UNCDF
Impact Capital for Development

ZAMBIA

FINTECH LANDSCAPE STUDY

TRENDS, CHALLENGES AND OPPORTUNITIES FOR GROWTH OBSERVED IN THE ZAMBIAN FINTECH ECOSYSTEM

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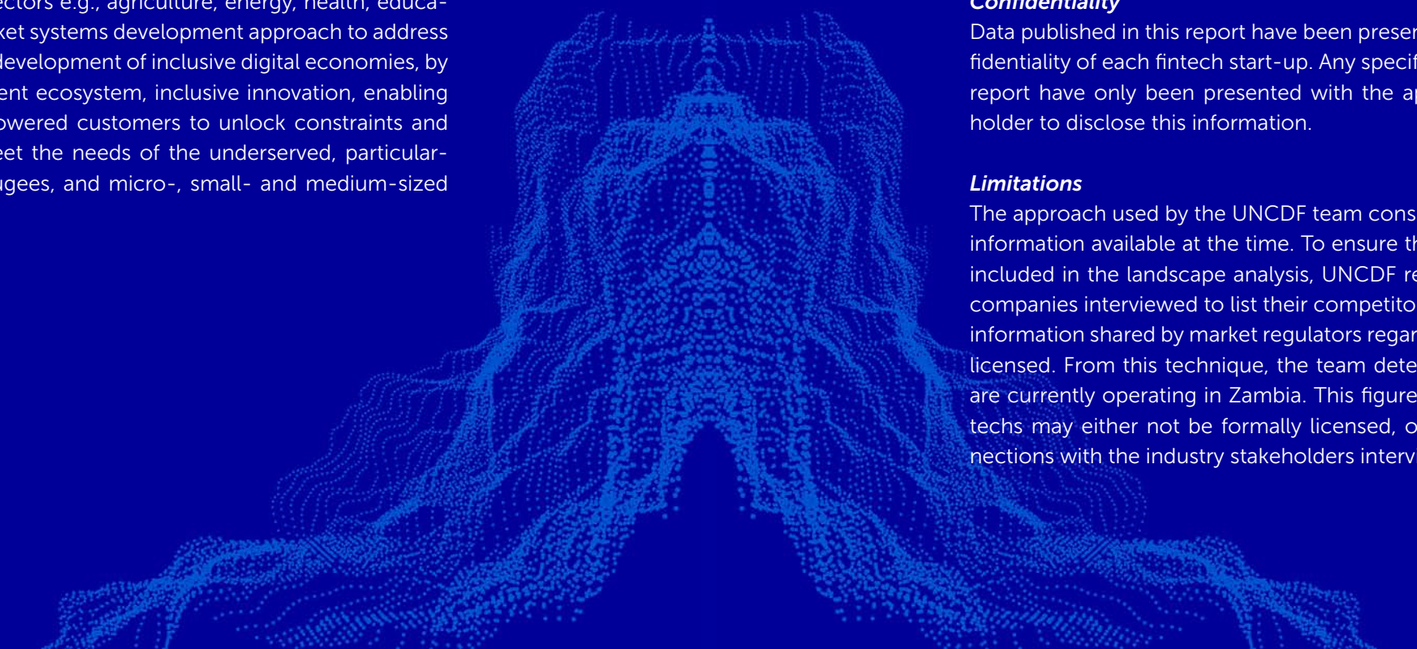

THE UNCDF TEAM

To develop this report, the UNCDF team gathered information from various stakeholders within the fintech ecosystem in Zambia. The content of this report is based on information collected, reviewed, and analysed between November 2022 and March 2023. This study and subsequent report were led and developed by UNCDF's Digital Economies Innovation and Policy Specialist, Samantha Malambo, with support from the following team members:

- Isaac Holly – Country Lead
- Mali Kambandu – Knowledge Management and Communications Expert
- Dominic Adongo – Digital Economies Expert
- Brian Katimbo – Digital Economies and MSME Training Advisor

The UNCDF team would also like to acknowledge the contribution of all stakeholders who participated in the study through interviews or sharing documented information relevant to the fintech landscape. This includes the fintechs themselves, regulators, incumbent financial sector players, innovation hubs, policy makers, academia, and investors. UNCDF would particularly like to acknowledge BongoHive, the Securities and Exchanges Commission, and the Bank of Zambia, who also assisted in reviewing the report prior to its publication.

Disclaimer
This report is based on information collected through interviews with fintech start-ups, key industry stakeholders, desk research and internal analysis conducted by the UNCDF team.

Fintech data
Data are self-reported and have not been verified independently by the UNCDF team; however, where possible, data are checked against other benchmarks and publicly available data sources.

Confidentiality
Data published in this report have been presented in a way to protect the confidentiality of each fintech start-up. Any specific references or highlights in this report have only been presented with the approval of the respective stakeholder to disclose this information.

Limitations
The approach used by the UNCDF team considered all the relevant sources of information available at the time. To ensure that the full range of fintechs was included in the landscape analysis, UNCDF requested referrals and asked the companies interviewed to list their competitors. Additionally, UNCDF analysed information shared by market regulators regarding fintechs they have currently licensed. From this technique, the team determined that 57 fintech start-ups are currently operating in Zambia. This figure may be higher, given some fintechs may either not be formally licensed, or have not yet established connections with the industry stakeholders interviewed as part of this assessment.

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ABBREVIATIONS AND ACRONYMS

AML	Anti-money laundering
BOZ	Bank of Zambia
B2B	Business to Business
B2C	Business to Customer
CEO	Chief Executive Officer
DFS	Digital Financial Solutions
Fintech	Financial Technology
ICT	Information and Communication Technology
IMF	International Monetary Fund
KYC	Know Your Customer
LDCs	Least Developed Countries
MOU	Memorandum of Understanding
MSMEs	Micro Small and Medium Enterprises
NBFIs	Non-bank Financial Institutions
NFIS	National Financial Inclusion Strategy
PAYZ	Payments and Fintech Association of Zambia
P2B	Person to Business
P2P	Person to Person
SEC	Securities and Exchange Commission
SRO	Self Regulatory Organisation
ZICTA	Zambia Information and Communications Technology Authority

*Conversion rate: US$1 = ZMW 19.15. Source: https://www.boz.zm/ 1 February 2023. This report uses this rate wherever it provides US dollar equivalents for Zambian Kwacha.

EXECUTIVE SUMMARY

INNOVATION IN FINANCIAL TECHNOLOGY—referred to as 'fintech'—is rapidly disrupting the financial services landscape across the world. Business models ranging from peer-to-peer lending to blockchain-based digital assets are revolutionising the world of digital finance. Zambia's fintech landscape has evolved considerably in the five years since UNCDF first conducted a market scoping in 2018.[1] The 2018 study identified 25 companies as players in the fintech ecosystem. Based on information gathered during this study from various stakeholders, UNCDF identified 57 fintechs currently operating in Zambia. However, this number may be higher given the industry is constantly evolving and growing.

Many businesses that identify as fintechs in Zambia are concerned with either increasing access to financial services, improving the delivery of said services, or realising gains in efficiency on behalf of their clients. This study explored the various typologies of fintechs in Zambia, including their business activity, stage of development, type of product or service, source of funding, human resourcing, gender representation, and the location of their headquarters. Across the various typologies, fintech companies in Zambia use several technologies such as mobile applications, online platforms, and enabling technologies such as blockchain to offer financial products and services to customers. Some key principles that emerged from discussion with various stakeholders in the fintech ecosystem:

a. A majority of fintechs rely on payment infrastructure for the delivery of various services ranging from digital credit to digital asset management. These fintechs however face challenges in efficiently utilising existing payments infrastructure due to the relatively high cost of transacting, limited agent liquidity, and frequent down times for platforms that rely on third party aggregators for cross-provider transactions. Improving the customer and business experience in using digital payments both locally and regionally is crucial to the growth of the fintech market in Zambia.

b. There is no one size fits all solution for customer protection and maintaining integrity and trust within the financial system, as technology and innovation continue to disrupt the traditional financial ecosystem. Zambia's regulatory environment has seen increased collaboration across regulatory units in the past few years, which is a good start given the cross-cutting nature of fintech business activities, such as lending, deposit-taking, payments, and investing. Additionally, developing open and honest relationships with emerging players in the industry, and viewing them not only as

[1] Are Fintechs Key to Achieving Zambia's Financial Inclusion Targets by 2022, UNCDF, 2018: https://www.uncdf.org/article/3375/are-fintechs-the-key-to-achieving-zambias-financial-inclusion-targets-by-2022

regulatory subjects, but as potential providers of regulatory and supervisory technology, will enable the development of an appropriate and comprehensive approach that fits within the resource and capacity constraints of various institutions.

c. There is a gap in financing and investment options available for fintechs that are post-validation, but pre-growth in their development. That is, fintechs that have achieved product-market fit, and have an initial customer base with potential for growth. These fintechs are typically too big for smaller options such as grants, but too small for larger options from commercial banks or international investors. This missing band is within the range of $20,000 to $500,000. The fintech sector, although promising, is still classified as high-risk by many lenders and investors, and there is a need for initial financing that can prove the business case for lending to emerging players within this sector, while catalysing or crowding in additional capital.

d. The fintech market is seeing a blend of both collaboration and competition. Over the last two to three years, more established financial service providers have partnered with fintechs, both as service providers for their internal needs, and as co-providers on specific products such as shared digital wallets. At the same time, established financial service providers are developing their own innovation and technology-based products that compete with existing fintechs. Examples of this include commercial banks venturing into digital credit, and mobile money providers developing in-house micro-insurance products. Ultimately, each service provider is driven by what improves their customer's experience while positively impacting their bottom line. as such, players are open to both partner and compete, depending on what best serves these two interests.

e. Zambia has a growing talent pool in both the financial and technology sector, with a limited pool that understands both these sectors. As such, there is often movement of talent between industry players. Additionally, as the world of work becomes increasingly digital, local talent is also able to participate in the global market, both through relocation and remote work assignments. Local fintechs are therefore not only competing for qualified and skilled talent amongst themselves, but with international players as well. This provides both a challenge and an opportunity. A challenge to present attractive employment packages, and an opportunity to leverage the international talent pool for the services they will need to grow and scale.

f. Zambia's fintech ecosystem may be small in comparison to South Africa, but regionally it is bigger and, in some ways, more advanced that its neighbouring countries such as Botswana, Malawi, and Mozambique. This provides a real opportunity for Zambia as a hub and leader in fintech developments within the southern African region. Several factors such as the budding innovation support ecosystem, strong public and private tech

education programmes, and increasing local investor participation can contribute to establishing Zambia's fintech market as a leader within the region, creating opportunities for local fintechs to expand their market base beyond the country's borders.

g. In line with the previous point, the ability of Zambian fintechs to scale both locally and regionally is considerably hindered by the limited spread of digital infrastructure, and prevalence of digital skills among the populace. Addressing this digital infrastructure and skills gap is crucial to increasing the adoption and active use of a broad range of fintech products and services. Achieving scale appears to be one of the biggest challenges facing fintechs who have managed to validate their product with the market.

h. There is a limited representation of women within the fintech landscape, with only 5 percent of fintechs having women-only founding team. This is compared to 33 percent of fintechs who have at least one woman in their founding team, and 62 percent of fintechs who have male-only founding teams. Improving the participation of women in the fintech landscape is a collective effort that cuts across developing skills in girls and women, investing in women-led fintech businesses, and offering adequate business development support.

Based on these insights, UNCDF has also developed the following set of recommendations on things to keep in mind for developments partners, investors, academia, industry players, innovation hubs, and any other stakeholders looking to support the growth of Zambia's fintech ecosystem:

Ecosystem:

- Fintechs with seamless integration into established digital payments and mobile money infrastructure have the best customer experience, while other fintechs have to rely on third party aggregators to leverage the same benefit. As more financial service providers adopt open APIs, there is an opportunity to improve interoperability within the digital financial ecosystem through expanding the use cases withing their respective APIs. Another option available is expanding use cases within the National Financial Switch (NFS) and make access easier for smaller-scale financial service providers.
- While regulators have the right intentions, keeping a pulse on financial innovation and developing appropriate regulation to support it is a human and financial resource intensive process. In a resource constrained environment like Zambia, increased regulator collaboration, enabling self-regulation, and openly communicated standards of operation are foundational building blocks for maintaining customer protection in an ever-evolving market like fintech.
- Partnerships are essential to fintech success, in areas ranging from customer acquisition to product distribution. Emerging fintech however do not have the sufficient sway needed to bring more establish financial

industry incumbents to the table. For this reason, regulators, industry associations, and innovation support actors have a key role to play in helping emerging fintechs establish the necessary partnerships they need to successfully grow and scale their business.

