



Republic of Zambia

Rapid eTrade Readiness Assessment





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NOTE

Within the UNCTAD Division on Technology and Logistics, the ICT Policy Section carries out policy-oriented analytical work on the development implications of information and communication technologies (ICTs) and e-commerce. It is responsible for the preparation of the Information Economy Report (IER) as well as thematic studies on ICT for Development.

The ICT Policy Section promotes international dialogue on issues related to ICTs for development and contributes to building developing countries' capacities to measure the information economy and to design and implement relevant policies and legal frameworks. It also monitors the global state of e-commerce legislation (unctad.org/cyberlawtracker). Since 2016, the section has coordinated a multi-stakeholders' initiative entitled eTrade for all (etradeforall.org), which aims to improve the ability of developing countries, particularly least developed countries (LDCs), to use and benefit from e-commerce.

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The following symbols have been used in the tables:

Two dots (..) indicate that data are not available or are not separately reported. Rows in tables have been omitted in those cases where no data are available for any of the elements in the row;

A dash (-) indicates that the item is equal to zero or its value is negligible;

Reference to "dollars" (US\$) means United States of America dollars, unless otherwise indicated;

Details and percentages in tables do not necessarily add up to the totals because of rounding.

For the purpose of this report: US\$1 = ZMV 10 and ZMV 1 = US\$ 0.1



PREFACE

The eTrade for all Initiative, launched at the fourteenth Ministerial Conference of UNCTAD in July 2016, is a practical example of how to harness the digital economy in support of the 2030 Agenda for Sustainable Development, notably Sustainable Development Goals (SDGs) 5, 8, 9, and 17. The initiative seeks to raise awareness, enhance synergies, and increase the scale of existing and new efforts by the development community to strengthen the ability of developing countries to engage in and benefit from e-commerce by addressing seven relevant policy areas:

- E-commerce readiness assessment and strategy formulation
- ICT infrastructure and services
- Trade logistics and trade facilitation
- Payment solutions
- Legal and regulatory frameworks
- E-commerce skills development
- Access to financing

As part of the initiative, demand-driven assessments are envisaged to provide a basic analysis of the current e-commerce situation in the countries concerned, and to identify opportunities and barriers. The resulting reports will serve as a valuable input to these countries' involvement in various discussions related to e-commerce and digital trade, such as in the context of the UNCTAD Intergovernmental Group of Experts on E-commerce and the Digital Economy. It may furthermore help LDCs to identify areas in which they could benefit from assistance by partners of eTrade for all.

The Zambia Rapid eTrade Readiness Assessment is the fourteenth such assessment conducted by UNCTAD and the second in Eastern and Southern Africa. This report is expected to contribute to the efforts of the Government of Zambia to build a robust, safe and business-friendly e-commerce and digital economy environment.

With the eTrade for all partners, UNCTAD is committed to supporting Zambia in its resolve to make e-commerce work for the country's development.

Shamika N. Sirimanne

Director, Division on Technology and Logistics, UNCTAD



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ABBREVIATIONS

7NDP	7th National Development Plan
ASYCUDA	Automated System for Customs Data
ATM	Automated Teller Machine
BDS	Business Development Services
BoZ	Bank of Zambia
BRRA	Business Regulatory Review Agency
CAG	Cluster Advisory Group
CBU	Copperbelt University
CCPC	Competition and Consumer Protection Commission
CFTA	Continental Free Trade Area
COMESA	Common Market for Eastern and Southern Africa
CSO	Central Statistical Office
CUTS	Consumer Unity Trust Society
DFS	Digital Financial Services
DP	Development Partner
DTIS	Diagnostic Trade Integration Study
ECTS	Electronic Cargo Tracking System
EDI	Electronic Data Interchange
EFT	Electronic Funds Transfer
EIF	Enhanced Integrated Framework
FDI	Foreign Direct Investment
FGD	Focus Group Discussion
FSDZ	Financial Sector Deepening Zambia
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPA	Government Procurement Agreement
GRZ	Government of the Republic of Zambia
HANA	Huawei Authorised Network Academy
HG	Hackers Guild
ICT	Information and Communications Technology
ICTSZ	Information and Communications Technology Society of Zambia
ISP	Internet Service Provider
ITA	Information Technology Agreement
ITC	International Trade Centre
ITU	International Telecommunication Union
KYC	Know Your Customer
LDCs	Least Developed Countries
LMIC	Low and Middle-Income Countries
LVPS	Large Vendor Payment System
MAP	Making Access Possible
MCTI	Ministry of Commerce, Trade and Industry
MFI	Microfinance Institution
MFN	Most Favored Nation
MM4P	Mobile Money for the Poor



