London Business School

Wheeler Institute for Business and Development

AFRICA FINTECH:
SCALE PREVALENCE

Foreword from UK Foreign, Commonwealth and Development Office

We are at an exciting moment for scaling fintech in Africa. Using widely-accessible, low-cost, digital solutions, many fintech companies are putting the power of financial services directly into the hands of SMEs and hundreds of millions of individuals, previously underserved by traditional banking systems. Families can now manage savings and cash-flow requirements from the palm of a hand, and informal workers can digitise their payments records and establish a credit history. Fintech underpins how many of the business models we are seeing today scale across sectors such as energy and agriculture. Digital financial inclusion can help drive economic growth, foster investment and ultimately help reduce poverty.

At FCDO, we constantly seek to understand the drivers of success so that we can align our work and investment to achieve maximum impact. The research behind this report stemmed from the question "Why do some digital initiatives scale, while many do not?" The report is a first step in adopting a more data centric approach to the challenges of scale and seeking evidence of consistency in the factors that link to scale. It is complex issue and we know that there is no simple answer but, by working with the Wheeler Institute for Business and Development, we believe this work contributes to the sector-wide understanding of these complexities as we strive to unlock the power of fintech and digital solutions more broadly.

Magdalena Banasiak
Head of Technology and Innovation – Scaling and Partnerships
UK Foreign, Commonwealth and Development Office (FCDO)

Foreign, Commonwealth & Development Office

UKaid from the British people

Wheeler Institute for Business and Development

The Wheeler Institute for Business and Development at London Business School was created to research and amplify the role of business in tackling some of the hardest challenges in social and economic development. We aim to improve lives through identifying what needs to change; linking and applying relevant business research and expertise; and through accelerating the adoption and scaling of solutions. We facilitate collaboration between local communities, business, policy makers, and researchers in identifying and promoting solutions.

London Business School

Wheeler Institute for Business and Development

Partners and collaborators

Foreign, Commonwealth & Development Office

UKaid from the British people

GSMA

BRITER BRIDGES

Table of contents

Executive summary

The importance of scale prevalence in African fintech

In the context of African fintech, defining scale itself is the first step to understanding causal factors of scale. Company scale is often deemed a yardstick of success by operators, investors and policymakers, but defining scale in the context of digital technologies across Africa is challenging, given the heterogeneity across markets, sector sub-segments and fintech business models. Anecdotal case studies are helpful in understanding how individual companies have scaled but offer little information to make comparisons across the overall landscape. Despite extensive academic research exploring product take-off and technology diffusion, there is little formal quantitative research investigating the prevalence of scale, especially in the context of digital technologies in Africa.

A new way of measuring scale

Our research approach demonstrates that it is possible to use large sample sizes and a quantitative approach to analyse scale prevalence in African fintech. The research team analysed 716 companies across four metrics related to company-level scale: number of end users; annual revenue (in USD$); cumulative funds raised (in USD$); and number of employees. After various iterations of our methodology and a series of interviews with leading industry experts, the research team was able to analyse scale prevalence across African geographies, fintech sector sub-segments, and time periods.

Scale prevalence across African fintech

Of the 716 companies operating across the continent, only 37 fintech companies, or 5% of the sample, achieved scale. Our analysis showed the following:

- **Fintech is concentrated among Africa's three fintech powers – South Africa, Nigeria and Kenya:** 51% of fintech companies and 54% of all scaled fintechs are based in these three country markets. Scale prevalence is consistent at 5-6% within these country markets.
- **Infrastructure sector has the highest prevalence of scale:** 10% relative to 2-8% in other sectors
- **Scaled fintechs are on average 12 years old –** only 5 scaled fintechs were founded within the last 5 years, so achieving scale takes time.

The report clarifies our definition of scale and fintech in an African context, and so paves the way for some practical insights for key industry stakeholders, investors, business leaders and policymakers.

What comes next?

Understanding scale prevalence lays the groundwork for a robust, quantitative approach to understanding the *causes* of scale. Our Phase 2 work will examine the factors that encourage or inhibit scale among fintechs in Africa.

INTRODUCTION

Africa's fintech industry has great scale potential

The past decade has seen rapid growth in the fintech ecosystem in Africa. In 2019, more than 700 fintech companies were operating in the region, and over $1 billion in venture capital funding had been invested in the start-up ecosystem. Many larger players, especially the mobile network operators, have invested significant capital in growing their digital financial services businesses. The region is also seeing the emergence of so-called digital challenger banks, such as Tyme Bank.

Key factors that make this sector a sweet spot for fintech companies include a huge mobile customer base and a large number of small, informal businesses increasingly transitioning to digital ecosystems to meet customer demands for financial services. Digital solutions, supported by improved GSM and Wi-Fi network coverage and more affordable smartphones, are enabling the stakeholders to leapfrog traditional infrastructure to lighter-touch, lower-cost and more efficient regimes. These market forces clearly point toward rapid growth of the sector; one might therefore assume there would be many fintech companies operating at scale.

Challenges in implementation persist

The journey to maximum digital inclusion for the continent's population is not straightforward, however. The practicalities of implementation are complex. Fragmentation pervades Africa's many different legislative jurisdictions and cultures. The only consistency is difference: Africa is not one playing field.

There may seem to be large addressable markets, but there are also relatively low and highly skewed disposable incomes. Scaling a business that serves lower-income tiers is notoriously hard. At the other end of the spectrum, it is hard to discern where multiple companies with similar offerings are chasing relatively small customer segments which have high disposable incomes.

"There is a fundamental but implicit assumption made about fintech around the world: that money is primarily stored in electronic form. In Africa, money is primarily still stored as cash and that requires layers of infrastructure to digitalize cash. Packaging this in the right way in a single market is hard enough. Doing it across multiple markets whilst keeping it simple, secure, compliant and usable is incredibly hard. Through interoperability MFS Africa helps partners access a large aggregated market, simplifying a complex payments landscape, and making borders matter less"

Dare Okoudjou, CEO, MFS Africa

Major research gaps

There is much academic and empirical evidence on innovation, product take-off and technology diffusion, but very little on where the context is set by (a) digital initiatives and (b) emerging economies. This absence of knowledge, especially with respect to data-based insights, led to this project being scoped with our co-sponsors, UK Foreign Commonwealth & Development Office (FCDO).