Business model:

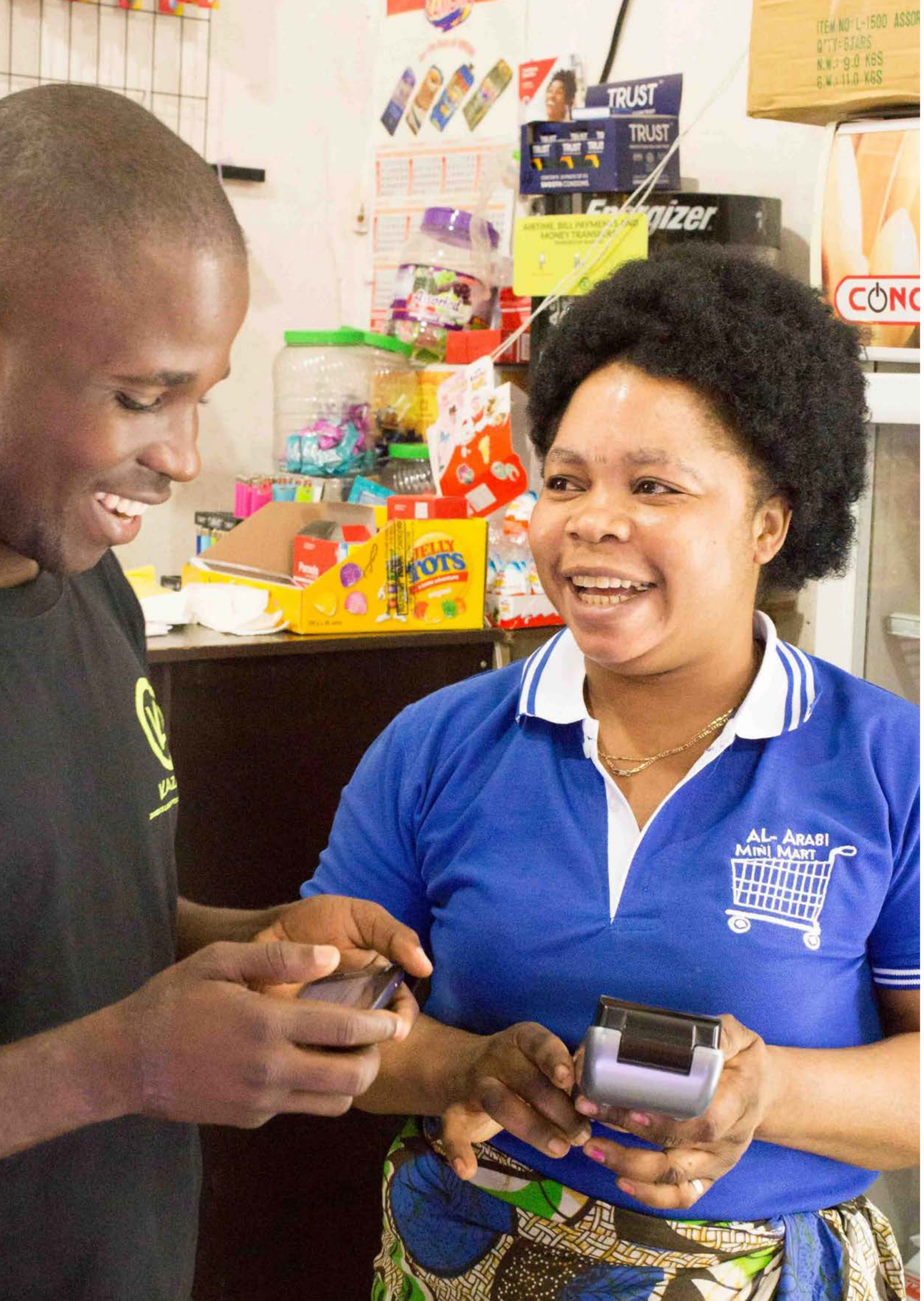
- Aside from a few exceptions, fintechs often create niche markets for themselves within the broader financial market. Fintechs provide services for which customers are willing to pay, but their average revenue per user (ARPU) is relatively low, and hence requires critical mass for them to achieve profitability. Low-cost distribution channels and adequate infrastructure are critical for fintech growth and scale.
- There are several fintech vertical such as micro-insurance and micro-pensions for the informal sector, accessible investment options for Zambia's growing base of young professionals, and targeted products for large customer segments such as smallholder farmers, are yet to be fully explored within the Zambian market. Thematic innovation challenges and regulatory sandboxes can help accelerate their development.

Talents:

- The biggest need in talent is not only qualified personnel, but personnel with practical experience at the intersection of finance and technology. Strengthening the linkages between industry and academia can help to support institutions in producing industry ready graduated with some practical experience.
- Early-stage fintechs are heavily reliant on their founder's expertise for operation, and hence need support to gain access to diversified expertise needed to run a successful business in an industry as heavily regulated as the financial services industry.

Funding:

- There is a need for specialised investment vehicles combined with technical assistance, targeting the fintech sector to meet the financing gap faced by post-validation pre-growth fintechs. These specialised vehicles have the capacity to catalyse more funding for the subsector through proving their viability.
- Successful fintechs are continuously iterating and testing new approaches, product types, and distribution models. For this reason, investment in this sector needs to be both patient and flexible in its terms.
- There is potential to tap into the Zambian capital markets to unlock additional financing for local fintechs, while simultaneously increasing local investor participation.



INTRODUCTION

WHILE THERE IS NO SINGLE DEFINITION FOR FINTECH, the working definition adopted by the internationally recognised Financial Stability Board defines it as *"technologically enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the provision of financial services."* The 2022 Africa Investment Report by Briter Bridges states approximately $5.4bn was invested in Africa's entrepreneurial landscape, with 38 percent of this channelled towards fintechs. Fintech continues to redefine the way individuals, businesses, and even governments, store, save, borrow, invest, move, spend, and protect money. The evolution of fintech across the globe has been dependent on several factors including, but not limited to, the level of development of the financial industry, developments in digital infrastructure and platforms, the level of advancement of respective technologies, availability of the requisite skills necessary to build and sustain a viable business, and the size of the addressable market.

OBJECTIVES

This study aims to explore how all the above-mentioned gains, drivers, challenges, and opportunities are taking shape in the Zambian fintech market. It explores whether the developments, concerns, and limitations prevalent within the broader regional context extend to the Zambian market and the ways in which different stakeholders can support the sector's growth.

The study seeks to:

i. Analyse the current state of Zambia's fintech landscape, mapping key market players and activities;
ii. Analyse the current needs, challenges, and opportunities within the Zambian fintech ecosystem;
iii. Map trends and draw comparisons with what is prevailing in the region; and
iv. Develop actionable recommendations for working with, supporting, and growing the Zambian fintech landscape and its contribution to the broader digital economy.

METHODOLOGY

Information on fintech start-ups operating in Zambia is fragmented, making it challenging for market actors to make relevant and informed decisions regarding the industry. In October 2022, in consultation with industry regulators and the Payments and Fintech Association of Zambia (PAYZ), UNCDF began conducting a study of the Zambian fintech landscape. The information gained was intended to provide insights to key actors looking to support the fintech industry, whether by enacting relevant and enabling regulation and policy, availing appropriate financing and investment, establishing sustainable and mutually beneficial partnerships, or providing technical assistance and business development services.

The findings in the report are a combination of desk research and semi-structured interviews conducted between November 2022 and February 2023. UNCDF identified an initial cohort of fintechs to interview in partnership with PAYZ. The team also conducted additional desk research to identify companies that potentially fit the description of fintechs. In addition to fintechs, the team reached out to policymakers, regulators, investors, accelerator hubs, banks, MNOs, and other tech-enabled start-ups that may make use of fintech services. The team primarily conducted semi-structured interviews with all the identified stakeholders.

The study sought to evaluate findings in the Highlights and Emerging Themes and Recommendations chapters within the following thematic areas adapted from the Ernst & Young fintech ecosystem framework:[2]

- **BUSINESS MODEL & DEMAND:** Understanding the nature of fintech businesses and demand for services they offer across a range of consumers including individuals, corporates, and other financial service providers
- **BUSINESS ENVIRONMENT & ECOSYSTEM:** Understanding how fintechs interact with other stakeholders within their ecosystem; including potential partners, competitors, and regulators.
- **TALENT:** Understanding the availability of talent in the areas of technology, finance, and entrepreneurship to support the growth and scaling of fintech in Zambia.
- **CAPITAL:** Understanding the fundraising journey from both the fintech and the investor's perspective.

For the purposes of this study, fintechs were defined as businesses that combine innovative business models and technology to enable, enhance, and disrupt financial services for the benefit of their end user. For the sake of clarity, this definition includes fintech start-ups, established fintech businesses that have been operating on the market for several years, and fintech subsidiaries of long-term financial industry incumbents that have independent governance systems and operations.

A SNAPSHOT OF THE FINTECH LANDSCAPE IN SUB-SAHARAN AFRICA

A 2019 analysis of 17 African countries conducted by the IMF revealed that, 'sub-Saharan Africa leads the world in mobile money accounts/capita, mobile money outlets, and volume of mobile money transactions.' The analysis also revealed that in 2015, there were nearly twice as many traditional deposit accounts as mobile money accounts in the analysed countries, but by 2019

[2] EYGM Limited, 'Fintechs in Sub-Saharan Africa: https://www.researchgate.net/profile/Varun-Mittal-9/publication/347443598_FinTech_in_Sub-Saharan_Africa/links/5fdc595a45851553a0c730a8/FinTech-in-Sub-Saharan-Africa.pdf

mobile money accounts had vastly surpassed traditional deposit accounts. This reality continues to deepen, especially for countries such as Zambia, where financial inclusion is a key issue. As a result, digital innovation in the financial sector, or fintech, is emerging as an engine for financial inclusion and economic growth and development in the region.

Between 2007 and 2018, the number of active fintech companies operating in sub-Saharan Africa increased almost tenfold from 30 to 262.[3] A more recent analysis reveals that the number of tech start-ups in Africa tripled between 2020 and 2021, with just under half of these start-ups being fintechs.[4] The growth of the fintech industry in sub-Saharan Africa, measured by the amount of funding secured, has been led by what some refer to as the Big Four: Nigeria, South Africa, Kenya, and Egypt.

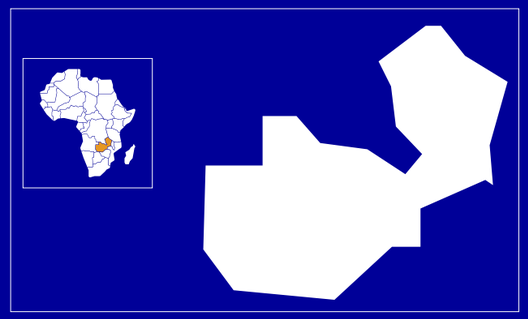
According to a recent report released by McKinsey[5], some of the trends that have been driving the growth of the African Fintech sector include:

i. a need and massive push for increased financial inclusion;
ii. customers' need for trustworthy alternatives to cash;
iii. increased interest in African tech-enabled start-ups from investors;
iv. growth of the middle-income population segment with increased spending power across several African countries;
v. a relatively young, fast growing, urbanised, and tech-savvy population;
vi. increased penetration of digital infrastructure and platforms; and
vii. an increased need for remote and digital solutions as a result of the COVID-19 pandemic.

