

# Summary Report: Innovation Ecosystem Scoping in the SADC Region

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## INTRODUCTION

Traditional industrialisation models that have brought growth, prosperity and innovation in the past are being superseded by digital growth models that offer improved production processes and accelerated economic development. At the centre of these newfound models is technological innovation, which is increasingly disrupting traditional sectors and encouraging the inclusive economic growth that addresses development challenges for many emerging markets. Technological innovation is allowing developing markets like South Korea, for example, to leapfrog traditional growth paths by addressing some of their key development challenges. These include employment creation, industry competitiveness, public service delivery, and empowerment of the economically excluded. As a result, technological innovation is increasingly becoming an important feature in emerging markets' development stories with the prospect of fostering development when the right support ecosystems are in place.

The SADC region is not trailing far behind in the use of technological innovation to foster growth, with a small but fast-growing tech-enabled community. Digital financial services such as MPESA and M-SHWARI in Tanzania are playing a notable role in reducing the marginal costs of extending financial access to previously un/under-served consumer segments. However, the region is still trailing behind in the translation of technological innovation to meaningful social and economic impact. Technological advancements have fallen short in encouraging the inclusive economic growth that has a real impact on people's lives, empowering the economically excluded and decreasing poverty. Many digital solutions remain inaccessible to the poor, and despite solutions like MPESA illustrating the potential of enhancing digital and economic inclusion in the region, there are very few other successful cases.

To take full advantage of the potential benefits of innovation, there is a need for a higher volume of innovation that focuses on the key development challenges facing the region. Many innovative start-ups in the SADC region still struggle to establish themselves due to unsupportive funding environments, a shortage of entrepreneurial skills, and the hurdles of complex regulatory environments. Moreover, central to these issues is establishing more collaborative and fit for purpose innovation ecosystems that foster an environment for ideas to be generated, developed, tested and ultimately scaled for impact. As such, supporting innovation and development in the region remains critical, but demands a clear understanding of the unique and contextual nuances of the innovation ecosystem and the real developmental challenges it can potentially solve.

This report provides an assessment of innovation ecosystems in the SADC region. It covers a sample of five countries which represent different 'market profiles' in the region, including South Africa, Tanzania, Zambia, Malawi and Lesotho. These countries provide different 'profiles' defined by digital maturity (WEF network readiness), financial inclusion (FinScope scope for the level of financial inclusion) and income per capita, enabling the analysis of unique and contextual nuances that exist in the SADC region. Guided by a comprehensive analytical framework, the report provides a depiction of the state of the innovation ecosystem in each market as well as a cross-country comparison of the state of the innovation ecosystem across SADC. This allows for a clear understanding of the drivers of innovation ecosystem development

and identifies the key areas for improvement. The report seeks to support targeted interventions to develop the innovation ecosystem and as such, encourage technological innovation that sustainably addresses the key development challenges in the SADC region.

## **APPROACH AND METHODOLOGY**

### Country selection and sectoral focus

The scoping study covers five SADC markets, including South Africa, Tanzania, Zambia, Malawi and Lesotho. As one of the objectives of the study is to understand 'profiles' of innovation markets in SADC, these countries were selected because they provide a good cross-section in terms of digital maturity (provided by the WEF network readiness index), financial inclusion (FinScope score for level of formal financial inclusion) and income per capita (measured in USD) in the SADC region. The country selection matrix below illustrates the spread of the different countries based on the above-mentioned criteria (Figure 1).



#### Figure 1: Country selection matrix

Innovation is occurring across various economic sectors; to ensure a more targeted approach and depth of understanding, however, the study focused on innovation in financial services as a primary sector due to the scope and scale of innovation already witnessed in the sector as well as its strategic importance to FinMark Trust and insight2impact. Agriculture and e-government were selected as secondary sectors of focus due to the importance of agriculture in the selected SADC markets as well as the role that e-government can play in encouraging technology adoption throughout society.

## **OVERVIEW OF METHODOLOGY**

The scoping study included a desktop review and a series of in-country interviews with stakeholders in each of the five selected countries. An overview of the primary and secondary data collection methods, and the data analysis and synthesis process is described in Figure 2 below.