MNO	Mobile Network Operators
MoF	Ministry of Finance
MOTC	Ministry of Transport and Communications
MOU	Memorandum of Understanding
MSME	Micro, Small and Medium Enterprises
NBFI	Non-bank Financial Institution
NFS	National Financial Switch
NPS	National Payment System
NTFC	National Trade Facilitation Committee
OECD	Organisation for Economic Co-operation and Development
ORE	Operational Readiness for eCommerce
PACRA	Patents and Companies Registration Agency
PEPZ	Private Enterprise Programme Zambia
PoS	Point of Sale
PPP	Public-private Partnerships
REPSS	Regional Payment and Settlement System
RIA	Regulatory Impact Assessment
SADC	Southern African Development Community
SAIS	Southern Africa Innovation Support
Sida	Swedish International Development Cooperation Agency
SIRESS	SADC Integrated Regional Electronic Settlement System
SME	Small and Medium Enterprises
TFA	Trade Facilitation Agreement
TFI	Trade Facilitation Indicators
TVET	Technical and Vocational Education and Training
UNCDF	United Nations Capital Development Fund
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UN-Habitat	United Nations Human Settlements Programme
UNZA	University of Zambia
UPU	Universal Postal Union
VC4A	Venture Capital for Africa
WB	World Bank
WEF	World Economic Forum
WTO	World Trade Organization
ZACCI	Zambia Chamber of Commerce and Industry
ZAM	Zambia Association of Manufacturers
ZAMPOST	Zambia Postal Services Corporation
ZDA	Zambia Development Agency
ZICT	Zambia ICT College
ZICTA	Zambia Information and Communications Technology Authority
ZIPSS	Zambia Interbank Payment and Settlement System
ZRA	Zambia Revenue Authority



EXECUTIVE SUMMARY

There is significant potential for e-commerce development in Zambia. Micro, Small, and Medium Enterprises (MSMEs) are an important engine of the country's economy, with 1.4 million Zambian adults (17 per cent of the adult population) deriving their main source of income from owning and running their own business. A large portion of this group - 57 per cent - are women. Expanding access to domestic and overseas markets for these female business owners, through e-commerce, would contribute to inclusive economic growth and trade. In addition to the dynamic tech start-up and e-commerce scene in the capital of Lusaka, MSMEs in other parts of the country are beginning to tap into the benefits of e-commerce and the digital economy.

E-commerce readiness assessment and strategy formulation

Despite the potential of e-commerce to boost productivity and increase access to new markets, several challenges and roadblocks remain. A relatively strong policy framework for information and communications technologies (ICT) has been established in Zambia, however current national development policies and strategies remain rather silent on e-commerce. Most policies and strategies are focused on e-government. At the same time, many of the actions taken by the Government to strengthen e-government, such as improving ICT infrastructure and related technologies, strengthening human resource development and developing the legal and regulatory frameworks for e-government, will also strengthen the enabling environment for e-commerce. Coordination across the different activities and initiatives is limited, however, and more effort is needed to increase collaboration across stakeholder groups.

The Government and development partners have dedicated significant attention and resources to improving Zambia's business environment. As a result, the country's rank in the World Bank's Ease of Doing Business Index improved from 98 in 2016 to 85 in 2017 (among 190 economies). Although a number of the improvements in the overall business environment can potentially improve the e-commerce environment as well, a number of cross-cutting issues have yet to be addressed. A key shortcoming is the limited public-private dialogue in the area of e-commerce and the

digital economy, and the generally weak coordination across organizations, sectors and industries.

ICT infrastructure and services

Zambia is a mobile-only country when it comes to the use of broadband Internet. Three Mobile Network Operators (MNO) are currently active, with a fourth recently licensed and expected to enter the market shortly. Although the impending arrival of the fourth operator seems to have already improved the pricing and reliability of mobile Internet, both remain inadequate especially for application-based e-commerce firms. Moreover, while Internet penetration has increased in Lusaka and other key cities, connecting rural populations and lower-income consumers remains an issue. The Smart Zambia Master Plan is aimed at addressing many of the challenges that may be inhibiting the growth of affordable and reliable Internet, including harmonized construction of national ICT infrastructure.

Trade logistics and trade facilitation

In 2012, a National Addressing Policy was formulated together with the individual local policies for Lusaka, Kabwe, Ndola, Kitwe and Chingola districts. Since 2014, physical addressing has been implemented through pilots in selected areas within the five districts by the Zambia Information and Communications Technology Authority (ZICTA). Despite this, physical addressing remains relatively weak, particularly in the unplanned settlements growing across the country. Currently, only a small proportion of the population in Zambia has a home address, which creates a challenge for goods-based e-commerce activity. Goods that are ordered online cannot always be efficiently and reliably delivered to the buyer. Weak physical addressing is also problem for many local start-ups and e-commerce vendors, in particular delivery and taxi businesses. Nevertheless, ZICTA is working to complete the national rollout of its physical addressing project in all ten provinces by 2023.

Long distances, toll fees and many non-tariff barriers make trade logistics expensive in Southern Africa in general and Zambia in particular. This affects all cross-border trade, including cross-border e-commerce activity. Development partners continue to assist the Government with the implementation of the Trade



Facilitation Agreement (TFA), including work on One-Stop Border Posts and other forms of improved border clearance processes.

Payment solutions

Mobile money has gained significant momentum and is widely seen as a component of the financial inclusion agenda in Zambia. It is offered by banks, MNOs and Information Technology and Services companies focusing specifically on digital financial services (DFS). Yet, cash-on-delivery remains the most common form of payment for e-commerce transactions. For financial inclusion and electronic payments to reach all segments of the underserved market, interoperability between banks and mobile money operators, trust building in the general population and innovative risk management will be required.

Legal and regulatory framework

The Government is taking steps to update relevant legislation related to e-commerce, including in the areas of data protection, cyber security, and electronic transactions. Significant gaps remain, particularly in the capacity of regulators to support start-ups and e-commerce vendors at large.