One of the most significant challenges faced by fintech within the continent is that of scale. While fintechs have succeeded at carving out their market bases within the financial services industry, the challenge of achieving scale against a backdrop of limited digital infrastructure, relatively high poverty rates, and a fragmented digital payments landscape is a long game that each business is finding solutions for. In some African countries, the penetration of digital technologies and critical infrastructure, such as electricity and internet connectivity, continue to limit the ability of fintech to expand beyond the urban middle-income population segment. Other challenges cited within the region include the brain drain of ICT professionals seeking better and higher-paying employment opportunities in more advanced economies. Additionally, given the realities many African countries face with large proportions of their population living below the poverty line, African fintechs are faced with the challenge of finding low-cost methods of achieving scale while operating in an environment of low average-revenue-per-user.

[3] EYGM Limited, 'Fintechs in sub-Saharan Africa: An overview of market developments and investment opportunities', London, 2019, https://hollandfintech.com/wp-content/uploads/2019/02/ey-ffintech-market-opportunities-2019.pdf.
[4] CIO, 'African Tech Funding Skyrockets With Fintech a big Winner', February 2022: https://www.cio.com/article/304400/african-tech-start-up-funding-skyrockets-with-fintech-a-big-winner.html
[5] McKinsey, Fintech in Africa – The Beginning of the End: https://www.mckinsey.com/industries/financial-services/our-insights/fintech-in-africa-the-end-of-the-beginning

ZAMBIA OVERVIEW



DEMOGRAPHIC DATA

19.6 million
total population
(Zambia Census 2022)

51% female
49% male
(Zambia Census 2022)

14.1 million
youth pop. (15-35)
(Zambia Census 2022)

60.2% rural
39.8% urban
(Zambia Census 2022)

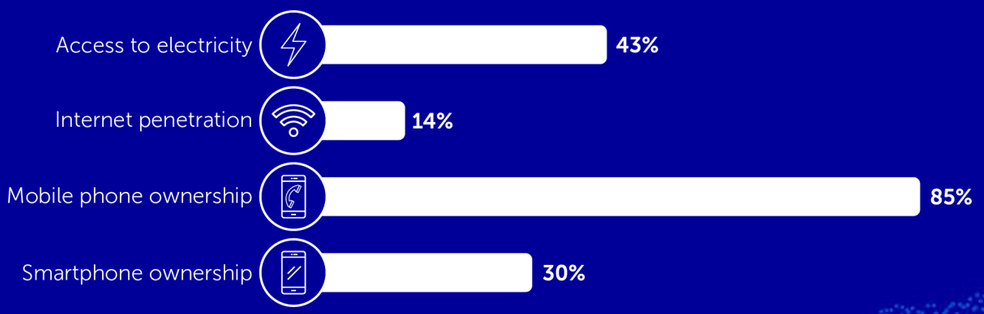
FINANCIAL INCLUSION

69.4%
of adults financially included
(BOZ FinScope Survey 2020)

12,444,841
active DFS accounts
(not unique)
(UNCDF and BOZ Annual Provider Survey 2021)

184,954
active agents
(UNCDF and BOZ Annual Provider Survey 2021)

TECHNOLOGY INDICATORS



AN OVERVIEW OF THE ZAMBIAN FINTECH LANDSCAPE

OVER THE LAST DECADE, ZAMBIA HAS SEEN SIGNIFICANT GAINS in the adoption and use of digital financial services. Digital financial services have added to the growing diversity and accessibility of the financial sector. In 2018, the Bank of Zambia, which regulates banks and non-bank financial institutions, introduced a tiered approach to know-your-customer (KYC) requirements, which allowed any individual to open a digital wallet simply using their National Registration Card, which was a simpler method of getting a financial account than what was done with traditional banks.

For the above reason, it is not surprising that mobile money wallets are considered the most accessible driver of financial inclusion over the last seven years, as seen in Table 1 where mobile money adoption among the surveyed adult population increased from 14 percent in 2015 to 58.5 percent in 2020.

Table 1 | Levels of Access and Usage of Formal Financial Products and Services

Description	2015 (%)	2020 (%)
Mobile money	14.0	58.5
Bank	24.8	20.7
Pension	3.8	8.2
Insurance	2.8	5.0
Micro-finance	1.3	2.1
Capital markets	0.3	0.6

Source: FinScope Surveys, 2015 and 2020

This spike in mobile money adoption coincides with a marked decrease in access and usage of formal banking products and services from 24.8 percent in 2015 to 20.7 percent in 2020. The period within which the 2020 FinScope survey was conducted corresponds with several banks closing low-traffic branches as banks also emphasised digital channels and agent banking while growing their mobile money product offering. In addition, the Bank of Zambia Annual Payment Systems Report cites an increase of 14.6 percent in the use of

digital financial services from December 2020 to December 2021. This trend is expected to continue as there is a push from both private and public sector stakeholders for accessible and digitally enabled solutions.

In the Zambian fintech market, players providing different services either rely on the ability to move money across the financial ecosystem or provide enabling technologies that facilitate this movement for different use cases. For this reason, the growth of Zambia's fintech industry correlates with the growth of the overall digital financial services industry. The breadth of Zambia's fintech industry ranges from mature businesses offering B2B enabling technologies such as Probase, who have offered a variety of payments solutions since 2010 to start-up and niche-market businesses offering B2P services, such as ComGrow Zambia, who aim to digitalise informal savings and credit groups.

FINTECH ECOSYSTEM

As the fintech industry has grown, so has the support offered on the market. This support comes from a variety of stakeholders including among others, innovation and incubation hubs, regulators, policymakers, development partners, and private sector collaborators, as illustrated below.

By combing through the databases of industry regulators, enquiring with fintechs themselves on counterparts they are aware of in the industry, and conducting desk research, UNCDF identified 57 fintechs currently operating in Zambia. This number has more than doubled since the 2018 UNCDF fintech landscape scoping, which identified 25 fintech market players.[6] The current figure may be higher, considering not all fintechs are formally licensed or have established a strong network with their industry counterparts. The majority of fintech services in Zambia are concentrated on the following verticals: (i) developing enabling technologies for the financial sector, (ii) digital payments and money transfer, and (iii) digital lending. There are also emerging players offering services such as savings, microinsurance and asset or wealth management. After digital payments, the second largest fintech vertical is digital lending, with 18 fintechs having fully digitised credit processes. This figure is up from five fintechs identified offering the same service in 2018.

The change in Zambia's fintech landscape can be linked to several factors, including:

i. regulators enacting reforms that encourage innovation and adopting a "watch and learn" approach to innovations in the financial sector;
ii. increased and blended support from ecosystem facilitators such as innovation and incubation hubs and development partners, offering expert business support services, mentorship, industry linkages, and seed capital;
iii. increased investor interest in tech start-ups based in the southern African region;
iv. increased demand for various digital financial services as customers growingly value convenience and efficiency.

These factors will be explored in more detail in the latter part of this report.

[6] UNCDF, 'Are Fintechs the Key in Achieving Zambia's Financial Inclusion Targets by 2022?', 2018: https://www.uncdf.org/article/3375/are-fintechs-the-key-to-achieving-zambias-financial-inclusion-targets-by-2022

Figure 1 | Fintech ecosystem facilitators*

***** For a full list of fintechs, please see Annex I

POLICY SUPPORT TO THE SECTOR

Policymakers and regulators have positively contributed to the growth of the fintech industry in a number of ways. A starting point was the emphasis placed on digital financial solutions in the National Financial Inclusion Strategy (2017–2022). The NFIS explicitly included the development and testing of innovative financial products in its action plan as a means of increasing the accessibility and impact of the financial sector and ultimately increasing financial inclusion. This is in keeping with the general approach regulators have

taken to financial innovation in the past. For example, when mobile money first emerged in 2002, and supporting legislation was only developed in 2007 following BOZ's monitoring and market development support of the sector. This approach has been formalised in recent years, both BOZ and the Securities and Exchanges Commission (SEC) have developed regulatory sandboxes as part of their commitment to enabling more innovation in the financial and capital markets. BOZ's sandbox has seen innovation primarily focused on payments and the capacity of payments to support other fintech verticals. SEC's sandbox has seen innovation raging from peer-to-peer lending to alternative financing platforms for SMEs. Ultimately, each regulator uses the sandbox as a Goldilocks tool of sorts, providing regulatory support that is neither too hot, nor too cold for innovation.

Regulators are continuing to explore other means of encouraging innovation while ensuring customer protection and creating a level playing field for service providers. These include, among others, tiered regulation that accounts for the full spectrum of financial service providers, open data sharing to allow equitable access to customer data while ensuring protection, exploring the role fintechs can play in enhancing regulation and compliance through regulatory and supervisory technology, and supporting industry events such as fintech festivals and expos. Below is a breakdown of the financial services fintechs offer and utilise and their respective regulators.

Table 2 | Areas of Responsibility for Fintech Regulators

Subject Area	Primary Regulator(s)	Secondary Regulator(s)	Policy Support
Agency banking	BOZ	SEC	MoFNP
Interoperability and payment systems	BOZ	ZICTA, SEC	
Anti-money laundering	FIC	BOZ, SEC	
Clearing and settlement	BOZ	SEC	MoFNP
Consumer protection	CCPC	BOZ, SEC, ZICTA, PIA	MoFNP, MoTS
Data protection and privacy	ZICTA, CCPC	BOZ, SEC	MoTS
KYC	BOZ	ZICTA, FIC	
Digital channels e.g. USSD/SMS	ZICTA	BOZ	MoTS
Network infrastructure	ZICTA		MoTS
Investment	SEC	PIA	MoFNP
Micro-insurance and micro-pensions	PIA	SEC	MoFNP
Credit	BOZ	SEC	MoFNP, Magistrate's Court (for moneylenders)
Savings	BOZ, SEC		MoFNP

Source: Adapted from UNCDF Regulatory Playbook for Zambian Fintechs, 2021

Due to the spread of fintech activities, regulators have developed more formal collaborative arrangements to jointly monitor financial innovation. Although individual agencies previously signed bilateral MOUs, regulators have recently launched a Collaborative Framework for the Oversight of DFS in Zambia, which provides a clear structure of coordination for regulators and policymakers in the DFS ecosystem.[7]

FINDINGS ON TYPOLOGIES OF ZAMBIAN FINTECHS

To understand the various typologies of Zambia's fintechs, UNCDF conducted analysis using the following categories:

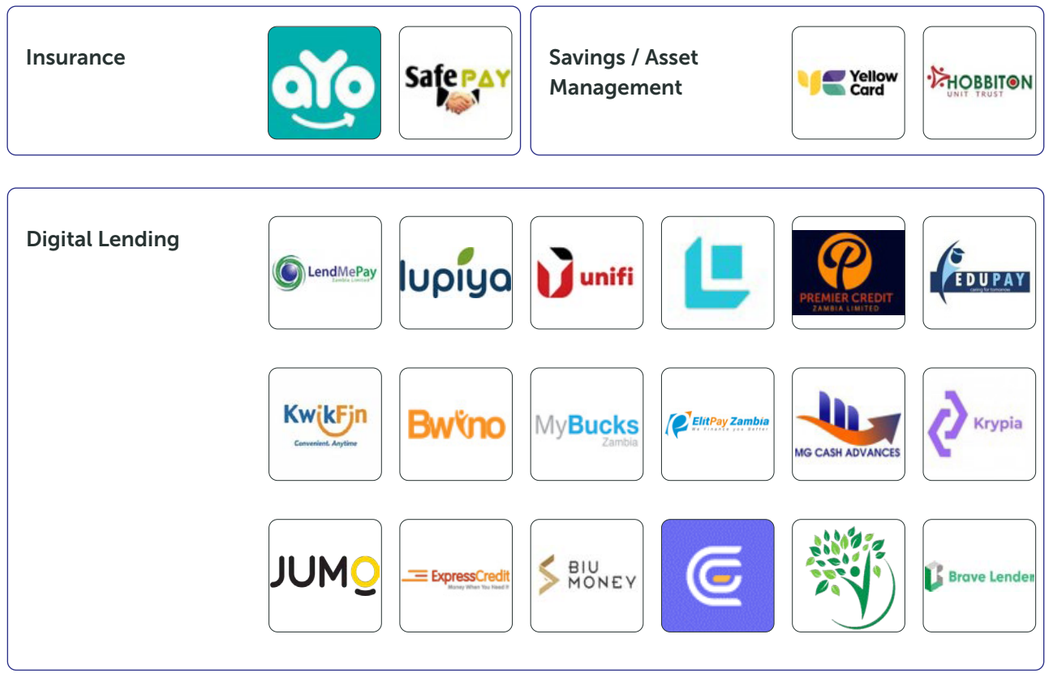
i. business activity;
ii. stage of development;
iii. type of product or service;
iv. type or source of funding;
v. human resource structure;
vi. gender representation, and
vii. location of headquarters [as a proxy for local vs. international ownership].