There is little debate that digital financial services have high potential to reach millions of people currently excluded from, or almost invisible to service providers. In this context, 'reaching scale' is often used as the go-to goal by investors, policymakers and service providers. But what does scale mean in a fintech context? How many fintech companies have scaled in Africa? What can investors, business leaders and policymakers do to increase the likelihood of scale? These are the hard, but important questions that need to be answered. As the first in a series of insight papers on the topic, the research team will tackle these issues by defining scale and examining how many firms have scaled in Africa.

> *"When we speak to stakeholders across the digital ecosystem, it's very clear that everyone has their own interpretation of what it means to scale. If we want to build partnerships which enable the rapid growth of digital services, it's essential that we take an approach to understanding scaling that is rigorous and grounded in data and analysis."*
>
> **Max Cuvellier, Head of Mobile for Development, GSMA**

Our Research Questions

How can scale be defined and measured in the context of fintech and Africa?

How common are scaled fintechs?

How does scale prevalence vary across countries?

How does scale prevalence vary across fintech sub-segments?

How quickly can fintechs scale?

A new way of measuring scale

Defining and measuring scale

In order to approach the challenging task of defining and measuring scale with the requisite robustness, the research study used a multi-step mixed methods approach combining a quantitatively based scale index with expert interviews.

Step 1 Identify fintechs	• Partnered with Briter Bridges, a leading research company, to build a database of 716 fintech companies operating across the continent, supplemented by companies identified in the team and expert interviewee's networks.
Step 2 Defining & Measuring Scale	• Selected four metrics closely related to company-level scale: number of end users; annual revenue (US$); cumulative funds raised (US$); and number of employees.
Step 3 Company comparison	• Segmented companies by business model i.e., B2B, B2C or B2B2C to allow for consistent and comparable assessment. • Categorised firms into four main sub-segments: payments, lending, infrastructure and services.

Step 4
Applying Scale Thresholds
	• Created a scale index by establishing a threshold for each scale metric based on the following:
	    • Clearly identified 'inflection' points seen in the distribution of scale data and
	    • Industry expert input on reasonable thresholds for scale
	• Companies exceeding this scale threshold on 2 or more of the four total scale metrics were classified as scaled.

Step 5 Analysis & insights	• Analysed scale prevalence by scale metric, geography, sub-segment and age of company. • See next page for details

Analysing prevalence of scale

The first phase of our research focuses on quantifying the prevalence of scale

Across three dimensions	Geography	Sub-Segments	Years since founding

And four fintech sub-segments

Services	Payments	Infrastructure	Lending
Provide value-added offerings; e.g., savings, insurance, financial management, vouchers, digital banking, or specialist offerings such as anti-fraud solutions	Enable customers to send and receive digital payments for goods and services; e.g., remittance service providers, mobile money/ e-wallets and merchant services	Platforms, systems and/or technical framework solutions to build and run financial services; e.g., payment gateways, banking infrastructure, lending infrastructure, and aggregation services (including API management)	Provide credit to customers (either consumers or businesses); e.g., credit provision, working capital loans, peer-to-peer lending and most recently 'buy-now pay-later'

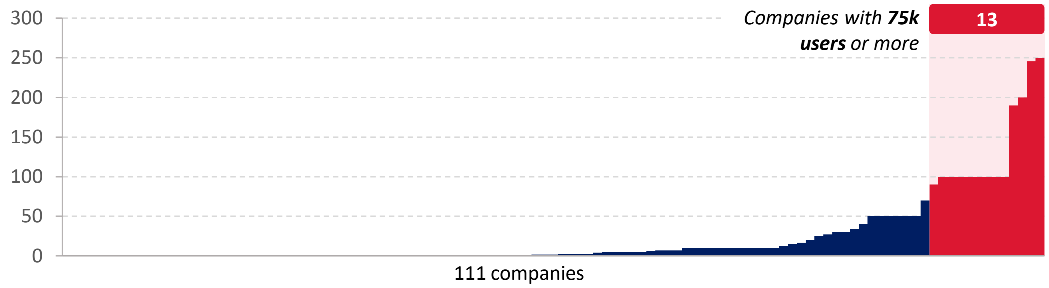
Scale factor distribution

Companies that exceed the scale threshold based on our methodology received one "scale point". A company needs a **minimum of two scale points** to be considered a **scaled FinTech**. Employee data is the most complete, with 607 companies out of 716 companies having available data.

