DIGITAL FRONTIERS

IMPACT CASE STUDY

# Capacity Building in Regulators: Bank of Zambia

## Impact Assessment on Policy Initiatives Introduced by Bank of Zambia's Digital Frontiers Institute Alumni for the Period 2016-2024

Bank of Zambia

DIGITAL FRONTIERS INSTITUTE

WWW.DIGITALFRONTIERS.ORG

# Table of Contents

# Authors and Contributors

Eden Dema, Kombe Kaponda, Douglas Zulu, and Tariro Nyimo authored this case study.

## Lead Independent Author

**Eden Dema** is a leading expert in financial inclusion policy and regulatory reform, with nearly 28 years of experience advancing inclusive finance across Asia, Africa, and the Pacific. She began her career at the Central Bank of Bhutan in 1994, becoming its first female Deputy Governor, where she pioneered key initiatives including the Collateral Registry, Financial Intelligence Unit, Credit Information Bureau, and the Financial Institutions Training Institute.

She has led and advised on over 25 global projects and served as Co-Chair of AFI's Financial Inclusion Strategy Peer Learning Working Group (2014/2015). Her credentials include Certified Gender Equality Changemaker, Certified Digital Finance Practitioner, and Fletcher School Fellow in Financial Inclusion Leadership. Eden is an accomplished author, seasoned coach, speaker and trainer. She brings a unique blend of regulatory expertise, strategic vision, and commitment to policies that promote financial inclusion for underserved communities.

## Bank of Zambia Authors and Contributors

**Kombe Kaponda** (DBA, Eng) is a Financial Markets Networks Infrastructure and Security Specialist, a Doctor of Business Administration (DBA), holds a master's degree in Information and Communication Technology (ICT) Regulation, Policy and Management, a Bachelor of Science in Computer Science (BSc) and a Certified Digital Finance Practitioner (CDFP) certified by Digital Frontiers Institute in collaboration with the Fletcher School of Law and Diplomacy at Tufts University.

He is a Central Banker by career and a seasoned ICT Networks and Security Solutions Engineer by profession with over 20 years of ICT management and progressive experience in ICT financial markets, infrastructure management, and cybersecurity. He is up to date with financial technologies, including applications of Artificial Intelligence (AI) in finance, Cybersecurity in digital financial services, Cryptocurrencies and the Blockchain technologies, Consumer Protection as a Business Strategy, AML-CFT Regulation and Compliance, Product Management in Fintech for Emerging Markets, and Interoperable and Inclusive Payment Systems. He also holds several ICT vendor certifications from Cisco Systems, Microsoft, Hewlett-Packard (HP), CompTIA Network+, Security+, Extreme Networks Network Admission Control (NAC), ITIL service management, and the Fibre Optics Association (FOA) CFOS/D, CFOT.

Kombe is a founding trustee of the Association for Digital Finance Practitioners in Zambia (ADFP), an association formed to promote digital finance products, payment systems sensitisation and oversight, consumer protection in digital financial services (DFS) usage and improvement by offering technical advice in building the DFS ecosystem in the country.

**Douglas Zulu** is a seasoned **Bank Examiner at the Central Bank of Zambia**, a certified financial modeler Banking and Financial Services Expert, Business Administration, Central Banker, Certified Digital Finance Practitioner (CDFP), FinTech Specialist, Digital Financial Services Specialist, Blockchain, Artificial Intelligence, Virtual Currencies, with over 14 years of banking experience. As a founding Chairperson for the Association for Digital Finance Practitioners (ADFP), he believes that the digitisation of financial transactions is one way to achieve financial inclusion. Through experience, he has created financial models that can be used by Central Banks, MNOs (mobile network operators), Insurance Companies, Auditing Firms, SMEs (small and medium enterprises) and Commercial Banks to predict behaviours and forecast trends for strategic decision making that support growth. Douglas is a consistent achiever, competitive, result-oriented, a team player, a strategic thinker and is involved in public speaking. He is also a key resource in Increasing Revenues, effective Portfolio Management, Product Development, Relationship Management, Exceptional Customer Service, Robust Financial Modelling using advanced excel tools, Impeccable Corporate and SME Credit skills, Micro-finance and Business Development. Douglas Zulu holds a first Degree in Mathematics and an MBA (Master of Business Administration) in Finance. Other certifications include Certified Digital Finance Practitioner (CDFP), Professional Diploma in Banking and Financial Services, Advanced Professional Diploma in Banking and Financial Services and Certificate in Financial Modelling. He is currently a CFA (Chartered Financial Analyst) Level I scholar.

We want to thank the **Bank of Zambia officials** for their time, information and guidance provided for this case study.

## Digital Frontiers Authors

**Tariro Nyimo**, a former employee of Digital Frontiers, is a Certified Digital Finance Practitioner (CDFP) and Bertha Scholar. She passionately advocates for Sustainable Development Goals (SDGs), particularly Gender Equality and Digital Financial Services. Tariro has a BSc in Mathematics and Statistics from the University of Zimbabwe, an MBA in Strategic Management and Leadership from Nottingham Trent University and is finalising her MPhil (Master of Philosophy) in Inclusive Innovation from the University of Cape Town.

Tariro began her journey as a Bank Examiner at the Reserve Bank of Zimbabwe and later worked on low-income banking projects for unbanked populations across sub-Saharan Africa. Her fieldwork in Honde Valley, Zimbabwe, investigating the needs of women smallholders, solidified her commitment to women's financial inclusion. At Digital Frontiers Institute, Tariro contributed to capacity-building programmes aligned with the United Nations (UN) Sustainable Development Goals.

## Citation and Copywrite

*Dema, E., Kaponda, K., Zulu, D., & Nyimo, T. (2025). Digital Frontiers Capacity Building in Regulators: Bank of Zambia Case Study.*

# Abstract

This case study assesses the impact of Digital Frontiers Institute's capacity-building initiatives on the policymaking knowledge and skills of officials from the Bank of Zambia (BoZ), resulting in inclusive and innovative regulatory reforms and policy initiatives from 2016 to 2024. Utilising a mixed-method approach comprising literature reviews, surveys, and stakeholder interviews, the study identifies substantial improvements in Zambia's digital financial services (DFS) ecosystem, driven by alumni contributions across critical regulatory areas such as tiered Know Your Customer (KYC), regulatory sandboxes, cybersecurity, electronic transactions, data protection, and agent banking.

Significant policy impacts highlighted include the notable growth in mobile money adoption—from 14% in 2015 to 58.5% in 2020— attributed to simplified tiered KYC regulations and the improved financial inclusion enabled by the Agent Banking Directives, which catalysed a nearly 60% increase in active mobile money agents within a year. Moreover, the establishment of regulatory frameworks for cybersecurity and data protection has enhanced consumer confidence in DFS, addressing critical issues of fraud and digital security.

The case study underscores the pivotal role of continuous professional development fostered by Digital Frontiers Institute, enabling BoZ officials to introduce and implement policies that not only strengthen financial sector stability but also significantly advance Zambia's financial inclusion agenda. It concludes with strategic recommendations for enhancing future training programmes to support sustained regulatory innovation and financial sector resilience.

# Introduction and Background

This Impact Assessment study evaluates the impact of the Digital Frontiers Institute capacity-building programmes on Bank of Zambia (BoZ) officials' policymaking knowledge and skills, translating to inclusive policy and regulatory initiatives introduced by the BoZ's Digital Frontiers Institute Alumni to promote digital financial inclusion in Zambia. Through an analysis of policy interventions, regulatory reforms, and market dynamics, the report aims to identify and demonstrate the tangible contributions made by the BoZ in promoting an inclusive DFS ecosystem.

The paper provides some background on the financial sector and financial inclusion in Zambia, then shares the Digital Frontiers Institute capacity-building methodology and quantitative results. It then assesses the impact areas identified through the Digital Frontiers Institute Alumni and ends with recommendations.

## Zambian Financial Sector

The financial sector in Zambia comprises three sectors: banking, pension and insurance, and securities sector, which falls under the respective regulatory ambit of three key financial regulators: Bank of Zambia (BoZ), Securities Exchange Commission (SEC), and Pensions and Insurance Authority (PIA). The BoZ[1] is the central bank of Zambia and is primarily responsible for maintaining price stability and safeguarding financial system stability. The central bank regulates and supervises banks and financial institutions in Zambia to ensure a sound and resilient financial sector. The SEC[2] is responsible for the regulation, supervision, and development of the Zambian Capital Market, while the PIA is the regulator of Zambia's pensions and insurance industry.

