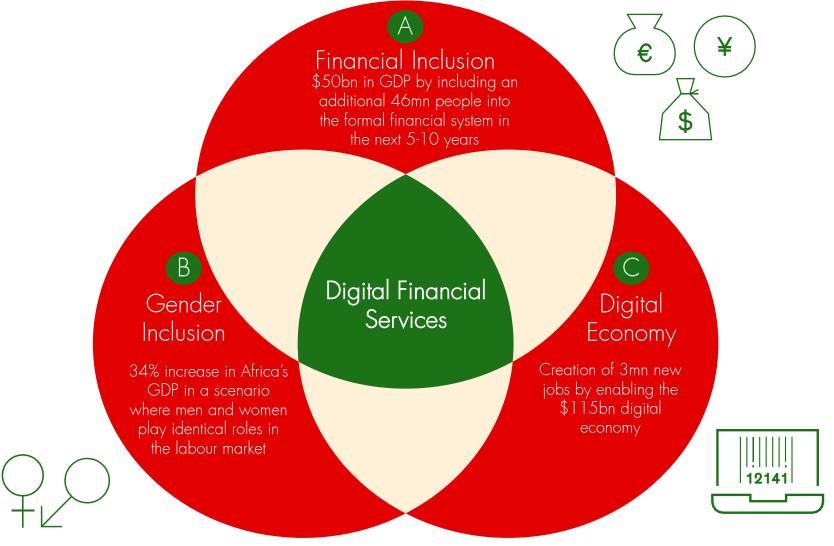
FinTech activity has the potential to grow financial services revenue pools

Corporate	Expansion of product offerings	 Increased payment volumes due to value chain digitization Cannibalization of traditional bank offerings 	Increased lending through automation of lending processes		
SME	 Expansion of accounts & deposits by formalizing informal SMEs Reduced margins e.g. by offering interest on current accounts 	 Increased revenue pool from online payments Digitization of cash collections Reduced margins e.g. on transfers 	 Increased revenue due to higher interest rates Increased inclusion into the formal credit system Disintermediation through B2B lending 	→ Increased investment by SMEs	 Increased access and adoption of products Reduced premium margins
Retail	New customers by creating increased access to accounts for BOP Reduced margins on accounts for conventional customers	 Digitization of cash payments Value add services e.g. expense tracking, advisory etc. Reduced margins on payment fees 	 Increased revenue due to higher interest rates Increased inclusion into the formal credit system 	Increased savings mobilization due to ease of use & education Formalization of savings Increased access to wealth products e.g. stocks Reduced overall margins due to higher interests Cannibalization of traditional savings accounts Offshoring of value from foreign investments	 Increased access and adoption of products Reduced premium margins
	Accounts	Payments	Lending	Savings & Investment	Insurance

EFInA

SOURCE: Team Analysis

FinTech are contributing to the digital financial services opportunity in GDP and job creation across 3 levers







FinTech penetration will boost human capital development

Education



Foster female adoption of DFS to increase welfare and family productivity as women spend more on food, education and healthcare



healthcare and health services to individuals including micro-insurance

Provide access to

Public health

Increased access to financing for agriculture

Agriculture



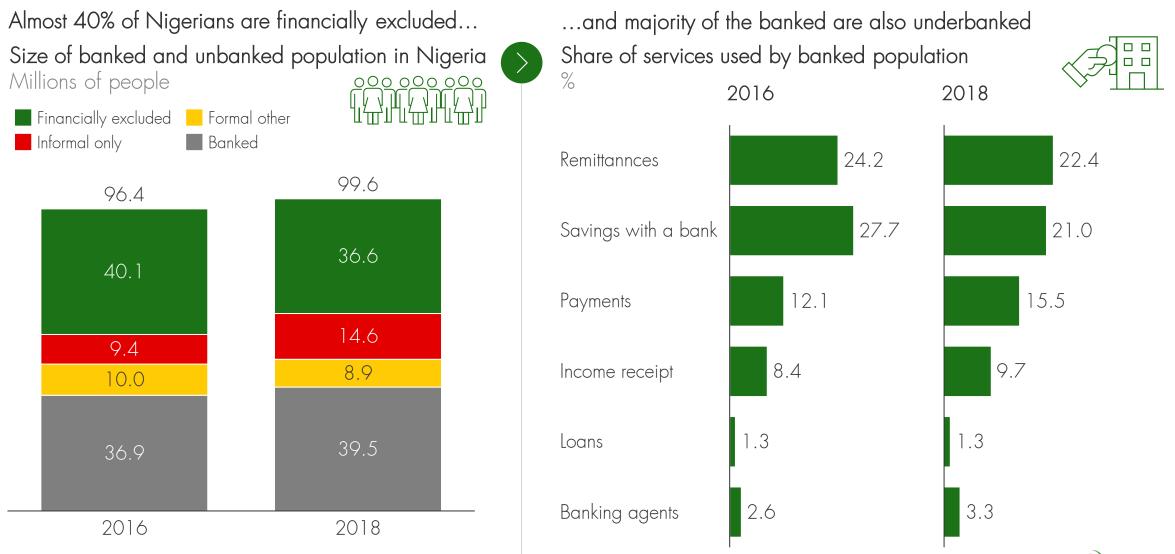
Drive financial inclusion for the ~40% financially excluded population

Financial Inclusion





Nigeria still faces a significant financial inclusion challenge



EFInA

SOURCE: EfinA Access to Finance 2018 Report

There are 4 key levers through which FinTech are driving financial inclusion (1/2)



Key Levers

Access

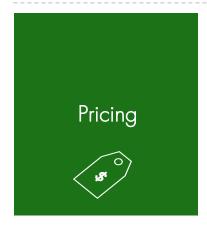
Description

 Financial products and services within easy reach of all segments of the population



FinTech Impact

- FinTech have increased access through new savings and lending models:
 - Access to Savings
 - Over 1 million customers saving on platforms like Piggyvest & Cowrywise with 60%-70% being first time savers
 - Access to Lending
 - Over 3 million customers with increased access to lending through FinTech such as Carbon and Migo
 - Over N50 billion loans disbursed annually through FinTech such as Carbon and Migo



Financial affordability and ability of products to accommodate various income/economic groups

- FinTech have increased product affordability through reduced charges and cheaper transfer fees:
 - FinTech tend to be 50%-80% cheaper than traditional players in transfers, bill payments and airtime purchase
 - FinTech are offering 2-3X the interest rates on savings compared to traditional players

There are 4 key levers through which FinTech are driving financial inclusion (2/2



Key Levers



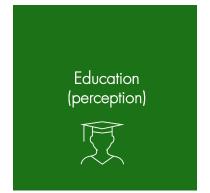
Description

 Design of financial products that cater to the needs of various segments of the population across culture, religion, gender, geography etc



FinTech Impact

- FinTech have led innovation in 3 out of 5 product areas, spurring imitation from traditional players:
 - Savings & Wealth Management:
 - Disciplined savings models through FinTech like Cowrywise
 - Digitization of Cooperative savings through FinTech like Riby
 - Digitization of Esusu models through FinTech like Bankly
 - Lending
 - Aggregation of smartphone data points to disburse documentation and collateral free loans e.g. through Carbon
 - Payments
 - Online IVRs in various languages e.g. through Softcom
 - Migration of customers to wallets via lifestyle use cases e.g. OPay



Education of consumers on the needs and benefits of financial products and services

- A few FinTech are making modest efforts at consumer education, with significant room for improvement:
 - Lending:
 - Free credit reports (e.g. on Carbon) educating consumers on credit health
 - Savings:
 - Educating consumers on maintaining financial health e.g. Piggyvest's WAEC score enlightens users on their saving habits and how they can improve



Female participation in FinTech remains low in Nigeria and adoption in concentrated in payments and wallet offerings



Despite a low number of female-founded¹ companies in Nigeria, 48% of FinTech have women in senior management positions

Female founders

22% of top 50 FinTech² have

female co-founders

Women in senior management³

48% out of top 50 FinTech have women in senior management position

FinTech funding >\$1mn

Only 2 companies with female co-founders⁴ have raised

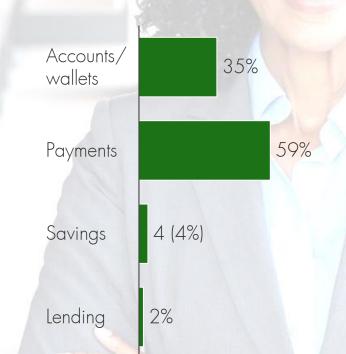
\$1mn+ in 2018-2019



FinTech adoption is lower for women⁵ in Nigeria relative to men and concentrated in low sophisticated products

Female adoption of FinTech⁶ for mass and youth, %

Rationale for low adoption



Only 17 out of the top 30 FinTech in Nigeria has designed a product specifically for women

Companies do not create products to solve specific women's needs

Based on interviews with various stakeholder and team analysis on top 50 FinTech

^{2.} Determined based on Weetracker and Britter Bridges reported FinTech, team analysis 4. Publicly announced funding of FinTech in Nigeria

Senior management includes partners and executive positions Based on 215 customer interviews across Nigeria

^{6.} Use at least one FinTech product

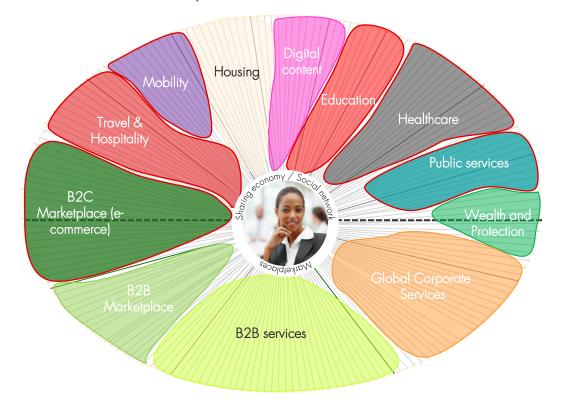
Fintech solutions could create a multiplier effect on the economy across several sectors



NOT EXHAUSTIVE

Areas that could be impacted by increased DFS

Twelve distinct ecosystems have been identified



In Nigeria, FinTech impact is already observed on a few



Travel & Hospitality

New online business models leveraging digital payment solutions (e.g. WAKAnow, Hotels.ng)



Healthcare

Offer businesses and individuals to **spread costs of insurance premiums** over regular installments (e.g. Reliance HMO)



Housing

Provide financing for annual fees for e.g. school, memberships or commercial services (e.g. Fibre)



Education

Create environment that **generates more interest in STEM**, thus increasing talent pool of computer scientists, developers etc.



FinTech have enabled the rapid growth of e-commerce, travel, mobility and agriculture over the last 3 years (1/2)



How Nigerian FinTech have enabled growth

Facilitated easy access to accepting online payments by e-commerce merchants e.g. Flutterwave and Paytstack

- Provides insight on business performance e.g. Paystack
- Enables growth of e-commerce businesses through working capital financing e.g. Lidya

Example of impact

Paystack & Flutterwave have:

- Cut down time to setup online payments from ~ 3 months to 15mins
- Lidya & Lendigo have issued over 5 thousand loans to small e-commerce merchants

Global Examples

- Stripe, US:
 - Enables online payment processing for internet businesses
- Kabbage, US:
 - Offers quick, flexible lending/funding solutions for businesses

Travel &

E commerce

- Create solutions to enable sale of airline tickets & hotel bookings online e.g. Quickteller
- Enable local and international airlines receive payment from online customers e.g. Flutterwave
- Growth in online air travel booking penetration from **0% to 13%** over 12 years enabled by digital payment solutions
- Enabled growth of online travel merchants e.g. Wakanow,, Travelstart ng

- Monzo, UK:
 - Allows for online and card payments in any country at no charges

Hospitality

FinTech have enabled the rapid growth of e-commerce, travel, mobility and agriculture over the last 3 years (2/2)



Mobility

How Nigerian FinTech have enabled growth

- Enabled operations of global ride hailing services e.g. Uber and Bolt through Paystack and Flutterwave's digital payment solutions
- Enabled penetration of bike-hailing services through digital payments and agent services egg ORide through OPay

Impact

 >9,000 ride hailing drivers in Nigeria enabled through payment solutions

Global Examples

- Gojek
 - Enables ride hailing through mobile wallet
 - Over 2 million driver jobs created in Indonesia

Agriculture

- Facilitated increased funding to the agriculture space through crowdfunding e.g. Farmcrowdy and Thrive Agric
- Created digital marketplaces to facilitate trade in agro-comodities and manage payments e.g.
 Agrikore by Cellulant
- Increased transparency and efficiency in agrosubsidy programs e.g. Cellulant's fertilizer subsidy wallets

- ~\$30 million in loans disbursed to farmers by crowd-sourcing platforms
- Over 12 million farmers were reached by the fertilizer subsidy wallet
- Farmdrive , Kenya:
 - Enables access to loans for farmers by creating credit scores
- Farmecco, Australia:
 - Captures financial elements of farmers business and generates live reports that help monitor costs and revenues



SOURCE: Company Websites, Press Search 75

However, significant opportunity still exist to enable solutions within education and health which will cut across all segments, and can help empower the BoP



Global examples of impact

SoFi, US:

- Enables students refinance existing loans
- 18 billion in refinanced student loans
- 300,000+ SoFi members have refinanced loans

Flywire:

- Provides tailored end to end global payments solutions for schools
- \$10 billion in total transaction volume

Early progress made in Nigeria

- Providing end to end financing and payments solutions for schools and parents e.g. Schoolable
- Enablement of new payment models for low cost school administration with fees in monthly micrOPayments e.g. Bridge Academy

Additional opportunities for impact

- Student financing (short & long term loans) e.g. income sharing agreements
- End to end payment platform for universities
- Digital learning platforms with online payments

BIMA

- Provides affordable mobile health and insurance services to underserved individuals
- 26 million customers in 15 countries

Microensure

- Affordable insurance to undeserved groups by bundling with airtime and micro loans
- >40 million customers

mPharma

- Financing inventory of drugs at pharmacies
- 400k patients in 5 African countries

 Enablement of new payment models for Health insurance e.g. Reliance HMO allows monthly payments for health insurance

- Affordable health insurance for mass & rural dwellers leveraging mobile
- Vendor managed inventory
- End to end payment platform for hospitals
- Payor-Provider payment & management platforms

Health

Education



Executive Summary

Global FinTech Landscape

Nigeria FinTech Landscape

Impact of FinTechs

Recommendations and Implications for Stakeholders

Appendix

Contents



There are 5 key imperatives for stakeholders in order to capture the potential opportunity in the Nigerian FinTech ecosystem

Innovative Regulatory Environment

Foster regulations that support innovation

- Establish regulatory sandbox that allows FinTech test ideas in a controlled environment
- Set up helpdesk to help FinTechs navigate regulations
- Set up innovation office/team to update regulations based on sandbox outcomes
- Targeted efforts towards solving industry wide issues (e.g. "99 paint points Hackathon")
- Provide access to standardized APIs

Key stakeholders

CBN, NIBSS ,SEC, NAICOM, PENCOM, NCC etc.