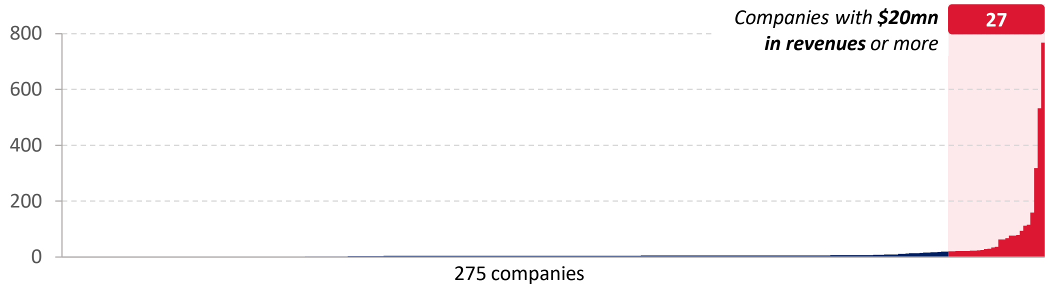
End Users (Consumer)
m

OR

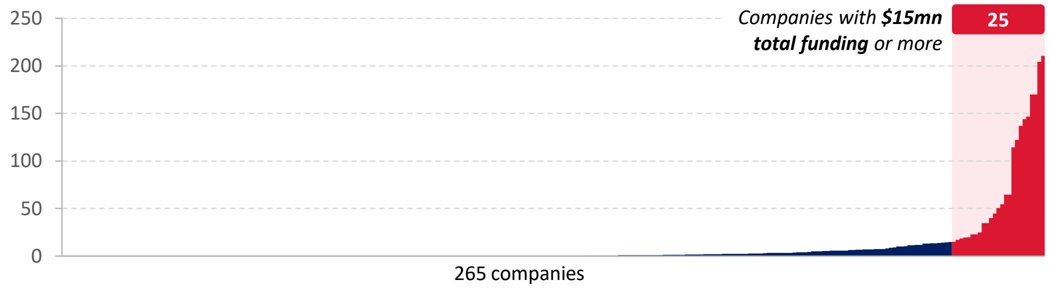
End Users (Business)
'000



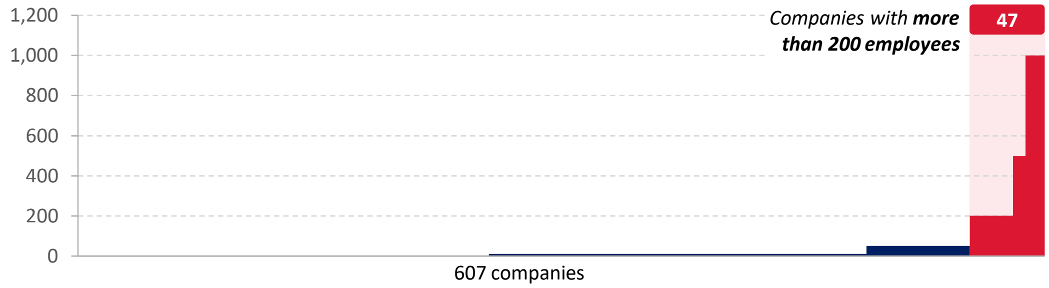
Revenue
$m



Total Funding
$m



Employees[1]
#



1 Employee data points were recorded in ranges (e.g., 51-200 employees). The bottom value of each company's employee range is reflected in the chart data (i.e., 51-200 employees = 51 employees).

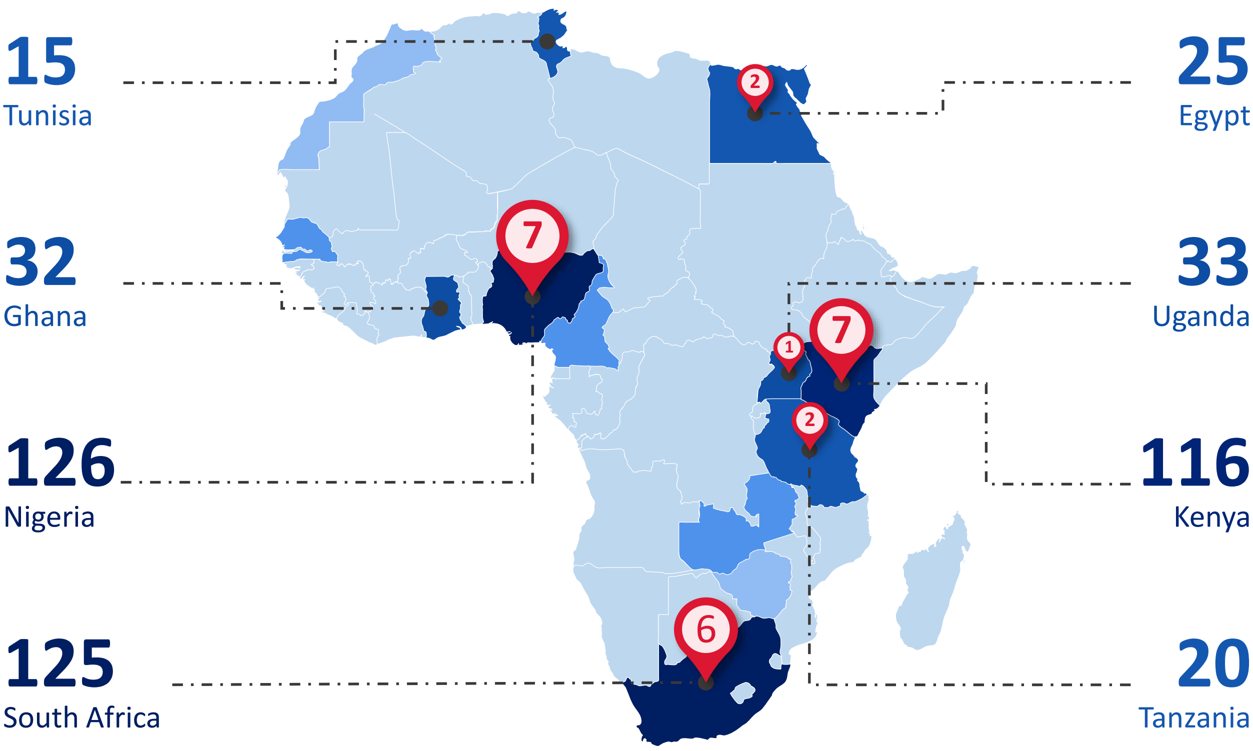
Scale prevalence in African fintech

Scale prevalence across Africa

Out of the **716 fintech companies** that operate in Africa, **only 37, or 5%**, have reached scaled based on our definition. More than half of the scaled companies come from the African tech powers **Nigeria, South Africa, and Kenya.**

Top 8 African countries by number of fintech companies[1]

Number of companies
LOW HIGH
Number of scaled companies



Fintechs outside the top 8: 225 **Scaled fintechs outside the top 8: 12**

Scaled companies across the top 8 countries

Nigeria (7)
Interswitch, OPay, carbon, etranzact, renmoney, palmpay, paga

Kenya (7)
cellulant, Equitel, M-PESA, M-KOPA, DPO Think Payments, airtel money, branch

South Africa (6)
MTN Mobile Money, MFS Africa, JUMO, flash, TymeBank You've got this, YOCO