#### Figure 2: Methodological overview

Desktop research	In-country stakeholder interviews	Data analysis and synthesis
<ul> <li>The scoping study started with a comprehensive desktop review to fulfil the following purposes:</li> <li>Understand the current state of play in each country in terms of the enabling conditions for innovation; and,</li> <li>Identify market gaps and opportunities to explore with stakeholders during the primary data collection.</li> <li>The desktop review included both qualitative and quantitative data, to ensure both depth and breadth of findings and allow for triangulation of findings across multiple data sources.</li> </ul>	<ul> <li>The desktop review revealed gaps in secondary information, generally related to the quality and experiences of product innovators and the stakeholders providing ecosystem development support.</li> <li>Stakeholder interviews were designed and planned to address these gaps in the publicly available literature.</li> <li>46 stakeholder interviews, including regulators, policy makers, product innovators, academics, and development partners. Most stakeholders were involved in financial services, however, stakeholders in e-government and the innovation ecosystem more broadly were also consulted.</li> <li>Stakeholder groups were prioritised based on gaps in the primary data.</li> </ul>	<ul> <li>The master analytical framework provided the foundation for the data analysis and synthesis process.</li> <li>Preliminary findings from the desktop review were used to tailor the master analytical framework according to the nuances of each sample country.</li> <li>This tailoring did not materially change the framework, in order to make the findings comparable, but it accounted for the few instances where certain indicators were not possible to measure or needed to be merged.</li> <li>Based on the synthesised quantitative and qualitative, primary and secondary data, the phase of ecosystem development across each framework component was then defined based on the description of ecosystem development specified in the master framework.</li> </ul>

## **ANALYTICAL FRAMEWORK**

The scoping study was guided by an analytical framework which identified the priority elements of an innovation ecosystem and provided guidelines to understand the process of innovation ecosystem development in each of the sampled countries. The framework is a three-tier analytical framework, identifying five main elements that are the key components of an inclusive innovation ecosystem: universal digital access, human capital, government support, innovation enablers, and constructing ecosystems. These elements are further broken down into subcomponents. For example, universal digital access is broken down into infrastructure, soft infrastructure or systems, and affordability. This framework is depicted in Figure 3.

The subcomponents were further broken down into measurable criteria which allows the state of the subcomponent to be diagnosed in each market. Each criterion was then assigned indicators and proxy indicators, providing a quantitative and qualitative evaluation of the subcomponents of the innovation ecosystem.

#### Figure 3: Framework for assessing digital readiness





### Universal digital access

Universal access to the digital economy is a basic prerequisite for leveraging digital economic opportunities. Access to technology platforms (e.g. mobile, computer, web platforms etc.) ensures that everyone is able to access digital products and services as well as to participate in producing

digital products and services.



### Human capital

Human capital development is at the core of a well-functioning innovation ecosystem. The development of human capital is not only important for the development of digital products and services, but also for the consumption of digital solutions by consumers within the digital ecosystem.

While the latter is important, the human capital component primarily focuses on the use and development of digital technologies for academic or productive purposes.



### **Government support**

Government plays an imperative role in developing an innovation ecosystem that is inclusive and focuses on addressing the country's key developmental challenges. The government is

the custodian of policy and regulation, with the power to make considerable changes that support the advancement of innovation.



### **Innovation enablers**

The innovation enablers element considers the necessary ecosystem components which encourage innovation and increase the number of digital solutions within the country. The

components include innovation financing, innovation culture and technology use. They create an environment where new products, services and business models are conceptualised and have the opportunity to be tested and scaled. The evaluation criteria components are presented below.



#### **Constructing ecosystems**

A critical factor in developing an innovation ecosystem is the extent to which these elements interact with one another and coordinate around specific opportunities. Large systems such as digital infrastructure, human capital, and the entities within these systems, both in the public and private sectors, require collaboration within their respective systems and between systems. The criteria which provide a measure of supportive networks are presented below.

## **PHASES OF ECOSYSTEM DEVELOPMENT**

To understand the phases of ecosystem development, the scoping study adapted the United Nations' Capital Development Fund (UNCDF) theory of change.<sup>1</sup> This bespoke framework is useful because it considers what each element of the framework looks like as an innovation matures. The phases of ecosystem development are defined in Figure 4 below.

#### Figure 4: Phases of ecosystem development



These broad definitions were applied to articulate the phase of ecosystem development in the context of each element of the analytical framework. For example, the definitions were applied to the infrastructure subcomponent of Universal digital access to clearly articulate the level of infrastructure development that is characteristic of each phase from primal to compounding. Applying the qualitative and quantitative measures to these definitions enabled an assessment of how an innovation ecosystem matures through various phases of development.

<sup>1</sup> UNCDF, *What We Do*, 2019. Available: https://www.uncdf.org/mm4p/what-we-do.