Other regulators, like the Competition and Consumer Protection Commission (CCPC), **are responsible for market conduct and consumer protection. At the same time,** the **Zambia Information and Communication Technology Authority (ZICTA) regulates and supervises the ICT industry.** As the Zambian financial sector evolves, the policies and laws which regulate and supervise the financial sector have also kept pace with the development. The proactive efforts of the Zambian financial regulators, especially the Bank of Zambia, through the introduction and/or revision of laws and regulations, facilitate innovative financial models in Zambia.

Within the context of this case study, it is important to highlight the key role played by the three financial regulators (the BoZ, the SEC, the PIA, and the **CCPC)** in driving the financial inclusion agenda in Zambia. All three are represented in the National Financial Inclusion (NFIS) Steering Committee, which provides overall policy guidance in implementing NFIS effectively.  At the sectoral level, the BoZ has championed financial inclusion with **DFS and inclusive payments systems** as drivers in its Strategic Plan 2016-2019 (5$^{th}$ SP). The subsequent Strategic Plan 2020 – 2023[3](6$^{th}$ SP), with the theme "Building an

1 Bank of Zambia. (n.d.). Role of the Bank of Zambia. Available at https://www.boz.zm/role-of-the-bank-of-zambia.htm
2 SEC Zambia. (n.d.). Securities and Exchange Commission Zambia. Available at https://www.seczambia.org.zm/
3 Bank of Zambia. (2020). Strategic Plan 2020–2023. Available at https://bozws.boz.zm/Strategic-Plan-2020-2023.pdf

Inclusive and Resilient Financial Sector," placed financial inclusion (FI) as its second focus area, with an enabling regulatory environment, DFS, gender-inclusive finance, and rural finance as strategic initiatives. The high-level target of the 6th SP is to reduce the number of unbanked adults from 40.7 per cent in 2015 to 30 per cent by 2022.

## Financial Inclusion in Zambia

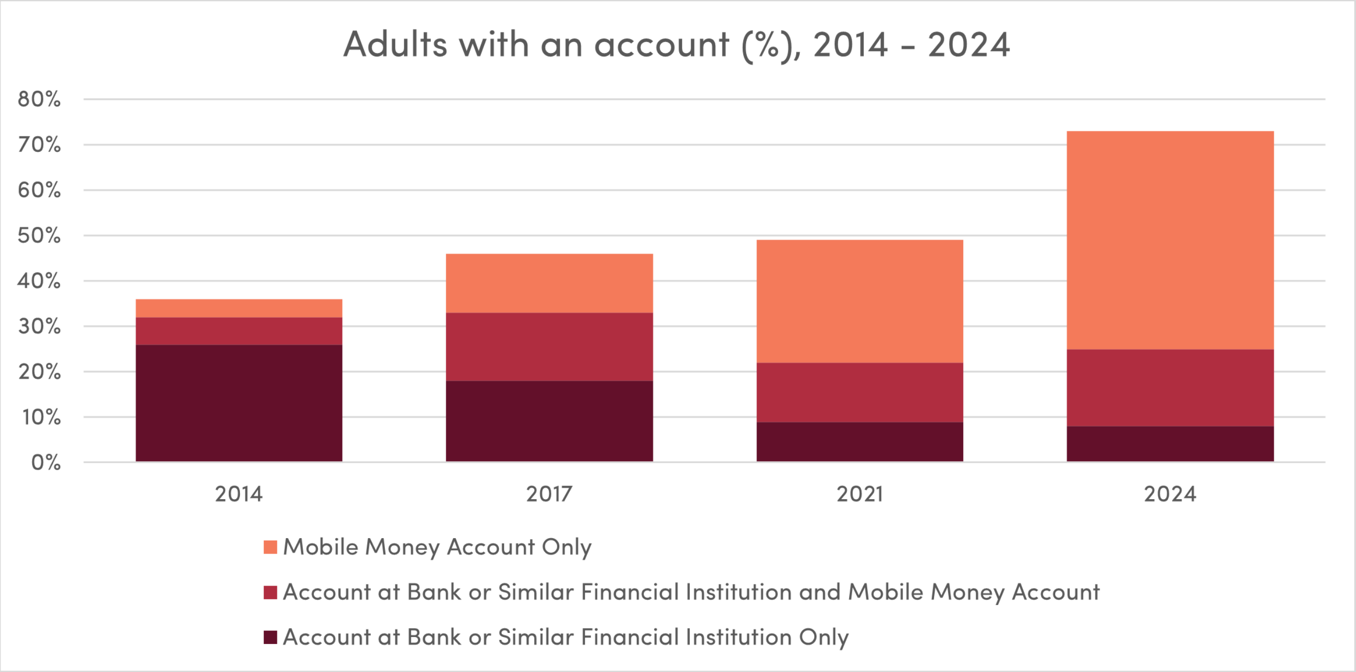
The National Financial Inclusion Strategy II (NFIS) 2024 – 2028 serves as a roadmap for all stakeholders in Zambia to advance financial inclusion. It aims to contribute to the country's vision of "**An inclusive and robust financial ecosystem that provides accessible, affordable and sustainable financial products and services to all segments of the population, which help increase their resilience, improve their financial health and build their confidence in the financial system**"[4] through **widespread adoption and use of digital technology**. The NFIS II recognises the potential of "**digital technology** to reduce costs and expand the reach of the formal financial sector"[5], and aligns with other national key documents like the 7$^{th}$ National Development Plan (7$^{th}$ NDS). The 7$^{th}$ NDS[6] also identifies **technology, financial inclusion, and an enabling policy environment** as key to achieving Zambia's **Vision 2030**, which aims to "transform Zambia into a prosperous middle-income nation by 2030"[7].

Similar trends are observed from the Global Findex data 2025[8] for Zambia. Since 2014, Zambian adults with account ownership[9] increased by 26.3 percentage points (PP) - from 46.4% to 72.7% in 2024. Women's financial inclusion also improved by 26.6 PP, from 43.6% to 70.2% during the same period. Likewise, mobile money account ownership expanded sharply, contributing to broader financial inclusion, while about 78.8% of adults reported owning a mobile phone in 2024, up from 63% in 2021.

---

4 Ministry of Finance and National Planning, Republic of Zambia. 2024. National Financial Inclusion Strategy II 2024–2028. Available at: https://www.mofnp.gov.zm/rfu/wp-content/uploads/2025/09/NFIS_II_2024_-_2028.pdf
5 Ibis
6 Ministry of National Development Planning, Republic of Zambia. 2017. Seventh National Development Plan 2017–2021.Available at: https://zambiaembassy.org/sites/default/files/documents/7NDP_final_07-06-17.pdf
7 Ministry of Finance and National Planning, Republic of Zambia. 2006. Vision 2030. Available at: https://www.mndp.gov.zm/wp-content/uploads/filebase/vision_2030/Vision-2030.pdf
8 World Bank. The Global Findex Database2021. Available at https://www.worldbank.org/en/publication/globalfindex/Data
9 Account ownership refers to having an account at a bank or another type of financial institution or using a mobile money service.

Figure 1: Financial Inclusion Trends in Zambia




***Source:*** *Global Findex Database 2025*

Zambia's financial inclusion gains over the past decade have been largely driven by mobile money adoption, which has transformed the country's financial landscape. As shown in figure 2, account ownership rose sharply between 2014 and 2024, with the largest growth observed in mobile money–only accounts, reflecting a shift away from reliance on traditional banking channels.

## Objectives and Methodology

The primary objective of this case study is to assess the role of the Bank of Zambia (BoZ) in shaping the financial regulatory and policy environment (2016-2024) to build a resilient and inclusive financial sector in Zambia. Additionally, the study explores the pivotal contribution of the Digital Frontiers Institute in equipping BoZ's Digital Frontiers Institute participants with the expertise and skills required to drive this meaningful change.

To achieve them, the study employed a structured, multi-method research approach:

- Conduct a high-level literature review of knowledge products on financial inclusion in Zambia;
- Assess Digital Frontiers Institute's capacity-building programmes for Zambia with a focus on BoZ participants

- Online survey to BoZ's Digital Frontiers Institute participants; and
- Conduct follow-up interviews with key market participants.

Each methodological component is explicitly designed to address specific objectives of the study: the literature review establishes the baseline and identifies gaps, the programme assessment quantifies Digital Frontiers Institute's direct contributions, the survey connects training to measurable outcomes, and interviews offer detailed perspectives on the broader impact and sustainability of these interventions. This integrated approach aims to highlight both achievements and areas for future collaboration between Digital Frontiers Institute and its partners to enhance the programme's impact, sustainability, and scalability.