Egypt (2)
Tanmeyah, Fawry

Tanzania (2)
halotel, tigo cash

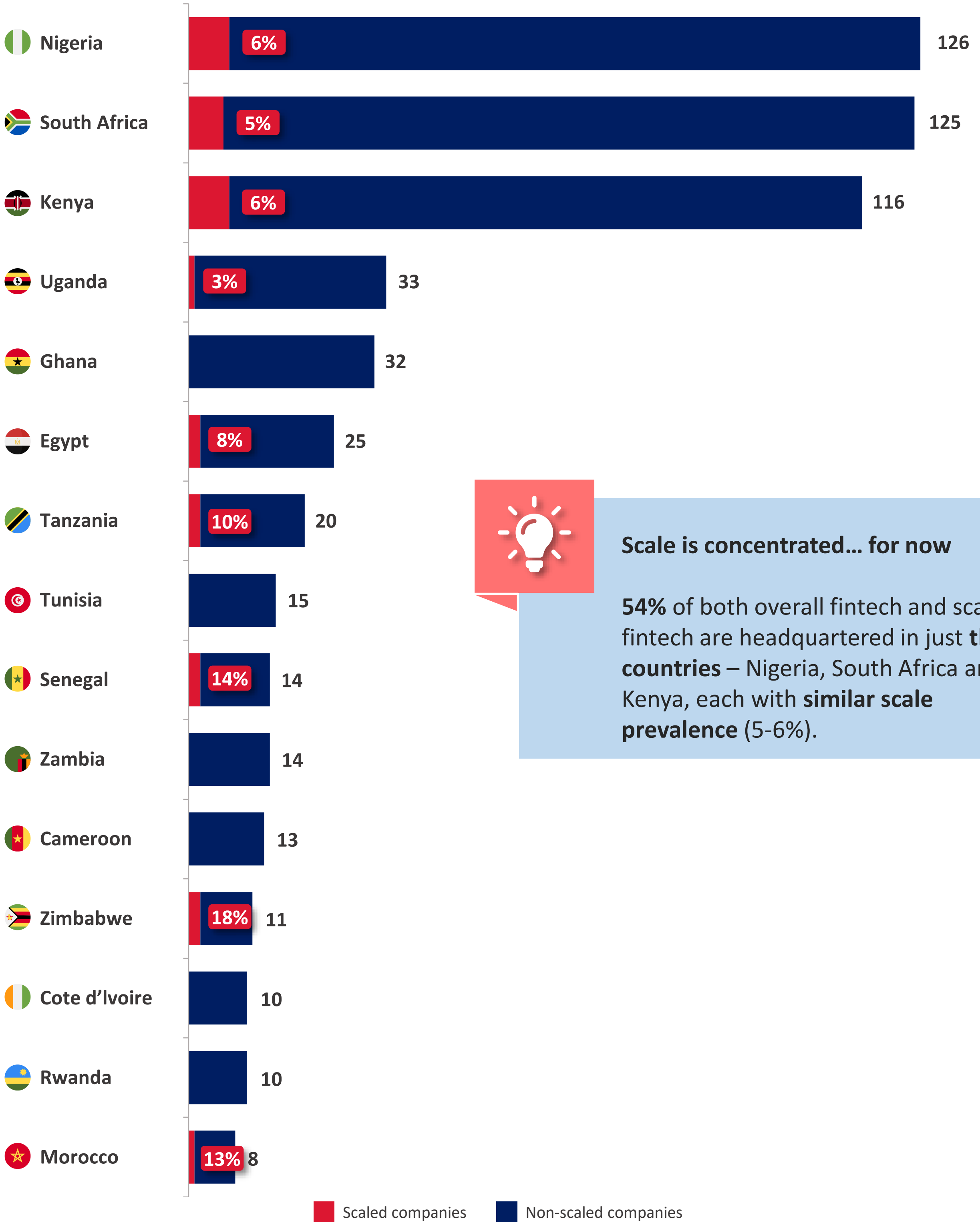
Uganda (1)
TUGENDE

1 Based on headquarters location of Fintech companies

Scale prevalence across countries

Scale prevalence across the **top 3 African countries** (Nigeria, South Africa, and Kenya) is consistent between **5-6%.** Some countries with fewer fintechs have a higher prevalence of scale.