Skills development for e-commerce

Skills gaps exist at many levels, particularly in the sectors needed for e-commerce to flourish (web development, application development, content management, digital products development, etc). For the development of skills required for e-commerce, some of the universities and start-up hubs (BongoHive, Hackers Guild and others) offer certain services, but the hubs themselves are under-resourced.

Access to financing

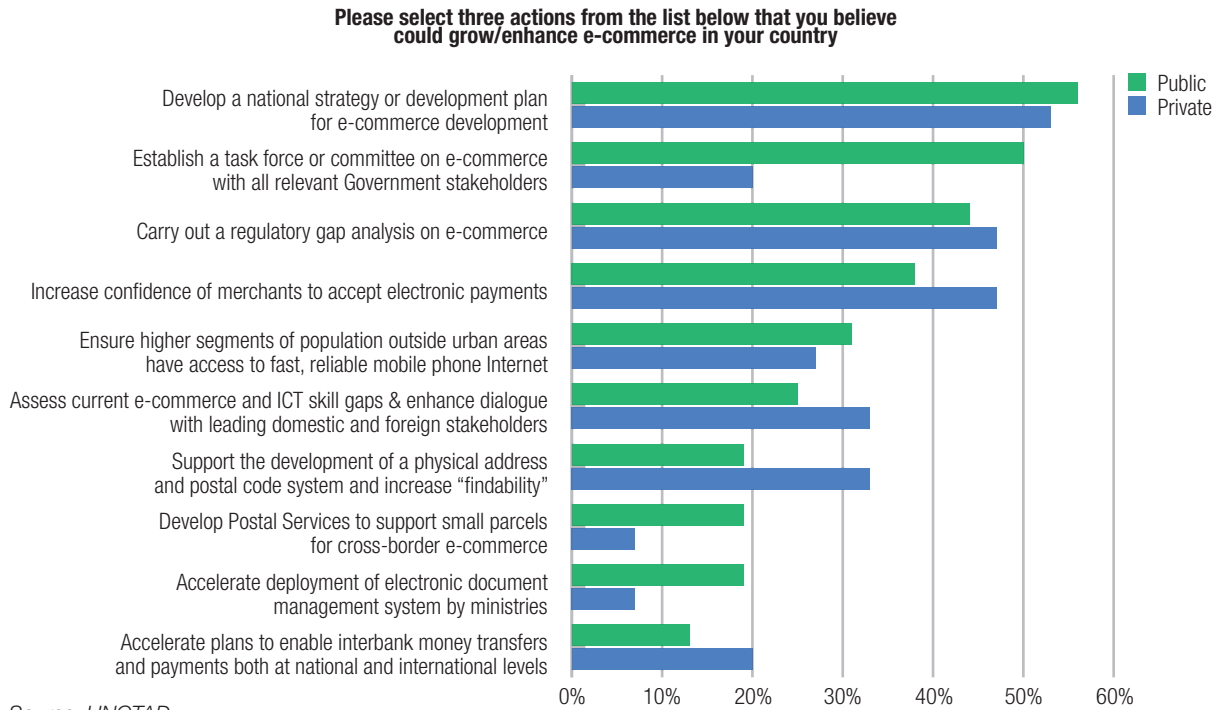
Zambia has a strong policy focus on extending financial inclusion and facilitating the growth of MSMEs. Although this focus helps to deliver broad policy objectives, including economic growth and employment generation, specific financing solutions for early stage start-ups and growth-oriented businesses in the e-commerce ecosystem still do not seem to be in place.

Some of the aforementioned challenges could be attributed to the lack of common understanding of e-commerce across stakeholder groups, limited trust in e-commerce transactions, inefficient information dissemination and awareness-raising, regulations that lag technological developments, and overall shortcomings in coordination, sharing and collaboration in this space.

Initiating inter-ministerial coordination and a strong public-private dialogue on e-commerce and the digital economy are key. In addition, identifying ways to strengthen the voice of start-ups and other e-commerce vendors, often operating outside the traditional business associations and bodies, would further help support the contribution of e-commerce to the country's development. Embarking upon the development of a national e-commerce strategy would help to create a national vision, increase trust in e-commerce and improve the enabling business environment, as well as provide the impetus for public-private dialogue and coordination.



Figure 1: Key actions to enhance e-commerce in Zambia (combined responses by the public sector and the private sector: 31 total respondents)



METHODOLOGY

A four-step approach was used for the Rapid eTrade Readiness Assessment for Zambia, to ensure a high level of participation and engagement of key stakeholders in the consultative process.

Figure 2: Assessment methodology



✓ **Phase 1 | Stakeholder engagement and literature review, from 1 April to 4 May 2018.**

It included official communications between UNCTAD, the Zambia Ministry of Commerce, Trade and Industry (MCTI) and the Permanent Mission of Zambia in Geneva. Literature review and data analysis were made possible through access to up-to-date statistics provided by the International Telecommunication Union (ITU), the Universal Postal Union (UPU) and the World Bank, in addition to data compiled by UNCTAD on behalf of the eTrade for all initiative.

✓ **Phase 2 | Online survey customization and dissemination, 16 April to 31 May 2018.**

Two (2) customized questionnaires for the public and private sectors were distributed by MCTI and the UNCTAD national consultant. A total of 43 completed questionnaires were used for this report, all received online.