The figure below gives a snapshot of the fintechs by the respective products or services they offer. As previously mentioned, the majority of fintechs offer payments functionalities including switching and transfers. Digital lending is the second most prominent vertical and is expected to continue growing with the demand for efficient and affordable lending services.

Figure 2 | Snapshot of Zambian Fintechs*

[7] Collaborative Framework for the Monitoring of Digital Financial Services: https://zicta.zm › storage › posts › attachments

Figure 2 | continued



* For a full list of fintechs, please see Annex I

I. Breakdown by Type of Business Activity

Of the 57 fintechs identified, there appears to be an even spread of business focus areas, from B2B, B2C, and a combination of B2B and B2C activities. B2B remains the leading category of fintech in Zambia, with the majority of B2B services including payment switching or payment gateways. Some fintechs have had to pivot from B2C to B2B during their life cycle, primarily owing to the relative ease of delivery of services for B2B clients as opposed to the high cost of delivery when targeting the mass market clients. Two examples of this are shared below:

a. *Difficulties in achieving scale given the cost of last mile delivery*

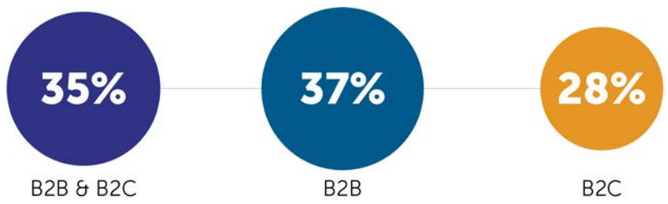
One fintech founder shared that their business model pivoted from money transfer (B2C) to a payment gateway (B2B) because the B2C model required significant resources required for managing an agent network. Additionally, competitors had larger financial allocations earmarked for agent commissions and remuneration.

b. *Leveraging B2B infrastructure to meet B2C needs*

One fintech founder shared that their business had to pivot at the client level from focussing on the parents/individuals to institutions, with the business case of easing school fee payments. The business was built in a B2C model providing targeted digital lending for school fee payments, and initially targeted clients directly. The pivot to targeting learning institutions allowed the business to ease school fee collections for learning institutions, given the fintech would remit fees directly on behalf of parents. This also allowed the business to reach a broader client base from the school's database, and access historical fee payment data for initial credit scoring.

Ultimately, it seems that for Zambian fintechs, there is room to provide services across B2B and B2C models with no one business activity outweighing the other. It does however seem that fintechs sometime opt to switch from B2C to B2B because of the relatively high cost of delivering services with the B2C model. B2B models allow them to offer niche services to a selected group of businesses, enabling a quicker balance between revenue and cost of operation.

Figure 3 | Fintech distribution by type of business activity



Note: B2B = Business to Business, B2C = Business to Customer

BOX 1: FINTECH DEFINITIONS AND EXAMPLES

Enabling Technologies: Fintechs that offer software solutions to other businesses in the financial sector, often to enable them to increase the efficiency through digitalisation and automation. An example is Probase, who have worked with various financial sector stakeholders to develop both tailored and open-source software to solve specific challenges in the financial sector.

Payments/Money Transfer: Fintechs with a business model primarily built on enabling the transfer of funds either P2P or P2B. This category also includes businesses focused in remittances. An example is Mukuru.

Saving/Asset Management: Fintechs offering customers a flexible way of saving and building investment portfolios. An example is Hobbiton, who offer customers an accessible investment solution through a digital unit trust.

Payment gateways/switching: Fintechs that offer software solutions to enable more efficient movement of funds within the financial system in one way or another, often through the aggregation or switching of payment facilities across service providers. An example is TuMeNy which enables easier payment collection though switching at the merchant for improved cashflow management.

Digital Lending: Fintechs offering a fully-digitised lending process from initiation to disbursement. An example is Premier Credit, who also offer a peer-to-peer lending platform regulated under the SEC sandbox.

Insurance: Fintechs in this category leverage technology to reach underserved customer segments with tailored insurance plans that are often more affordable and flexible than those offered by traditional insurers. An example is Ayo, whose product Ayo4U is easily accessible on MTN mobile money platform.

II. Breakdown by stage of development

There are various models that can be used to assess a business's stage of development or the life cycles of innovative businesses. Innovation is different at each stage of a business's growth, but for the purposes of this study, UNCDF used the framework below adapted from the S-curve for a start-up's life cycle.[8]

In the validation stage fintechs are formally established, have a viable prototype, and are primarily concerned with validating this product on the market and becoming financially viable through earning sustainable revenue.

In the early-stage, fintechs have validated their product on the market and achieved initial sales but are now concerned with achieving product-market fit that enables true growth scale.

Fintechs in the growth/scale-up stage are looking to expand, enter new markets, and possibly establish stronger corporate governance structures.

In the mature stage, fintechs have been operating in a specific market for substantial periods of time and are facing stiffer competition and possibly lower margins.

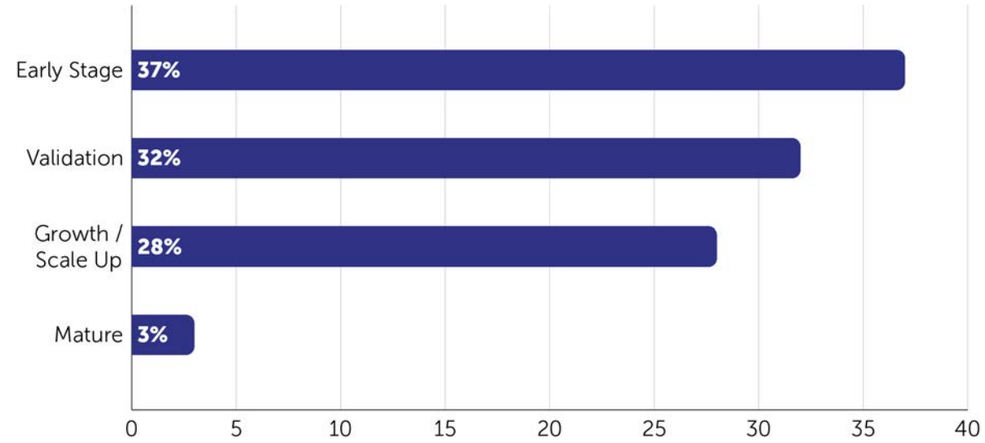
Other criteria that define these categories are shown below and a fintech had to meet at least three of the four criteria to fit into a specific category. The majority of Zambian fintech businesses fit in either the validation or early-stage of development and are either fine-tuning their product to fit either the specific problem they aim to solve or a specific market segment they aim to service. On the other hand, 28 percent of Zambian fintechs have achieved product-market fit, have significant revenue, and require tailored financial and technical support to achieve scale. This has implications on how financial service providers, investors, regulators, policymakers, and development partners approach support to Zambia's fintech landscape, as discussed in the next section of this report.

Table 3 | Criteria for Fintech Stages of Development

	Validation	Early-Stage	Growth / Scale Up	Mature
Focus	Problem-solution fit	Product-market fit	Business model fit	Organisation
Product	Prototype	Minimum viable product	First generation	Product replication
Market	Discovery	Pilot	Viable customers	Mass market
Revenue	$0	$0 - $25,000	$25,000 - $750,000	>$750,000

[8] Jeffery Overall & Sean Wise, An S-Curve Model of the Start-Up Life Cycle Through the Lens of Customer Development, 2015: https://www.jstor.org/stable/43503838

Figure 4 | Fintech distribution by stage of development



III. Breakdown by type of product or service

As can be seen from the graph below, Zambia's fintech landscape is still heavily concentrated in the payments sub-sector, but the industry is showing initial signs of diversification with several fintechs offering digital lending services and some growth in the savings and asset management category. Given that many fintechs utilise payment functionalities for their various service offerings, it is unsurprising that the Zambian landscape mirrors that of many other African countries with a concentration of fintechs offering either money transfer or payments aggregation. The digital lending sub-sector has seen significant growth over the last few years, with notable developments including:

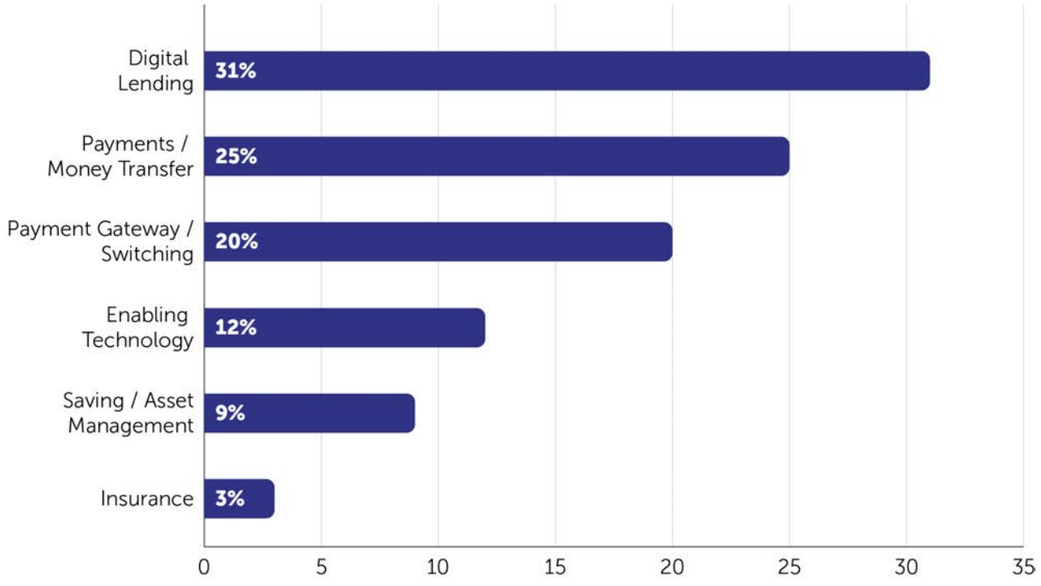
a. The number of fintechs offering digital lending has gone up to 18 from 5 identified when UNCDF conducted a similar scoping in 2018.
b. A handful of fintechs have been expanded beyond traditional digital credit to include services such as peer-to-peer lending.
c. The growth of this fintech vertical is creating a stronger need for functional credit scoring and shared data within the broader financial services system. While some fintechs are integrated into the Credit Reference Bureau, data fed into the CRB remains relatively low, limiting the ability to generate meaningful and rigorous individual credit profiles.

As payments, clearing and settlement services become more efficient and seamless, a larger number of fintechs are expected to emerge building on these functionalities for specific use cases such as investment, insurance, and pensions. Digital lenders utilise mobile money wallets as well as bank accounts for remittance and collection of their credit offering, while digital insurance providers such as Ayo have developed a targeted product that integrates insurance seamlessly with transactions on MTN's mobile money wallet. Some of the issues fintechs relying on payment functionalities for the delivery of their product/service include:

a. Limited agent liquidity, especially in relation to disbursement and collection for cyclical products such as monthly loans to village banks.
b. Lack of seamless integration with mobile money systems beyond functionalities such as bulk payments.
c. Multiple faults on transactions routed through the National Financial Switch, with lengthy redress channels.

As previously mentioned, there are a handful of fintech offering niche services in investments, digital asset management, and insurance. Fintechs in these verticals are primarily in the early stage, with one of the five being in the growth stage. Most have validated their product with the market and have real potential for growth and scale within the mentioned verticals.