Scale prevalence across the top 15 African countries



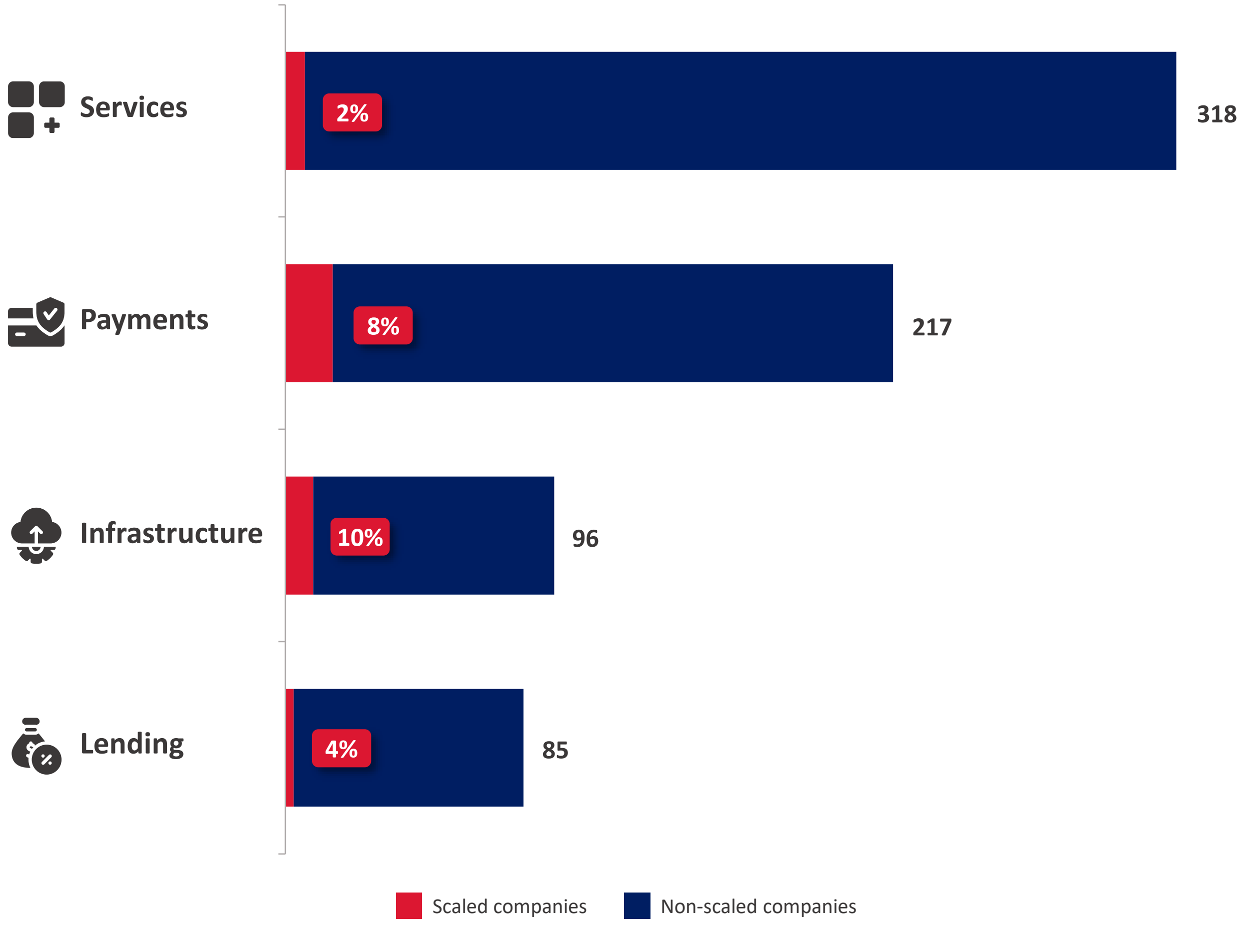
Scale is concentrated… for now

54% of both overall fintech and scaled fintech are headquartered in just **three countries** – Nigeria, South Africa and Kenya, each with **similar scale prevalence** (5-6%).

Scale prevalence across sectors

Turning to our breakdown by sub-segment, we can see higher scale prevalence in **Infrastructure** and **Payments**, at **10%** and **8%** respectively.

Scale prevalence across 4 sectors



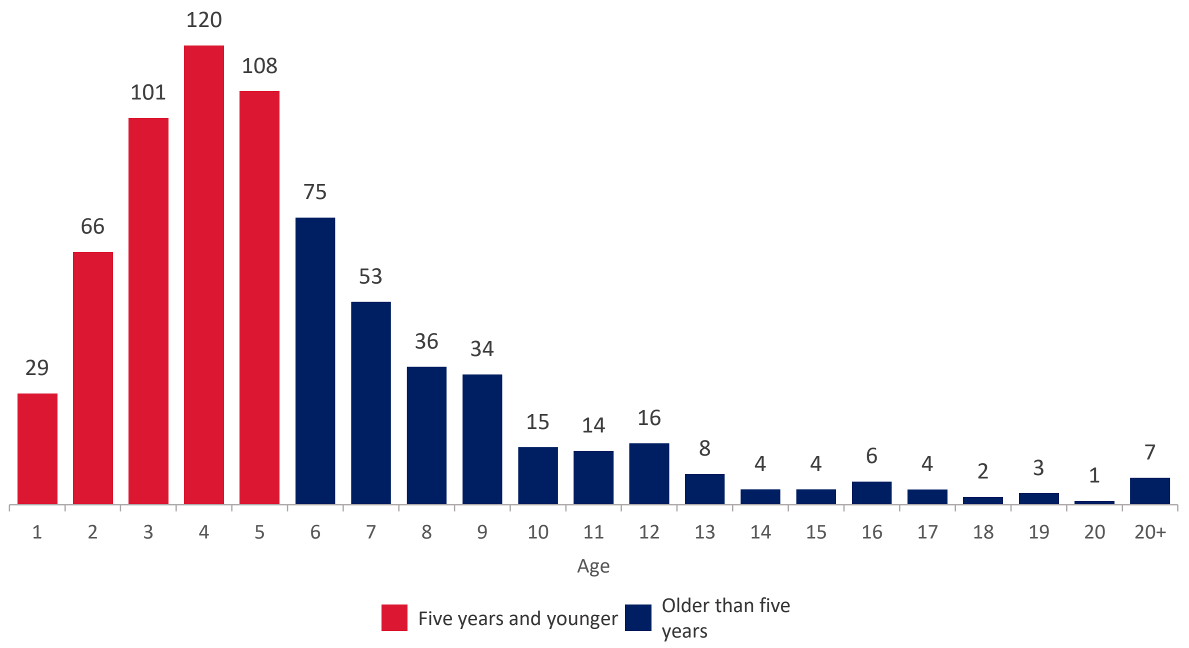
"Infrastructure and payments solutions like Flutterwave are the building blocks for an active fintech ecosystem. These provide rails for more innovative, and harder to scale, service solutions."