✓ **Phase 3 | Semi-structured in-country interviews and local validation during the consultants' mission to Lusaka, on 7-11 May 2018.**

Eight focus group meetings were held in MCTI facilities, in addition to 10 meetings in stakeholder's facilities. A briefing on early findings and suggestions was presented to the Department of Foreign Trade, MCTI and interested

stakeholders from the public and private sectors on 11 May 2018. The UNCTAD national consultant facilitated one additional focus group discussion and interviewed one stakeholder following the mission. One stakeholder was interviewed via Skype during the week of 11 June 2018.

✓ **Phase 4 | Report writing and finalization with UNCTAD, 14 May – 31 October 2018.**

As with all other Rapid eTrade Readiness Assessments, the seven policy areas used in the eTrade for all initiative were used as entry points for this assessment. These are:

- ✓ E-commerce readiness assessment and strategy formulation
- ✓ ICT infrastructure and services
- ✓ Trade logistics and trade facilitation
- ✓ Payment solutions
- ✓ Legal and regulatory frameworks
- ✓ E-commerce skills development
- ✓ Access to financing

The information provided in this report is based on data collected from respondents to the survey for both the public and private sectors and the stakeholders' meetings during the in-country mission.



SUMMARY OF MAIN FINDINGS AND MAIN RECOMMENDATIONS

MAIN FINDINGS	MAIN RECOMMENDATIONS
 e-Commerce Readiness Assessment and Strategies Formulation	
<p>Zambia's 7th National Development Plan (7NDP) 2017-2021 emphasizes the need for a 'Smart Zambia' and places a strong focus on ICT infrastructure and technology, human resource development, and policy, legal, institutional and regulatory framework enhancements for digitalization. Currently, none of the 7NDP Working Groups explicitly cover e-commerce and e-commerce is not a priority topic in formal inter-ministerial mechanisms. Discussion between the Government and the private sector on e-commerce issues is limited.</p>	<p>Engage in a national e-commerce strategy development process to provide the much-needed impetus to formalize inter-ministerial and public-private coordination and collaboration. Create a common understanding of e-commerce across stakeholder groups to boost trust-building in the e-commerce ecosystem. Support the tech start-up and e-business community to enable them to form a chapter of an association or chamber of commerce, to increase the private sector's voice in e-commerce discussions.</p>
 ICT Infrastructure and Services	
<p>Zambia is a mobile-only country in the use of Internet broadband. Although the price of mobile Internet continues to decline and reliability is improving, these elements remain a challenge especially for application-based e-commerce firms. Broadband Internet remains out of reach for many people living in rural areas besides Lusaka, and among low-income consumers.</p>	<p>Sensitize and train all Government Ministries and other agencies to make use of the National Data Center. Ensure MNO quality service parameters are at an agreeable level and fully enforced to secure servicing to all areas of the country. Continue to invest in ICT infrastructure to improve the speed, reliability and affordability of broadband Internet, particularly in rural areas.</p>
 Trade Logistics and Trade Facilitation	
<p>Despite efforts deployed since 2014, physical addressing (street names, house numbers) remains weak, particularly in the unplanned settlements mushrooming across the country. The de minimis value on imports for personal consumption is significantly high at US\$ 2,000, and there are attempts to use this threshold to import items intended for commercial use. The cost of trade logistics remains high despite significant efforts by development partners to assist the Government in implementing the Trade Facilitation Agreement (TFA). Through trade facilitation, the Zambia Postal Services Corporation (ZAMPOST) supports the Government's objectives for inclusive economic and social development. The rapid evolution of e-commerce is also driving the sustained growth of cross-border postal traffic, with Zambian customers expecting a reliable service and greater visibility of their orders.</p>	<p>Continue supporting the ZICTA project of assigning street names and house numbers, and work with City Councils to ensure these are physically put in place. Expediting this project would require additional resources. Continue effort to improve border clearance processes, including clarity on the application of the de minimis threshold. Building on existing initiatives, continue to provide information and raise awareness of customs clearance procedures to private sector operators. Conduct an operational readiness for e-commerce (ORE) assessment and implement improvements to enhance the delivery efficiency of ZAMPOST. Airlines and ZAMPOST should also expand and optimize the use of Electronic Data Interchange (EDI). Continue to adopt UPU initiatives such as the postal easy-export programme that spur economic development and social inclusion of MSMEs.</p>