02 Digital ID

Create pull for digital identity e.g. BVN, NIN, Voters ID etc.

- Encourage digital ID registration as a prerequisite for receiving donor benefit (e.g. cash transfers, health, food programs etc.)
- Expand access to infrastructure required for enrollment
- Accelerate the harmonization of various digital ID systems (NIN, BVN, Voters ID etc.) into centralized system

Key stakeholders

Development organizations/ Foundations CBN, Partner agencies e.g. Ministries, SANEF, NIBSS, hospitals, schools,

O3 Credit Infrastructure

Develop central credit infrastructure

- Enforce reporting compliance to Credit Bureau for all Lenders
- Task central body to provide data for alternative credit scoring (e.g. payment transaction data) to stimulate MSME lending

Key stakeholders

Credit Bureaus, Commercial Banks, Lenders, NIBSS

O4 Digital Infrastructure

Accelerate the deployment of digital infrastructure

- Cost effective digital access to all customers (e.g. explore the modalities of inclusive pricing for USSD)
- Drive down cost of smart feature phones by developing partnerships to assemble low cost phones in free-trade zones
- Drive down cost of data by promoting transparency of regulatory fees around Right of Way (RoW) permits and reduce build-out cost by encouraging infrastructure sharing²

Key stakeholders

NCC, MOF, Local and State Governments, Telcos

O5 Talent | Pipeline

Grow the talent pipeline

- Scale up developer training programs through standard curriculum and delivery partnerships with Universities or independent training centers situated close to University campuses
- Develop apprenticeship programs at scale by partnering with various stakeholders to absorb talent for internships from trained pool
- Build central talent database of trained developers and promote widely to connect demand with qualified supply

Key stakeholders

Development organizations/ Foundations, Federal, State and Local Governments, Industry players, Investors

- 1. Global Standing Instruction will allow lenders to collect default loan repayments from an individual's or company's from any bank across the country
- 2. Some states have started reviewing the RoW charges in the wake of COVID 19

1: A regulatory sandbox allows innovative firms to test ideas quickly and cost effectively within a safe environment

Definition

A regulatory sandbox is a controlled environment in which innovative businesses can test their ideas under the guidance/supervision of a regulator



Key Elements of a Regulatory Sandbox



Waivers

Relaxation of specific legal and regulatory requirements specific to the test



Guidance

Tailored guidance for firms to support implementation of the test



Limited authorization

Requirements of authorization from regulatory body to get into sandbox and conduct regulated activities



1: Countries have created different variations of a regulatory sandbox

Mod	lel	Description	Pros +	Cons —	Case countries
1	Sandbox environment	A regulatory sandbox is a framework set up by a financial sector regulator to allow small scale, live testing of innovations by payment players in a controlled environment	Allows players test financial services and business models with actual customers	Complex to set up and costly to run	
				Regulatory questions raised in connection with sandbox tests can be effectively resolved without a live testing environment	
			May be an important tool for developing evidence-based policy		
				Neither necessary nor sufficient for promoting financial inclusion	
4	Innovation office	Innovation offices engage with, and provide regulatory clarification to, financial services providers that seek to offer innovative products and services	Implementation is cheaper than	Does not allow players test ideas with actual customers	+ Switzerland
			sandboxes		H Norway
			Compelling option for capacity- constrained regulators in emerging and developing economies, due to easier establishment		Germany
	Sandbox + Innovation office	Implementation of both sandbox and innovation office, to drive innovation	Combines benefits of both innovation office and sandbox	May be expensive to implement	UK
					Singapore
					India
					Sweden

Proposed model for Nigeria

1: To reach full potential, the Nigerian sandbox needs to incorporate these key elements

_			_
Туре	Key Components	Description	Priority
Regulatory Sandbox	Waiver	Relaxation of legal and regulatory requirements specific to tests	
	Regulator Collaborations	CBN collaboration with other regulators e.g. NAICOM, PENCOM	
Innovation Sandbox	API standardization	Basic standard for APIs in sandbox to ensure ease of connection for FinTech (could be achieved through NIBSS)	
	API Access	Enable access to relevant APIs for firms who are part of the sandbox	
Innovation Office	Helpdesk	Play 'midwife' role in assisting and guiding FinTech who wish to test ideas	
	Regulatory review	Clear process for updating regulations based on sandbox outcomes	

EFInA

Medium

SOURCE: Expert Interviews, Team Analysis

1: The investment required to foster innovation could be significant, but can be achieved if CBN works in collaboration with other stakeholders

FinTech

 Regular interfacing with the CBN and other regulators in order to ensure FinTech interests are considered

Banks, Telcos, Government Agencies, Data Providers

- Sharing of useful data
- Provide APIs based on mutually beneficial commercial arrangements

CBN

- Waivers: Review/Case officers to highlight potential regulatory waivers
- Innovation Helpdesk: Team dedicated to guiding firms through design and implementation of testing
- Updated guidelines: Team and clear process in charge of monitoring and updating regulations based on sandbox outcomes
- Collaboration: Extend invitation to other stakeholders

NIBSS

- Provide access to standardized APIs through standard platform to enable access to data from financial services and other industry players
- Define minimum standard for FinTech to commit and manage overall security of sandbox

Development Partners

- Fund regulatory sandbox support:
 - Innovation helpdesk that guides FinTech on requirements and helps with clarity
- Sponsor 'hackathons' to encourage FinTech to solve industry and development problems through innovative ideas

Other Regulators

 E.g. NAICOM collaboration in order for Insurtechs to test ideas and for regulations to be updated as necessary



2: Mandating digital ID as a pre-requisite for accessing social benefits has the potential to create significant pull for the digital ID which could accelerate the update of financial services by all

Objectives

Create pull for digital ID by driving donor fund disbursement to individuals with digital IDs

Ensure infrastructure for the creation of digital ID is available for consumers

Key components

Make digital ID compulsory for accessing social benefits

Use the service delivery centres as enrolment points

Donors

Partner agencies

Mandate that donor funds and benefits will be tied to ownership of digital ID

- Examples of benefits include cash transfer programs, agricultural subsidy programs for fertilizers, healthcare benefits vaccines, malaria treatments, HIV, pre/post natal care, food programs at schools, local communities etc.

 Leverage service delivery points such as health centers, microlending agencies, educational centers etc. as enrollment centers for digital ID

Stakeholders

Examples include Gates Foundation, DFID, USAID etc.

- Various ministries and partners
- Hospitals and health centres
- Food and agriculture programs
- Educational institutions



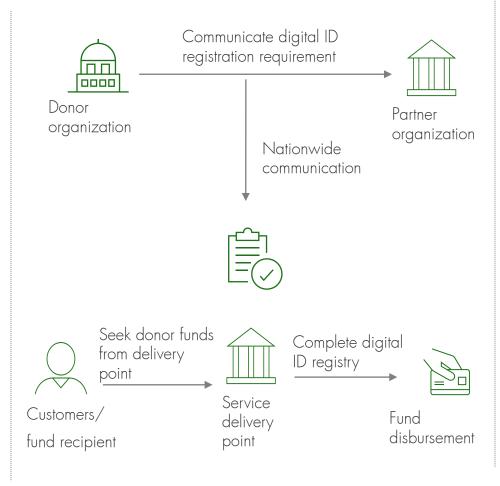
2: Donor could drive digital adoption by setting digital ID as a pre-requisite for accessing funds and benefits



How the digital ID drive will work

- All donors agree to disburse funds and benefits to individuals with digital ID
- New agreement shared with partners and communicated nationwide through various channels
- Digital ID registration devices deployed at service delivery centers and staff education on registration process
- Welfare recipients registered at service delivery point before fund/benefit disbursement
- Digital ID used as tracker subsequent fund disbursement

Driving digital ID adoption



Benefit to digital ID

- Increased digital ID adoption especially with unbanked population
- Increased transparency in donor fund/benefit disbursements
- Increased financial inclusion



3: To boost retail lending, a shared infrastructure player e.g. NIBSS should develop a central credit infrastructure comprising credit scoring and collections infrastructure





Central credit scoring system

Create a alternative credit scoring system that leverages combination of transaction and other customer data (bills, airtime purchases to provide lending products to individuals as SMEs

NIBSS transaction data could be the starting point for the credit scoring and could be augmented subsequently by data from credit bureaus, telcos etc. (through a commercial arrangement)



Collections infrastructure incorporating (GSI)

Develop central loan collection infrastructure that enables customers easily set direct debits on their account for loan repayment

Incorporate GSI¹ to allow lenders recover delinquent loans from customers accounts across banks



Central Credit Infrastructure (e.g. through NIBSS)





3: The central credit scoring infrastructure will leverage transaction and customer data to develop credit reports for customers

EXAMPLES

What's the need today?

Today, banks and financial institutions rely on multiple sources to evaluate the creditworthiness of customers and businesses, which is a costly process



Credit bureaus which currently has limited scale



Private and public employers for employment and income verification

Set up NIBSS as the "onestop shop" for credit checking and fraud detection

NIBSS

Transaction details, frequency, financials history from central switch



Credit bureau

Aggregated customer data from different banks – address, financial history, loan amount



Banks

Account balance, address information, payment amount and history

How the central credit scoring could work

NIBSS uses customer data from transaction volumes to build credit score for customers

Utilize innovative software to generate credit scores from customers using customer data from NIBSS central switch

Customer consent (partner institution side)

Customer applies for a loan with financial institution / banks

- I agree to share my information with third party service providers, to secure additional information that will be useful for evaluating my creditworthiness
- 3 NIBSS shares customer's credit rating with partner institution

Information on the customer run through database and credit report sent to partner (fee is charged for every pull)

NIBSS transaction data

Credit bureaus

Alternative data sources

Central credit infrastructure

Credit scoring system

3

Can be done in Phase 2



Lendina

institutions

Customers

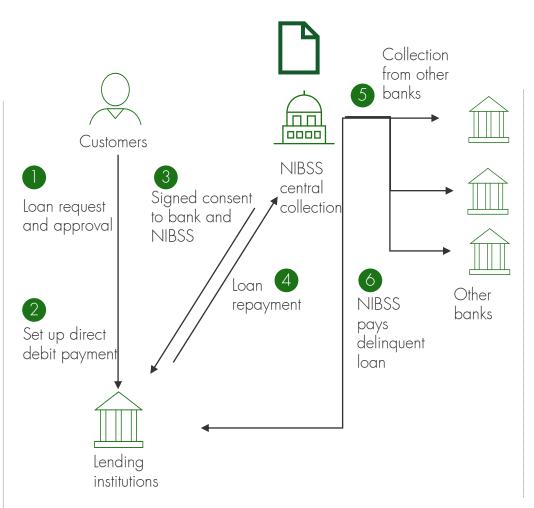
3: To build lender confidence, NIBSS could develop a collection infrastructure that incorporates digital direct debit mandates and the GSI

Operationalize credit collection infrastructure in Nigeria



How the collection infrastructure could work

- Customer request for credit facility through FinTech or financial institution
- Upon loan approval, customer sets up direct debit through central loan collection infrastructure (NIBSS) for loan repayment
- Customer provides consent to NIBSS to collect default payment from other bank accounts linked to his/her BVN through GSI¹ system
- NIBSS collects loan repayments from customer's primary account
- In the event of loan defaults, lenders recover delinquent loans from other bank accounts through GSI



Benefit to overall credit infrastructure

- Create visibility in consumer lending across Nigeria
- Increase appetite for consumer lending from financial institutions
- Reduce risk of loan defaults with increased visibility



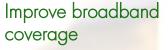
^{1.} Global Standing Instruction

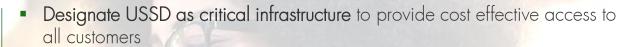
4: The telecoms industry should make concerted efforts to improve broadband coverage, affordability while driving device penetration

Objectives

Drive digital coverage across
Nigeria by improving
broadband infrastructure and
access, reducing cost of data
and increasing smartphone
penetration







 Encourage fiber optic infrastructure sharing from various market players – telcos, internet service providers etc.

Reduce the cost of data

Drive down cost of data by promoting pricing transparency and encourage infrastructure sharing

Drive down price of smart feature phones

Drive down cost of smart feature phones by developing partnerships to assemble low cost phones in free-trade zones in Nigeria

Stakeholders

NCC

Encourage sharing of infrastructure among telcos and internet service providers

Telcos

Collaborate to share broadband infrastructure

Accelerate broadband coverage across country

Ministry of Finance Local and State Gov't

 Enable duty-free import of smart feature phone components and assembly in free-trade zones in Nigeria



5: To ensure a sustainable tech talent pipeline, we need to scale up digital training programs and drive apprenticeship

A

Scale training programs

- Fund existing training programs
- Set up partnerships with universities
- Leverage digital training.