## Capacity Building in Ethiopia

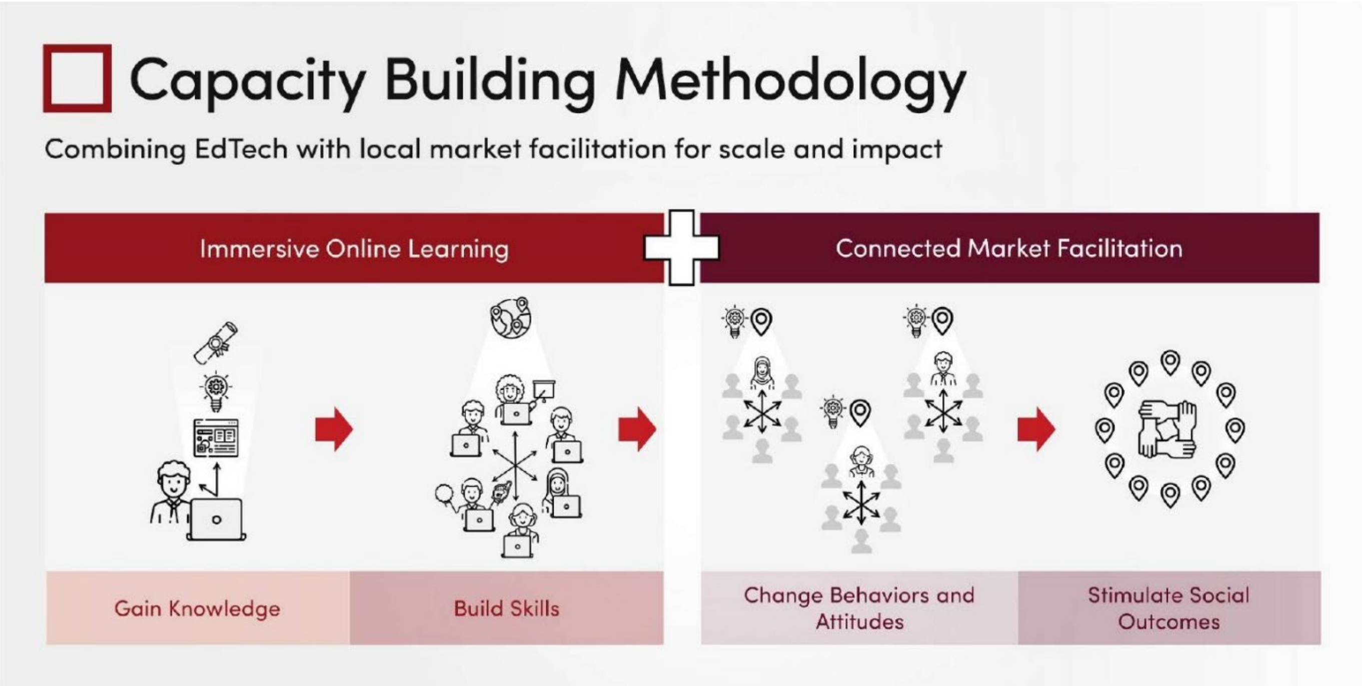
Digital Frontiers Institute adopts a holistic approach to enhance local professional capacity. As a fundamental principle, Digital Frontiers Institute collaborates with leading subject matter experts and specialist organisations to design interventions and develop curricula.

Digital Frontiers Institute employs learning and instructional design sciences, gamification, and well-tested learning and assessment tools. It utilises various media formats, ranging from animation and motion graphics to videography and knowledge resources. By leveraging Educational Technology (EdTech), Digital Frontiers Institute offers immersive learning experiences at scale, enabling simultaneous instruction of thousands of students across numerous countries.

After eight years of testing, learning, and innovation, Digital Frontiers Institute asserts that while online, self-paced, and free adult learning can enhance knowledge, it is not the most effective method for skill development, behaviour change, or societal impact. Therefore, Digital Frontiers Institute's methodologies supplement online learning by bringing together students from diverse geographies in synchronous forums and working groups. This allows them to learn from global peers about the practical application and understanding of theories in different markets and the existing challenges and solutions. This approach replicates a physical classroom experience where students engage synchronously with peers and leading subject matter experts, applying their learnings to casework and local contexts. This supplement to digital learning transforms participants' acquired knowledge into applicable skills.

However, for these newly developed skills to be applied in local market contexts, professionals require peer networks, continuous access to resources, and ongoing professional development. To facilitate the continuous professional development of its community, Digital Frontiers Institute organises online Leagues of Professionals, both physical and virtual Communities of Practice (CoPs) and maintains knowledge banks. The Leagues of Professionals are subject matter specific and provide a platform for current students and alumni to share knowledge and experiences, discuss new ideas and developments, and ultimately enhance the knowledge base and foster peer learning opportunities for professional development and advocacy.

The CoPs, distributed globally, meet face-to-face and virtually to discuss industry-wide issues and challenges. These communities connect students directly with their industry peers, fostering communication, cooperation, knowledge sharing, and innovation. With the help of Digital Frontiers Institute, these communities also evolve into formal local professional associations that continue independently of Digital Frontiers Institute. Lastly, Digital Frontiers Institute maintains an extensive and freely accessible knowledge bank comprising all resources in their courses and within the alumni network. This includes a wide array of blogs, articles, research papers, and dozens of webinars conducted each year.