Ruby Nimkar, Principal at Greenhouse Capital

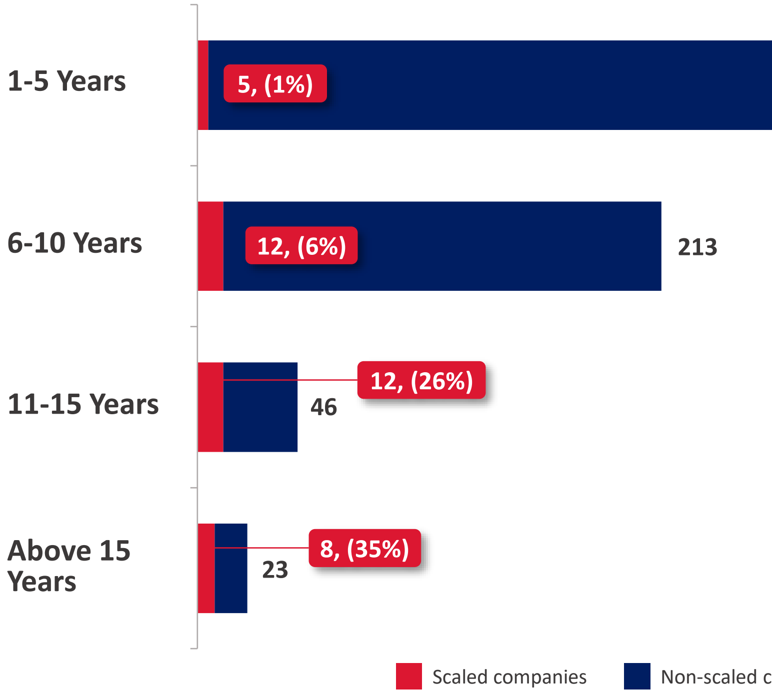
Scale prevalence across age

The last five years have seen a boom in growth of the number of companies with more than **50%** of operating companies being **younger than 5 years old**. However, the majority of scaled companies are much older, with **32 out of 37** scaled companies being **more than 5 years old.**

Distribution of fintech companies by age[1]



Scale prevalence across age groups[1]



Scale takes time

Few companies have seen scale within five years

1 Graph shows a total of 706 companies. 10 companies have unverified founding year information.

Africa’s fintech powers

Fintech market-mapping

Our analysis shows the heterogeneity of the fintech industry across countries in Africa. In order to identify key characteristics and market trends, we took simple proxies for three important market variables – fintech ecosystem activity, digital financial inclusion and size of economy.

1 – Fintech ecosystem activity

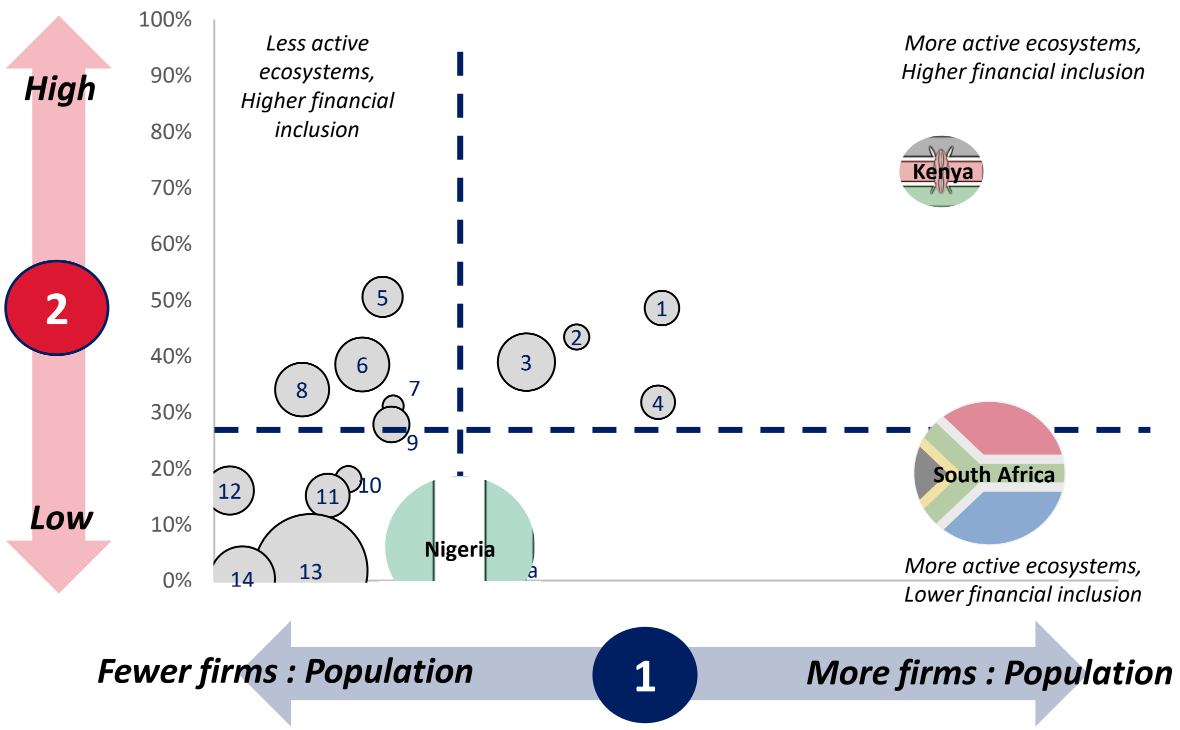
Country index score: Weighted for number of unscaled and scaled firms and divided by total country population [1,2]

2 – Mobile money usage

% of population with access to a mobile money account

3 – Size of economy

Country's relative total GDP value shown as size of the bubble



Index: (1) Zimbabwe, (2) Namibia, (3) Ghana, (4) Senegal, (5) Uganda, (6) Tanzania, (7) Rwanda, (8) Ivory Coast, (9) Zambia, (10) Benin, (11) Cameroon, (12) Democratic Republic of Congo, (13) Egypt, (14) Ethiopia

Notes: (1) Unscaled firms are assigned 1 point, and scaled firms are assigned 10 points. Total points per country are divided by the country's population. (2) Countries excluded were those not in Africa, and those with <5 fintech companies. Sources: LBS Analysis, World Bank Databank, World Bank Findex

Africa’s three fintech powers

51% of all of Africa’s fintech, and **54% (20 out of 37)** of Africa’s scaled fintechs are headquartered in just three countries: Nigeria, South Africa and Kenya.