Key stakeholders

- Donors
- Training Institutes
- Universities

B

Drive apprenticeship by positioning Nigeria as an outsourcing hub

- Set up technology centers/hubs
- Share success stories
- Partnerships with big techs

Key stakeholders

- Donors
- Big Techs
- Universities



5: Development partners could support the training of tech talent by scaling up existing programs, partnering with universities and leveraging digital training

Ways to Scale

Fund existing training programs

Description

- Expand capacity of existing programs through funding
 - Create revolving fund to sponsor students to institutes
 - Direct funds to potential talent in underserved areas
 e.g. the North







Set up partnerships between universities and programs



- Locate training centers on university campuses with existing programs (e.g. private universities)
- Support curriculum revamp
- Create industry/academic exchange programmes between industry experts and university lecturers





Scale up existing digital training



- Create conducive digital infrastructure to foster digital training programs:
 - Partnership with Telcos to create zero rate data
 - Set up free hubs for those with limited access to digital resources







5: Nigeria can be positioned as an outsourcing hub for talent to gain access to real life problems across the globe

FinTech are unable to absorb all/most local tech talent...

1

Limited Bandwidth:

 FinTech are still growing and have limited capacity to take on interns for training

Limited Resources:

Potential to build a pipeline that is significantly more than what FinTech can absorb

..however, there is growing global demand for talent ...

1 million

open IT jobs

\$3.8 trillion

global IT spending

5

major big tech¹ hubs across
Africa

....creating an opportunity for Nigeria to be an outsourcing hub to drive apprenticeship...

Set up outsourcing hubs

- Partnerships with private players to develop hubs with necessary infrastructure e.g. quality broadband, electricity etc.
- Potentially create special trade zone for tech outsourcing

Partnerships with global outsourcing companies Drive rapid uptake by partnering with global tech outsourcing firms like Tech Mahindra to set up shop in Nigeria

Tell success stories

 Create awareness of Nigeria's outsourcing hub to create more demand

^{1.} Google, IBM (2), Microsoft (2)

5: There is an opportunity for development partners to play a coordination role to ensure a sustainable tech talent pipeline

Training Institutes

- Create funding to expand capacity
- Direct funding to underserved areas

Telcos

 Liaise with players to provide adequate digital infrastructure for programs

Development Partners

- Funding:
 - Provide funding for existing programs, new digital programs/initiatives
- Coordination:
 - Liaising with various stakeholders e.g universities, governments, communities to harmonize efforts

Universities

- Foster dialogue between universities and industry to facilitate knowledge sharing
- Sponsor mentorship programs at universities

Developer Communities

- Encourage mentorship programs within the communities
- Facilitate fellowships at universities

State Governments

- Liase with state governments to provide spaces for tech zones to be established
- Interface to get buy in of global outsourcing players



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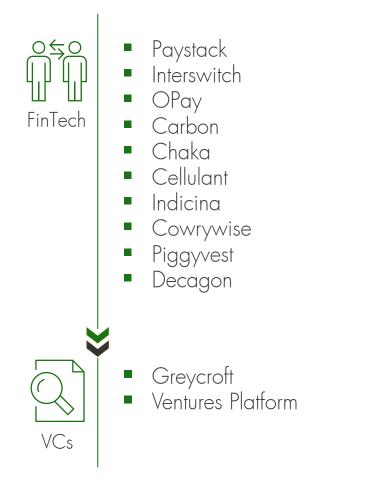


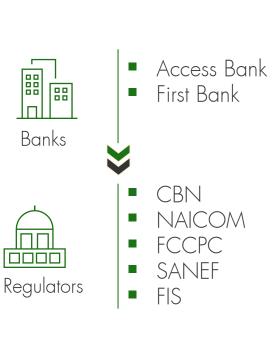
The report was developed using a combination of primary and secondary research

Interviewees are across 4 stakeholders types



List of interviews and contributors







UK FCAOpen Banking Nigeria



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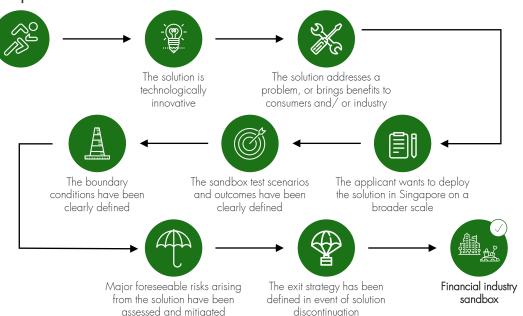
Singapore MAS has recently launched their version of a regulatory sandbox in mid-2019



The MAS regulatory sandbox

The MAS regulatory sandbox provides a conducive environment for the experimentation of innovative technology where the consequences of a failure can be contained and the overall safety and soundness of the financial system maintained

Proposed sandbox criteria



Objective



Encourage FinTech experimentation such that innovations can be tested in the market and have a wider chance for adoption

How it works?



Enable FinTech innovation/experimentation in production environment under specific conditions and duration

Relax specific legal and regulatory requirements by MAS for the duration of the sandbox

Criteria



Proposed financial service includes new or emerging technology or uses existing technology in an innovative way

Proposed financial service addresses a problem or bring benefits to consumers or the industry

EFInA

SOURCE: MAS, press search

Singapore MAS invited FinTech from around the world to solve 100 industry problem statements

Singapore MAS invited FinTech from around the world to solve 100 industry problem statements ...



- Real time analytics
- Insider trading detection



KYC/Identity Authentication

- Digital documents
- Central repository



Customer engagement

- Innovative digital banks
- Aggregated savings platform



9 Generals

- Safe data sharing
- Automated reports



Trade finance

- Smart contracts
- Self authentication



4 Insurance

- Smart pricing
- Automated claims processing



Capital markets

- Transparent distribution pricing
- Efficient transaction settlement



Payments

- Cross-platform payments
- Payments for low value transactions



through a detailed process....



Teams were invited to submit their ideas and proposals



20 teams shortlisted to ioin 10 week hackcelerator



Present ideas and solutions on demo day



Awards, guidance and mentorship provided as well as connections to Singapore FinTech ecosystem

5 Financial literacy

- Real time analytics
- Insider trading detection



Financial inclusion/SMEs

- Digital documents
- Central repository

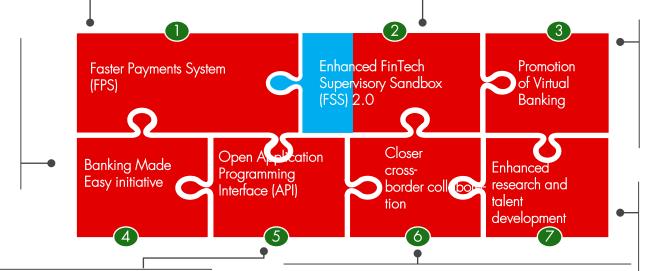


The Hong Kong Monetary Authority has launched a number of initiatives to transition into what they call a New Era of Smart Banking

- FPS supports the use of mobile phone numbers or email addresses for payments in HKD or RMB, anytime and anywhere
- Both banks and Stored Value Facilities (SVF) can participate
- Aim to create a common QR code standard, which would promote the wider use of mobile retail payments and greater convenience to customers and merchants.

- FSS 2.0 will have three new features:
 - A FinTech Supervisory Chatroom to provide speedy feedback to banks and tech firms
 - Tech firms have direct access to the sandbox by seeking feedback from the Chatroom without necessarily going through a bank;
 - The sandboxes of the HKMA, the SFC and the Insurance Authority will be linked for a single point of entry.

- New task force within the HKMA to minimise regulatory frictions in customers' digital experience
 Topics include remote on-
- Topics include remote onboarding, online finance and online wealth management.



- Development of an Open API policy framework which will:
 - Improve banking sector competitiveness
 - Encourage FS companies to provide innovative services that improve customer experience
 - Keep up with worldwide innovation

- The HKMA will aim to build international bridges in order to further develop FinTech
- Initiatives include:
 - Cooperating with the city of Shenzhen on FinTech and digital banking topics
 - A joint effort with Singapore to develop a trade finance solution using DLT

- The HKMA has allowed the entrance of digital banks into the Hong Kong economy
- Together with banking industry will review and amend the Guide to Authorization of Virtual Banks issued in 2000
- Already partnering with high-tech companies to offer internships for Hong Kong students
- Conducting research and publishing whitepapers on FinTech and technology with the potential to help banking, such as DLT

EFInA

SOURCE: Hong Kong Monetary Authority

Open Banking/PSD2 is now a reality in various countries, leading to diverse product offerings from all types of industry players

Present in 36 markets & products that account for ~90% of global revenue pools



FinTech enabled by PSD2/Open Banking



Yolt enables users combine their current accounts, credit cards and pensions in one view, reaching 500k customers in ~1 year since launch



Revolut app enables users to track their Revolut transactions connect external bank accounts to the app



Raisin's open banking partnership with Santander means that Santander customers can authorize the sharing of their data with Raisin leading to the registration process for Santander customers to access Raisin's products through the "Santander Connect" button will be easy and simple



Dubai's DFSA and Singapore's MAS entered into an agreement to foster innovation in financial services of both markets





The Dubai Financial Services Authority (DFSA) and the Monetary Authority of Singapore (MAS) entered into an agreement that provides a framework for cooperation between the innovation teams of each authority, allowing referrals of innovative businesses between the two authorities



Deliver new and enhance financial services to manage risks better, reduce costs and increase efficiency

Encourage innovation in the financial services sectors and FinTech ecosystems of both markets

How it

The sharing of information on financial services innovation in both markets

Jointly working on the innovation projects on the application of key technological trends such as APIs, Block chain, Big data and distributed ledgers



The Global Financial Innovation network provides an avenue for innovative firms to interact with regulators, helping them navigate various jurisdictions as they look to expand and test ideas

Context

The Global Financial Innovation Network (GFIN) was formally launched in January 2019 by an international group of financial regulators and related organisations, including the FCA. It built on the FCA's earlier proposal to create a global sandbox

Objectives

To act as a network of regulators collaborate that can share experiences of innovation in various markets, including emerging technologies and business models, and to provide accessible regulatory contact information for firms.

To provide a forum for joint RegTech work and collaborative knowledge, sharing lessons learned

To provide firms with an environment in which they can test cross border solutions

How it

A pilot for firms wishing to test innovative products, services or business models across more than one jurisdiction

Creation of a new framework for co-operation between various financial services regulators on innovation related topics, sharing different experiences and approaches.

The UK has increased funding to FinTech by creating a seed investment scheme that incentivizes local investors

The UK offers great benefits to investors who invest in small and early stage startups...



 The Seed Enterprise Investment Scheme (SEIS) offers great tax efficient benefits to investors in return for investment in small and early stage startup businesses in the UK



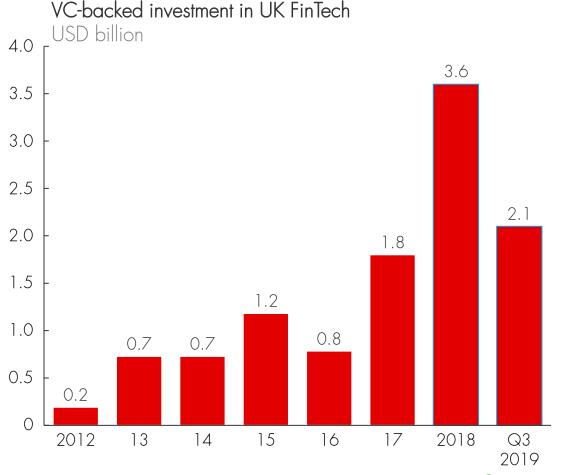
 The scheme was designed to boost economic growth in the UK by promoting new enterprise and entrepreneurship



- Investors can place a maximum of £100,000 in a single tax year, which can be spread over a number of companies
- The company must be no more than two years old
- Investors can receive up to 50% tax relief in the tax year the investment is made, regardless of their marginal rate

... contributing to increased FinTech investment in the UK and London leading overall FinTech investment in Europe with \$2.11bn investment





EFInA

India has created a technology stack which various technology infrastructure that creates an enabling environment for financial services

The India Stack



India Stack provides 4 distinct technology layers

India Stack is a set of APIs that allows governments, businesses, startups and developers to utilise an unique digital Infrastructure to solve India's hard problems towards presence-less, paperless, and cashless service delivery



Presenceless layer





Paperless layer





Where a universal biometric digital identify allows people to participate in any service from anywhere in the country

The Aadhaar which is a 12 digit unique identification number i.e. biometric digital identity that allows Indians to participate in services from anywhere in the country

Where digital records move with an individual's digital identity, eliminating the need for massive amount of paper collection and storage

UIDAI launched eKYC which allows businesses to perform Know Your Customer verification process digitally using Biometric or Mobile OTP

CCA launches eSign as an open API to facilitate an Aadhaar holder to digitally sign a document and MeitY launches DigiLocker, a platform for issuance and verification of documents & certificates in a digital way, thus eliminating the use of physical documents



Cashless layer



Where a single interface to all the country's bank accounts and wallets to democratize payments

NPCI launches Unified Payments Interface, the most advanced public payments system in the world to revolutionize digital payments in India



Consent layer

Which allows data to move freely and securely to democratize the market for data

All technology is built on a set of APIs which allows for safe sharing of data



IBM India runs a Career Education Program in partnership with universities to develop tech talent



Context

IBM collaborates with universities in India and South Asia to offer degree programs that are jointly developed, marketed and certified to make sure the students have the best from the both the worlds both from an Industry and Academic standpoint

How it works

IBM works with universities/colleges and also with authorized career education partners

They set up software capability labs and certificate/degree programs with these universities/colleges

Creation of an innovative curriculum jointly developed with IBM on industry specializations, based on the skills requirements of different industries

Benefits

A chance for students to learn from the Industry Faculty of IBM who teach using live cases