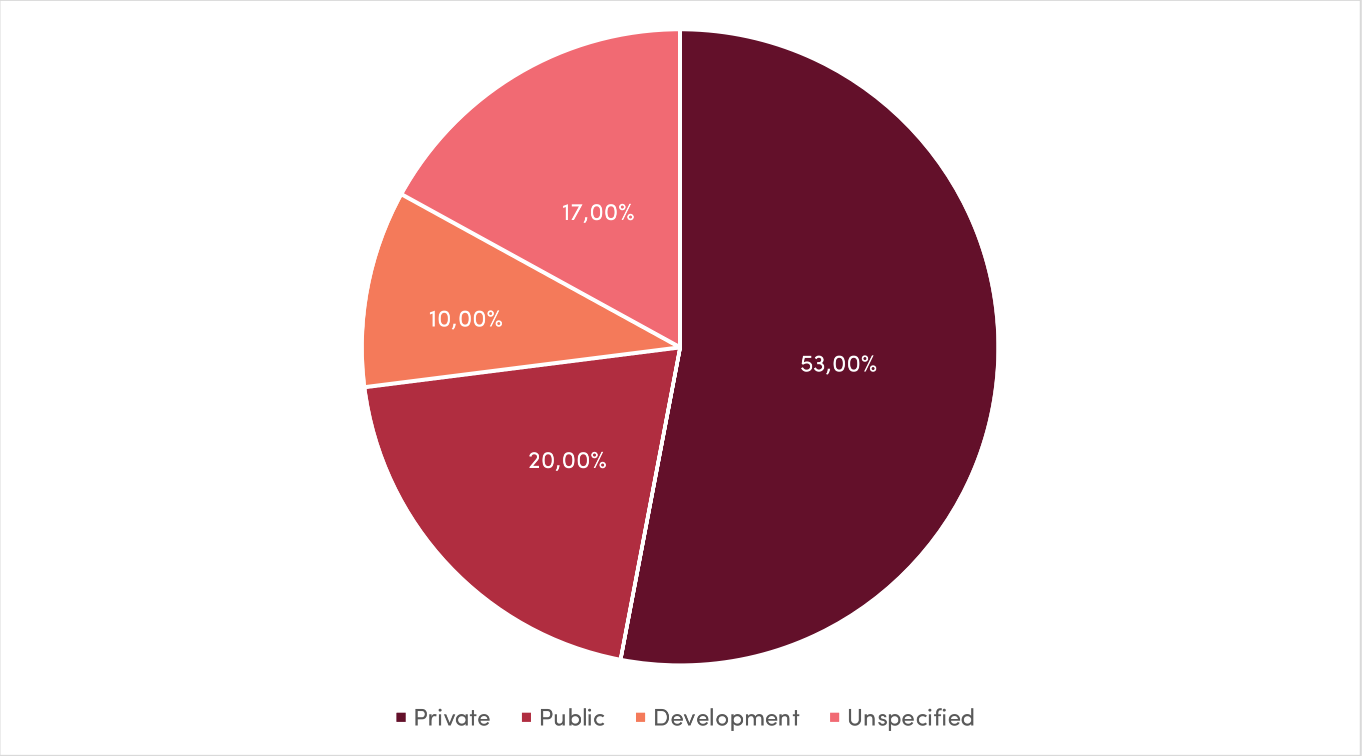



## Zambia, Bank of Zambia, and the Digital Frontiers Institute

Between **2016 and 2025**, the Digital Frontiers Institute contributed to building the capabilities of Zambian Inclusive Finance Professionals through targeted training programmes. During this period, **405 unique participants** from Zambia increased their knowledge and skills through four key programmes: **Certified Digital Finance Practitioner (CDFP, 63%); Gender Equality Changemakers (GEC, 23%); Instant & Inclusive Payment Systems (IIPS, 2%); and Digital Financial Inclusion Supervision (DFIS, 2%).** Of the 405 participants, 28 are Certified Digital Finance Practitioner (CDFP) programme graduates offered by Digital Frontiers Institute in collaboration with **Fletcher School at Tufts University**. Notably, Zambian students have collectively completed 1,418 courses, meaning many of the 405 participants have undertaken multiple Digital Frontiers Institute programmes, which underscores the positive impact of the Digital Frontiers Institute courses in Zambia, fostering learning and capacity-building among diverse participants.

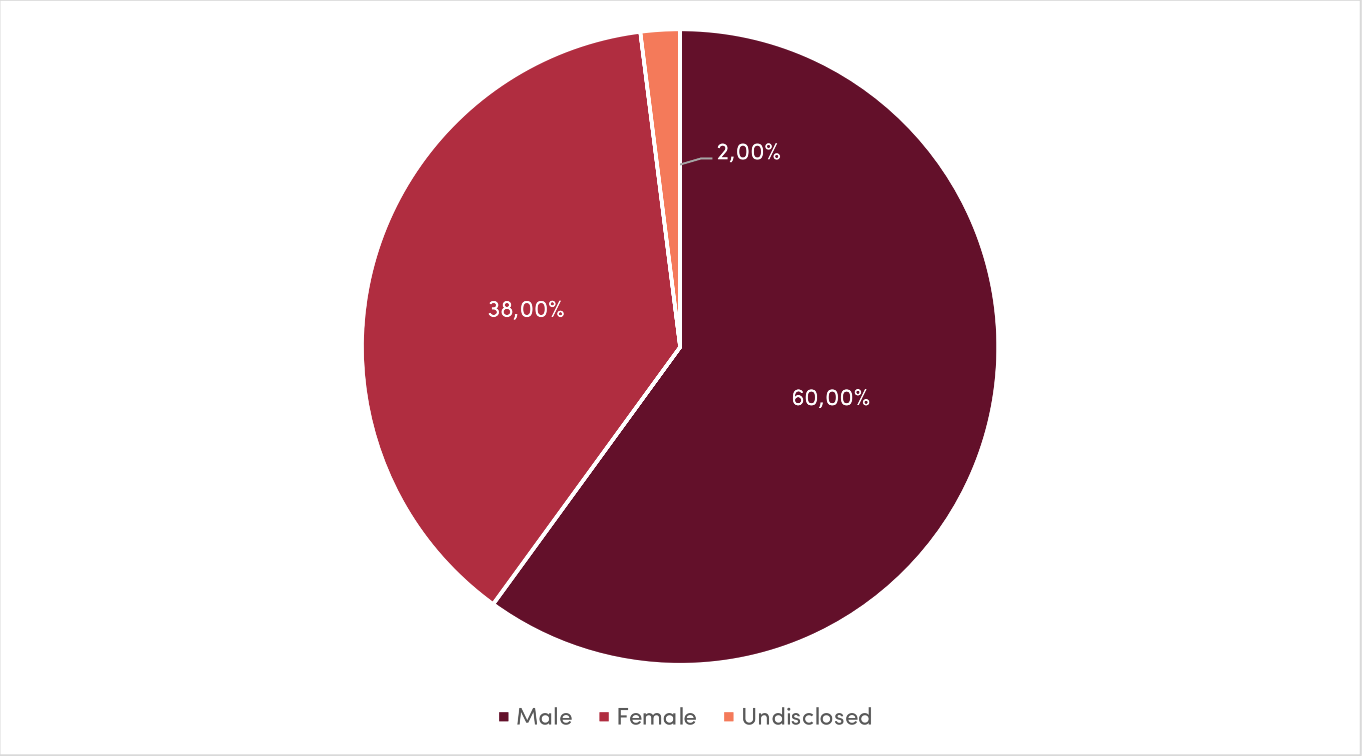
Regarding representation, 186 institutions from Zambia were represented during the period, with an average pass rate of 88%. The unique participants' distribution across gender and employment sectors is as follows:

Figure 2. Unique Participants by Sector




*Source: Digital Frontiers Institute Students Database*

Figure 3. Unique Participants by Gender




***Source:*** *Digital Frontiers Institute Students Database*

In terms of seniority, approximately 53% of participants hold managerial positions (both middle and senior), providing them with significant opportunities to develop new products and services, and policy initiatives. Junior-level participants represent 17%, while the remaining 30% consist of consultants and others. These insights highlight the diversity of Zambian Digital Frontiers Institute participants and their potential to collaborate on inclusive policy development across diverse sectors.

Digital Frontiers Institute has contributed to capacity development within the Bank of Zambia (BoZ) through training across its four key programmes. Among the 405 Zambian alumni, 24 participants are from BoZ, representing various departments and showcasing diverse expertise and influence within the institution. Their representation spans critical departments such as the Bank Supervision Department (BSD) and Payment Systems Department (PSD), each accounting for 31.3% of the participants, with Information and Communications Technology (ICT) at 12.5% and the remaining 25.4% from other departments such as Non-Bank Financial Institutions, Legal, Risk and Operations, and Finance.

The high participation rates from BSD, PSD, and ICT—over 75% collectively—demonstrate these departments' keen interest in Digital Frontiers Institute's courses, translating into significant outcomes. Digital Frontiers Institute-trained officials have applied their knowledge and skills to shape critical policies and regulations. For instance, the PSD team has contributed to four major acts and regulations, while BSD contributed to three, and ICT contributed to two. Contributions from other departments also played essential roles in developing regulatory frameworks. This collaborative effort has led to substantial regulatory advancements, enhancing consumer protection against cyber-crimes and fostering trust in digital financial services (DFS).

These contributions have broader implications beyond policy formulation. The regulatory supervision and enforcement efforts by these Digital Frontiers Institute-trained BoZ officials have strengthened Zambia's financial system stability.

Specific achievements include significant inputs to the "2016 Circular on Tiered KYC for e-money wallet holders" and the "Cyber Security and Cyber Crimes Act No 2 of 2021," with 31% of surveyed alumni contributing to each. Additionally, 25% contributed to the "BoZ Agent Networks Directive 2022." Such regulations have positively impacted consumer protection and trust, which are crucial for sustaining financial system stability and supporting sustainable development goals. The partnership between Digital Frontiers Institute and BoZ highlights the importance of continuous professional development in driving systemic change and achieving long-term sustainability in the financial sector.

## Zambia Communities of Practice, Association for Digital Finance Practitioners Zambia and the AllianceDFA

The Digital Frontiers Institute has been facilitating local, in-person, and virtual Community of Practice, which have been instrumental in applying skills learnt in Digital Frontiers Institute courses to local contexts. These workgroups have also formed the foundation for cross-sector collaboration and innovation in solving inclusive finance issues in Zambia. Over the years, Digital Frontiers Institute has facilitated 120 of these convenings, which have brought together over 750 professionals, including course alums and other finance sector invitees.

These Community of Practice have not only helped in applying skills but also paved the way for forming the Association for Digital Finance Practitioners in Zambia (ADFP). ADFP has been established to promote digital finance in Zambia. Its main objective is to provide a platform for stakeholders to share their knowledge, experiences, and best practices and create an environment enabling digital finance development in Zambia. The ADFA has helped bring together stakeholders from different sectors to discuss and address key issues related to digital finance, challenges, and policy solutions.

ADFP has been a founding member of the Alliance of Digital Finance and Fintech Associations (AllianceDFA) since 2021.

In summary, ADFP Zambia has been instrumental in promoting digital finance in Zambia, bringing key stakeholders together to address key issues, and influencing policies to support the growth of the digital finance industry in the country.