We took a deep-dive look at these…

Tech hubs	Lagos	Johannesburg, Cape Town	Nairobi
Population	201m	59m	53m
GDP per Capita (PPP)	$5,362	$13,034	$4,521
Corruption perceptions country rank	149 / 180	69 / 180	124 / 180
Ease of doing business country rank	131 / 190	84 / 190	56 / 190
% of pop. making digital payments in last year	30%	60%	79%

Sources: Briter Bridges, Transparency International, World Bank Databank, World Bank Findex

Nigeria Insights

- **126 fintech companies** with very rapid growth in last ~5 years **supported by government policy. Scale prevalence is 5.6%**
- **Very low relative digital financial inclusion** (<10% of pop. have a mobile money account) and largest population in Africa (201m)
- Lots of headroom for growth in payments; especially attractive to firms able to reach new segments of the population

Scaled Fintechs

South Africa Insights

- **125 fintech companies** with many in **high-value services** and **scale prevalence of 4.8%**
- ~70% of South Africans have some form of bank account although **penetration of mobile money accounts is relatively low** (~20% of pop.)
- Wealth **inequality highest globally** (0.63 Gini)
- Fintech opportunities both in higher-value services and in increasing digital financial inclusion by reaching a broader population

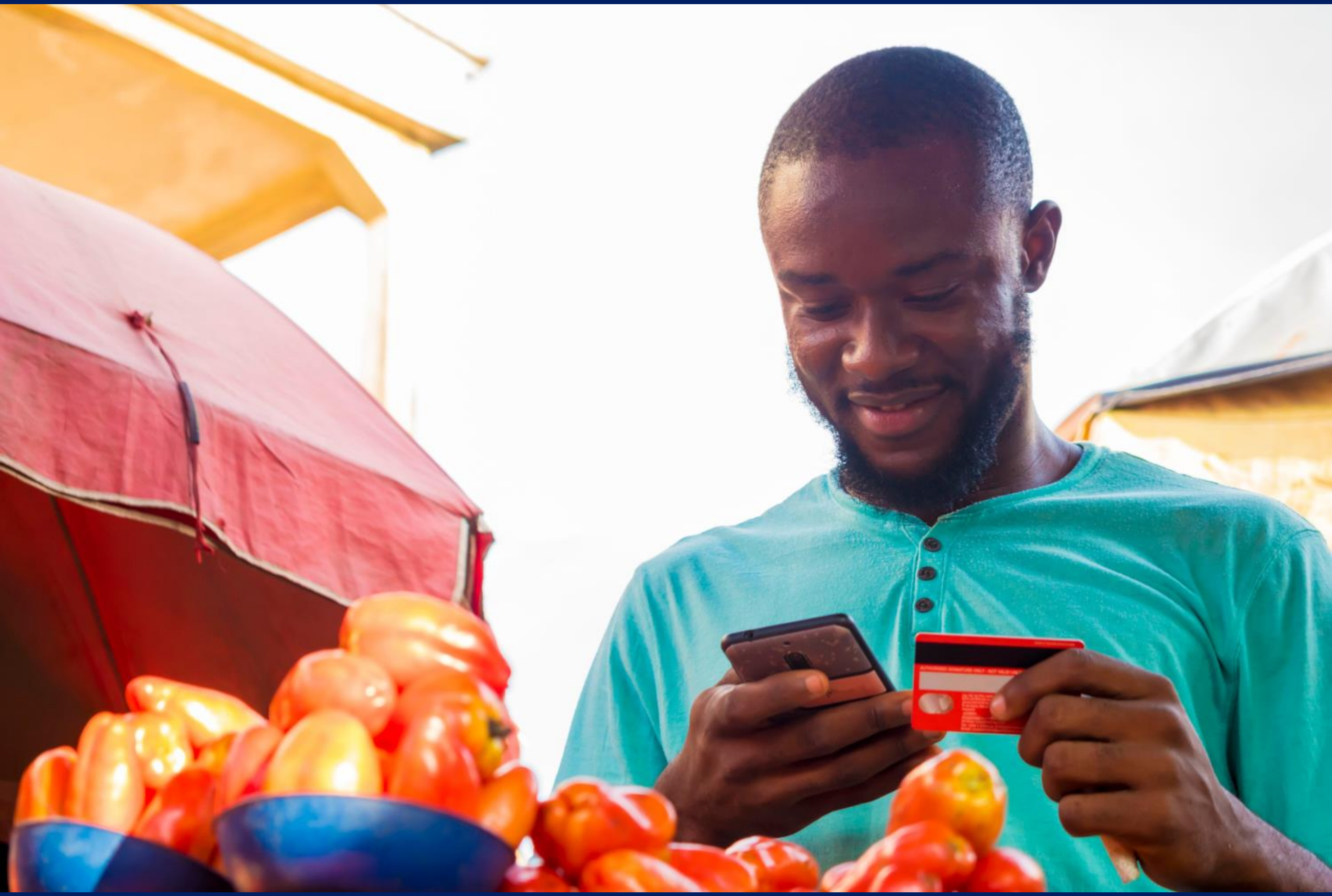
Scaled Fintechs

Kenya Insights

- **116 fintech companies** with major **strength in payments** (3 out of 7 scaled fintechs are in payments) and **scale prevalence of 6.0%**
- Growth supported by strength of Safaricom and development of M-PESA (launched 2007) ensures **very high penetration of mobile money accounts** (~80% of pop.).
- Growth opportunities in lending and services sectors, benefiting from high financial inclusion

Scaled Fintechs

Sources: World Bank Databank, World Bank Findex



Conclusion

Key takeaways

The goal of this research is to bring clarity to this exciting, fast-moving sector, and to understand what fintech and scale mean in an African context by investigating the data. A better understanding of this can help inform decisions at both a policy and practice level.

Our research shows that it is possible to use a robust, quantitative, large sample size when undertaking research to understand the complexity behind scale. It is important to acknowledge that defining and measuring scale is not a simple task – the research team had to navigate challenges to come up with a robust, defendable definition of what we mean by scale and, indeed, how we segment the fintech industry into sub-segments, to establish a better foundation for understanding of what drives scale.

From our research we can infer five high-level findings:

The fintech industry in Africa as a whole is in a **rapid growth phase** – 420+ fintechs were launched within the last five years (60% of all fintechs).

Scaled firms are relatively rare across the industry - only 5% of fintechs in Africa have successfully scaled. If we exclude scaled fintechs launched by the mobile network operators, this number drops to 4%.