Figure 5 | Fintech distribution by type of product or service



IV. Breakdown by type or source of funding

The majority of Zambian Fintechs are financed through either bootstrapping, i.e., relying only on existing resources such as savings and personal computing equipment or funded by friends and family. This is unsurprising considering the majority of fintechs are in the validation and early stages of development. UNCDF made the following observations regarding this category of funding:

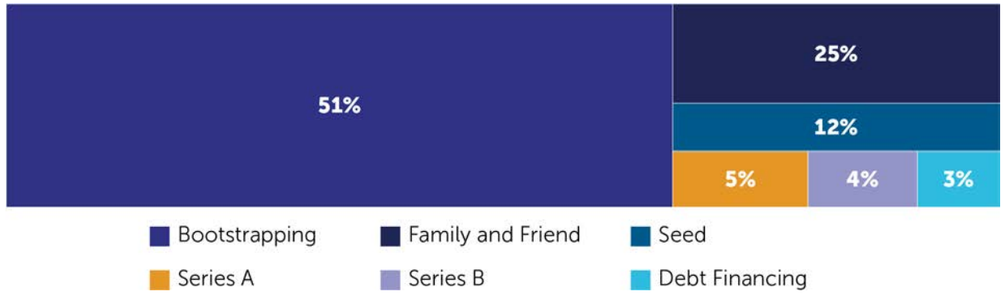
a. Most founders bootstrapping their fintech businesses are experts in their particular fields and are still in formal employment as they work to grow their business. In many cases, their formal employment funded early development, regulatory applications and licencing, as well as initial BTL marketing. While these fintechs were generating revenue, many were yet

to break even, and were still in either the validation or early stage of development. While the divided attentions among founders with formal employment may limit their ability quickly grow their post-revenue businesses, founders still rely on income generated from this formal employment to invest in their fintechs.

b. A handful of founders have been able to access seed funding through various accelerator programmes dedicated to innovation. Examples of these include, but are not limited to; UNCDF's Fintech4U Accelerator, the Zambia Information and Technology Regulatory Authority's ICT Innovation Challenge, the Technology Business Development Fund, Standard Chartered's Women in Technology Incubation Programme, and the Financial Sector Deepening Zambia's Fintech Challenge. This seed funding has been particularly enabling for fintechs in the validation stage, enabling the iteration and testing of their prototypes.

The above mentioned notwithstanding, there are several fintechs, approximately 24 percent, who have been able to access financing through debt, seed funding, or series A and B funding. Most notably, three fintechs have raised upwards of $500,000 in the past three years. In 2020, the digital lending start-up, Lupiya, raised $1 million in funding from Enygma Ventures. Premier Credit, another digital lending start-up, raised $650,000 in the same year. As a result of the launch of a regulatory sandbox for the capital markets by the Securities and Exchanges Commission, both Lupiya and Premier Credit were able to expand their digital lending platforms to enable peer-to-peer lending for individuals and MSMEs. In 2022, Union54 raised $12 million in a seed extension round led by Tiger Global. Union 54 offers an API solution that allows African software companies to issue and manage debit cards without needing a bank or third-party processor.

Figure 6 | Fintech distribution by type/source of funding



V. Breakdown by Human Resourcing Structure

UNCDF found that the majority of fintech businesses have between two and five employees, with the most common configuration being the founder and at least two partners or employees. This is unsurprising given two factors:

a. Limited resources available to a majority of fintechs that are in the validation and early stage of development.

b. The diversity of skills needed to run a business that has both technological and financial aspects, with both fields requiring subject matter experts.

Fintechs in the validation or early stages of development reported being able to fulfil their human resourcing needs easily, whereas fintechs in the growth and maturity stages reported having difficulties retaining skilled talent, especially those with technology skills.

There is also fluid movement of talent within the industry, with individuals often switching from one fintech to another with a similar business model. This illuminates two issues:

a. As validation and early stage fintechs mature, the fintech landscape has the potential to create more employment opportunities. As fintechs reach growth and maturity stage and grow beyond five employees, they will seek to retain skilled talent for specific functions.

b. Fintechs between 2-5 employees still have a need to tailored skill sets such as regulatory compliance, legal advisory, data science, and financial modelling, to name a few. These skills sets sometimes fall outside of the expertise of the existing 2-5 employees, and hence creates a market for outsourcing, provided the services can be attained at the right price point for businesses that are often bootstrapping.

Figure 7 | Fintech distribution by human resourcing

VI. Breakdown by gender representation

While gender representation in both the technology and financial sector has been growing, gender representation amongst the founding members or senior leadership of the fintechs interviewed reveals a significant disparity, as demonstrated in Fig 8 below.

Fintechs classified as gender-diverse are those where at least one member of senior leadership is female. Only 3 percent of fintechs have all-female founding members, as opposed to 60 percent for male-only founding teams. Further analysis is needed to ascertain the true source of this disparity, which could not be undertaken during this study. UNCDF does, however, provide some initial insight in the latter part of this report.

Figure 8 | Fintech distribution by gender representation amongst founding members or senior leadership

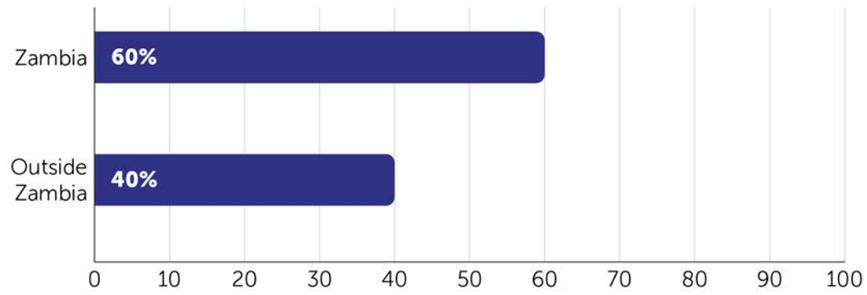
VII. Breakdown by location of headquarters

The majority, 60 percent, of Zambian fintechs are headquartered and founded in Zambia. A lesser proportion, 40 percent, are companies founded and headquartered internationally, with Zambian subsidiaries. This picture presents interesting prospects for both local and international fintech entrepreneurs. The first prospect is the relative ease with which international fintechs can set up operations within the country.

Some international players choose to acquire smaller operational fintechs and expand their operations, as was the case when local fintech Mangwee was acquired by ZeePay of Ghana. Other fintechs opt to register their own entities with the responsible regulator, as is the case with operators such as AcuPay. Fintechs that offer B2B services which don't require a physical presence, such as Flutterwave, integrate their systems with Zambian entities without having formal registration within the country. Whatever method they choose, regulators and other fintechs seem welcoming to international participation in the Zambian fintech ecosystem.

The second prospect is the potential of locally developed solutions to grow, scale, and eventually dominate the Zambian landscape. Several opportunities remain to be explored within the Zambian fintech industry and local fintechs have shown their ability to grow beyond the validation and early stages and begin to scale their products to the mass market. Provided some underlying issues are addressed, Zambian fintechs are well placed to equitably participate in and even dominate the local fintech industry.

Figure 9 | Fintech distribution by location of headquarters



HIGHLIGHTS AND EMERGING THEMES

ANALYSIS OF THE INTERVIEWS WITH VARIOUS STAKEHOLDERS INCLUDING FINTECHS, regulators, policymakers, investors, financial service providers, and industry associations revealed the following themes which were repeatedly mentioned:

I *A MAJORITY OF FINTECHS RELY ON PAYMENTS INFRASTRUCTURE FOR SERVICE DELIVERY*

The Zambian fintech ecosystem is seeing the growth of existing fintech verticals, and the emergence of new ones. As mentioned in the previous section, the digital lending and digital payments verticals have seen the most growth with new entrants, more comprehensive product/service offerings, and increased investment. A handful of players have also emerged offering digital investment and asset management solutions. This notwithstanding, a majority of fintechs use digital payments infrastructure as both a customer acquisition and service delivery channel for their services. Some examples of this include:

- Digital lenders leveraging mobile money infrastructure for collection and disbursement of microloans.
- Micro investment products offered on the mobile money platform in the form of unit trusts, with self-sign-up options and disbursement channelled into the mobile money wallet.
- Insurance products built into mobile money wallets, with self-initiated subscription and stop options.
- Payment gateways integrated with the open APIs of various mobile money providers to provide specific payment use cases.

As seen in Figure 5, 45 percent of fintechs are in the payments space. Services offered within this vertical include payment gateways or payment switching functionalities, money transfer, and payments for specific use cases such as concerts, festivals, transportation, etc. Overall, players in this space are solving for challenges experienced individuals, businesses, and governments as they all seek more efficient ways of transferring money across the financial system for their various needs. Interviewees shared the below in terms of some of the issues they face in leveraging digital payments technologies for their respective use cases:

i. ***Cost of transacting:*** The ability to move money across different service providers has improved, with increased integration between services providers, the emergence of fintechs that offer payment switching functionalities, and the operationalisation of the second phase of the National Financial Switch. However, the cost associated with moving across service providers remains high for both customers and service providers relying on this functionality. While there are several factors that drive the cost of transaction, one can hope that there is room for cost adjustment as more customers enter the digital financial ecosystem and service providers continue to expand their product catalogue and unlock additional revenue streams.

ii. ***Lack of a seamless customer experience for platforms relying on third party aggregators:*** The NFS has enabled interoperability for its members, who are mainly made up of mobile money providers and commercial banks, yet mobile money providers and banks typically outsource integration between themselves and other service providers looking to ride on their systems to third-party aggregators. As such, fintechs providing services that can ride on the platforms of mobile money providers or banks must rely on the effectiveness of their third-party provider. This presents challenges especially in relation to customer experience. One fintech founder reported that their service was down for several weeks due to an issue with the third-party aggregator, which caused irreparable damage to some of their customer relationships and business. This is not a unique occurrence, as third-party systems often experience down times, creating a challenge for any service provider integrated into their system.

iii. ***Agent liquidity issues:*** As more service providers emerge that leverage mobile money and bank agent networks for various components of their customer journey, there is an increased need for adequate float, especially among agents in far flung and sparsely populated areas. For example, digital lenders utilising agent networks for the disbursement and collection of their loans reported experiencing challenges serving customer groups in remote areas, such as smallholder farmers and rural-based savings groups, who typically deposit and withdraw their loans in predictable cycles.

IN VIEW OF ENABLING MORE FINTECHS TO SEAMLESSLY USE THE FUNCTIONALITIES OF VARIOUS PAYMENTS INFRASTRUCTURE, THE ABOVE-MENTIONED CHALLENGES WILL NEED TO BE ADDRESSED. AS THE EFFICIENCY OF MOVING MONEY ACROSS THE FINANCIAL SYSTEM IMPROVES, MORE FINTECHS CAN DEVELOP SECOND AND THIRD GENERATION SOLUTIONS TO BROADEN THE FINTECH ECOSYSTEM.

Additionally, as Zambia seeks to integrate with regional blocks and establish itself as a trading partner, solutions will also need to emerge that enable cheaper and more efficient cross-border transfers. Operationalisation of the NFS and the emergence of more private sector players offering payment gateways and payment switching, such as Tilt and Digital PayGo, provide a strong starting point to addressing some of the challenges mentioned above. Additionally, the Southern African Development Community Integrated Regional Electronic Settlement System has the potentials to enable quicker payments settlements within the region. Expanding the use cases within this system and allowing access to non-bank financial institutions would enable fintechs to expand their operations beyond borders.

II CUSTOMER PROTECTION IN A DEVELOPING REGULATORY ENVIRONMENT

Of the 57 fintechs identified, approximately 69 percent are in either the early or validation stages. These stages often involve multiple product iterations, going back to the drawing board, failing, learning, and returning to the market with an improved product. Throughout these processes, fintechs are interacting with customers and proving how sustainable their concepts are on the market. Some more mature fintechs can, and often do, keep their regulator abreast of developments in their businesses. However, other fintechs, especially those in the validation stage are more focused on proving their business concept with the market and have limited bandwidth to engage regulators at the same time. As agile problem solvers, fintechs often find solutions to enable market operations without having formally engaged with their respective regulator or having received a specific license for their operations. Further, in some cases, there is no existing legislation that covers emerging fintech business models, for example, with solutions built around cryptocurrency.

Regulators in Zambia have repeatedly mentioned their desire to allow regulation to move alongside innovation, and as such, ensuring customer protection and safeguarding the integrity of the financial and capital markets. Joint mechanisms that enable information-sharing and collective monitoring and problem-solving, such as the Collaborative Framework for the Oversight of DFS led by ZICTA and BOZ, are stepping-stones towards reducing the red tape fintechs must cut through in conducting compliance. Another option is the merging or harmonising of regulatory sandboxes across payments, investment, insurance, and pensions functionalities. Presently, both the SEC and BOZ have dedicated regulatory sandboxes which fintechs must individually explore and engage for participation. BOZ, SEC and PIA have come together to form a working group whose goal is the formation of a harmonised regulatory sandbox for the financial capital, insurance, and pensions markets. This is a seamless extension of the already-established Collaborative Framework for DFS Oversight, which enables smoother information sharing and regulatory collaboration in line with digital financial solutions.