# Impact Areas

## 1. CMSME Financing Policy Reforms

In 2016,[10] The Bank of Zambia issued a circular on "Tiered KYC for e-money wallet holders" for e-money issuers and money transfer businesses with the aim of encouraging Zambians to use DFS through an easy and fast onboarding process. The tiered KYC provides different levels of KYC requirements depending on the transaction value and balance in e-wallets. For example, individuals under Tier 1 KYC require only an identification document (National Registration Card, Passport, or a Driver's License) to open an e-wallet account. Individuals under Tier 2 KYC require proof of residence, reference from an employer, and a confirmation letter from a reputed person, in addition to the identification document, to open an e-wallet account.

Remarkably, 100% of BoZ PSD Digital Frontiers Institute alums contributed to this circular with the knowledge and skills gained from the "Regulation in DFS" and "Certificate in Digital Money" courses, showing the impact of these courses in developing inclusive regulations.

> *"The introduction of tiered KYC requirements by the BoZ enabled easier onboarding of customers into DFS by introducing proportionate KYC requirements, thereby supporting broader financial inclusion objectives."*
>
> *- **UNCDF**, Regulatory PlayBook for Zambian Fintechs (2021)*

### Observed Tiered KYC Impact

This simplified KYC aims to reduce barriers for marginalized populations and promote broader participation in the formal financial sector. This policy measure has positively impacted participants in the DFS ecosystem by enabling FSPs to onboard Zambians simply, quickly, and efficiently. It also helps mitigate potential risks of money laundering arising from e-transactions. As the tiered KYC is aligned with the FATF Risk-Based Approach concept, meaning higher KYC is applied to high-risk accounts and vice versa, it can also mitigate potential risks arising from fraudulent activities associated with DFS. Due to its proportionality concept, the tiered KYC also supports BoZ's in balancing their financial inclusion and integrity mandates. For the FSPs, tiered KYC enhances operational efficiency and reduces AML compliance costs.

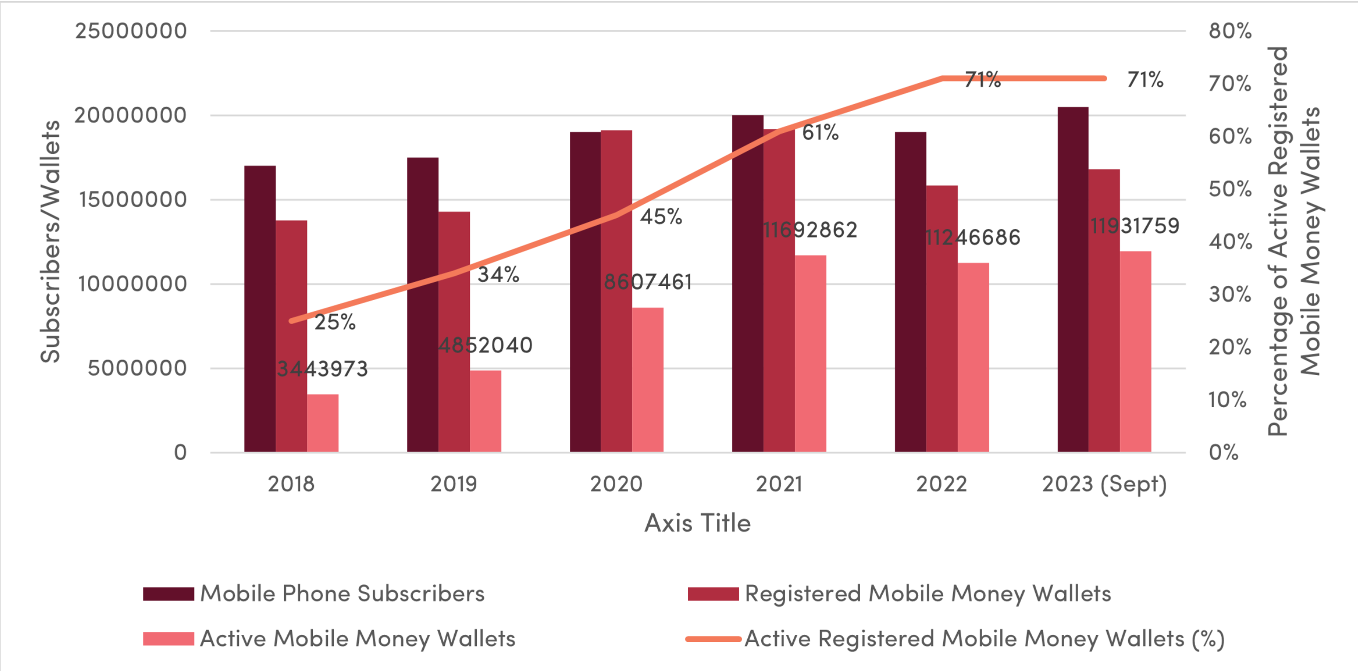
> *"Zambia has made great strides in restructuring KYC requirements, having developed a tiered approach to KYC."*

10 Bank of Zambia. (n.d.). Circulars. Available at https://www.boz.zm/circulars.htm?ssp=1&setlang=en&cc=XL&safesearch=moderate

*- UNCDF, Regulatory PlayBook for Zambian Fintechs (2021)*

Registered MM wallets increased from 11.7 million in 2017 to 15.9 million in Sept' 2023 (36% growth), and most of these wallets are active as observed from the "Active to Registered Mobile Money wallets" indicator which has improved from 25% to 71% during the period 2017 - Sept' 2023. In terms of mobile transactions, the Boz 2022 NPS report shows e-wallet-to-e-wallet transactions accounted for 63% of the total transactions by value and 30% of the total transactions by volume. Similarly, the FinScope 2020 survey shows only **0.6 per cent** of unserved Zambian adults chose "Registration is too complicated" as a barrier to using mobile money services, showing the impact of the tiered KYC policy.

Figure 4: Trend in Mobile Phone Subscribers and Mobile Money Wallets




*Source: Bank of Zambia*

## 2. Regulatory Sandbox Guidelines (RSG)

Digital technology and innovation have revolutionised the Zambian financial sector, transforming the delivery of financial services and their usage. The BoZ recognises the crucial role digital technologies and fintechs have played in driving Zambia's financial inclusion agenda. To leverage their potential, the BoZ issued the Regulatory Sandbox Guidelines on 1st April 2021. The regulatory sandbox[11] serves as an innovation hub for Fintechs to test and launch their products and services in a responsible manner

11 Bank of Zambia. (n.d.). Regulatory sandbox. Available at https://www.boz.zm/regulatory-sandbox.htm

with minimal regulatory burden. The innovative business models are tested in a controlled environment under the supervision of BoZ with the objective of promoting innovation, enhancing consumer protection, and facilitating regulatory compliance. The sandbox helps identify and mitigate potential consumer risks in products and services, leading to increased customer confidence and the adoption of post-deployment in the market. Digital Frontiers Institute alumni, Kombe Kaponda and Douglas Zulu, contributed to the development of the regulatory sandbox guidelines. While Kombe was the former Chairperson of the BoZ Fintech Working Group, Douglas was a member of the group.

### Observed Impact

The NFIS 2017–2022 recognises innovative products and services as a key driver of financial inclusion and encourages fintechs to drive the agenda through innovative digital solutions facilitated by the BoZ RSG. Since its launch in 2021, fintechs have started onboarding onto the Sandbox. As of 2022, two fintechs were admitted to the regulatory sandbox[12] by the central bank.

## 3. The Electronic Communications and Transactions Act, 2021[13] (The ECT Act, 2021)

The ECT Act, 2009, was amended in 2021 to keep the policy environment abreast with the technological advancements in Zambia. The ECT Act 2021 serves as a comprehensive legal framework to facilitate secure and efficient electronic transactions, promote confidence in e-transactions, and support innovation in Zambia's evolving digital landscape. The Act encourages "use of secure e-signatures; provides a regulatory framework for electronic communications and transactions, ensuring legal compliance and consistency; establishes clear rules and standards to promote legal certainty and instil confidence in e-transactions; and governs the use and security of the national public key infrastructure, which underpins secure digital communication", among others.

The BoZ, through its Digital Frontiers Institute alumni, contributed both to the amendment and peer review of the ECT Act, 2021. This process entailed Digital Frontiers Institute alums, who are staff members at the BoZ, taking part and providing input at the drafting stage of the act led by the Telecommunication Authority (ZICTA). In addition, the alums took part during the institutional peer review stage, where stakeholder institutions such as BOZ participated in the clearance of the act by confirming that the provisions were sound and not in conflict with other existing laws.