## RESULTS

## Classification

This study provides a detailed analysis of the innovation ecosystem in five countries within the SADC region. Supporting innovation and development in the SADC region requires a clear understanding of the unique and contextual nuances contributing to the status of an innovation ecosystem – centered around the interaction of key elements defined in the analytical framework. Table 1 below provides a high-level summary of the phase of market development for each of the countries included in this study. These nuances are reflected both within and across analytical framework components. Each country is at a different phase of development, facing different historical, macroeconomic, and social constraints which combine to inform the status of each innovation ecosystem.

Element	Component	Lesotho	Malawi	South Africa	Tanzania	Zambia
	Infrastructure	Foundation	Primal	Compounding	Foundation	Primal
Universal digital access	Soft infrastructure systems	Scaling	Scaling	Scaling	Scaling	Foundation
	Affordability	Foundation	Primal	Foundation	Foundation	Foundation
Human capital	Primary and secondary education pathways	Scaling	Primal	Foundation	Foundation	Foundation
	Tertiary education pathways	Foundation	Foundation	Scaling	Scaling	Foundation
	Skills gaps	Primal	Primal	Foundation	Foundation	Foundation
Government support	Regulator of business	Foundation	Foundation	Scaling	Primal	Foundation
	Manager of fiscal tools	Primal	Primal	Foundation	Foundation	Primal
	Innovation financing	Primal	Primal	Foundation	Primal	Foundation
Innovation enablers	Innovation culture	Foundation	Primal	Foundation	Primal	Foundation
	Technology use	Foundation	Foundation	Scaling	Foundation	Foundation
Constructing ecosystems	Support networks	Foundation	Foundation	Scaling	Scaling	Foundation

#### Table 1: Phase of ecosystem development across the countries

In addition to providing a comprehensive examination of five innovation ecosystems, the selection of these countries offers a suitable cross-section of 'market profiles' across the SADC region; from those that are least developed – Malawi – to more enabling markets such as South Africa. This enables the broad

extrapolation of findings and recommendations to non-scoped countries that represent comparable markets to those of South Africa, Tanzania, Zambia, Malawi and Lesotho.



Figure 5: relative phase of development across country and framework component

To further demonstrate the nuances across each market, Figure 5 above plots each country's relative position across development phases. For example, although both Zambia and Lesotho are in the foundation phase for the innovation enablers component, Zambia is at a more advanced level within this phase when compared to Lesotho. However, there are common pain points across each market, which should be addressed to create more enabling environments for innovation.

## **KEY CONSTRAINTS TO INNOVATION**

### Lesotho

Lesotho has made positive strides in developing the foundational elements of an innovation ecosystem. Namely, Lesotho has increased digital access and improved human capital. Mobile broadband coverage, specifically 3G, is high not only in urban areas but also rural areas. The percentage of primary school attendance is also high, resulting in high levels of literacy. As a result, Lesotho's ecosystem is in its foundational phase.

**However, a number of challenges remain**, with a number of innovation ecosystem elements underdeveloped. This is attributed to lack of focused government support, poor stakeholder coordination and closed-off private sector. Collectively these challenges prevent the development of an inclusive innovation ecosystem. This limits Lesotho's ability to harness innovation to address financial inclusion and other major development challenges. **Table 2** below describes these key constraints to innovation. See *Appendix 1* for a high-level evaluation of Lesotho's innovation ecosystem.

Component	Key constraints
Universal digital access	<b>Electricity demand exceeds supply</b> , and despite importing electricity from South Africa and Mozambique only 33.7% of the population has access to electricity. This hinders the use of digital devices, due to difficulties in keeping data-enabled devices charged. Despite the introduction of mobile money, <b>Lesotho remains a cash-based economy</b> . This limits the population's access to financial services beyond transactional services.
Human capital	Access to education, specifically secondary and tertiary school, is limited for low-income households. There is <b>little exposure to digital skills at school level</b> . There are no direct computer or technology subjects and the use of digital devices such as computers or tablets is limited to private schools.
Government support	<b>Regulations are focused on traditional businesses</b> , with little consideration of innovative businesses. This is mainly due to the regulators' lack of understanding of innovative business concepts. For example, there is no 'sandbox' environment in the country. It is difficult for innovators to get regulatory direction.
Innovation enablers	Access to seed funding is a major challenge, with funding mainly coming from the banking sector. The VC and PE industry is non-existent, with the government only providing bank guarantees. The majority of entrepreneurs are survivalists in nature and lack the skills (e.g. market researching, strategy development, business management etc.) necessary for growth-oriented entrepreneurs to recognise and exploit commercial opportunities.
Constructing ecosystem	Lesotho is a small market with little revenue growth potential. Access to other markets is important to scale. There are agreements with other governments e.g. Ghana, to provide mentorship to entrepreneurs. However, there are <b>no formal government initiatives to support entrepreneurs to scale into other</b> <b>markets</b> . There is a large <b>dependence on incumbents' platforms to drive innovation</b> while incumbents are protective of their markets. This limits innovation, with entrepreneurs lacking market data and platforms to access the market. There is also a <b>lack of a coordinated national policy on innovation</b> , with a number of government departments having different policies that only pertain to their department. As a result, there is no combined effort to promote innovation in the country.