Students get professional certifications from IBM

Improve the career prospects with the best companies

EFInA

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BIMA company profile





- Agents sell the insurance and health service products to low income customers personally and provide education for them about the benefits of being insured and financially secure
- Customers only need a mobile phone to use the service: after an easy registration with the help of an agent, they can select, pay and renew the selected policies via the tool
- In the case of an accident or illness, clients have to collect the necessary documents and claim their compensation by calling the Bima hotline
- Additionally Bima offers a mobile health service, where customers can ask for doctors' advice via phone whenever they or their family member get sick
- Bima partners with microfinance institutions and mobile operators enabling them to enter the insurance market and manages everything for them from product design to distribution to claims' administration





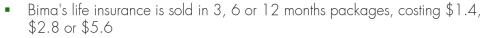
Enables quick and seamless integration into partners' existing IT infrastructure providing flexibility in incorporating new products and business models

- Pays valid claims within 72 hours
- The team of 3500 trained agents develops high product awareness and customer engagement with educating underbanked customers who have limited knowledge on insurances

Revenue model

Commission

Details







Business model

















SOURCE: McKinsey Panorama

BIMA Impact



As of December 2016 Bima has:



Reached 24 million customers and 50% of them are active users



Payed out \$3 million in claims

Quantitative achievements $Has \sim 500,000$ new customers monthly



Operated in 15 countries in



Employs 3500 agents

 Winner of Mastercard Foundation Global Award for "Clients at the Centre" 2015

 Winner of Mondato Asia's Digital Finance and Social Impact award 2015

 Nominated as "The Insurance Company or Initiative of 2015" by African Business Awards

Qualitative achievements







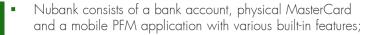
NUBANK company profile



Company

Description





- Allows users to create budgets and limits, track their transactions, balances, and invoices in real-time with automatic categorization
- Users can filter for their past purchases and also customize transactions by adding personalized pictures or tags
- Nubank offers reward points after every purchase through the Nubank card, where the points become credit in the customer's bill, so the reward points can be redeemed to decrease or erase the price of some purchase (e.g. Netflix, Uber, Amazon, iFood, Evino, MaxMilhas, music streaming services and any transaction in hotels and airlines)
- As part of their credit services, customers can apply for personal loans to finance their invoices
- Nubank uses risk assessment based on 1,000-3,000 variables to decide which application to accept
- AccessBio, a new facial biometrics feature that prevents identity fraud, was released in 2018



- Real-time categorization for holistic financial overview which supports well informed decision making
- Lower overheads allow Nubank to charge one of the lowest interest rates in Brazil
- Geolocation empowers users to connect specific transactions to real-life locations
- Nubank Rewards program is based on customer loyalty

Reven

Revenue model

- Commission
- Freemium
- Commission
- Mobile app

Details

- Has a fixed rate of R\$ 6.50 per service
- Uses foreign exchange with a value of the PTAX dollar sale plus a margin of 4% when people buy from abroad
- Interest rates for loans start at 7.75% per month











Business model











NUBANK Impact



Generated USD 170.5 mn total revenue in 2017



Valued at USD 4 bn (as of October 2018)



Customers have saved up to

USD 78.14 in maintenance and transfer fees



Quantitative achievements

Serves 5 mn credit card holders,

and it has $2.5 \, \text{mn}$ customers with a digital account with 10,000 testing the new debit card services

Over 16 mn people requested the



Free-of charge credit card so far (as of March 2019)



Qualitative achievements



Backed by DST Global, Sequoia Capital, Goldman Sachs, Founders Fund, Tiger Global Management, Kaszek Ventures, Tencent

 Headquarter is located in Sao Paulo, Brazil but it also operates an engineering office in Berlin, Germany





Adyen company profile











- Enables businesses worldwide to process payments online, mobile and POS with customers paying in their local currencies
- Adyen offers secure online payment options:
 - Hosted Payment Pages allows handling payments on Adyen's servers via a single technical and administrative connection
 - Easy Encryption Solution enables online payments on businesses' own payment pages while data is encrypted in the shoppers' browser
- POS terminals, with real-time data and analytics, and simple integration to all sales channels through APIs
- MarketPay solution for global, high-volume marketplaces, with easy sub-merchant onboarding, split payments and fast payouts
- Global Acquiring Network provides an integrated approach that helps to maximize authorization rates and offers competitive pricing
- Built-in automated **risk management and fraud detection system**, and cross-channel consumer insights



- Has a European banking license so they are able to settle funds faster without relying on external banks
- Provides easy integration and implementation for businesses
- Full PCI Level 1 Compliance to ensure high-level security
- Reporting functionality supports strategic decisions

Revenu

Revenue model

Commission

Details

- Pricing consist of two components:
 - Processing fee: fixed fee maximum €0.10 (\$0.11) per transaction
 - Payment method commission: fixed or variant amount; for Visa and MasterCard billed using Interchange++ pricing model
 - Charges for extra services



Similar solutions















Adyen Impact





€159 bn in processed volume in 2018

€1.6 bn gross and $\in 349$ mn net revenue in 2018

Quantitative achievements

Listed on Euronext with a market cap of €22 bn



Accepts 150+ Transaction currencies and 250+ payment methods





Offices around the world





- Several leading companies use Adyen's platform including Uber, Spotify, Groupon, Evernote, eBay, TransferWise, Linkedin, Booking.com, Mango, KLM, etc.
- Monitored by Trustwave, ASV, Dutch Central Bank and QSA for the Payment Card Industry Security Standards Council
- Partnership with payments processor Cellulant to expand into Africa and reach 220 mn new clients
- Obtained European Banking License in July 2017
- Ranked #16 on 2018 CNBC Disruptor 50 list
- The solution is fully PSD2 compliant



Paytm company profile









- It is also one of the largest online payment gateways in India for various companies within e-commerce, food and travel industries
- For retail customers it offers a digital wallet and credit card services:
 - Paytm's digital wallet is enabling to easily pay to merchants who are are only paid when the customer received the ordered item in satisfactory condition, and also offers instant P2P money transfer
 - Paytm First Card is a VISA credit card offering cashback on purchases (in partnership with Citibank)
- Paytm offers for merchants:
 - Different ways to collect payments including gateways (web or mobile), QR code based and subscription payment solutions
 - Paytm Smart Retail offers hardware and software solutions for in-store POS systems, incl. portable or fullservice POS terminals, and marketing, reporting, loyalty, inventory management services
 - Employee payment solutions like tax-free meal allowance and cash disburse
- Also launched a mobile-first digital bank for individuals, Paytm Payments Bank, providing current and savings accounts, debit card, mobile wallet, cashback and access to cash at more than 200,000 ATMs across India



- Reduces user drop offs from merchant sites, wallet can have 50% conversion in some online sites
- Simple and convenient: with a single click, the user sees his available wallet balance & saved cards too and does the payment, SMEs can set up their operations to receive payments through Paytm within minutes
- Sellers have pricing options and can access rich customer insights based on analytics

Rev • De

Revenue model

Commission

Details

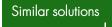
- Merchants pay a share of the transaction value as a fee for Paytm for every transaction on the platform
- Fees vary between product categories
- Paytm Payments Bank accounts have no fee on online transactions, no minimum balance, free virtual debit card and charge 1% per domestic money transfers
- Paytm Smart Retail POS system costs ₹999/month (\$143) and loyalty and CRM addon costs ₹999/month (\$143)
- Paytm First Card has an annual fee of ₹500. There is no fee if the user spends more than ₹50,000 in a year











Business model





Paytm Impact



Over 7 million online merchants sell through Paytm and 850,000

Offline merchants accept it

Around 260 million people across India have Paytm mobile wallet accounts who make 5 million transactions daily

Quantitative achievements

40 million Savings customers and other 60 million customers are expected to join the next year (as of March 2019)



As of August 2018, Paytm is valued at

\$10 bn

Expanded to Canada and has 100,000
 Canadian customers as of February 2018

 Service approved by the Reserve Bank of India

 The company claims they are the most trusted consumer payments brand in India

 Its partners include Airtel, Vodafone, TataSky and BSNL

Qualitative achievements

W





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Ahmed – BOP segment

36 years, Married, 3 children



Devices

- Subsistence farmer living in Jos, Nigeria
- Cultivates different crops throughout the year including tomatoes, onions, potatoes, maize and yam for personal consumption and commercial sales
- Primary school education, can read and write basic English and Hausa

Income	<n200k p.a.<="" th=""></n200k>
Tech knowledge	Low
	✓



Lifestyle overview

- Inherited 2 acres of land from parents, and uses it for farming activities
- Lives in a mud house, with thatched roof
- Wife sells firewood, and uses grinding machine in the market to support family
- Spends most of his 'non-farming' time listening to the radio enjoys listening to the governor, talking about agriculture. He also enjoys visiting his relatives



Financial goals

- Farm expansion to increase yield using farm inputs such as chemicals, equipment and seeds
- Improve the quality of his house – change roofing sheets, from thatch to zinc
- Send his children to good affordable schools



Current banking

- Uses solely cash for his personal and business transactions
- Has no bank
 accounts uses
 brother's account
 occasionally, when
 he needs to send or
 receive money



Needs

- Education on financial literacy
- Access to credit facilities for his farm

SOURCE: Customer interviews (n=215), team analysis

Deep dive -Ahmed's pain points from the financial sector

WIP

	Pain points	Quotes
Accounts	 Long travel distance to and from the bank 	There are no banks in the village. All the banks are in the city, which is far from
	 Low financial literacy, so unaware of financial services options available to him at the bank 	banks are in the city, which is tar trom here"
	 Poor understanding of charges, such as the ATM maintenance charge, and other hidden charges 	My brother always complains about the charges he gets from his bank – he doesn't understand what they mean
	 Issues are resolved at a slow pace 	



Emeka – Informal mass 42 years, Married, 3 children



- Small scale business owner in the informal trading sector (e.g., sells fabires and secondhand clothes in markets in Lagos)
- Religious leader in local church
- Looking to make 'enough' money to support his family
- Has been operating his kiosk for 20 years

Income	<n 1m="" p.a.<="" th=""></n>
Tech knowledge	Low
Devices	



Lifestyle overview

- Trader in Yaba market, Lagos, and lives in a rented two apartment in Akoka, Lagos
- Runs a makeshift shop where he sells secondhand clothes to customers at the market
- Goes for family and religious meetings, frequently in his hometown



Financial goals

- Earn enough money to provide basic necessities for his family, such as food and clothing
- good affordable schools



Current banking

- Has a single GTB Bank savings account, that he uses for personal and business transactions
- Send his children to Makes use of USSD and mobile banking for his business transactions
 - Uses a trusted agent close to his house, to send money to his relatives in his hometown



Needs

- Access to credit facilities for:
- his clothing business expansion, and
- payment of children's school fees

SOURCE: Customer interviews (n=215), team analysis

Deep dive -Emeka's pain points from the financial sector

	Pain points	Quotes
Accounts	 Lack of clarity of bank charges including ATM maintenance charge, account charges 	I don't understand what all these charges mean, and why I have to pay them
	 Poor security of: Bank's mobile app, making it accessible to thieves 	The bank staff are so rude. If I have my way, I won't go to the branches again
	 Customer's information, making them prone to scammers 	Last year, my phone got stolen, and money was transferred from my bank account
Savings	 No targeted savings platforms for children tuition, rent Low interest rates, causing low returns on savings 	Better interest rates, would lead to better savings for me
Loans	High collateral requirement for loansHigh payback interest rates	The requirement for loan is too much. I prefer to borrow from family members

Nasir – Formal mass 37 year old, married with 2 children



Devices

- Administrator at local secondary school in Sabo, Lagos
- Worked in various clerical position for 10 years following his undergraduate education
- Medium knowledge of technology

Income <N 1M p.a.

Medium

Tech knowledge



Lifestyle overview

- Works as an office
 clerk in Sabo,
 Lagos
- Resides in a rented two bedroom apartment in Ikeja
- Supports family dependents, especially parents



Financial goals

Improve savings culture



Current banking

- Uses a single First
 Bank savings account,
 for his savings
- Uses cards and mobile banking for bill payments, and other personal transactions
- Uses a trusted agent close to his house, to send money to his parents and other relatives in his hometown



Needs

- Education on various savings platforms, to:
 - improve disciplined savings

SOURCE: Customer interviews (n=215), team analysis

McKinsey & Company

Deep dive -Nasir's pain points from the financial sector

WIP

	Pain points	Quotes
Accounts	 Poor customer experience on mobile banking apps 	Their customer service was so bad, I would
	 Long queues at bank and long wait time on call centers 	have opened a new bank account (in another bank), if I had the time
	 Slow issue resolution time frame 	I don't use my app anymore, because it has refused to work
Savings	 Lack of financial discipline to save studiously every month 	I would like to be saving more but sometimes the responsibilities are too much and before you know it, most of the money is gone
Loans	High collateral requirement for loansHigh payback interest rates	I had friends that borrowed from banks, and paid with an arm and a leg, when it was time to pay back



Anita – Middle 32 years, Married, 1 child



- Sales manager at FMCG company based in Lagos
- Lives in Lekki phase 2 in rented a 2 bedroom rented apartment
- Lives in dual income household where her husband contributes to 80% of domestic expenses
- Focused on savings, with occasional investment

Income	<n 5m="" p.a.<="" th=""></n>
Tech knowledge	High
	• •
Devices	<u> </u>



Lifestyle overview

- Sales manager at snacking company in Lekki, Lagos
- Runs a side business as a cosmetics sales agent on Instagram
- Resides in a rented two bedroom apartment in Lekki phase 2
- Anita enjoys spending time with her family



Financial goals

- Improve savings culture
- Send her child to good private schools
- Expand Instagram business and open boutique in Lekki



Current banking

- Has two accounts with Zenith and Access Banks – the Access account is her savings account, while Zenith is a joint account with her husband
- Uses mobile banking to pay for monthly bills and shop online



Needs

- Education on good savings and investment platforms, that offer good interest rates
- Access to credit facilities, to enable her:
 - Grow her side business
 - Purchase a good car

SOURCE: Customer interviews (n=215), team analysis

McKinsey & Company

Deep dive -Anita's pain points from the financial sector

	Pain points	Quotes
Accounts	 Lack of transparency on bank charges Limited interaction with RM to determine next best product/service to use 	I don't trust the charges I get from the bank. I think most of them are suspicious
		My RM has never told me about the different products the bank offers so I just use other platforms
Savings	 Low returns on savings Savings account usage similar to current account 	I use my savings account card for my daily transactions so it does not even feel like a savings account
Loans	 High interest rate on loans Long application process for credit facilities 	Loan application is very stressful. They ask for too many documents and the high interest rates are too high

EFINA

Wande - Youth 23 years, Single



- Early graduate of University of Ibadan
- Currently completing her NYSC in Calabar
- Has a moderate knowledge of technology
- Limited disposable income

Income

<N 1M p.a.