Fintech is relatively **highly concentrated in three countries, with consistent scale prevalence of 5-6% in these more mature markets.** We see the rise of new country markets, such as Ghana, Uganda, Senegal and Egypt.

Across the four fintech sub-segments, **infrastructure companies are mostly likely to achieve scale, with a scale prevalence of 10%.**

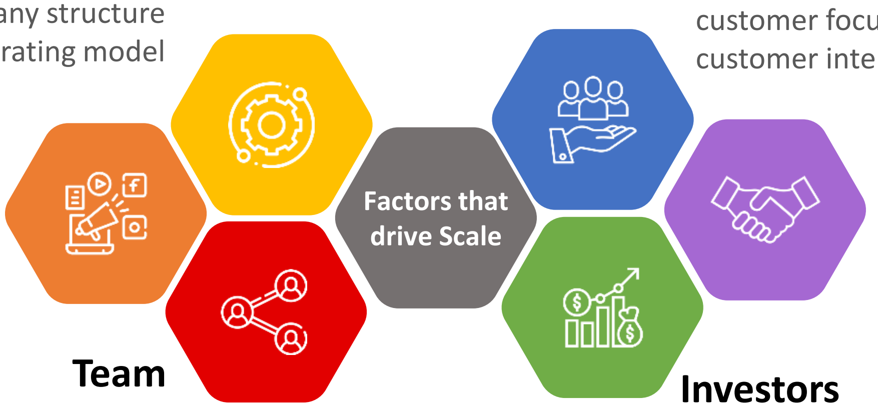
Reaching scale typically takes years – on average, scaled firms are 12 years old, with only 5 out of 37 scaled firms that are <5 years old.

Preview for follow-on reports

The objective of this first report is to show the number of fintech companies that have scaled in Africa. This is important, because understanding what constitutes scale is a pre-requisite to unpacking what drives it. We have shown how it is possible to categorise fintech into sub-segments and apply a data-based approach to indexing company size. This allows us to deal with the complexity that characterises the category of fintech. Already, as captured here, we can see new types of fintech providers such as M-KOPA and Tugende who are financing connected assets by exploiting two factors: connectivity, and prevalence of digital payments. Looking forward, we are likely to see increasing numbers of specialist digital financial service providers embedding into supply chains, for example, or being created to serve specific value chains tied to operators in sectors well beyond the traditional Financial Institutions (for example, in goods distribution or FMCG).

In subsequent research we will examine the scaled companies in more depth to identify consistency in the factors that might influence scale.

Our methodology for this subsequent stage is to seek answers to some 50+ questions that relate to business models, channel/ product offerings, team composition and experience, investors, partnerships, and target customers. Below, we preview some of the themes around the questions that our team has researched to understand and test the factors behind scale in companies.



Team

Dr Nick Hughes
Founder of M-PESA, M-KOPA and 4RDigital
OBE for Services to Innovation in Africa
Executive Fellow of the Wheeler Institute for Business and Development

Professor Rajesh Chandy
Tony and Maureen Wheeler Chair in Entrepreneurship,; Academic Director of the Wheeler Institute for Business and Development; Professor of Marketing at London Business School

Joseph Vincent Pizarro
Research Team Member
MBA2021

Zaineb Amin
Research Team Member
MBA2021

Hamant Maini
Research Team Member
MiF2021

Catherine Phelps
Research Team Member
MBA2020

Stephanie Bandyk
Research Team Member
MBA2022

Vilma Favela Nunez
Research Team Member
MBA2020

Robert Smith
Research Team Member
MBA2021

Federica Andrisani
Research Team Member
MBA2021

Partners and collaborators

Foreign, Commonwealth & Development Office

UKaid from the British people

GSMA

BRITER BRIDGES

Definitions / Glossary

Company database sample

The companies in the report are sourced from Briter Bridges Intelligence Platform, the GSMA's Mobile Money State of the Industry Report, and expert recommendations across the Wheeler Institute for Business and Development's network. The following are additional rules used to construct the database:

- Exclude companies with global operations and with only a small proportion of total operations in Africa (e.g., a core banking system software supplier with customers around the globe, some of which are in Africa);
- Exclude companies that do not rely on digital technology as a core part of their value proposition or operational model (e.g., a mainstream bank with a mobile app);
- Include companies that have fintech subsidiaries; for example, payments companies of telecom service providers (e.g., Orange Money and M-PESA Africa);
- Exclude online 'marketplaces'; and
- Exclude purely donor-funded initiatives, thereby focusing on commercial, revenue-generating entities.

Fintech

Fintech is a very broad church and there are multiple definitions in use today. In the context of this report, a fintech company is defined as a business that provides technology for financial services or a financial services company that uses digital technology as its primary means of delivering its products and services. In order to be included, digital technology must be central to the company's operations and value proposition; without it, the company would not be able to deliver the service or product. According to the Briter Bridges platform, there are 89 sub-segments within fintech. Based on our knowledge and research we grouped these into four categories: payments, lending, infrastructure and services.

Industry sector classification

Fintech is not one thing. While infrastructure and services are both bundled into fintech, the companies in these segments operate in significantly different ways. Here we describe four sub-categories that we believe are representative and allow us to undertake a more rigorous, judicious analysis. Even this simple sub-segmentation is not easy because some companies span multiple categories. Where this has occurred, the team has made an informed categorisation based on our knowledge of the respective company and sector.

Services

Services companies provide value-added services such as savings, insurance, financial management, vouchers and digital banking, or specialist services such as anti-fraud solutions.

Payments

Payments companies allow customers and merchants to send and receive digital payments for goods and services. Companies in this sector include mobile money/ e-wallets, merchant services, and remittance service providers.

Infrastructure

Infrastructure companies provide platforms, systems and/or technical framework solutions to build and run financial services. Companies in this category are often not end-consumer facing; solutions range from payment gateways, banking infrastructure, lending infrastructure and aggregation services (including API management).

Lending

Lending companies provide credit to customers (either consumers or businesses). Companies in this category range include credit provision, micro-credit, working-capital loans, peer-to-peer lending facilitation and, most recently, ‘buy-now, pay-later’ solutions.