#### Table 2: Lesotho constraints to innovation

### Malawi

**Among the countries included in this study, Malawi faces the greatest barriers to innovation.** While Malawi has made significant progress in developing soft infrastructure systems, across most dimensions, the market is still in its infancy. Overall, the market is transitioning into a foundational phase of ecosystem development, with a number of changes required to further develop the innovation ecosystem. **Table 3** below provides an overview of key constraints by framework component. Refer to *Appendix 2* for a detailed analysis of Malawi's innovation ecosystem.

Component	Key constraints
Universal digital access	<ul> <li>Hard infrastructure is a major gap. Mobile network and electricity access are sporadic and predominantly limited to urban areas.</li> <li>High data prices in Malawi, driven by a lack of competition despite liberalisation of the telecommunications market, as well as extensive taxes and levies. While internet-enabled devices appear to be affordable, there is a quality gap, meaning that poorer Malawians may be accessing unreliable, insecure smartphones.</li> </ul>
Human capital	Significant investment is necessary to advance education. Low educational attainment rates as the majority of the Malawian population do not complete secondary school. Furthermore, curricula are dated, leaving Malawian students unprepared for careers in the digital age. Reflecting this, product innovators noted that it is difficult to find skilled graduates.
Government support	Policies and regulations are generally at earlier phases of development. Product innovators noted the lack of regulatory clarity and, for Fintechs specifically, the need for a formal space to test innovative products. Additionally, lack of legal authority has undermined the regulator's ability to address high data prices, to the disadvantage of consumers. While there are no tax incentives for innovative digital businesses, product innovators noted that the high price of data and internet taxes can actually act as a <i>disincentive</i> for innovative digital businesses.
Innovation enablers	In light of the infrastructure and human capital challenges described above, demand for innovative products, including innovative financial products and services, is low. This also undermines broad use of digital technologies. There is a lack of PE and VC funding, making it difficult for innovative businesses to start and scale. The <b>majority of entrepreneurs are survivalist</b> and necessity driven, rather than motivated by innovative opportunities in the market.
Constructing ecosystems	No national innovation or digital strategy to coordinate activities undertaken by stakeholders, meaning that innovation-related initiatives are undertaken in silos. Lack of engagement between start-ups and other stakeholders for sharing and learning.

#### Table 3: Malawi constraints to innovation

### **South Africa**

Among the countries included in this study, South Africa's innovation ecosystem is the most advanced. South Africa scores well across the dimensions and is in a scaling phase of development. However, critical gaps remain. For example, primary and secondary education pathways are not adequately preparing students for living and working in the digital age. These gaps disproportionately affect the ability of poorer and rural populations to participate in the innovation ecosystem. **Table 4** below describes key constraints to South Africa's innovation ecosystem. See *Appendix 3* for a high-level assessment of South Africa's innovation ecosystem.

Component	Key constraints
Universal digital access	Although South Africa has extensive coverage of the electricity network, ongoing electricity shortages may act as a deterrent to innovative businesses. <b>Data affordability</b> is a critical barrier to the use of innovative digital products and services.
Human capital Human capital (cont.)	South Africa suffers from low educational attainment rates due to historically low transition into secondary school; this challenge is particularly pronounced among previously disadvantaged populations. Another challenge is low quality of education in primary and secondary school, particularly among government schools. Together, these factors undermine digital and professional skills among the population. Finally, it is difficult to import skills in the short term. While South Africa has published a critical skills list, it is dated and accessing a visa through this pathway is cumbersome.
Government support	Bottlenecks in telecommunications regulation have historically undermined more efficient market operation to the disadvantage of consumers. However, recent rulings from the Competition Commission may alleviate these challenges.
Innovation enablers	South Africa has a fairly strong innovation culture and South African entrepreneurs have more access to funding in comparison to other markets in this study. However, there are income group and geographical disparities in access to financing.
Constructing ecosystem	South Africa has made considerable progress in developing a constructing ecosystem for innovation. However, there is room to improve coordination across stakeholder groups. Additionally, access to demand for start-ups is a critical gap preventing most from reaching scale.