Tech knowledge



Devices





Lifestyle overview

- Teaching at local primary school in Calabar and lives with fellow NYSC colleagues in dormitories
- Has a side business selling hair products through Whatsapp and Instagram
- Hunts for/enjoys bonuses, discounted promos, and other freebies



Financial goals

- Develop savings discipline and culture
- Manage and track monthly financial transactions



Current banking

- Has an Access Bank account that she opened during her admission process, for personal transactions
- Also, makes use of USSD and mobile banking for her personal transactions
- Uses e-wallets for services. where she enjoys discounts
 - Shopping
 - Ride hailing
 - Food ordering,
- Saves monthly on Piggyvest





Needs

 Financial services education on benefits of CASA

SOURCE: Customer interviews (n=215), team analysis

Deep dive -Julie's pain points from the financial sector

Pain points Quotes don't know why I am charged for SMS, when SMS, intra-bank transfer charges, and also hidden Accounts the transaction detail gets sent to my email charges Lack of clarity on bank fees and charges e.g. card maintenance fee, We need to be educated on what ATM Slow and unreliable issue resolution maintenance charge means, and why we have Daily transaction limit – alternatives/ exemptions for to pay it emergencies There are no available platforms savings goals, Savings Lack of targeted savings options, for both long term and and the interest rates are low short term plans Low interest rates on savings products

Fatima – Affluent

30 years, Married, 1 child



- Middle manager at Oil and gas company in Lagos
- Lives in Lekki phase 1 in a 4 bedroom condo she purchased with her husband
- High level of knowledge in technology tech savvy

Income >N5M p.a.

High

Tech knowledge

Devices



Lifestyle overview

sector

Lagos

Young professional,

working in the banking

Possesses a significant

amount of disposable

income, and is more

lives in Victoria Island

investment oriented

residential area in

Fatima loves exploring

art, with her friends on

- a highbrow

the weekend

Financial goals

- Diversify
 investment
 portfolio (local
 and international)
- Enroll her child in a private school and save for international college education
- Take family vacation abroad at least once a year



Current banking

- Has multiple accounts with Zenith, GTB, Access and Stanbic Bank
- Her salaried account in with Access account and she uses the other two for savings/ personal transactions
- Predominantly uses cards and mobile banking for 90% of payments including bills
- Uses a variety of FinTech products for savings and investments



Needs

- Access to investment options that match her risk profile within and outside Nigeria that
- Access to banking services abroad including foreign mortgages in the UK or US
- Insurance for various aspects of Fatima's life including life insurance

SOURCE: Customer interviews (n=215), team analysis

Deep dive -Fatima's pain points from the financial sector

	Pain points	Quotes
Accounts	 Stressful online shopping and bill payment process Occasional card failure, in some parts of the world Daily transaction limit – should be set by customers 	I want my online shopping to be seamless. I don't want to stare at my screen waiting for an OTP
		The customers should be able to adjust their daily transaction limit, like I do with my Bank Of America account. Services should suit the customers
Savings	 Stress of paperwork documentation during loan application, and mortgages High payback interest on loans 	I want to be able to apply for loans, without filling out a lot of paperwork
Wealth manage- ment	 Limited access to investment options – domestic and international 	I want the news of investment options, both within and outside the country

Bisi – SME owner 45 years, Married, 4 children



- Mini-market owner in downtown Abia
- Interested in business expansion opportunities
- Works in medium cities, and resides in decent areas of these cities

Income

~N 12M p.a.

Tech knowledge



Devices





Lifestyle overview

- Owns a mini market where she sell food supplies and household items
- Lives in a 3
 bedroom family
 compound with her
 husband, children
 and 2 cousins
- Anita loves spending time with family



Financial goals

- Expand business to fully-fledged supermarket
- Pay for eldest child's university education
- Send younger children to good boarding schools



Current banking

- Has two bank accounts – GTB and Access Bank, that she uses for personal and banking transactions, respectively
- Uses mobile banking to buy airtime/ data, transfer money and shop online



Needs

- Access to credit facilities for business expansion
- Education on various insurance options, as cover for her business
- High interest yielding savings account

SOURCE: Customer interviews (n=215), team analysis

McKinsey & Company

Deep dive -Bisi's pain points from the financial sector

	Pain points	Quotes
Accounts	 Inability to access forex with bank Difficulty with cross border payment with foreign suppliers Daily transaction limits which inhibit bulk buying 	I always exceed the limit on my daily transactions. I don't know if there's is a way it can be adjusted
		I can't send money directly to my suppliers so we now have to find other ways to get them their money through Western Union or sometimes through our informal networks
Savings	 Low returns on savings, due to low interest rates Lower savings rates, so minimal loyalty to banks for savings 	The interest rates on my savings is so low. I'll switch if I see a bank that can give me a higher rate
Loans	 Tedious loan application process with requirements for collaterals High interest rates for repayments 	I have heard of bad tales from those that took bank loans – from the stress of meeting the requirements, to the pains of paying high interest on the loans, and because of this, I don't think I will ever take a bank loan

UEFINA

Chijioke – Affluent Senior 62 years, Married, 4 children



- Retired CFO of leading accounting firm
- Lives in Ikoyi with wife and gets occasional visits from grandchildren
- Has medium level knowledge of technology
- Financial services product usage driven primarily by convenience

Income

>N 20M p.a.

Tech knowledge



Devices





Lifestyle overview

- Wife runs a tailoring shop where she caters to high-end clientele in Lagos and Abuja
- Serves on the board of multiple organizations in Nigeria
- Travels bi-annually to visit children abroad



Financial goals

- Financial security for his children
- Send his children to good universities in the country
- Manage and diversify investments locally and abroad



Current banking

- Has multiple bank accounts in Nigeria and abroad. In Nigeria, he has a First Bank account which he uses to pay for his children's expenses in the UK
- Uses cards for most of his financial transactions and online banking for managing foreign accounts



Needs

- Private banking services that allow him to invest and manage investments abroad including mortgage and property management
- Access to premium credit cards and bespoke services for foreign transactions and travels

SOURCE: Customer interviews (n=215), team analysis

McKinsey & Company

Deep dive -Chijioke's pain points from the financial sector

Pain points Quotes International money transfer between banks There should be a form of control on accounts, Accounts but this control should be set by the customers challenging with transaction size limits and tedious paper work Inconvenience caused by non-functional bank app I have to go to their office, even after giving Lack of proactivity from RMs to determine next best them a call, before my issues are resolved product Slow response to complaints made through remote channels like phone Wealth Absence of management guidance for his investment will like to be able to view all my accounts on Limited information on investment diversification from manageone platform ment bank Limited visibility into investment performance – no single dashboard to track finances and expenses I want to have an RM that can present various investment options to me, not me calling them all the time

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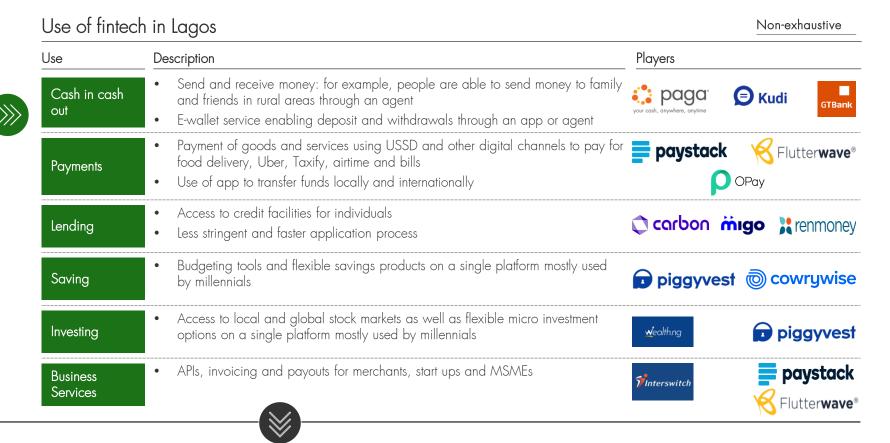


Use cases and impact of fintech in Lagos



Profile of Lagos¹

- Lagos is the commercial, financial and maritime nerve centre of the nation with an energetic start up and tech community
- State with the highest Internally Generated Revenue in the nation
- 88% of the population own a digital asset
- Presence of young professionals with economic power
- Strong presence of recreation activities





Increased financial inclusion



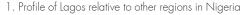
Growth of e-commerce



Democratisation of investment



Increased efficiency and access to loans for MSMEs



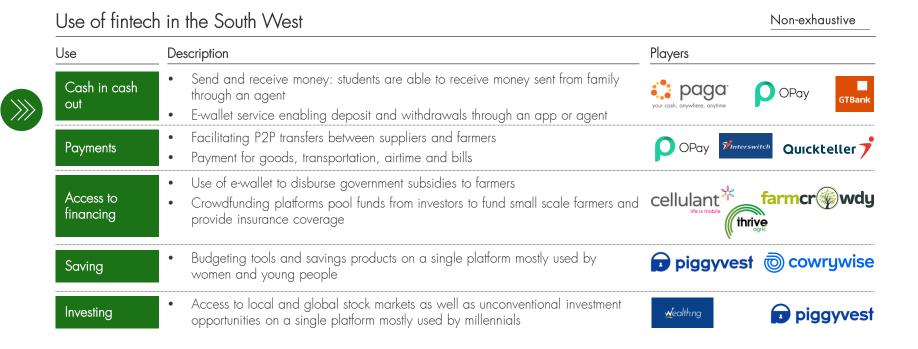


Use cases and impact of fintech in South-West Nigeria²



Profile of South-West Nigeria¹

- Economic activities include agriculture and tourism
- The South West is the academic hub of the nation
- 88% of the population own a digital asset
- Presence of young professionals with economic power
- Only about 11% of the unbanked population in Nigeria is in the South West



Impact

Increased financial inclusion



Job creation



Increased access to finance and input for farmers





Source: Lagos Business School Digital Financial Service Lab; Team analysis

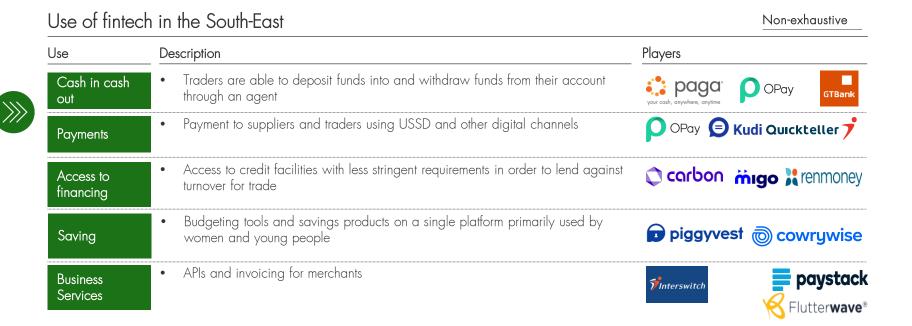


Use cases and impact of fintech in South-East Nigeria



Profile of South East Nigeria¹

- Diverse commercial activity known for trading and automobile assembly
- Home to one of the most advanced informal apprenticeship and entrepreneurial programs in the world
- Home to N130 bn shoe industry
- Home to Nnewi, the city with the highest number of billionaires, in Nigeria
- 87% of the population own a digital asset



Impact

Increased financial inclusion





Democratisation of savings



Increased efficiency and access to finance for MSMEs



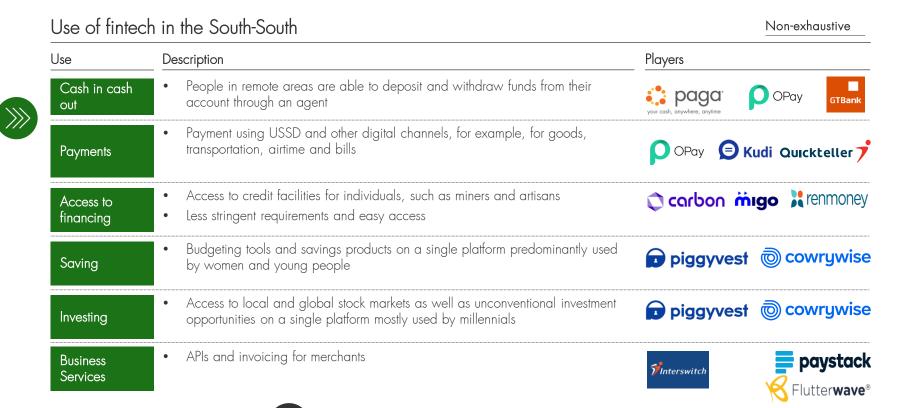


Use cases and impact of fintech in South-South Nigeria





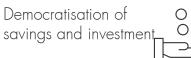
- Crude oil production is the primary economic activity
 - Other economic activities include farming, fishing and mining
 - Export hub of Nigeria
- 86% of the population own a digital asset
- Presence of young professionals with economic power in cities such as Port Harcourt
- Presence of recreation activities