MAIN FINDINGS	MAIN RECOMMENDATIONS
 Payment Solutions	
<p>Mobile money has gained significant momentum in Zambia. It is offered by mobile operators, banks and third parties. Interoperability between banks/financial services providers, mobile wallets and mobile operators is improving but is not yet universal. For e-commerce companies the most common form of payment system that they offer to their customers is cash-on-delivery.</p>	<p>Improve interoperability between all parts of the mobile money value chain: between banks; between banks and mobile money service providers; and between different payment service providers. Develop public campaigns to inform and sensitize potential vendors and customers on mobile money and mobile banking. Expand incentives for companies to set up FinTech and other digital financial services.</p>
 Legal and Regulatory Framework	
<p>In the spirit of a Smart Zambia and the 7NDP goal of achieving a diversified and inclusive economy, the Government has engaged in a number of initiatives to better govern digitalization and to improve the overall business environment. Legal and regulatory improvements directed at supporting e-commerce are limited, however. The overall challenge is the limited interface between the Government, including regulators, and the private sector. The Government is putting in place strategies, legislation and regulations that would support e-commerce, but coordination remains a challenge.</p>	<p>Formalize an inter-ministerial coordination mechanism on e-commerce that includes relevant regulators. The Business Regulatory Review Agency (BRRA) should undertake a Regulatory Impact Assessment (RIA) on regulations pertaining to e-commerce. Public consultations should feed into this RIA. In the meantime, actions should be taken to clarify and improve the tax classification of e-commerce businesses, reducing uncertainty and improving the environment for new startups.</p>
 e-Commerce Skills Development	
<p>Skills gaps exist at many levels, including in the sectors needed for e-commerce (web development, application development, content management, digital products development). For development of the skills-sets required in e-commerce, some of the universities and start-up hubs (BongoHive, Hackers Guild) may offer certain services but are under-resourced. Some Zambian software developers would like the Government and big businesses to source more services locally.</p>	<p>Continue campaigns to sensitize, build awareness and educate citizens about e-commerce and the digital economy. Promote inclusion of e-commerce specific training in degrees and courses offered by the higher-level education providers. Open up public procurement to Zambian software developers, providing them with business opportunities while also cultivating required skills within the country.</p>
 Access to Financing	
<p>Zambia has a strong policy focus on extending financial inclusion. Led by the Ministry of Finance, the Zambian government released in late November 2017 a national strategy to guide policymakers, regulators and the private sector to extend financial inclusion. Specific financing solutions for early stage start-ups and growth-oriented businesses in the e-commerce ecosystem still seem to be lacking.</p>	<p>Develop special financing products for MSMEs involved in e-commerce. While developing policies and strategies for financial inclusion, institute consultative processes with start-ups and e-commerce vendors. Continue to harmonize and strengthen various pieces of legislation governing the financial sector.</p>

FINDINGS UNDER THE SEVEN ETRADE FOR ALL POLICY AREAS

1. E-COMMERCE READINESS ASSESSMENTS AND STRATEGY FORMULATION

The Government sees information and communication technologies (ICT) as key to the country's development, with Zambia's Seventh National Development Plan (2017-2021) aimed at providing the economic growth necessary for the actualization of the Smart Zambia Master Plan. Although the Government's strong drive for e-government is embedded in key national development policies, recent policies and strategies remain rather silent on e-commerce. The current policies and strategies promoting ICT are focused on e-government, and mainly concern themselves with ICT infrastructure and technology, human resource development, as well as policy, legal, institutional and regulatory framework enhancement. The Government is implementing a lot in these areas but coordination, collaboration and buy-in across stakeholder groups is limited. The Government's efforts to strengthen e-government should happen in unison with efforts to strengthen the enabling environment for e-commerce.

Zambia ranked 121 out of 144 economies in the 2017 UNCTAD B2C E-commerce Index.¹ In the 2017 International Telecommunication Union (ITU) ICT Development Index, Zambia was ranked 146 out of 176 economies; in the World Economic Forum (WEF) Networked Readiness Index it ranked 116 out of 139 economies; and in the UPU Integrated Index for Postal Development it ranked 161 out of 173 economies.

Given Zambia's improvement from 98 in 2016 to 85 in 2017 (among 190 economies) in the World Bank's Ease of Doing Business Index², the country's ranking in the ICT and e-commerce indices is lower than expected. This could partly be due to the thus far limited attention paid to e-commerce by the Government, and the limited support by key development partners in this area. It should be noted, however, that a number of the improvements in the overall business environment have the potential to be conducive to the e-commerce environment as well.

Table 1: E-commerce Rankings in Selected Southern African Countries

Country	ITU IDI Ranking	UNCTAD B2C E-commerce Index	WEF Networked Readiness Index	UPU Integrated Index for Postal Development
Mauritius	72	39	49	54
South Africa	92	72	65	88
Botswana	105	87	101	113
Namibia	118	89	99	93
Zimbabwe	136	109	122	126
Zambia	146	121	116	161
Tanzania	165	119	126	92
Malawi	167	131	132	109
Madagascar	169	118	135	94

Source: ITU, UNCTAD, UPU and WEF

¹ The UNCTAD B2C E-commerce Index measures the readiness of countries to engage in online commerce, using four indicators: Internet use penetration, secure servers per one million inhabitants, credit card penetration, and a postal reliability score.

² The World Bank Ease of Doing Business Index ranks countries against each other based on how conducive the regulatory environment is to business operations.



1.1 National policies related to ICT, e-government, e-commerce

A relatively strong policy framework exists for ICT. Current national development policies and strategies, however, remain rather silent on e-commerce and are instead focused on e-government for overall national development. The national ICT policy is relatively strong on e-commerce, but it dates back to 2006. While still formally in effect, it has de facto been superseded by the Smart Zambia Master Plan.

The national policies and strategies pertaining to ICT have a strong focus on e-government, with objectives aimed at strengthening ICT infrastructure and technology, human resource development, as well as policy, legal, institutional and regulatory framework enhancements. There is limited focus on e-commerce and the digital economy for economic and social development.