### Tanzania

**Tanzania is a large economy with many opportunities for innovation, but a number of bottlenecks remain.** The country is mainly between foundational and scaling phase, being open to and accepting of innovation, understanding that innovation could address key elements of the development goals. Tanzania has a vast pool of entrepreneurs and innovation hubs, however, business skills and materialising ideas to market real products is a challenge. **Table 5** below summarises the key constraints to the development of Tanzania's innovation ecosystem. *Appendix 4* provides a detailed overview of key elements constraining Tanzania's innovation ecosystem.

Component	Key constraints
Universal digital access	Low quality mobile broadband connection, especially in rural areas. Connection is limited to major urban areas. Electrification is low. Reaching the last mile is a challenge because infrastructure is missing or poorly maintained in rural villages, where the villagers are expected to finance maintenance.
Human capital	Little to no exposure to digital skills at the school level. There are no direct computer or technology subjects and the use of digital devices such as computers or tablets is limited to private schools. The quality of tertiary education and graduates is low. Graduates obtain their qualification but still do not have the skills required to be absorbed by the market. The gap between the supply and demand for skilled labourers is large as tertiary institutions are not equipping graduates with the skills demanded by the market.
Government support	<b>Regulators are creating a 'sandbox' environment</b> , providing letters of no objection. Regulation lacks clarity, however, with a number of regulatory departments being involved and a lack of coordination.
Innovation enablers	Access to seed funding is a challenge. The banking sector is risk averse with the VC and PE industries in their infancy. Although funding is scarce for all businesses, there is a sense that government funding is focused on traditional businesses. There are a number of survivalist entrepreneurs that lack the skills (e.g. market researching, strategy development, business management etc.) to convert to opportunist.
Constructing ecosystem	Access to other markets is important to scale. There are no formal government initiatives to support entrepreneurs to scale into other markets. There are a number of innovation hubs, however, they mainly provide working spaces with not much support for product innovators. There is also a lack of coordinated National Policy on innovation, with a number of government departments having different policies that only pertain to their department. As a result, there is no combined effort to promote innovation in the country.

#### Table 5: Tanzania key constraints to innovation

### Zambia

Zambia is in the foundational development phase across most of the components, with considerable investment required to continue developing the innovation ecosystem in the country. The key areas to address in the near term are universal digital access and human capital, although the innovation ecosystem would also benefit from initiatives across the components of the ecosystem. Key constraints to address are described in Table 6 below. Refer to *Appendix 5* for a comprehensive analysis of Zambia's innovation ecosystem.

Component	Key constraints
Universal digital access	Access to hard infrastructure is a challenge. Mobile network and electricity access are sporadic and predominantly limited to urban areas. High, and increasing, cost of internet-enabled smartphones.
Human capital	There are limited digital skills among the population, due to a combination of low educational attainment and dated curricula. While visa requirements appear to enable importing of skilled labour, Zambia may not be an attractive market for skilled professionals.
Government support	Fintech start-ups noted that <b>financial sector regulations are difficult to navigate</b> . In general, product innovators noted that the regulatory environment can be difficult due to government delays.
Innovation enablers	There is limited demand for digital technologies and services with limited use of the internet among the population, and moderate demand for technologies from the government. Addressing this will be important in creating a market for product innovators. Product innovators struggle to establish and scale their businesses due to limited access to funding. While the innovation culture is improving, stakeholders noted that there is a need for more recognition of entrepreneurship as a viable career path.
Constructing ecosystem	<b>Small pockets of support</b> , which appears to revolve around one incubator, BongoHive. Although the Zambian culture is becoming increasingly entrepreneurial, historical attitudes toward risk may undermine innovation if potentially aspiring entrepreneurs are not confident in support networks.

#### Table 6: Zambia key constraints to innovation

## **CONCLUSION AND RECOMMENDATIONS**

Across the SADC region, there are numerous examples of innovators and governments using technological innovation in an attempt to improve products and services and accelerate economic growth. However, the need for these initiatives outstrips the supply, and innovations are often unable to scale due to constraints in the broader ecosystem.