Increased financial inclusion





Increased efficiency and access to loans for **MSMFs**





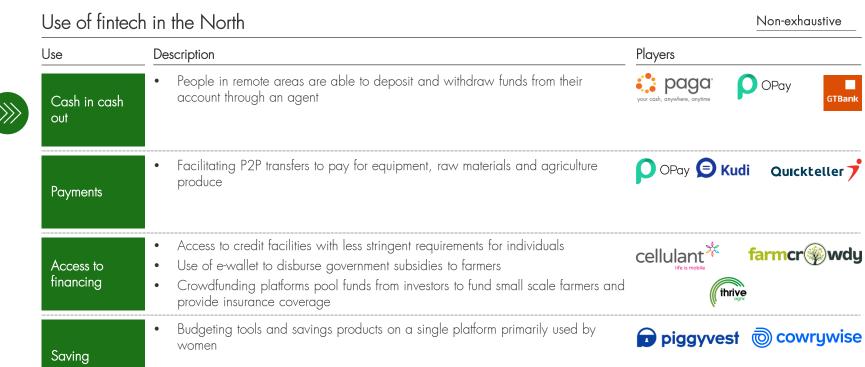


Use cases and impact of fintech in Northern Nigeria²





- Agriculture is the primary economic activity; most farmers are subsistence farmers
- Low economic activity and high poverty levels due to insecurity and insurgency
- Lowest primary school enrolment, attendance and completion rates in the country
- Lowest digital penetration in the nation
- Home to 70% of Nigeria's unbanked population





Increased financial inclusion



Increased access to finance and input for

tarmers



Empowerment of women



Non-exhaustive

farmcr wdy

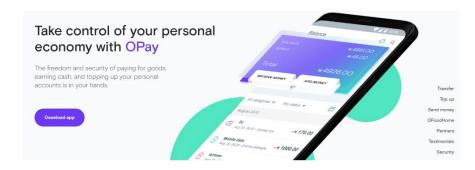
OPav





OPay company profile





Company Description

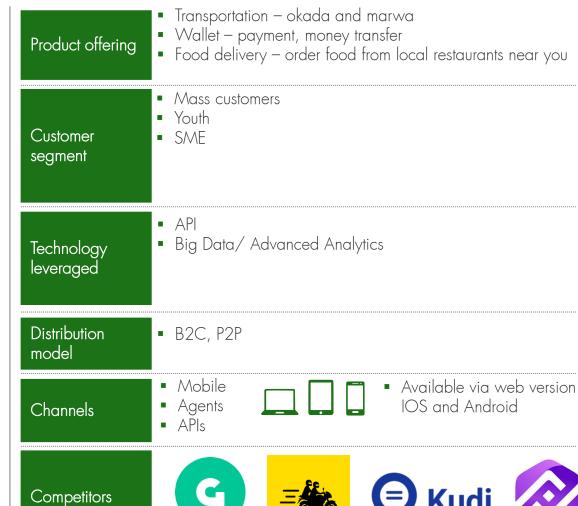
- OPay is a one-stop mobile-based platform for payment, transportation, food & grocery delivery, and other important services in your everyday life.
- Established in 2018 as a part of Opera
- In 2019, OPay raised \$120 million in a Series
 B round led mainly by Chinese investors

Value proposition

 Run heavily-subsidized promotions to edge out other players in Nigeria's competitive bike-hailing space

What makes them distinctive

- First mover advantage of formalizing 'okada'
- Financial inclusion
- Asset finance e.g. mobile phone to Oride employees



SOURCE: OPay website; press articles

OPay achievements

Quantitative achievements

- ~\$170M raised over 2 funding rounds
- 1M+ app downloads from active users of OPay across the country
- ~2000 ORide drivers currently operating across the country
- 150,000+ agents currently signed up on the OPay platform
- \$10M worth of transaction, carried out per day on the OPay platform



Qualitative achievements

OPay has been able to:

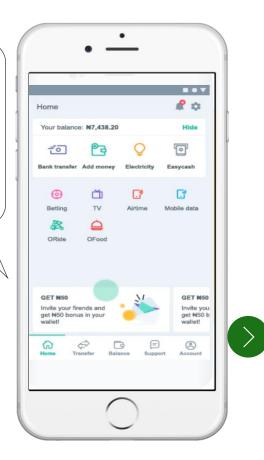
- Drive financial inclusion and support the informal sector with ample opportunity for growth
- Use discounts to attract new users and is now a serious competitor to older startups
- Significantly affect the digitalfinance in Nigeria, which could lead to Nigeria surpassing Kenya as Africa's digital payments leader

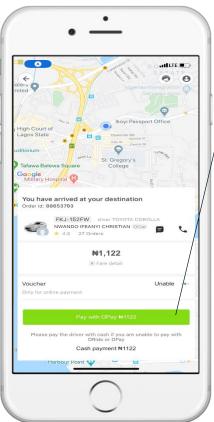


OPay user experience: Wallet usage

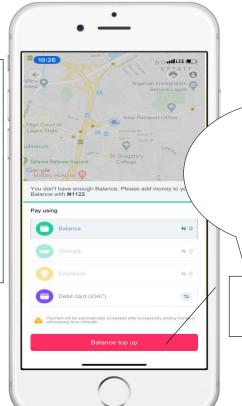
Ride hailing

Various products/ services offered on the OPay platform





Discounted cost for OPay payment, to incentivize customers to use the wallets for payment



Options showing various payment methods

Top-up button for your wallet

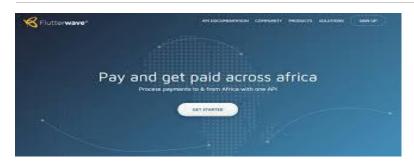


OPay wallet allows users to do transactions, transfers, food order and ride hailing on a single app



Flutterwave company profile





Company Description

- Digital payment infrastructure for Africa allowing convenient and secure payments via any channel
- Allows businesses to make and accept payments anywhere in Africa

Value proposition

 Drives growth for banks and businesses across Africa through digital payment technology

What makes them distinctive

 Single platform that lets merchants sell to customers globally— online, in-person, anywhere in the world Product and solution offerings

- Virtual card create and manage virtual cards for online and offline payments
- Moneywave disburse funds via an API to bank accounts
- Barter expense management, cards, bills and travel
- Thrivesend consumer funds transfer in Nigeria
- Invoice create professional invoices and track payments
- Payment links create and send payment links to customers without website

Technology leveraged

- API
- Big Data/ Advanced Analytics
- Cloud

Payment channels

- Debit and Credit Cards
- Bank Account
- Mobile Money
- POS

- M-Pesa
- Visa QR
- Bank Transfer
- USSD

Channels

- Cards (routed through the Mastercard payment gateway)
- Bank accounts and mobile money accounts

Competitors

Square







SOURCE: Flutterwave website; press articles

Flutterwave achievements



Quantitative achievements





\$2.5 bn in payments processed across 100M

transaction







1200+ Developers building on Flutterwave

Qualitative achievements

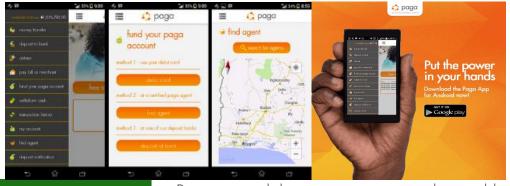


Enable payments across the continent, reducing cost of cross border payments



Paga company profile





Company Description

- Paga is a mobile payment company, that enables people to digitally send and receive money, thus creating simple financial access for everyone.
- The company was established in 2009 to leverage the ubiquity of mobile phones to bring financial access to all Africans

Value proposition

 Delivers innovative and universal access to financial services with the goal of reducing the financial excluded population

What makes them distinctive

 Paga leveraged ubiquity of mobile phones to create a cashless payment and money transfer solution for the large unbanked population

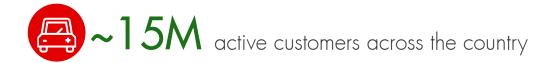


SOURCE: Paga website; press articles

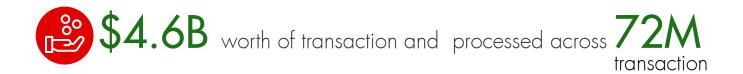
Paga achievements

Quantitative achievements





24,000+ agents currently signed up on the Paga platform





Qualitative achievements

Paga has been able to:

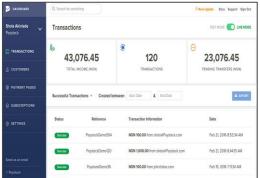
- Drive financial inclusion by partnering with the government to form the Shared Agent Network Facility (SANEF)in Nigeria
- Form strategic partnerships with international companies to offer additional services that drives financial inclusion



Paystack company profile







Company Description

- Paystack is a leading online payments provider in Nigeria with a focus on SMEs.
- Paystack began operations in 2015, and operates with team of 72 between Lagos and San Francisco

Value proposition

 Easiest channel for Nigerian and African SME merchants to receive electronic payments via any channel

What makes them distinctive

 Paystack ensures that payment for merchant is fast, seamless and easy, with a 24 hour settlement promise



SOURCE: Paystack website; press articles

Paystack achievements

Quantitative achievements



\$27.5M worth of transaction processed monthly¹

25,000+ merchants currently signed up on the Paystack platform





Qualitative achievements

Paystack has been able to:

- Drive financial inclusion by allowing businesses without complete registration also receive online payments
- Promote trust in the financial system by including automated fraud monitoring systems on their platforms

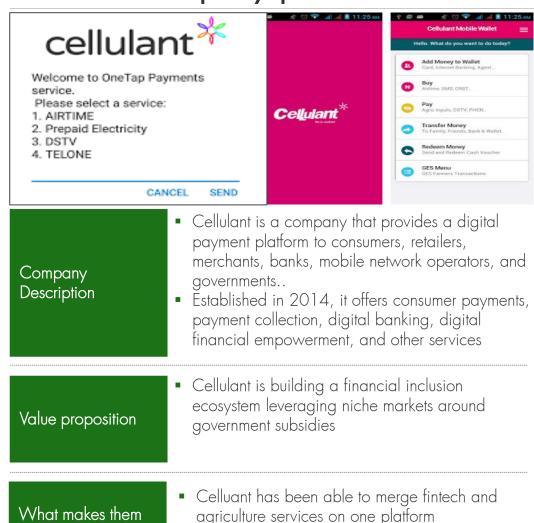


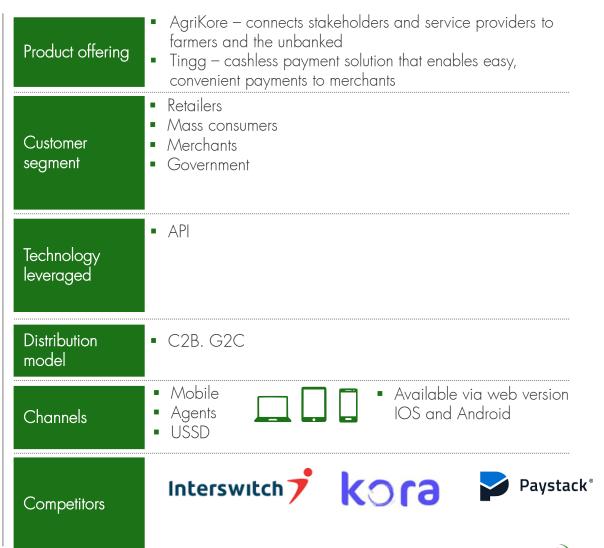
1. As at October 2019

Cellulant company profile

distinctive







SOURCE: Cellulant website; press articles

Cellulant achievements

Quantitative achievements





4M+ farmers benefit every year from subsidy program





Qualitative achievements

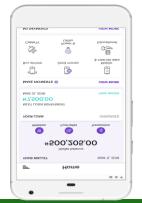
Cellulant has been able to:

- Drive economic growth in Nigeria, by providing job opportunities within the agriculture sector for Nigerian youths
- Drive financial inclusion through its growth Enhancement Support (GES) Scheme. The Nigerian government was able to register 14.5 million farmers through the scheme

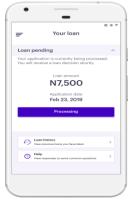


Carbon company profile









Company Description

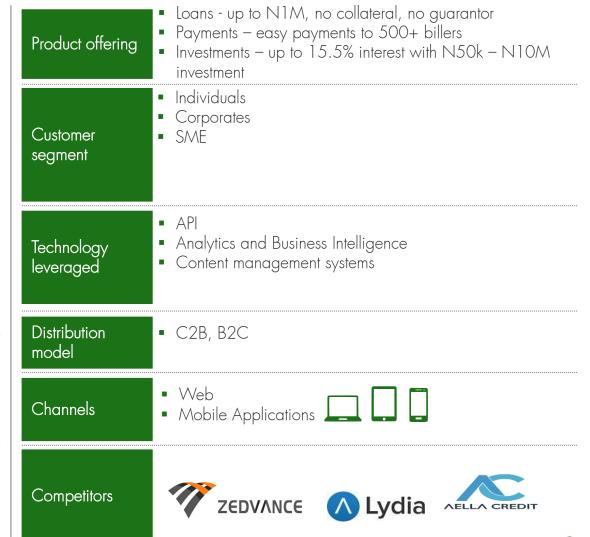
- Carbon is a digital financial services platform that specializes in consumer lending.
- Carbon empowers individuals by providing them access to credit, simple payments solutions, highyield investment opportunities and easy-to-use tools for personal financial management

Value proposition

 Carbon is simplifying consumer lending by using a specialized platform that enables quick access to financial products

What makes them distinctive

- Single integrated app (android)
- Low transaction fees



Carbon achievements

Quantitative achievements



\$35.6Mn Loan amount disbursed



\$8.45Mn Bill payments value

~547k+ bill payments volume



Qualitative achievements

Carbon has been able to:

- Drive financial inclusion by simplifying the credit process to make loans available for the retail segment in only 5 minutes
- Partner with credit bureaus to make credit checks accessible for everyone



PiggyVest company profile





Company Description

- PiggyVest is the first online "Savings & Investment" app in West Africa. It first launched as in January 2016 as a savings-only platform.
- In 2019, PiggyVest then began to offer direct investments opportunities to users in addition to savings.