Both public and private sector stakeholders in Zambia think that developing a national e-commerce strategy is the most important step that the Government could take to enhance e-commerce development in the country. The same strong interest in developing an e-commerce strategy came out in virtually all focus group meetings and interviews during the in-country mission.

Vision 2030

In 2006 Zambia embarked on its first long-term development plan under Vision 2030, aimed at becoming a “Prosperous Middle-Income Nation by 2030”. To achieve this, Zambia is pursuing the establishment of a “knowledge-based economy that is fully competitive, dynamic, robust and resilient in an integrated global and liberal environment”. Vision 2030 sets out individual sector targets. For e-commerce development, the targets under Science and Technology, and Information and Communications Technology are relevant.

The current national development plan (7NDP) is the fourth plan that pursues the objectives of Vision 2030. While no scorecard on the implementation of the Vision through the national development plans is available, the 7NDP notes that there were challenges with the implementation of the three previous plans that resulted in not meeting all their objectives. The Government’s analysis notes that there were too many designated priority sectors in previous national developments plans, and this resulted in thinly spreading resources with minimal impact. This was compounded by weak inter-sectoral coordination and programme linkages leading to poor implementation sequencing and, ultimately, the inefficient use of resources. However, Zambia is poised to exceed the numeric targets set by Vision 2030 to be “An information and knowledge-based society by 2030”, since the targets for mobile phone access and Internet access have already been met.

Table 2: Science & Technology and ICT Targets under Vision 2030

Science and technology	A nation in which science, technology and innovations are the driving forces in national development and competes globally by 2030.	Acquire and upgrade infrastructure required for training in science and technology and R & D academic institutions by 2030.
		Build and sustain human resource capacities and capabilities by 2030; promote development of enterprise using outputs from science and technology and R & D activities by 2030.
		Strengthen linkages between productive sectors and research institutions in the economy by 2030.
		Establish and strengthen practical application of science and technology in all areas.
Information Communication Technology (ICT)	An information and knowledge-based society by 2030.	Increase connectivity to fibre optic (telecommunication infrastructure rollout) and other high-capacity transmission technologies (networks) from 7 to 72 districts.
		Increase access to phones per 100 people to 50.
		Increase access to ICT services such as Internet users from 35,000 in 2005 to 1,000,000 by 2030.

Source: Vision 2030: A prosperous Middle-income Nation by 2030



Seventh National Development Plan (7NDP)

Implementation of Zambia's Seventh National Development Plan (2017-2021) began this year and is called "Accelerating development efforts towards the Vision 2030 without leaving anyone behind". The 7NDP takes an integrated (multisectoral) development approach and serves as the Government's strategic guide for attaining the long-term development objectives outlined in Zambia's Vision 2030. The 7NDP

aims to provide the economic growth necessary for the actualization of the Smart Zambia Master Plan (also known as the National ICT Development Project).

One of the ten Development Outcomes of the 7NDP is #8: Enhanced Information and Communication Technology (ICT). Under this outcome the following strategies and programmes are foreseen:

Table 3: Strategies and programmes of the 7NDP Development Outcome #8: Enhanced Information and Communication Technology (ICT)

Strategy	Programmes
<p>1 Strengthen legal framework for information and communication technology. The Government will put in place appropriate laws, policies and regulations to support the provision of electronic services and to promote private sector/citizen confidence and participation.</p>	<p>a) Policy, legal, institutional and regulatory framework review and enhancement.</p>
<p>2 Improve ICT infrastructure for service delivery Improving ICT infrastructure requires investment in and upgrading of telecommunications networks, data centres and access devices through the Smart Zambia Master Plan. This will improve the flow of information within and among government institutions, enterprises and citizens to bring about social and economic benefits.</p>	<p>a) Develop ICT common infrastructure b) Establish ICT innovation park c) Expand broadband infrastructure expansion</p>
<p>3 Provide electronic services The Government will transform its mode of delivery of public services from traditional face-to-face interaction to online channels to ensure that citizens and business entities can access services anywhere and anytime. The Government will also facilitate ICT skills up-scaling for public service workers and the private sector. To ensure sustainable development and utilization, the Government will accelerate the mainstreaming of ICT in the Zambia education curricula.</p>	<p>a) Deploy electronic services b) Scale up ICT skills in public and private institutions c) Mainstream ICT in Zambian schools</p>

Source: Zambia Seventh National Development Plan (2017-2021)



Smart Zambia Master Plan

Smart Zambia Master Plan's vision is "a prosperous and globally competitive knowledge-based developed country by 2063". Aimed at leveraging ICT for job creation, value addition and global competitiveness, the Smart Zambia Master Plan's objectives are:

- a. To contribute to the ICT sector's development by introducing an efficient and advanced telecommunication network as a driving force to further promote the nation's economic and social development;
- b. To support achievement of a variety of government goals, such as better delivery of services to the public and citizens, through better access to information and more efficient government administration;
- c. To establish a high-capacity fixed and wireless broadband infrastructure for government, business, citizens and ICT regional hub services;
- d. To reduce the cost of communication services in Zambia; and
- e. To develop education and human capital.

Implementation of the Smart Zambia Master Plan has made significant gains, particularly in ICT infrastructure. These developments are discussed in the section on "ICT infrastructure and services".