A number of key themes emerged across the countries, including:

- Infrastructure and affordability are critical barriers: While infrastructure development enables access to innovative products and services in urban areas, poorer rural populations are seldomly able to access innovations due to inadequate infrastructure development in rural areas. The rural-urban divide is particularly pronounced in Malawi, Tanzania and Zambia. Even where infrastructure is generally available, such as in South Africa, affordability is a challenge due to excessive data and device prices. However, in all of the five markets except Malawi, the percent of population covered by the 2G network is above 90%, while in Malawi it is 82%. As USSD and SMS operate well on 2G networks, and there is high penetration of basic and feature phones, in the short term, innovators can tap into these interfaces to deliver innovative products and services to remote populations.
- Payments infrastructure as a core to innovation: Across most of the markets (all except South Africa), most of the innovations were building off mobile money. While this is positive as an entry point for innovation, stakeholders in Lesotho, Malawi, Tanzania and Zambia noted that this results in almost a 'cut and paste' approach, whereby product innovators become limited to building off of these rails. This can be negative in that it effectively makes start-ups reliant on incumbents' systems and infrastructure.
- Resource gaps limit exposure to digital skills at a school level: In Lesotho and Tanzania product innovators had reported that they had no exposure to computers before leaving school. In Zambia, it was noted that some public-school teachers are teaching computers by drawing on chalkboards. However, the use of cell phones is more widespread across these markets.
- Limited access to funding: Innovators report difficulties in accessing risk-based financing. There are low levels of VC funding, angel investors and crowd-funding platforms. While there is better access to funding in South Africa, this challenge was noted across all markets.
- Incumbents have an important role to play: Where digital literacy and familiarity is low, incumbents can play an important role in incubating and facilitating market access. However, incumbents can be defensive in their attitudes to start-ups; for example, one product innovator in Zambia noted that they are changing their business model in response to aggressive actions from MNOs. In Lesotho, while a Hackathon was run to develop innovative financial solutions and identify areas for partnership between innovators and incumbents, incumbents ultimately developed similar solutions in-house, leaving innovators unable to take their products to market.
- Quality of incubators: There are a number of incubators and technology hubs in all markets,

however the quality of service differs. Most are simply a shared working space with access to internet and networking opportunities; only a few offer internships, mentorship, support services, etc. This challenge was particularly noted in Lesotho and Tanzania, although in all markets, it would be beneficial for incubators to assist innovators with access to markets.

- Role of e-government: The role of government digital services in developing markets can play a large role in fostering a culture of innovation and adoption of digital technology. While South Africa scores fairly well in the provision of information and services digitally, there is room to improve government use of technology across the other markets.
- National strategies for digital and innovation: Governments lack a coordinated national digital strategy that requires ministries to consult and support national initiatives. Although this is observed in all five markets, there are nuances across countries. For example, South Africa has recently formed the Department of Communications and Digital Technologies, which will be responsible for creating an enabling environment for the provision of inclusive ICT services to all South Africans and creating new competitive business opportunities for the growth of the ICT industry. Similarly, Zambia has the SMART Zambia initiative, which is aiming to drive uptake of ICT across government. In contrast, no similar initiative was found in Malawi.

## **APPENDIX 6: LIST OF ACRONYMS**

API	Application programming interface
ATM	Automated Teller Machine
CCSA	Competition Commission of South Africa
DFI	Development finance institution
DFS	Digital financial services
DHA	Department of Home Affairs
FMT	FinMark Trust
FSDT	Financial Sector Deepening Trust
G2B	Government to business
G2G	Government to government
GDP	Gross domestic product
GNI	Gross national income
HANIS	Home Affairs National Identity System
izi	Insights 2 impact
IAP	Internet access provider
ICT	Information and communication technology
ID	Identity
IFWG	Fintech Working Group
IMF	International Monetary Fund
IP	Intellectual property
КҮС	Know your customer
LUANAR	Lilongwe University of Agriculture and Natural Resources
MACRA	Malawi Communications Regulatory Authority
MNO	Mobile network operator
NSDP	National Strategic Development Plan
NUL	National University in Lesotho
OECD	Organisation for Economic Co-operation and Development
PE	Private equity
POPI	Protection of Personal Information
POS	Point of Sale
R&D	Research and development
RAMP	RIA's Africa Mobile Pricing
RBM	Reserve Bank of Malawi
SADC	Southern African Development Community
SARB	South African Reserve Bank
SIMM	Scaling Inclusion through Mobile Money
SME	Small and medium sized enterprises
SMS	Short message service
STEM	Science, technology, engineering, and mathematics
TVET	Technical and Vocational Education and Training

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