Value proposition

 PiggyVest is on a mission to give everyone the power to better manage & grow their own finances

What makes them distinctive

 Making investments easy for customers by providing opportunity to invest tiny & affordable chunks and still enjoy the same return rates in amazing opportunities.



CowryWise

SmartSaver.ng

Competitors

SOURCE: Piggyvest website; press articles

sı 🎱 EFIn.

RIBY

PiggyVest achievements

Quantitative achievements





350,000+ Users currently signed up on the PiggVest platform





Qualitative achievements

PiggVest has been able to:

- Increase savings rate in the country by providing innovative ways for people to save
- Partner with health insurers to provide affordable health insurance to young Nigerians



SOURCE: Piggyvest Website website; press articles

150

Renmoney company profile











- Renmoney is a consumer finance organization that started in 2012 with an expertise in the provision of simple money solutions
- Renmoney provides loans that are flexible and spread over 12 months, without requiring collateral or guarantors

Value proposition

 Renmoney has a focus on the unmet consumer financial needs of the ordinary Nigerian consumer, with more emphasis on its unsecured loan product

What makes them distinctive

 They leverage both traditional, digital and alternate media platforms to consistently address the unmet demand of customer finance in Nigeria

Product offering

- Loans: Borrow up to N6m
- Investment opportunities with yields of up to 13% p.a
- Target savings

Customer segment

- Individuals
- Corporates
- SMF
- Youths

Technology leveraged

- API
- Cloud technology

Channels

- Web
- Branch Network
- Agents
- Contact centers



Competitors









RenMoney achievements

Quantitative achievements





200,000+ Loans provided to individuals and small business in Nigeria





Qualitative achievements

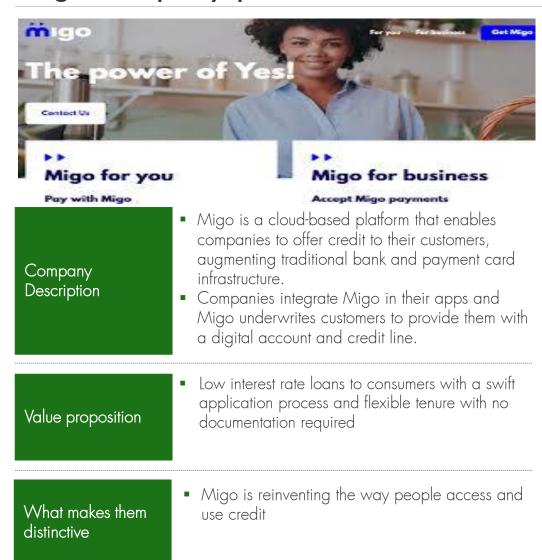
Renmoney has been able to:

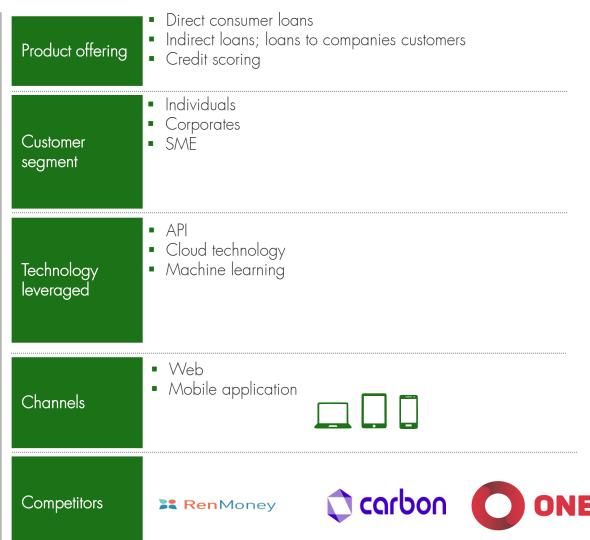
 Increase financial inclusion by providing easily accessible consumer finance lending to the financial excluded Nigerians



Migo company profile







EFInA

Migo achievements

Quantitative achievements





3M + Loans provided to individuals and small business in Nigeria

1M+ customers have been offered loans on the migo platform



Qualitative achievements

Migo has been able to:

 Drive commerce around the world by injecting liquidity into the lastmile retail sector



Interswitch company profile









Company Description

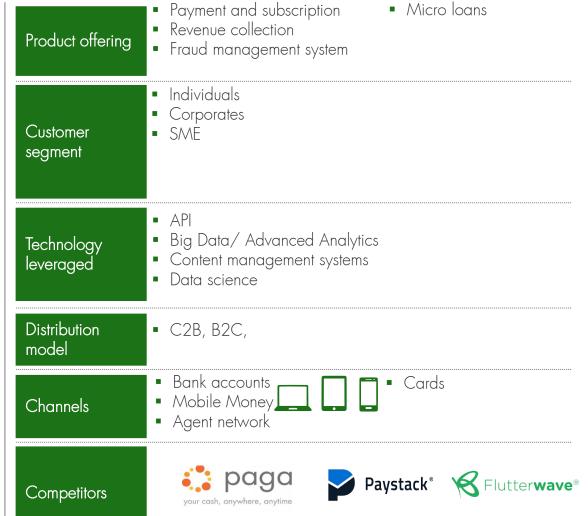
- Interswitch is an Africa-focused integrated digital payments and commerce company that facilitates the electronic circulation of money
- The company started operations in 2002 as a transaction switching and electronic payments processing company that builds and manages payment infrastructure

Value proposition

 Interswitch helps customers reduce costs, increase revenues, tighten security, expand product offerings, and improve service levels on technology.

What makes them distinctive

 First mover advantage of disrupting the traditional cash-based payments value chain in Nigeria by introducing electronic payments processing and switching services



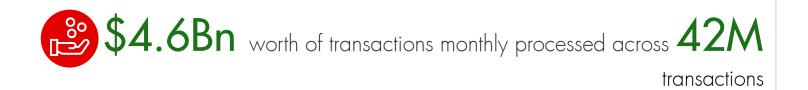
Interswitch achievements

Quantitative achievements





20,000+ agents currently signed up on the interswitch platform



Qualitative achievements

Interswitch has been able to:

- Drive financial inclusion by investing in agent networks to bridge the gap between the banked and unbanked
- Increase access to financial services by providing agent network in 29 out of 36 states in Nigeria



SOURCE: Interswitch website; press articles

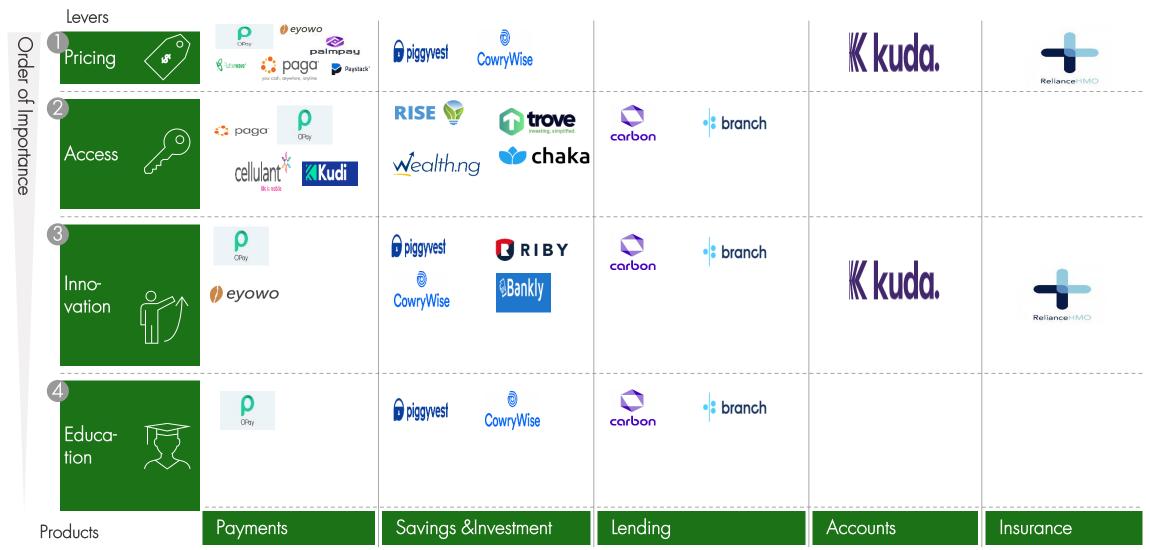
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FinTechs have made significant progress on pricing, access and innovation but there are still gaps on education and on accounts and insurance



FinTechs tend to be up to 50%-80% cheaper than banks on transaction fees and offer 2-3X traditional interest rate on savings

Product Payments		Traditional Players N10-N50 transfer fees		FinTech N10 transfer fees	
		Bill payments at N100		Bill payments at NO	
		No charge for Airtime		Cashback upon airtime recharge	e
Savings		4%-5% interest rate p.a		10%-15% interest rate p.a.	
		N50 quarterly card main fee on savings accounts	ntenance	No card maintenance fee	

There are still opportunities for FinTech to improve pricing particularly in lending:

- Current lending APRs range between 50% to 360% vs 16% to 30% for traditional players largely driven by FinTech high cost of funds & risk profile of the underserved
- Lack of any Islamic finance product excludes a segment of the population operating on Islamic principles



SOURCE: Company Website, Press Search

FinTechs have innovated in different product areas across pricing, product and delivery models

Innovation Area	Description	Product Areas	Examples	Players	
Product	Development of new products or changes to existing products that cater to the needs of the financially excluded	Payments	 Platforms that offer key use cases for customer across transport, food etc. Easy to use stored value wallets Transactions in languages people understand e.g. OPay in Hausa and Eyowo in Yoruba 	OPay your cash, anywhere, anyline eyowo	
		Lending	 Instant, unsecured loans requiring minimal documentation or collateral 	branch	
		Savings	 Automated discipline savings products for middle class youth 	piggyvest CowryWise	
		Wealth Management	 Access to trade in global stock markets 	RISE 👽 👉 chaka	
Pricing	Development of pricing strategies that allows most income groups to	Insurance	Cheaper insurance fees in monthly payments	+	
	use available products	Lending	 Cashback on early loan repayments 	carbon	
Delivery Models	Development of new ways to deliver already existing products in a way	Lending	 Leveraging smartphone distribution to aggregate data points in order to assess risk 	branch	
	that reached previously excluded groups	Savings	Digitization of cooperative savingsCash digitization by agents	C RIBY SBankly	

EFInA

SOURCE: Company Website, Press Search

Low female participation in FinTech is driven by under-representation in finance and tech and lack of diversity in VC industry

There are 5 key drivers to increase female participation in FinTech

Increase STEM pipeline

Educating and encouraging young women to pursue careers in STEM by breaking down social barriers and stereotypes Initiatives include scholarships, conferences to raise awareness, STEM funds/grants, Workplace sponsorship

2 Introduce regulatory policies to drive gender diversity

Increasing diversity through regulatory policies (government or self-imposed) will enable companies make conscious decisions to drive gender equality in the workplace

Increase funding for female driven FinTech

Create more female focused VC funds to drive adoption Allocate more donor funds/grants to female-run FinTech to drive adoption

Drive sponsorship and mentorship among women in FinTech

Organize conferences and structured networking events to connect women in FinTech with successful players in the industry

Increase role modeling and share success stories

Develop online series, webinars etc. where women in FinTech share success stories with up and coming entrepreneurs

Develop partnerships with women enabled businesses to foster collaborate and role modeling

Examples



- Tech Women mentorship program for women in collaboration with the U.S. Department of State's Bureau of Educational and Cultural Affairs
- Mastercard Girls4tech program
- Exxon Mobil's Women interest network,
- Edufun Technik STEM Hub etc.



CBN mandated commercial banks to appoint 30% women to their boards

- The Female Founders Fund, a ~\$30m fund focuses on investing in early stage female led startups



Janngo Capital – is a female-led venture capital fund focused on African women



Alitheia Capital – launched a gender fund targeting female entrepreneurs



 Women in FinTech Global initiative promotes collaboration between female FinTech leaders and create an unrivalled environment for mentorship



Africa Women in FinTech conference aims to connect female African entrepreneurs across the continent to foster collaboration and innovation



Innovate finance's Talent and Skills program spotlights the in tech industry and inspires young women to pursue careers in FinTech



She Leads Africa connects women entrepreneurs with market leaders to drive innovation in women-owned businesses

SOURCE: Company websites, team analysis

Case Study: Pafupi Savings in Malawi developed a savings product designed specifically to meet women's needs

Malawian women had a huge unmet need with savings

Context

- ~6M out of 7.5M population in Malawi were unbanked in 2014
- Only 27% of rural communities had access to bank accounts
- However, women were the household financial managers and savers, prioritizing how earned money is allocated
- Women began to set-up informal savings club in rural communities to drive saving
- NBS partnered with MicroLead program and Women's World Banking to understand the needs of rural Malawian women and design a savings account

NBS created Pafupi Saving accounts with 5 key elements based on women's needs

Bring bank to local community

 Agents visited rural communities and with mobile phones, opened savings accounts in under 10 minutes

Offer convenience and security

 Recruiting local shopkeepers as fixed bank agents in the community removed cost of transportation to bank and provide security of savings

Help women save regardless of income

- Enabled women to make small deposits and withdrawals at local NBS bank agent and ATM
- No monthly charges and interest accrued on balances

Educate new savers

• Financial education messages tailored to local context, group education sessions conducted financial planning, goal setting etc.