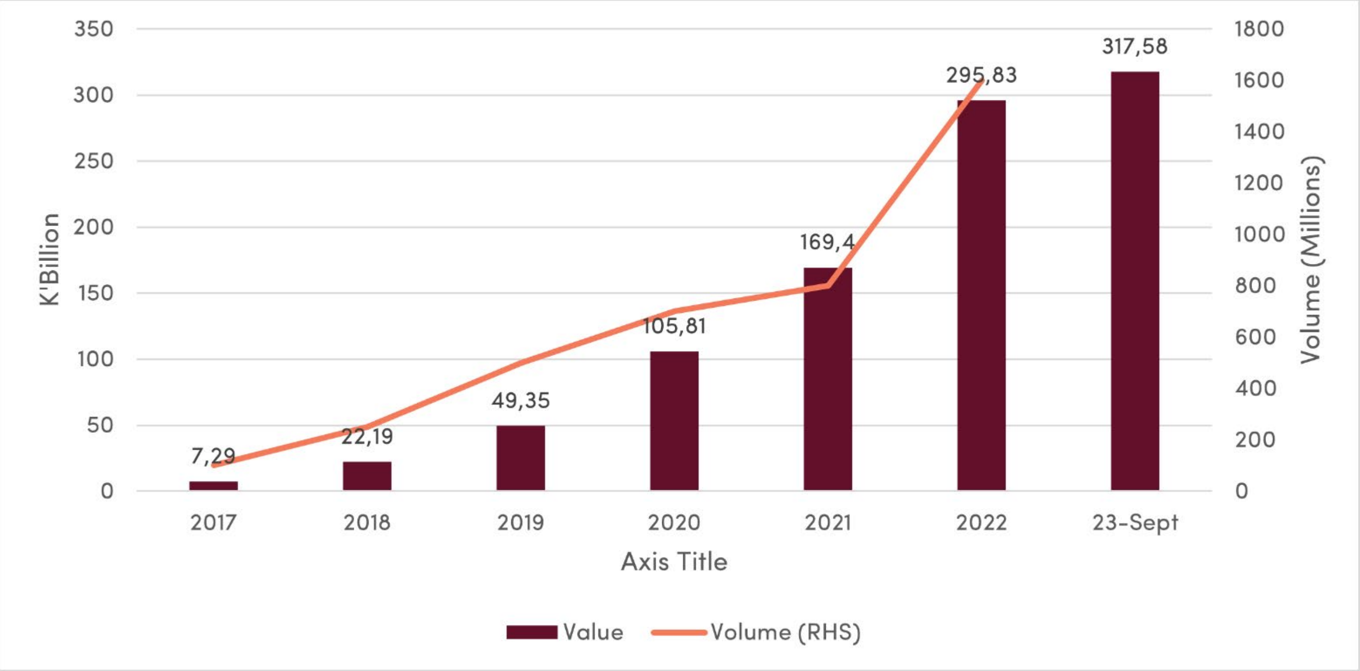
### Observed Impact

The ECT Act 2021 allows for more prosecutions, and market participants have embraced the Act, adapting to it in a smooth manner[14] with minimal hiccups. Overall, ECT Acts have a direct impact in promoting digital payments in developing economies, and the same is observed in the case of

12 Bank of Zambia. (n.d.). Payment systems annual reports. Available at https://www.boz.zm/payment-systems-annual-reports.htm
13 Parliament of Zambia. (n.d.). Electronic Communications and Transactions Act. Available at https://www.parliament.gov.zm/node/8842
14 Bank of Zambia's Digital Frontiers Institute Alumni survey findings

Zambia[15]. The FinMark Trust (FMT) Financial Scoping (FinScope) survey conducted every five years shows the impact of the 2009 ECT Act on the growth of mobile money in Zambia.

Figure 5: Trend in Mobile Payments (2017 - Sept 2023)




*Source:* Bank of Zambia

In terms of demand-side outcomes, the ECT Act 2021 has had a mixed impact (positive and negative) on consumers in Zambia. On the one hand, the Act has generated tangible benefits, enhancing access and delivering positive results. On the other hand, it has also produced unintended consequences, including abusive practices, data privacy concerns, and challenges for consumers in effectively invoking their rights when needed.

| Positive Impact | Negative Impact |
|---|---|
| **Increased access to financial services:** The Act has made it easier for consumers to access financial services electronically, such as opening bank accounts, making payments, and transferring money online. This has been | **Data privacy:** Although the ECT Act requires financial institutions (FIs) to implement security measures to protect consumers' data. Some FIs use the ECT Act to justify collection and use of customers' personal data without their consent. |

15 https://www.uncdf.org/article/4473/state-of-the-dfs-industry-launch---zambia-2018

| | |
|---|---|
| particularly beneficial for the rural population, who may not have access to physical bank branches. | |
| **Reduced fraud:** The ECT Act gives consumers the right to dispute unauthorised charges on their accounts. | **Increased debt collection:** The Act facilitates creditors to collect debts electronically, leading to an increase in garnishment of wages and other forms of debt collection. |
| | **Unfair business practices:** The ECT Act has made it difficult for clients to challenge unfair business practices of service providers. |

*"The Cyber Security and Cyber Crimes Act, 2021 in its current state offers some solutions to emerging challenges in the digital space. However, it has wide negative impacts on the protection, promotion and enjoyment of digital rights and freedoms. Hence parliament should consider repealing or amending the regressive provisions to ensure digital rights and freedoms are protected."*

*- CIPESA, May 2021, Implications of Zambia's Cyber Security and Cyber Crimes Act 2021 on Digital Rights*

To address these issues, the ECT Act 2021 is currently being reviewed by the Zambian Government, which demonstrates the Government's commitment to safeguarding Zambians in the digital age by promoting a fair, secure and safe environment for e-transactions in Zambia.

## 4. Data Protection Act no 3 of 2021[16] (DPA 2021)

In response to the African Union's Malabo convention on Cyber Security and Data Protection (June 2014), to which Zambia is a signatory, the Parliament of Zambia enacted the Data Protection Act (DPA) of 2021 on 23 March 2021. The Act regulates the collection, usage, transmission, storage and processing of personal data, with the aim of safeguarding privacy and ensuring data security.

For the financial sector, the DPA 2021 represents a landmark development. By granting clients full rights over their personal data —including its access, use, and disclosure—the Act strengthens consumer protection and sets new standards for digital financial services (DFS). Financial service providers

16 The Data Protection Act, 2021: https://www.parliament.gov.zm/node/8853

(FSPs) are required to make significant adjustments to how client data is handled, stored, retained, and shared.

Implementation of the DPA 2021 is scheduled for 2024 under the oversight of the Data Protectors office. As enforcement has not yet begun, its impact on the financial sector remains to be seen. Nevertheless, the Act is expected to foster financial inclusion by building trust and confidence among Zambians in accessing and using DFS. This is particularly critical in a context marked by low levels of trust (a barrier to mobile money adoption), limited literacy (25%), and challenges in managing financial health (13.6%), all of which currently hinder the widespread uptake of financial services[17].

## 5. Cyber Security

The Financial Inclusion Department (FID) at Bangladesh Bank has embarked on a transformative journey through the Certified Digital Finance Practitioner (CDFP) program. Over the past three years, FID officials and the National Financial Inclusion Strategy Administrative Unit (NFISAU) have actively participated in various digital finance and financial inclusion courses. These immersive learning experiences have significantly enriched their knowledge, which they have directly applied to their official responsibilities, positively impacting multiple areas of responsibility.

### a. Cyber Security and Cyber Crime Act, 2021[18](CSC Act)

One of the high-level targets of the Zambian NFIS 2017-2022 is to increase the percentage of adults with high financial product awareness levels to 50 per cent by 2022 through enhanced consumer protection and increased financial capabilities of consumers. Similarly, the BoZ Strategic Plan 2016-2019 highlighted inadequate consumer protection arrangements for the financial sector as a key challenge, thereby exposing Zambian to "potential exploitation and unfair business practices". The FinScope 2020 survey findings also show a lack of trust in mobile money among unserved Zambian adults as a barrier to using mobile money services.