In other markets within the sub-Saharan African region, fintechs have been absorbed into industry associations or have formed their own industry associations that operate as self-regulatory organisations (SROs). SROs typically have industry-wide codes of conduct to which every member must adhere to when relating with their customers and other industry stakeholders. Ultimately, encouraging innovation while keeping strict customer protection guidelines and protecting the integrity of the financial industry is a delicate balance that can be achieved using multiple regulatory instruments and initiatives. SROs provide a less resource-intensive method, given the limited human resource within our regulatory bodies monitoring the financial sector. Ultimately, although regulators have the right intentions, there is a need for dedicated solutions that work within the very real limitations of human capacity and sometimes limited technical knowledge on emerging technologies and how they impact the financial sector.

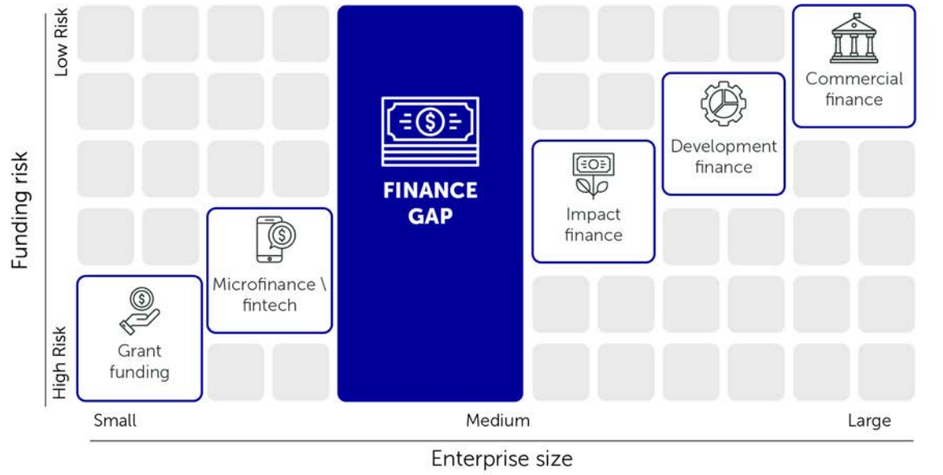
III INVESTMENT – A MISSING MIDDLE FOR POST-VALIDATION, PRE-GROWTH FINTECHS

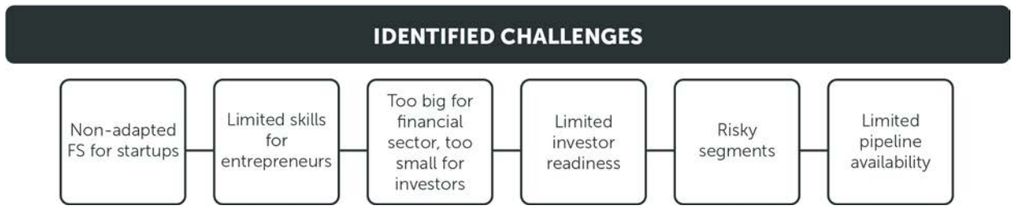
Investment in Zambia's fintech landscape has been growing, with three fintechs securing deals upwards of $500,000 within the past three years. Most notably, Union54 secured the highest investment deal by any fintech in recent years with $12 million raised in a seed extension round led by Tiger Global. Approximately 28 percent of Zambian fintechs are in the growth-stage and can qualify for larger investment deals, for example, with Enygma Ventures, Lupiya raised $1 million and Premier Credit raised a total of $2.4 million, a combination of debt and equity financing. For this segment of fintechs, international investments are not only preferable, but increasingly accessible.

On the opposite end of the spectrum, fintechs in the validation stage have access to limited sources of equity-free (grants) and equity-based seed funding from a handful of local sources. As an example, Standard Chartered, in partnership with BongoHive Innovation Hub runs a tech-accelerator programme that has so far awarded Mighty Finance Solutions equity-free seed funding of $10,000. Mighty Finance Solutions offers a digital lending solution for individuals and SMEs. Additionally, the formation of the Zambia Business Angels Network (ZBAN) in 2021 holds promise for more locally originated investment deals targeting start-ups with equity-based seed funding. The ZBAN has so far invested in six SMEs in the agricultural, medical, and garment industries, with the highest deal amounting to $50,000. Another option available to validation stage fintechs is the Technology Business Development Fund run by the National Technology Business Centre, which has historically given grants up to $10,000. This indicates that validation-stage businesses have access to local funding solutions, although options are somewhat limited.

The scenario becomes complex for early-stage fintechs looking to transition to the growth-stage with fintech activities ranging from digital lending to accessible investment solutions. These are fintechs whose product has been validated with the market, who have an initial product-market fit and are looking to achieve increased customer acquisition and revenue generation. Their investment needs range from $50,000 to $500,000, which may be too high for the current grant and seed-funding options, yet too low and risky for commercial banks and international investors. There is little that can be done to change international investment appetites and interests, but a great deal can be done to expand local investment options and solutions to meet the needs of this middle band of fintechs. Innovation hubs, development partners, and even regulators run accelerator programmes that offer a combination of technical assistance and grants. Feedback from fintechs is that this avenue meets only a small fraction of their overall funding needs.

Figure 10 | The gap in the development finance architecture





Ultimately, early-stage fintechs looking to transition to growth are struggling to find affordable and appropriate long-term financing that aligns with their goals and desired growth path. Funding needs are only expected to grow as the fintech industry grows and matures, creating a stronger need for tailored and appropriate investment vehicles that meet these fintech's needs. There is hence a need to explore options that increase the range and availability of investment options for this middle band of fintechs. Potential solutions to this are explored in the recommendations section of this report.

IV *COMPETITION VS. COLLABORATION: WHERE IS THE INDUSTRY HEADED?*

Zambia's digital financial services industry has grown considerably in the last few years, with additionally players entering the market, more collaboration and increased interoperability. However, this increase in collaboration and interoperability has primarily benefited long-term industry incumbents such as commercial banks and mobile money operators. For example, the NFS is currently co-owned by BOZ and commercial banks, with mobile money operators beginning to take a stake in it as well.

As a payment gateway that facilitates efficient payment processing and interoperability, the benefits of integrating with the various functionalities of the NFS are valuable but are yet to cascade to smaller-scale operators on the financial market. Fintechs that seek to use mobile money functionalities must rely on third party aggregators to integrate with mobile money systems. The principles behind this are understandable, especially as mobile money operators seek to protect the integrity of their internal systems and their own bandwidth not having to deal with every single entity that seeks to ride on their platforms. The result is lag-time in processing requests, especially during service down-times and with customer complaints about specific transactions. For this reason, fintechs reported a need for workable solutions to drive better customer experiences, whether through the NFS or better collaborative arrangements with third party aggregators.

When collaborating with commercial banks, fintechs primarily engage as service providers with B2B solutions. This is overwhelmingly dominated by growth-stage and mature fintechs who have time-proven business models. These fintechs primarily offer enterprise solutions that enable commercial banks to realise gains in efficiency and improve internal processes, overall improving their capacity to deliver specific services. Validation and early-stage fintechs are yet to earn the trust of the heavily regulated and risk-averse commercial banking sector. For this reason, none of the early-stage and validation-stage fintechs interviewed reported having collaborations or partnerships with commercial banks. There is potential for greater collaboration between commercial banks and fintechs, especially those who can help commercial banks expand their access to customers that are underserved by the commercial banking sector.

BOX 2: MOBILE NETWORK OPERATORS AND FINTECH

"We are not fighting each other. We are fighting cash. That is the common enemy." – Leading MoMo provider

The above statement surmises the overall direction mobile money players are taking in the market, that is, working to increase the value proposition in keeping money within the digital financial ecosystem. This requires catalysing a gradual shift from mobile money as a cash-in cash-out (CICO) system, to a widespread ecosystem with services that meet the broad needs of their user base. Mobile money operators report a steady rise in usage per customer over the last three (3) years. Usage of mobile money wallets has grown beyond P2P and P2B transfers, with more customers accessing their entire product offering. This rise has been attributed to various factors, including, but not limited to:

i. A regulatory push for digital financial products and services in response to the Covid-19 pandemic. In 2019, the Bank of Zambia and other financial sector regulators led the market in calling for and enabling greater use of digital financial services to limit contact transactions. Bank of Zambia revised transaction limits related to lower-tier KYC wallets to enable higher-value transactions within those bands. The Bank also called for removal of fees for transactions below K150, to which mobile money providers obliged. This position has since been revised since the pandemic calmed, with 70 percent of the original fee being reinstated in March of 2021. Much as fees have been reinstated, they are however 30 percent lower than they were prior to the pandemic.

ii. An increased inflow of e-money resulting from bank-to-wallet transfer functionality enabled by the National Financial Switch. As customers received the benefit of being able to easily move money across bank and mobile money channels, it enabled the inflow of more value into their mobile money wallets, which in turn increased their capacity to transact on the platform.

iii. An expanded product catalogue on mobile money platforms beyond money transfer. Money transfer and payments remains the biggest contributor to mobile money revenue, but operators have in the past years increased their product catalogue to include a savings, micro-investments, collateral free microloans, and micro-insurance. These additional products have strengthened the customer value proposition, and in turn increased the usability of the wallet. Beyond this growth in wallet usage and average revenue per user, MoMo providers also shared some interesting insights on the trajectory of the digital financial services market, and how this potentially impacts the growing fintech market in Zambia. These insights included:

A transition from 'race to the customer' to a 'race to the merchant'

Providers recognised the merchant key to facilitating a gradual shift from cash-in-cash-out (CICO) to a truly digital ecosystem. A majority of merchant in Zambia, especially MSMEs with whom customers interact with daily, prefer cash payments due to the perceived cost of e-money. For this reason, increasing the value proposition for the merchant, and the breadth of services available to them through the digital financial ecosystem is key. Additionally, interoperability at the merchant level, that is, enabling customers to pay seamlessly across different merchant service providers, may be the first chink in the armour.

Expanding the use cases and applications open interfaces such as APIs and developer portals

Each of the providers on the market currently has either an open API or a developer portal with varied use cases, the foundation of which is enabling users to plug and play without going through extensive integration processes. At the moment, these open APIs and developer portals seems to be limited to large scale bill payments, but their goal is to continually develop them to enable additional use cases. The importance of such interfaces is two-fold, first as a channel of significant transaction volumes, but second as a steppingstone towards increased interoperability and furthering the growth of the digital financial ecosystem. There is however a need to increase awareness and capacity within the fintech ecosystem on how to leverage such open interfaces for the expansion of their own businesses.

Agent infrastructure still key to mobile money growth

Agent infrastructure is still the biggest entry point of cash into the mobile money ecosystem, among other channels such as B2W transfers and remittances. For this reason, ensuring the liquidity, profitability, and resilience of the agent infrastructure across urban, peri-urban, and rural centres is key to the growth and sustenance of the mobile money industry. As the use of e-money has grown, the role agents play has certainly evolved beyond CICO to allowing account creation, basic troubleshooting, and offering liquidity support to other agents. However, their role as an entry point for cash into the system has not diminished.

A mixture of competition and complementarity

Mobile money providers are both a platform and a service provider. In this sense, there are cases where they have partnered with fintechs to provide particular services on their platform, with a revenue share arrangement in place. As example of this is the partnership providers have with fintechs like Jumo and Hobbiton, providing micro-credit and micro-investments respectively across different platforms. There are also cases where they have stepped up as providers and developed dedicated solution, as is the case with MTN's Ayo Insurance. This blend between collaboration and competition is expected to continue as more players enter the digital financial services market. Banks have also evolved to play a role as mobile money providers, leveraging both digital wallets and agency banking. Ultimately, as the breadth of providers grows and their systems become more interchangeable and interoperable, the customer's choice will be based on the product and service offerings that best meet their varied needs.