Empower women

- Savings account is first point of access to formal economy for many women
- Savings profile financial security and possibility for access to loans and other bank offerings

Impact to date

Reached target rural women,

76%

of whom were previously unbanked



>200k

Pafupi accounts by Dec 2018

Strengthened financial

education and empowered women with increased

financial stability



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Despite the progress made in the Nigerian FinTech ecosystem, there are still gaps that stakeholders need to make concerted efforts to address (1/9)

Progress



Current gaps



Opportunities



RegulatorPolicies



- Shift to electronic payments through e.g. cashless policy has enabled the growth in areas like online payments as merchants shift to electronic channels
- Licensing of Payment Service Providers (PSPs) to operate properly under regulatory guidelines - PSP licensing enabled many players with limited capital to enter the payment processing space
- National Financial Inclusion Strategy (NFIS) has led to the push and growth in agency banking

Frequent policy changes /misalignment

- Frequent change in policies & guidelines by regulators
- Limited synergies between policies e.g. cashless policy vs additional levies on electronic payments
- Delayed implementation of proposed guidelines e.g. proposed tiered PSP licensing is still a circular

Constraining licensing & regulatory regime

- A number of restrictive policies e.g. cap on agent banking pricing, limits on USSD transactions
- Multiple and sometimes expensive licensing required to carry out several activities e.g. PTSPs
- No process/framework in place to update outdated regulations

CBN to ensure implementation of regulatory sandbox that allows FinTech to develop and test solutions within an enabling environment and support scale through these components:

- Setting out specific sandbox criteria
- Using a cohort based model for companies to test
- Relaxation of specific regulatory requirements
- Tailored authorization process of companies that wish to test innovations
- Guidance/Case officer for FinTech to support design & implementation of test
- Extended sandbox services to other areas such as Insurance
- Monitor and update regulations that foster competition, innovation and protection based on sandbox outcomes



SOURCE: Expert Interviews, Press Search

Despite the progress made in the Nigerian FinTech ecosystem, there are still gaps that stakeholders need to make concerted efforts to address (2/9)

Progress



Current gaps



Opportunities



RegulatorPolicies



Limited regulatory framework for other FinTech areas such as insurance & wealth management

- Restrictive guidelines in sectors such as Insurance has limited innovation
- Sectors like wealth management remain unregulated e.g. crowdfunding and digital asset management
- Unclear implementation guidelines for existing frameworks like micropension

Limited effectiveness and visibility on consumer protection guidelines

Develop innovation friendly guidelines

- FinTech body/association that interfaces with relevant bodies/stakeholders e.g NAICOM on behalf of FinTech to ensure guidelines are updated as necessary and per sandbox test period outcomes
- Review agent banking prices to reflect various market realities/outcomes

Implementation effective and visible consumer protection guidelines

- Creation of targeted campaigns that raise awareness of relevant consumer protection policies e.g. visible warning list on investments etc. on the CBN/CPC website and resource bank that provides materials for sharing within personal networks
- Creation of a financial ombudsman service by CBN that enables easy resolution of financial complaints for customers



Despite the progress made in the Nigerian FinTech ecosystem, there are still gaps that stakeholders need to make concerted efforts to address (3/9)

Progress



Current gaps



Opportunities



Regulator-Market Structure& Competition



- Opening up of critical payment APIs such as NIP and the Mastercard Payment Gateway enabled many payment players like Flutterwave & Paystack to build innovative payment solutions
- This payment solutions in turn enabled lending & savings players to easily serve their customers through instant payouts and collections

Limited Sharing of useful Customer Data between FinTech and other ecosystem players e.g. banks, telcos

- No standardization of APIs across players
- Difficulty in integrating with players' APIs seamlessly due to various API standards
- No incentives for players to share useful customer data with FinTech

Expensive and difficult to obtain licenses that are barriers to entry for FinTech

 Similar license requirements for FinTech and Banks which does not necessarily match the scale of activity of FinTech

Data Sharing Framework

- Support for API standardization by relevant stakeholders e.g. CBN, NIBSS
- Regulation that enables customer ownership of data sharing authorization e.g. through open banking

Market opportunity for data aggregator

- Opportunity for market player to be data aggregator in which FinTech could plug into to get relevant customer data
- This helps to reduce cost and time to market for FinTech

Opportunity for banks, telcos & FinTech to differentiate based on open APIs and data sharing

 Banks, Telcos & FinTech can make their platforms more valuable to customers by allowing customers share their data with other platforms who can build value add services leveraging the data e.g. financial wellness advisory etc.

Ease of obtaining licenses

 Unbundling expensive licenses into smaller parts that are more affordable for FinTech e.g. licenses around digital banking, lending, asset management, insurance etc



SOURCE: Expert Interviews, Press Search

Despite the progress made in the Nigerian FinTech ecosystem, there are still gaps that stakeholders need to make concerted efforts to address (4/9)

Progress



Current gaps



Opportunities



Regulator-Infrastructure

Mobile phone penetration of 87% of the population i.e. 170 million mobile subscribers leading to democratization of access



- BVN policy created a digital identity that enabled FinTech properly identify users and signup users remotely
- NIP by NIBSS enables online real time payments - significant reach as NIP accounts for 70% of ~ 120 million monthly transactions processed by NIBSS
- Flutterwave, a B2B FinTech was the first company to offer instant settlement to merchants once NIBSS allowed for this

Lack of widely used Digital ID

- While there are many different identity systems, there is under penetration of a reliable digital ID e.g. only 40 million accounts are currently linked with BVN (most reliable ID system)
- There are many different identity systems with various data collection standards making reliability an issue

Broadband coverage

- Limited data affordability. E.g. Data prices of some providers have remained the same for about 3 years
- Cost to serve of Network providers is high due to cost of laying Fibre cables etc.
- Suboptimal coverage and where there is coverage, quality is often poor

Inadequate Credit Data Infrastructure

- Lack of central credit data repository
- Lack of national asset register to enable asset finance
- NIBSS Global Standing Instruction (GSI) still in progress

Creation of reliable widely used Digital ID

- NIMC to incentivise those in underserved areas to get digital IDs by providing rewards for enrolment or making it a condition for certain services e.g. registering a mobile sim
- Adopt common standards of capturing data across all identity systems e.g. BVN, NIN etc. to ensure reliability in using any of the IDs

Fasttrack broadband coverage & quality

- Allow for shared fibre infrastructure between Telcos and network providers
- Explore concessions of specific geographies to different providers
- Provide incentives for Telcos to expand to rural areas
- Reduce cost to serve in undeserved areas for Telcos

Standardization of credit infrastructure through:

- Creation of central credit data repository by CBN.
 E.g. central credit register by the Bank of Ireland
- Creation of national asset register
- Implementation of proposed GSI



SOURCE: Expert Interviews, Press Search

Despite the progress made in the Nigerian FinTech ecosystem, there are still gaps that stakeholders need to make concerted efforts to address (5/9)

Progress



Current gaps



Opportunities









 As at Q3 2018, there were ~53 million smartphone connections, representing a penetration of 36% which is still low

Shared agent infrastructure is still in infancy

 Not yet been implemented and will only allow for interoperable account opening

Improve device penetration:

- Possible collaboration between major stakeholders e.g. telcos, big tech, FinTech to bulk order low price point phones to further drop prices
- Enable device financing
- Enabling secondary market i.e. used phones
- Reducing taxes and tariffs on phones

SANEF to fast track implementation of shared agent infrastructure



Despite the progress made in the Nigerian FinTech ecosystem, there are still gaps that stakeholders need to make concerted efforts to address (6/9)

Progress



Current gaps



Opportunities







- Google Launchpad Accelerator Programme - Currently in its 4th class, with 4 out of 6 Nigerian startups in its 4th cohort, being FinTech
- Y combinator- 13 out of 28
 African startups in the Y
 combinator program over the
 last 10 years, have been
 Nigerian
- 7 out of the 10 African startups in 2017 were Nigerian with >50% being FinTech
- Strategic investments between Asian and US investors and Nigerian FinTech

Lack of formal avenues for FinTech to exchange information:

- No formal avenues for FinTech to navigate regulatory framework of other jurisdictions
- No formal cross border avenues to share crucial learnings between local and international FinTech which are necessary for i)FinTech to scale and ii) create impact along certain dimensions e.g. Financial inclusion locally

Lack of formal avenues for regulator alliances:

 No formal channels for regulators to learn from each other and apply key learnings to local market CBN to foster collaboration with other regulators and ecosystems e.g the Global Financial Innovation Council in order to:

- Encourage skill building and development of local FinTech through teachings via workshops, online courses etc.
- Drive knowledge sharing through sharing of experiences and approaches
- Expand capacity by combining resources to work on joint projects
- Reduce costs and improve efficiency for Nigerian FinTech

CBN to play potential lead role in regulator innovation network of for e.g. African countries innovation network

- To share key learnings from the Nigerian FinTech landscape with other countries
- To encourage skill building

Coordination of Exchange Programmes:

- Founders, entrepreneurs, managers, developers exchange programmes etc. where they can share experiences & build skills
- Particularly programmes with other countries e.g. India, Indonesia that have navigated Financial Inclusion in order to learn and apply key insights



Despite the progress made in the Nigerian FinTech ecosystem, there are still gaps that stakeholders need to make concerted efforts to address (7/9)

Progress



Current gaps



Opportunities



5 Funding



- Increased inflow of foreign capital in Nigeria, with over \$400mn invested in FinTech players over the last 3 years focused on early and growth stage players
- Large ticket investments in 2019 include Interswitch (\$200mn),
 OPay (\$170mn) and Palm Pay (\$40mn)

Limited local participation

- Limited number of tech focused VCs
- LPs are mostly foreign (most Nigerian investors have not fully embraced tech investing)
- Lack of education about the VC asset class

Underdeveloped early stage investment ecosystem

- Only few angel networks exist
- Many incubators/accelerators have slowed down

Capability Gaps

- Many founders have limited work experience
- A result of this is governance, controls and reporting tend to be suboptimal
- Support industries like tech law have not taken off

Introducing incentives that encourage local investment

E.g. Tax benefits/relief on certain amounts invested

Education (e.g. through success stories) on what it takes to invest in FinTech:

 On the risk/return in this asset class compared to others

Fostering provision of essential services to FinTech through for example:

- Sponsored capability building workshops on reporting etc.
- Subsidized legal and other professional services



SOURCE: Expert Interviews, Press Search

Despite the progress made in the Nigerian FinTech ecosystem, there are still gaps that stakeholders need to make concerted efforts to address (8/9)

Progress



Current gaps



Opportunities







- Private developer institution trainings
 e.g. Andela, Decagon -The
 Andela Learning community has
 supported over 23,500 learners,
 produced over 12,000 graduates
 across 17 countries in Africa
 including Nigeria
- The Lambda school Africa Pilot provides a chance to be hired by a participating company e.g.
 PayStack, Cowrywise after the programme
- HNG has run 5 batches of internships with a total of 15,000 interns trained since the first batch

Inadequate academic and industry resources to develop sustainable tech talent pipeline:

- Limited number of internship programmes within FinTech to develop a sustainable talent pipeline
- Sub standard university curriculum
- Limited private institutions training. Only a few such as Andela, Decagon

Education



- Explore potential partnerships between universities and Tech institutions/training schools to lecture students
- Development partners to encourage tech visiting scholars at key universities
- Encourage strategic location of Tech/FinTech companies around key universities to create tech talent hub e.g. Bangalore
- Design alternative degrees e.g. Associate degrees which are shorter in duration and allows students to start learning on the job faster

Develop more Industry wide Internship & Apprenticeship programmes

- Scale up internship programmes such as the Lambda school program to involve more FinTech
- Create Apprenticeships for capable school leavers who can start to learn on the job quickly



SOURCE: Expert Interviews, Press Search

Despite the progress made in the Nigerian FinTech ecosystem, there are still gaps that stakeholders need to make concerted efforts to address (9/9)

Progress



Current gaps



Opportunities







Brain Drain:

 Due to more attractive opportunities for Tech talent outside of Nigeria

Foster ties between Tech Alumni & Universities

- Universities to host Tech focused Alumni Events
- Develop engaging university tech experience for students before they become alumni
- Connecting students interested in tech and alumni founders/leaders in the tech space for career mentoring with the opportunity for alumni to hire students

Developer Communities e.g. Devcenter

- Scale developer communities and use as channel to develop talent pipeline by creating mentoring opportunities and frequent meetups
- Create smaller niche groups within communities to create specialized tech talent

Tech training as a market opportunity for CSR by Telcos, Banks etc.



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There are opportunities to serve the BOP with tailored financial product that could drive increased DFS adoption

Key features to be considered when designing products

Emerging market examples



 Offer insurance products (health, agricultural products etc.) to BOP customers with flexible premium options for regular micro installment (N200 – N1000) per month paid daily, weekly/bi-weekly











- Develop unique and tailored value proposition for savings products
- Pay interest based on tiered model increase interest as wallet balance grows (ranging from 2% 5%)











- Provide microlending products to customers with little to no prior banking history
- Use alternative data sources (e.g. transaction data, community guarantee etc.) to develop credit scoring in order to assess credit-worthiness and assign limits
- Limit loans to 30-60 days to reduce chances of default







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There are 3 key areas across which EFInA can support the growth of the ecosystem

Areas

Sponsor Regulatory
Sandbox and innovation
office

Description

- Champion the regulatory sandbox and innovation office:
 - Sponsor/Fund operations and resourcing of the team
 - Connect team to global expertise (e.g. through linkages with other regulatory bodies; exchange programs; etc)
 - Work with stakeholders to encourage sharing of quality APIs
 - Sponsor annual "99 pain points" hackathon to channel fintech innovation to areas that matter

Partner Stakeholders

- Central Bank of Nigeria
- NIBSS
- NAICOM
- FinTechs

Mobilize funding in targeted areas

- Co-invest with investors or experienced entrepreneurs in commercially viable ventures in targeted areas (e.g. Female founded businesses; microfinancial services products; regional based businesses; etc)
- Contribute and mobilize other funding for innovation hackathon (99 pain points)
- Investors
- Donors/Foundations

Lead advocacy for Financial inclusion

- Promote financial inclusion through targeted research, strategic industry forums and opportunity identification for Donors/Foundations
- Create awareness on priorities (e.g. consumer protection, gender inclusion, etc.) by launching a "Fintech" consumer guide / rating
- Establish a Fintech directory to build data on FinTech ecosystem and promote enhanced self-reporting
- Federal competition and consumer protection commission
- Donors/Foundations
- FinTechs