> *"Increased usage of DFS will inevitably increase the rise of '**fraudsters**', so well-communicated **recourse protocols** are critical for DFS providers to share with frontline workers, as well as increased collaboration between regulators."*
>
> ***- UNCDF, State of the DFS Industry Launch, Lusaka, Zambia (2018)***

To address this, the BoZ's Strategic Plan 2020 – 2023[19] prioritised developing a cybersecurity framework that would serve as a policy guidance for the Bank and FSPs to enhance their

---

17 BoZ; FinMark Trust. 2020. FinScope Zambia Survey 2020 Report. Available at: https://www.boz.zm/FinScope-2020-Survey-Report.pdf
18 National Assembly of Zambia. 2021.The Cyber Security and Cyber Crimes Act, 2021 (Act No. 2 of 2021). Available at: [https://www.parliament.gov.zm/node/8832] (The Cyber Security and Cyber Crimes Act, 2021: https://www.parliament.gov.zm/node/8832)
19 Bank of Zambia. 2020. Strategic Plan 2020–2023: Building an Inclusive and Resilient Financial Sector. Available at: https://www.boz.zm/Bank-of-Zambia-Strategic-Plan-2020-2023.pdf

resilience against cyber-attacks. The CSC Act 2021 protects banks, FSPs and their customers from cybercrimes while ensuring the safety and security of the financial sector and its infrastructure. Around 31% of the BoZ Digital Frontiers Institute alumni contributed to the development of the CSC Act, 2021. In particular, Kombe Kaponda and Douglas Zulu contributed to the peer review of the Act before its finalisation.

*"As people migrate towards **greater use of DFS,** it is important for them to be sensitised about the use of these services in a safe and secure manner to avoid risks such as **fraud and cybercrime**. In this regard, the Bank, in collaboration with the Zambia Information Communications and Technology Authority (**ZICTA**), launched a collaborative framework for the oversight of DFS in Zambia."*

***- Dr. Francis Chipimo, DG Operations, BoZ***

### b. The Cyber and Information Risk Management Guidelines, 2021 (CIRM)[20]

The BoZ issued the Cyber and Information Risk Management Guidelines, 2021 (CIRM)[21] under the CSC Act 2021, prescribing minimum requirements to FSPs on cyber and information risk management to safeguard their systems, networks and clients' information. The Guidelines align with the "Governance, Identify, Protect, Detect, Recover and Respond" domains anchored on the National Institute of Standards and Technology, including other standards and international best practices.

The main objective of the CIRM guidelines is to strengthen and embed agile risk management practices in the operations of Financial Services Providers (FSPs) to enhance customer experience and make it safe and secure to access and use. This move was driven mainly by the increasing use of digital channels for service delivery by FSPs and the need to enhance financial integrity by making the cyberspace of FSPs resilient to cyber-attacks.

## Observed Cyber Security Impact

The impact of the CIRM guidelines has not been assessed through an initial on-site examination report. However, the Cyber Security and Cyber Crimes Act of 2021 (CSC Act) has had a significant on consumers in Zambia, with both positive and negative effects. These impacts are presented below:

| Impact | Positive/Negative |
|---|---|
| **Increased Protection from Cybercrime** | **Positive:** The CSC Act helps to protect consumers from cybercrime by criminalising various cyber-related offences, such as online fraud, identity |

20 Bank of Zambia. (2023). Cyber and Information Risk Management Guidelines. Available at: https://www.boz.zm/BankofZambiaCyberandInformationRiskManagementGuidelinesGazetted31May2023.pdf
21 Ibid

| | |
|---|---|
| | theft, and phishing attacks. It also gives Law Enforcement Agencies (LEAs) the power to investigate and prosecute cybercrime. |
| **Right to Access Personal Data** | **Positive:** The CSC Act gives consumers the right to access their personal data held by businesses and other organisations. This right includes the right to know what data is being collected, how it is being used, and to have the data corrected or deleted. |
| **Privacy Concerns** | **Negative:** The CSC Act has raised some concerns about privacy and surveillance. For example, the CSC Act gives LEAs the power to intercept communications without a warrant in certain circumstances. Additionally, the CSC Act requires businesses to store certain types of customer data for up to five years, which may be used for surveillance purposes. |

Overall, the CSC Act, 2021, is a positive development for consumers in Zambia, as it helps to protect them from cybercrime and gives them complete control over their personal data. However, it is important to be aware of the privacy concerns associated with the CSC Act and take necessary steps to protect customers' personal data.

## 6. The Bank of Zambia Agent Banking Directives, 2022[22] (ABD 2022)

The BoZ first issued the Agent Banking Directives (ABD) in 2012 to provide regulated Financial Service Providers (FSPs) with a standardised way for engaging and managing agents. In 2022, the ABD was revised with technical support from UNCDF and FSDZ, incorporating lessons learned, addressing gaps and challenges, and reflecting the evolution of FSP–agent activities.

The main objectives of the ABD 2022[23] are:

- To provide a regulatory framework for agent banking for the promotion of financial inclusion.
- Provide cost-effective delivery channels for payment systems, electronic money or financial services.
- Provide for authorised activities of agents.

22 Bank of Zambia. (2022). Agent Banking Directives. Available at https://www.boz.zm/BankofZambiaAgentBankingDirectives2022Gazzetted1.pdf
23 Ibid

- Provide a set of minimum standards for data and network security, consumer protection and risk management in the conduct of agent banking.

The ABD 2022 further delineates permissible and prohibited activities, as well as the roles and responsibilities of banks, FSPs and agents. Many of these provisions are informed by the practical experiences of FSP - agent relationships since 2012. Notably, Part VII of the ABD 2022 **explicitly prohibits exclusivity of agents**, thereby curtailing the earlier practice whereby FSPs restricted agents from serving multiple FSPs.

> *"According to the 2016 Helix Institute of Digital Finance study, relative to six other leading mobile financial service markets (Kenya, Tanzania, Uganda, India, Pakistan, and Bangladesh), agents in Zambia are well trained, but Zambia has the highest percentage of **exclusive agents**, as 91 percent of agents work **exclusively with just one provider.**"*
>
> - *Zambia NFIS 2017-2022*

The rampant practice of exclusivity of agents did more harm than good in terms of using agent services by the consumers, translating into negative outcomes impeding Zambia's financial inclusion agenda, which now remains addressed through the "non-exclusivity" clause.

Importantly, approximately 25% of BoZ's Digital Frontiers Institute alums contributed to the ABD 2022 with the knowledge and digital skills gained from the "*Regulation in DFS*", "*Certificate in Digital Money*" and "*Digital FI Supervision*" courses. Their input reflects the growing capacity within Zambia's regulatory ecosystem to design forward-looking, inclusive financial sector policies.

## Observed Agent Banking Directive Impact

The revised BoZ ABD 2022 has led to a significant rise in the number of active DFS accounts, agents and service providers. For example, the DFS industry[24] underwent a drastic transformation from only 2% active DFS accounts with four providers in 2014 to 44% DFS accounts with 18 providers in 2018[25]. Corresponding to this increase, total number of active mobile money (MM) agents also grew from 22,965 to 46,747 during the same period, translating to 478 agents per 100,000 adults in 2018.

> *"The provision of finance in rural areas is a key part of the NFIS, and agent banking is a major driver."*
>
> - *ZAMBANKER, March 2023*

25 United Nations Capital Development Fund & Bank of Zambia. (2018). State of the digital financial services industry in Zambia.

Recent data from the BoZ[26] show the total number of active MM agents grew by 59%, from 156,040 in 2021 to 247,665 in 2022. Given the catalytic role ABD 2022 have in scaling the agents network to underserved communities supported by the non-exclusivity clause, Fintechs now have the opportunity to reach financial services to the last-mile clients. Overall, agents have proven to be key drivers of financial inclusion globally, and so is the case with Zambia, therefore this policy measure can be deemed highly impactful.

## Conclusion

> *"It is **noteworthy** that the Data Act provides for **obligations on individuals and data processors** in relation to the processing of personal data and sensitive personal data. The first stipulated prerequisite is that **consent** of the data subject **must be obtained** before their personal data is processed, or there must be a **specified reason** the personal data is being processed."*
>
> - *DENTONS – Data Privacy and Protection in Workplaces in Zambia*

Based on the study's findings and conclusions, Digital Frontiers Institute has significantly contributed to shaping an enabling policy and financial regulatory environment in Zambia. Its alumni, particularly those associated with the Bank of Zambia, have facilitated this pivotal role. Alumni of the Digital Frontiers Institute have collectively contributed to eight policy initiatives that align with the objectives outlined in the Bank of Zambia's Strategic Plans, the National Financial Inclusion Strategy (NFIS) 2017-2022, and the Seventh National Development Plan (7th NDP). Notably, the 5th, 6th and the ongoing 7th Strategic Plans, emphasise formal financial inclusion and the promotion of a safe, secure and efficient financial sector through technology.