Fintech structure and maturity a determining factor of potential for partnership with established providers

As stated in the point above, mobile money providers have partnered with fintechs for various services, One example includes a partnership between a local mobile money service provider and an international credit-scoring fintech for the component of offering collateral free microloans. According to this particular service provider, there was no local fintech with the required structure and international security certification (ISO 9000) that could provide this service. In partnering with fintechs, established providers seem to look for the maturity of specific functions, such as IT risk managers and cybersecurity experts in addition to the fintech product/service itself. That said, as the Zambian fintech market matures and businesses are able to diversify and delineate specific business function, there is more potential for B2B partnerships with financial industry incumbents.

V FINTECH TALENT – A SMALL BUT GROWING POOL

For fintechs in the validation and early stages of development, finding and retaining talent was not reported as a significant challenge. In the validation and early stages, fintech founders typically rely on their skills and social network to start and run their businesses. This creates limitations, especially given the various skills required to run a successful business in the financial sector, such as platforms development, risk analysis and regulatory navigation. Some fintechs have leaned on accelerator programs run by various innovation hubs and development partners that cover these skills in depth or introduce subject matter experts who can lend their expertise on a pro-bono basis.

Fintechs in the growth and mature stages reported a different picture, where talent acquisition is not necessarily a challenge, but talent retention is. Two factors influenced this scenario:

i. ***An increasing number of ICT graduates from both public and private universities:*** each year, the talent pool has grown as more universities offer general and specialised qualifications in information technologies. However, like other disciplines, the quality of talent in fintech is directly linked to personal development and tangible experience. This requires fintechs to make an initial investment in fresh graduates through trial periods and on-the-job training.

ii. ***Brain-drain as talent seeks better opportunities:*** As new hires gain more industry experience, new and often better-paying opportunities are unlocked resulting in brain-drain for local fintechs. Additionally, the last few years have seen a marked increase in remote work opportunities, especially for those with ICT skills. The relative ease of finding jobs outside of one's country of origin, without having to undergo immigration requirements and relocation has expanded the job pool for skilled and experienced tech professionals. There have also been lateral movements within the fintech ecosystem as individuals seek new environments and opportunities to expand their career.

Overall, the challenge regarding talent retention is not unique to the Zambian fintech sector and other peer markets face the same challenge. Other markets are attempting to address this challenge through improved pay scales and benefits, which works for more mature fintechs. It is expected that Zambia's fintech sector will follow this trajectory as the market grows and competition for experienced talent becomes stiffer. Given Zambia's landscape is predominantly comprised of validation and early-stage fintechs operating with limited resources, it may take a while for local pay scales and benefits to competitively mirror international standards.

VI ZAMBIA'S POTENTIAL AS A REGIONAL HUB AND LEADER

Various reports on Africa's fintech landscape cite South Africa as the southern African regional leader[9], followed closely by Namibia and Zambia. Although Zambia lags behind the regional leader South Africa, the Zambian tech start-up ecosystem is fast growing, with investment deals totalling $14 million in 2022, compared to a marginally higher $15 million for Namibia, and $2 millions, $125,000, and $100,000 for Zimbabwe, Botswana, and Mozambique respectively.[10] Within the tech start-up ecosystem, fintech is the largest contributor to these investments, and some of these delas have already been mentioned in an earlier section of this report. That said, The Zambian fintech landscape has significant potential to emerge as a catalyst for regional growth, provided it attracts the sufficient funding and talent needed to grow the fintech ecosystem. Several factors make Zambia well placed to achieve this, including:

a. ***A budding innovation support ecosystem:*** Innovation and incubation hubs such as BongoHive, Jacaranda Hub and the Women's Access Entrepreneurship Centre provide much needed support services to emerging start-ups across various sectors, with fintech innovation being a key focus. In addition to this, public sector stakeholders such as the National Technology Business Centre, the Technical Education, Vocational and Entrepreneurship Training Authority, and the Ministry of Technology and Science are all investing public resources in developing the next wave of technology entrepreneurs and finance is one of their priority sectors. Private sector players have been offering their support as well. Examples of this include MTN MoMo's annual hackathon, which gives entrepreneurs the opportunity to create innovative financial and transactional products through the provider's API, and ABSA's recently launched hackathon through which the bank is offering an opportunity to young innovators to develop solutions that can be tested and piloted within the banking environment.

b. ***Strong potential in public and private tech education programmes:*** While technology, and hence the supporting curriculum, is ever developing and changing, Zambian institutions are doing their part to remain abreast of developments in the space. Through partnerships with regional and international learning institutions, development partners, and private sector players, learning institutions are trying to bridge the gap between academia and industry, to facilitate the development of appropriate and up to date digital skills amongst their graduates.

c. ***Developing local investor participation:*** There have been several developments in recent years that have catalysed local investor participation. Examples include the launch and growth of the Zambia Business Angels Network, which seeks to increase funding and support available

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[9] McKinsey & Company, Fintech in Africa – The end of the beginning: https://www.mckinsey.com/industries/financial-services/our-insights/fintech-in-africa-the-end-of-the-beginning

[10] Africa, The Big Deal. Southern Africa Map Series: https://thebigdeal.substack.com/p/map2022southern

to early-stage entrepreneurs. Additionally, the Government of Zambia has launched a Venture Capital Fund which aims to support local entrepreneurs in scaling their innovative solutions. Further to this, the Lusaka Stock Exchange (LUSE) has been actively exploring the potential for digital platforms to increase investment opportunities for MSMEs. LUSE recently launched the MyLuse App, which allows retail investors to browse and bid for stock digitally. LUSE has also been testing the GEM portal, an online platform designed to provide MSMEs easier access to financial support from local retail investors. These various developments may be in the early stages compared to other markets, but they mark a step in the right direction in terms of driving local investor participation, which will benefit may sectors including fintech.

As previously mentioned, given the relatively advanced nature of Zambia's fintech ecosystem in comparison to some of its neighbouring countries, there is real potential to grow and scale Zambian fintech both locally and regionally, and for the country to emerge as a regional hub after the more advanced South African market. For that to actualise, more targeted effort is needed to attract adequate international and local investment, while simultaneously filling the need for advanced skills in subject matters relevant to fintech such as cybersecurity, app development, blockchain use cases, etc.

VII *A GROWING LANDSCAPE OF OPPORTUNITY HINDERED BY INFRASTRUCTURE & SKILLS DEVELOPMENT*

Across the continent, fintech is emerging as an engine of growth and a technology enabler that fosters financial inclusion and economic development. However, this growth is hindered by the limited coverage of underlying digital infrastructure such as electricity coverage, network access and resilience, and internet penetration. In Zambia, approximately 44 percent of the population has access to electricity[11], and 14.3 percent of the population reports as having access to the internet[12]. In addition to this, Zambia's national network geographical coverage stands at 69 per cent, while national network population coverage stands at 97.2 per cent.[13] It is useful to note that a significant portion of Zambia's network coverage is 2G, which cannot substantially sustain a USSD session let alone application functionality. Additionally, fintech rely on digitally accessed platforms to reach their customers, hence requiring a basic knowledge from their customers, which many Zambians do not have. The 2022 Digital Economy Status Report produced by the Ministry of Technology and Science in partnership with the UNCDF cites digital literacy at 38 percent, indicating that much of the population lacks the basic digital skills to adequately utilise digital platforms.

The majority of fintechs interviewed reported that they were only beginning to scratch the surface of the potential suite of products they could offer clients

[11] Energy Regulation Board, 2021 Energy Sector Report: https://www.erb.org.zm/wp-content/uploads/files/esr2021.pdf
[12] ICT Industry 2022 Report, ZICTA: https://www.zicta.zm/storage/posts/attachments/cBTZ-9p1yP80zmtqo5iJpRzQ4rzNhAyGpsXwvdT5N.pdf
[13] ZICTA Statistics Portal: http://onlinesystems.zicta.zm:8585/statsfinal/ICT%20Indicators.html

on their respective platforms, and even explore opportunities for regional expansion. Fintechs are developing innovative solutions that have the potential to meet targeted needs for various customer segments. However, their growth is limited to well connected, well-resourced, digitally skilled, and accessible urban and peri-urban markets, while significant portions of Zambia's population remain unreachable due to limitations beyond the fintechs capacity to solve. This infrastructure and skills challenge is not necessarily unique to fintech, as it speaks to the broader digital economy in which not all Zambians are able to participate. Tackling these challenges requires concerted and collaborative effort especially for currently unreached rural areas, which no single player can provide for.

Addressing the nation's infrastructure and basic skills gap can lead to even higher adoption and usage of digital financial solutions developed by both financial industry incumbents and fintech start-ups. Fintechs have the potential to enable access for a critical mass of marginalised customer segments such as MSMEs, emerging and small-scale farmers, youth, women, refugees, and persons living with disabilities, bringing them into the financial system and the growing digital economy. In surmounting this infrastructure gap, it is useful to note the potential role that public sector can play, and the importance of long-term sustainable and mutually beneficial partnerships between financial sector stakeholders.

VIII *WHERE ARE THE WOMEN?*

A handful of fintechs have women in senior leadership. However, from our interviews with fintechs we found only 5 percent of fintechs have women-only founders, while 33 percent have at least one woman in the founding team; 62 percent have male-only founders. There are a few women-focused interventions within the technology sector, such as Asikana Network that seeks to increase the interest and participation of women and girls in technology. Another example is the Women's Access Entrepreneurship Sector, which works with women-led start-ups across various sectors, including fintech. In 2021, Standard Chartered in Partnership with BongoHive launched its first 'Women in Tech' Incubator Programme, which offers tech-enabled women-led enterprises with business development services and equity-free investment. As the tenure of such initiative lengthens and their impact deepens on the market, we can expect the currently reality to shift, seeing more women-only and gender diverse fintechs.

A deeper study may be needed to ascertain the root causes of the skewed statistics on gender representation in the Zambian fintech landscape. Analysis conducted by other stakeholders at the regional and continental level revealed the following:

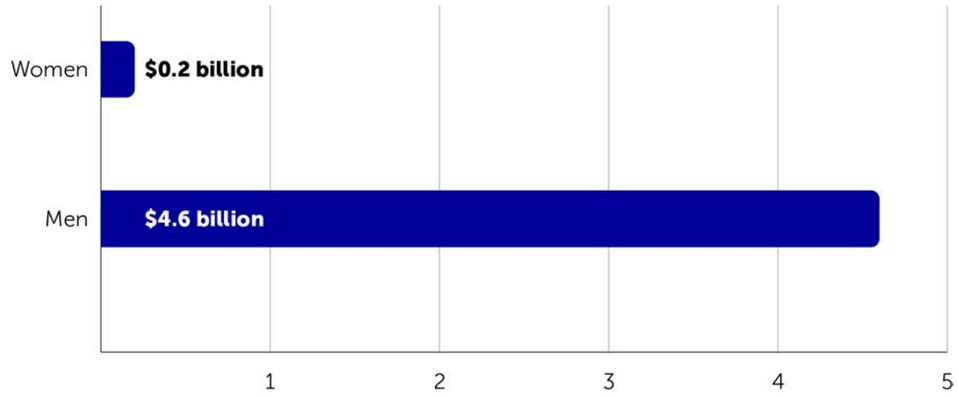
a. Africa seems to fare better than the global average. While only 3.2 percent of fintechs in Africa are founded solely by women, this is double the global average of 1.6 percent, according to a market research company

which tracks gender diversity. The continent's fintechs also appeared to have more female board members when compared with other regions.[14] In this light, Zambia's 5 percent is slightly above the continental average.

b. Fintech female founders receive significantly less funding than male founders. Figure 11 below from Africa: The Big Deal analyses funding raised by start-ups in 2022 by the gender of their CEO. The image reveals that women-led companies received just 4 percent of total investment received by African start-ups in 2022. In the fintech sector, women founders report receiving lower valuations and investment deals than their male counterparts and attribute this to a gender bias. In Zambia, we are, however, seeing a rise in venture capital funds targeted at women, which is beginning to change this narrative. In 2021, Enygma Ventures invested in two women-led fintechs (Lupiya and Premier Credit) and is looking to strike more deals within the region.

Changing the narrative of a male-dominated fintech industry fintech industry will be a long journey and needs coordinated efforts between all stakeholders - including academia, innovation hubs, policymakers, and the investment community.