ICT policy and e-commerce

Zambia's national ICT Policy dates back to 2006 and contained several commitments related to e-commerce. While still formally in effect, it has been de facto superseded as a roadmap for national ICT development by the Smart Zambia Master Plan. The ICT Policy goal "to promote Zambia's full and effective participation in national, regional and global trade through E-Commerce services and facilities" was supported by the following Government commitments:

1. Establish monetary and fiscal policy measures to ensure consumer confidence in E-Commerce;
2. Develop effective laws and regulations that shall govern E-Commerce at national level

supported by regional and international systems; and

3. Establish mechanisms to protect intellectual property rights related to E-Commerce.

While there are no monitoring reports available on the implementation of the national ICT Policy, progress on the commitments related to e-commerce appears to be limited. Most progress to-date has been undertaken in the national ICT Policy's commitment to restructure and modernize the banking and payment system in order to increase the development of e-commerce and trade. Three pieces of legislation currently undergoing review could also advance the commitment to domesticate, harmonize and enhance electronic commerce laws: the Data Protection Bill, Cyber Crime and Security Bill, and e-Commerce and e-Transactions Act.

1.2 Current e-commerce market place activity

Overall, Zambia's start-up and e-commerce scene in the capital Lusaka is vivid, growing and dynamic. In other parts of the country, e-commerce activity is relatively limited.

The size of the e-commerce sector is difficult to measure. BongoHive links about thirty start-ups and e-commerce businesses to their website. However, this is not a full account of the start-ups that have at some point liaised with them and it is not representative of the total number of active e-commerce ventures in Zambia. Other hubs, incubators and accelerators do not list or provide information on the start-ups affiliated to them. No registration information is available from the Government that could indicate the number or type of start-ups or e-commerce vendors in the country. This is also true for the "Facebook shops" and other types of basic buying and selling that occur over the Internet.

The number of e-commerce start-ups in logistics is increasing, especially in food delivery³. A few web development and design start-ups also provide online marketing services⁴, a few providing different types of online shopping services, and some in taxi app development.⁵ In tourism, hotels and tour operators

³ Zoom Delivery is briefly discussed under Trade Logistics and Trade Facilitation.

⁴ These include participants to FGDs, Shengamo Media and Puizix Technologies.

⁵ For Ulendo Taxi see Box 2.



typically allow bookings through their own websites or third-party websites.

Zambia Postal Services Corporation (ZAMPOST) has plans to develop an e-commerce platform, with a digital payment solution, that would support MSMEs selling online to domestic and international markets. When launched, this new platform should contribute to the increased adoption of e-commerce by local MSMEs, as well as more widespread use of digital payments.

The Zambia Tourism Agency launched their latest mobile app - Zed Tourism Mobile App - in January 2018. The contents of the app include featured places, tourist destinations, food and drinks, hotels, entertainment, sport and shopping. The app also includes reference pictures, ratings, descriptions, and GPS tagging. According to the Ministry of Tourism, work is underway to develop more domestic platforms and apps for the tourism market.

1.3 National policies related to trade

Zambia's current trade policy and trade diagnostics do not cover e-commerce. Yet, the many of the current trade policy objectives could also be seen as e-trade policy objectives. These include improved trade facilitation, secured access to export markets and improved logistics management.

Zambia has access to a market of 390 million people under the Common Market for Eastern and Southern Africa (COMESA), 277 million people under the Southern African Development Community (SADC) and 600 million people under the tripartite community (COMESA-Eastern African Community-SADC). The tripartite region has a combined GDP of US\$ 1.3 trillion and about 60 per cent of total intra-Africa trade, providing significant opportunities for the growth of e-commerce. The Africa Continental Free Trade Area (CFTA) also offers significant market access potential for e-commerce.

Zambia imports more than it exports to both COMESA and SADC. Zambia also relies on overseas markets to earn a substantial proportion of its export revenue mainly accessed through preferential trading

arrangements, such as Everything But Arms initiative and the African Growth and Opportunity Act, as well as Japanese, Chinese, Indian and Canadian initiatives. Zambia is further negotiating the Economic Partnership Agreements with the European Union under the Eastern and Southern Africa configuration. However, the country has not fully utilized these opportunities due to, among other factors, sanitary and phytosanitary requirements, high cost of production, distance to markets, trade financing arrangements, border efficiency and quality of products issues.

The Ministry of Commerce, Trade and Industry (MCTI) formulates trade policies in consultation with the relevant stakeholders. In August 2018, the Cabinet approved a new National Trade Policy and National Export Strategy.

Zambia is an active member of the Enhanced Integrated Framework (EIF) programme. As part of the EIF, a Diagnostic Trade Integration Study (DTIS) of the country was done in 2005 and updated in 2014. Neither the DTIS nor DTIS Update discusses e-commerce in detail. The DTIS-U notes that Zambia is registering more dynamic growth rates for modern services exports such as ICT, one of the sectors that has higher value-added.

Zambia is an original Member of the WTO and accords at least Most Favored Nation (MFN) treatment to all its trading partners. Zambia is not a signatory to the Information Technology Agreement (ITA) or the Government Procurement Agreement (GPA). Zambia ratified the WTO Trade Facilitation Agreement in December 2015, and notified its Category A, B, and C commitments in January 2016. Zambia has opposed suggestions for negotiations of the WTO Work Programme on E-Commerce.⁶

1.4 National coordination

Currently, no coordination mechanism (inter-ministerial or public-private) focuses on e-commerce or covers all seven eTrade for all policy areas. Significant interest exists in setting up coordination mechanisms both for the public sector alone and as a mechanism for public-private dialogue.