- The Digital Frontiers Institute courses have successfully enhanced the skills and competencies of BoZ participants to adapt to the evolving financial regulatory and policy environment while driving the financial inclusion agenda. The two most impactful Digital Frontiers Institute courses are the "Certificate in Digital Money" and the "Regulation in Digital Money Financial Services."
- Digital Frontiers Institute's partnership with BMGF and BoZ in successfully delivering the training programme with notable outcomes demonstrates the power of collaboration in advancing digital financial inclusion, evidenced by a marked improvement in access to and use of quality financial products and services. Zambian adults with an inactive account compare favourably to those of Sub-Saharan Africa and the global average. Zambian adults with mobile money accounts have quadrupled since 2015, catalysed by a robust financial infrastructure and a wide network of agents.
- Zambia has enacted several consumer protection and cybersecurity-related laws and policies since 2016 to address risks related to digital financial services, such as fraud and

**26** Bank of Zambia. (n.d.). Payment systems annual reports. https://www.boz.zm/payment-systems-annual-reports.htm cybercrimes, ensuring a safe and secure environment for e-transactions. Approximately 50% of BoZ Digital Frontiers Institute alumni have contributed to the development of these laws and regulations to ensure the safety and security of the financial sector.

- The Digital Frontiers Institute training programme has successfully strengthened the skills and capabilities of Bank of Zambia participants. These individuals have improved their expertise and skills in digital proficiency, adaptability, and inclusive policymaking.

By staying ahead of market trends, participants play a pivotal role in effectively guiding Zambia's dynamic financial sector toward achieving full financial inclusion. The Digital Frontiers Institute training programme has enabled BoZ's Digital Frontiers Institute alumni to navigate the Zambian dynamic financial sector to ensure its safety, sustainability and accessibility to all Zambians.

# Appendix 1: List of Interviewees

| | Organisation | Survey Participants |
| --- | --- | --- |
| Bank of Zambia | Payment Systems Department | 1. Muuka Madubeko<br>2. Jimmy Couvaras<br>3. Moonga Chitambo Chinika<br>4. Mpooma Hichilema<br>5. Maureen Mulenga<br>6. Charles Hamalala<br>7. Jack Gusha Dumingu<br>8. Adrian Kalenga Kangwa |
| | Bank Supervision Department | 1. Dougla Zulu<br>2. Sylvester Mutale Kabwe<br>3. Bornwell Shabwalala |
| | Legal Department | 1. Jean Couvaras<br>2. Helen Banda |
| | ICT | 1. Mwanza Namwila<br>2. Kombe Kaponda |

| | | |
|---|---|---|
| | RO | 1. Wezi Siame |
| | Other | 1. Brenda Mpande Phiri Lizabete<br>2. Raphael Kasonde<br>3. Waza K M Nguni<br>4. Kabinda Kawesha<br>5. Musonda Simwayi<br>6. Isaiah Mwalusaka<br>7. Joseph Kawaya<br>8. Mildred Mwachande |

## Appendix 2: List of Acronyms

| | |
|---|---|
| AFI | Alliance for Financial Inclusion |
| BoZ | Bank of Zambia |
| CCPC | Competition and Consumer Protection Commission |
| CDFP | Certified Digital Finance Practitioner |
| CIDM | Certificate in Digital Money |
| DFI | Digital Frontiers Institute |
| DFS | Digital Financial Services |
| eKYC | Electronic Know Your Customer systems |
| ECT | Electronics Communications and Transactions Act |
| FSDP | Financial Sector Development Plan |
| FSDZ | Financial Sector Deepening Zambia |
| FSP | Financial Service Provider |
| GRZ | Government of the Republic of Zambia |
| GSMA | Groupe Speciale Mobile Association |
| KYC | Know Your Customer |
| ICT | Information and Communications Technology |
| MFI | Microfinance institution |
| MFS | Mobile Financial Services |
| MNO | Mobile Network Operator |
| MOF | Ministry of Finance |
| NAPSA | National Pension Scheme Authority |
| NBFI | Non-Bank Financial Institution |
| NFIS | National Financial Inclusion Strategy |
| MSMEs | Micro, Small and Medium Enterprises |
| 7NDP | Seventh National Development Plan |
| UNCDF | United Nations Capital Development Fund |

| | |
|---|---|
| ZICTA | Zambia Information and Communications Technology Authority |

## Appendix 3: References

1. FinMark Trust. (n.d.). Zambia Data Portal. Available at https://finmark.org.za/data-portal/ZMB
2. FinDev Gateway. (n.d.). Policy and Regulation. Available at https://www.findevgateway.org/topics/policy-and-regulation?&cid=2911
3. United Nations Capital Development Fund. (2019). State of the digital financial services market in Zambia: Results from the UNCDF annual provider survey. Available at https://www.uncdf.org/article/6414/state-of-the-digital-financial-services-market-in-zambia-2019---results-from-the-uncdf-annual-provider-survey
4. GSMA. (2023). State of the industry report on mobile money 2023. Available at https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/gsma_resources/state-of-the-industry-report-on-mobile-money-2023-2/
5. Bank of Zambia. (n.d.). Payment systems annual reports. https://www.boz.zm/payment-systems-annual-reports.htm
6. Bank of Zambia. (2020). Bank of Zambia Strategic Plan 2020–2023. https://www.boz.zm/Bank-of-Zambia-Strategic-Plan-2020-2023.pdf
7. Parliament of Zambia. (n.d.). https://www.parliament.gov.zm/node/10309
8. Bank of Zambia. (n.d.). About: Strategic plan. https://www.boz.zm/about/strategic-plan.htm
9. United Nations Department of Political and Peacebuilding Affairs. (2016–2019). DPPA Strategic Plan 2016–2019. https://dppa.un.org/en/dpa-strategic-plan-2016-2019
10. Bank of Zambia. (2017). National Financial Sector Development Policy 2017. https://www.boz.zm/National-Financial-Sector-Development-Policy-2017.pdf
11. Bank of Zambia. (n.d.). Role of the Bank of Zambia. https://www.boz.zm/role-of-the-bank-of-zambia.htm
12. Bank of Zambia. (n.d.). Financial sector development. https://www.boz.zm/financial-sector-development.htm
13. Ministry of National Development Planning. (2018). 7th National Development Plan. https://www.mndp.gov.zm/wp-content/uploads/2018/05/7NDP.pdf
14. Bank of Zambia. (2020). Strategic Plan 2020–2023. https://bozws.boz.zm/Strategic-Plan-2020-2023.pdf
15. World Bank. (n.d.). Identification for Development Global Dataset. https://datacatalog.worldbank.org/dataset/identification-development-global-dataset
16. Ministry of National Development Planning. (n.d.). Vision 2030. https://www.mndp.gov.zm/wp-content/uploads/filebase/vision_2030/Vision-2030.pdf
17. Bank of Zambia. (2017). National Financial Inclusion Strategy 2017–2022. https://www.boz.zm/National-Financial-Inclusion-Strategy-2017-2022.pdf
18. Bank of Zambia. (n.d.). Requirements for setting up a payment system business. https://www.boz.zm/01ARequirementsforSettingupaPaymentSystemBusiness.pdf
19. Bank of Zambia. (n.d.). Requirements for setting up a non-bank financial institution. https://www.boz.zm/RequirementsforsettingupaNon-BankFinancialInstitution.pdf
20. Bank of Zambia. (n.d.). Requirements for setting up a bank in Zambia. https://www.boz.zm/RequirementsforsettingupabankinZambia.pdf
21. Bank of Zambia. (n.d.). https://www.boz.zm

22. The Helix Institute of Digital Finance. (n.d.). Data and insights. http://www.helix-institute.com/data-and-insights/
23. Agpaytech. (n.d.). https://www.agpaytech.com/
24. Zambia Lii. (n.d.). Zambia: The Cyber Security and Cyber Crimes Act 2021—Key provisions and implications for service providers and private citizens. https://zambialii.org/akn/zm/act/2021/2/eng@2021-03-24

DIGITAL FRONTIERS

IMPACT CASE STUDY

Bank of Zambia

DIGITAL FRONTIERS INSTITUTE

Workshop 17 Watershed
17 Dock Rd, Victoria & Alfred Waterfront,
Cape Town, South Africa, 8002

+27 (0) 21 201 7299

info@digitalfrontiers.org

NPC Registration No. 2017/127296/08