Figure 11 | Funding raised by start-ups in Africa in 2022 by CEO gender



Source: Africa: The Big Deal by Max Cuvellier and Maxine Bayen

[14] Findexable – Diversity for Growth: https://findexable.com/wp-content/uploads/2021/11/FDR-Report-2021-v1.0-3-November-2021.pdf

RECOMMENDATIONS

BASED ON CONVERSATIONS with fintechs, innovation and incubation hubs, regulators, policymakers, commercial banks, mobile money operators, academic institutions, and investors, UNCDF arrived at the following recommendations. These recommendations have been grouped according to the four aspects of analysis highlighted in the introduction: business model, ecosystem, talent, and funding.

1. ECOSYSTEM

In addition to their end-user, client, or customer, the fintech ecosystem consists of several stakeholders: the fintechs themselves, regulators and policymakers, innovation and incubation hubs, commercial banks, mobile money operators, investors. To support the growth and diversification of this industry, the following could be considered:

i. The adoption of mobile money and the growth of its supporting agent network has the potential to catalyse increased access to a variety of financial products and services. A few fintechs, such as Jumo, have been able to integrate directly into mobile money platforms and have their products listed on each network provider's menu. However, many fintechs must rely on back-end integrations facilitated by third-party aggregators. For some fintechs this has created lag times in the processing of specific requests, or the resolution of customer complaints related to the platform's integration with mobile money platforms. For this reason, it may be useful to explore industry standards of operation for third-party aggregators, that can be used for reference in dealing with issues such as down-time.

ii. The launch of regulatory sandboxes by two of the three financial sector regulators provided an indication of the regulators' commitment and openness to fostering innovation. However, the sandboxes are merely a tool and are only as effective as the regulator's periodic engagement with the industry, understanding emerging business models and their emerging regulatory considerations. It appears that the majority of fintechs in their testing stage are still unsure how to approach regulators and where to begin in navigating financial sector regulation and compliance. For this reason, regulators need to be more intentional and targeted in their engagements with the industry, while also not being overly prescriptive. Open talks, "fintech office hours", and periodic industry-wide engagements have been used in the past to spur much-needed dialogue. In 2021, regulators, in collaboration with the UNCDF, developed a Regulatory Playbook for Zambian FinTechs, with the aim of simplifying the regulatory navigation process for fintech start-ups. This playbook serves as a starting point with a need for continual updating as the market and regulatory landscape evolves.

iii. The innovation hubs, industry associations, and regulators have a role to play in facilitating linkages and collaborative partnerships between fintechs and larger financial services providers such as commercial banks and mobile money operators. Early and validation stage fintechs hold little to no sway in the financial sector, yet they develop solutions that can positively impact industry incumbents and their end users. To this end, fintech ecosystem facilitators identified in the introductory section of this report have a role to play in creating the necessary linkages that foster the partnerships that fintechs and industry incumbents both need for scale.

iv. There is a need to explore the potential of making the National Financial Switch more accessible to smaller-scale financial service providers, including early and growth-stage fintechs. In principle, the NFS is open to all financial service providers, but in practice, barriers, such as the cost of integration, limit the capacity of smaller-scale FSPs to participate.

2. BUSINESS MODEL

While some countries with more advanced banking and digital infrastructure are seeing a marked movement beyond payments, a majority of Zambia fintech rely on existing payments infrastructure for customer acquisition and/or service delivery. Support to Zambia's fintech landscape hence must include a focus on both enabling interoperability and seamless payments, while emphasising the importance of diversifying to meet the needs of different customer segments. Additionally:

i. With a few exceptions, such as digital lending and fintechs with lucrative B2B models, fintech business models aim to maximise returns while dealing with low average revenue per user. For this reason, their success will be determined by their ability to profitably scale their business beyond their current market. Several factors will influence the achievement of this success: a) the ability to strike sustainable partnerships with industry incumbents, b) expanding digital infrastructure to bring more of the population into the digital economy, c) the continued ability to meet specific needs while linking customers to the broader financial ecosystem. Whatever the business model, fintechs, especially those in the early and growth stages of development, will need to remain profitable and achieve long-term sustainability in a developing and sometimes uncertain business environment like Zambia.

ii. The diversification of Zambia's fintech market beyond payments and lending is inevitable. To this effect, it's expected that there are more fintechs beyond these two verticals in the validation stage, which is not the case. There are several fintech verticals that are yet to be tapped into. For example, Zambia's growing base of young professionals with disposable income have very few investment solutions available to them outside of wealth management advisors. Adding the SEC's regulatory sandbox to the product mix on the market creates a ripe opportunity for the development of more solutions that can tap into the market opportunity for long-term savings, investment, and financial management solutions. Zambia also has a large segment of the population working in the informal sector with irregular income flows and limited access to financial products such as insurance and pensions. Fintech has the potential to meet this need through the design, piloting, and eventual scaling of tailored, customer-centric solutions.

iii. Fintechs that have been successful at fundraising and revenue growth have robust, responsive, and appropriate corporate governance mechanisms. Early-stage fintechs typically do not have robust corporate governance structures in place. That said, these structures appear to be an essential element in a fintech's transition from the early to the growth stage. Every fintech that has had some success in growing their business and raising additional funding for scale reports having a firm corporate governance structure in place. This structure does not have to be as complex as those traditionally found in the financial sector but could comprise only two to three board members whose skillset and experience are tailored towards the fintech's business models and long-term growth strategies.

3. TALENT

If provided with the right talent and opportunity for development, Zambia's growing fintech industry has the potential to create jobs and strengthen the digital economy, by including more users and allowing more people to transact, save, borrow, and invest. The biggest challenge fintechs shared in securing the necessary talent for their growth is the drain of skilled ICT professionals as individuals begin to seek better employment opportunities and higher wages in more developed markets. In dealing with this, ecosystem stakeholders could consider the following:

i. Strengthening linkages between ICT trainees and the industry is key to ensuring the availability of a technically skilled and well-prepared workforce for the fintech industry. Facilitating industry attachments and internships for ICT trainees ensures they graduate with practical industry experience and relevant skills for the companies looking to hire them.

ii. In addition to the limited pool of ICT professionals with practical industry experience, there is often movement both across the Zambian fintech industry and out of it as these professionals explore employment opportunities in more developed markets. The Zambian fintech industry will have to invest in retaining skilled ICT professionals by offering competitive remuneration and benefits. Operating in the context of a low-income country, fintech remuneration packages in Zambia may never be able to compete with those in more developed markets, but business owners may explore other benefits such as stock options and flexible working arrangements that have worked well in other markets. This applies to growth and mature stage fintechs, whose need for skilled talent exceeds that of validation and early stage fintechs.

iii. Most fintechs in the validation and early stages of development are heavily reliant on their founder's skillset and commitment for their success. Fintechs need support to gain access to diversified expertise needed to run a successful business in an industry as heavily regulated as the financial services industry. Accelerator and incubator programmes meet some of this need, especially regarding business development and management. Additional support is needed with navigating regulatory compliance and understanding and assessing financial risk. It is also essential to create

opportunities for fintech founders to gain insight into what it takes to run a successful business in the financial industry. Innovation and incubation hubs often foster mentoring relationships between successful and developing businesses in the financial sector, leaning on the experiences of fintech founders who have been able to escape the sub-scale trap. This work will need to be magnified as the market grows to support more fintechs in profitably scale their innovations.

4. FUNDING

The primary challenge in relation to investment and funding for the fintech industry was the substantive financing gap between what is available to validation stage fintechs and what is available to growth and mature stage fintechs, creating a missing middle financing band for fintechs looking to transition out of early-stage into the growth-stage. While noting the increased international interest in Zambia's fintech landscape through recent investment deals, there is a need to explore and expand available investment options. Some of the ways to achieve this include:

i. In the Zambian market, debt-financing is expensive and not suitable to long-term growth strategies. On the other hand, grant funding is often piecemeal and does not the meet the full need of a growing businesses' financing need. There is hence. A need for specialised investment vehicles targeting the fintech sector, particularly targeting post-validation, early-stage fintechs that have proven potential for growth and scale. Blended financing options that use a combined toolkit of concessional loans and well utilised guarantees have the potential to fill this missing middle, if applied appropriately to align with the growth trajectories and plans of the targeted fintechs.

ii. As validation and early stage fintechs grow, it's not uncommon for them to pivot based on lessons learned from the market. For this reason, funding towards fintechs needs to be adaptable in its application, and often accompanied by technical assistance. As stakeholders seek to meet the needs of the missing middle, they must take care, not box fintechs into specific business models or workstreams, and allow enough flexibility and collective problem solving for fintechs to continually iterate and course correct as needed.

iii. Zambia's capital markets have the potential to be real enablers of sustainable and participatory economic growth. The capital markets offer a myriad of tools that can be exploited to advance access to finance for local fintechs and enable fundraising in local currency. Options worth exploring include creating an enabling environment for innovative models of crowdfunding, developing pathways for fintechs to leverage thematic bonds, and enabling tiered requirements for listing on the exchange.

CONCLUSION

UNCDF UNDERTOOK THIS STUDY TO BETTER UNDERSTAND the fintech landscape in Zambia, which is rapidly evolving. While this study only found a total of 57 fintechs operating in the Zambian market, it is possible that this figure is higher given the relative ease of starting a fintech business and that not all fintechs in the validation and early stage have established networks or have obtained formal designation from their respective regulators. While many fintech companies are in the validation and early stages, there are several fintechs in the growth and mature stages. There has been a notable increase in the number of fintech start-ups that have launched products outside the payments vertical, especially in the digital lending and asset management verticals. However, the majority of fintechs in this early-stage struggle to survive and make the transition to growth-stage due to various reasons ranging from their inability to gain traction in the market to a lack of funding to sustain their operations and the inherent limitation of sole dependence of their founder's skillset.

In general, fintech founders and other key stakeholders in the fintech ecosystem are positive about the future of fintech innovation in Zambia. Zambia has one of the region's leading fintech industries, with great potential for growth, job, and wealth creation. Zambia's policy and regulatory landscape has been increasingly enabling for innovation and increased local and international; investor interest also bodes well for the sector's growth trajectory.

Crucial strides that can potentially catalyse the industry's growth include increased local investment options, increased collaboration between industry incumbents and fintechs, closing the existing gaps in digital infrastructure, and developing and retaining a base of ICT professionals with the requisite skills and experience the industry needs. Zambia's fintech landscape is growing fast and has real potential for driving job creation, economic growth, and inclusion. Ranging from the issues raised from their varied business models to infrastructure limitations and funding needs, ecosystem facilitators all have a role to play in achieving a fintech ecosystem that allows for all parties to win; start-ups, industry incumbents, regulators, the general economy, and most importantly, customers.

ANNEX I: LIST OF FINTECHS

ENABLING TECHNOLOGIES
Probase
Zynle Technologies
Mobile Payment Solutions
Nsano
Bankingly
Expedia Digital Solutions
cGrate

PAYMENT GATEWAY/SWITCHING
Cellulant/Tingg
AcuPay
Digital PayGo
PayCode
PrimeNet
Union 54
Touch4Pay
Spenn
Kazang
Tilt
EFT

P2P/MONEY TRANSFER
Real Pay
Onyx Connect
MoneyLink
BeyPay
PayNow Zambia
Ekamo
Smartpay
Zazu
SamPay
BillFold
MyPay
ZeePay Zambia
Mukuru
InstaPay Africorp
Redstone
Tumeny

SAVING/ASSET MANAGEMENT
Yellow Card Financial
Hobbiton

DIGITAL LENDING
MyBucks
Biu Money
Express Credit
Lupiya
Lend Me Pay
Village Savers
Jumo
ComGrow
Bwino
Elit Pay
Krypia
Edupay
Lendbox
MG Cash Advances
Bravelender
KwikFin
Unifi
Premier Credit
Inde Credit
Astro Credit

INSURANCE
Ayo
SafePay

OTHER TECHS THAT USE FINTECH SERVICES
Getitonline
Harvst
Explorer School
Vitalite
LimaLinks
Teledoctor
Maano
e-Msika
Ulendo
City Drive
Mpharma
Bosso Africa

Impact Capital for Development

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