⁶ The WTO has a 1998 Work Programme on E-commerce. This Work Programme provides for the discussion of trade-related issues relating to electronic commerce to take place in the relevant WTO bodies. From July 2016, the debate on electronic commerce at the WTO intensified when several Members proposed to negotiate new rules in addition to the existing ones in the WTO Agreements.



Strong interest in an inter-ministerial coordination mechanism came through in the public sector survey. The action “Formalize the inter-ministerial discussions on e-commerce into a proper task force or committee, involving all relevant Government agencies” was seen as a priority, along with the need for an e-commerce strategy.

Many issues raised in the focus group discussions, interviews and survey responses relate to the lack of inter-ministerial coordination and collaboration. These include shortcomings and delays in the e-commerce regulatory environment, lack of common understanding about what e-commerce is and limited knowledge of it, and issues pertaining to trust and information sharing. One option for improving inter-ministerial coordination on e-commerce would be to link such discussions to other coordination committees, such as the National Trade Facilitation Committee. For example, a sub-committee on e-commerce could be formed. In addition to improving inter-ministerial coordination, stronger public-private dialogue on e-commerce would also assist in addressing some of the barriers to e-commerce development.

E-commerce in the Ministry of Commerce, Trade and Industry (MCTI)

MCTI has been assigned as the lead Ministry for e-commerce in the Government; the assessment was facilitated by the Department of Foreign Trade within MCTI. Some stakeholders noted that there is no directorate at the MCTI dedicated to issues facing start-ups and e-commerce vendors. Given the unique issues facing start-ups and e-commerce firms, which often differ from issues facing large companies, entrepreneurs interviewed during the fact-finding missions felt that a dedicated department in MCTI focused on their needs would be helpful.

A number of Ministries and other Government entities play a role in e-government. Key entities include the E-Government Division at the Cabinet Office, Smart Zambia Institute, Ministry of Transport and Communications, and Ministry of Information and Broadcasting Services. Despite the linkages between e-government and e-commerce, in terms of strengthening the overall enabling environment for both, efforts in these entities are siloed from the efforts in MCTI.

7NDP Cluster Advisory Groups

Implementation of Zambia’s Seventh National Development Plan (2017-2021) started in early 2018 and is coordinated by Cluster Advisory Groups (CAGs), which bring together sectors sharing common overall objectives. Institutions that will jointly address a particular development outcome are tasked with developing one integrated implementation plan, relying on inter- and intra-sectoral synergies. The relationships among the institutions will be clearly mapped to reinforce development outcomes by all players.

Preparing for the digital economy requires a concerted, holistic, cross-sectoral and multi-stakeholder approach to policymaking. The 7NDP Cluster Advisory Groups would provide an excellent basis for inter-ministerial or public-private coordination on e-commerce. Although e-commerce is thus far not explicitly included in any of the CAGs, several are relevant to the e-commerce sector, such as CAG #3 - A diversified tourism sector, CAG #5 - Improved access to domestic, regional and international markets, CAG #8 - Enhanced Information and Communication Technology and CAG #9 - Enhanced decent job opportunities in the economy.

Business and industry associations

Tech start-ups, some focused on e-commerce, indicated difficulties at times in getting their voices heard by Government and other stakeholders. This suggests an opportunity to develop stronger private sector associations focused on firms involved in e-commerce. Tech start-ups, as in other countries, are generally not members of Chambers of Commerce or business associations/federations. Key associations include the Zambia Chamber of Commerce and Industry (ZACCI) and the Zambia Association of Manufacturers (ZAM).

The Information and Communications Technology Society of Zambia (ICTSZ), meanwhile, focuses on regulating and growing the ICT profession, playing an advisory role to government on ICT matters, and promoting research and technology advancement, as well as their implications to the nation. The ICTSZ is registered with the Registrar of Societies and in the process of becoming a corporate body through an Act of Parliament that is currently called the ICTSZ Bill. Start-ups, e-commerce vendors and hubs, as well as other stakeholders interviewed for this assessment, did not view themselves as potential members and



beneficiaries of the ICTSZ. In summary, there seems to be an absence of private sector associations where the voices of e-commerce firms and tech start-ups could be consolidated and shared with various stakeholders.

Some stakeholders suggested that the existing regulatory and legal framework does not respond to the needs of start-ups and e-commerce firms. The current policies and bills in Parliament, such as the need for all IT experts to be affiliated to the ICTSZ, could bar other players from entering the market. In general, a stronger public-private dialogue was called for to ensure that all voices are heard in the policymaking process.

1.5 Access to relevant statistics

Although ICT statistics from operators and Internet Service Providers (ISP) are available at the Zambia Information and Communications Technology Authority (ZICTA), e-commerce data and statistics are not readily available.

ZICTA's ICT statistics portal provides a time series of selected key ICT indicators in Zambia. The indicators are aggregated across firms, households and individuals to serve primarily as a general reference point for the performance of the ICT sector. Data and statistics specific to e-commerce are not currently available.

The Central Statistical Office (CSO) under the Ministry of National Development Planning is charged with coordinating all statistical activities in the country and produces official statistical information. The CSO's Economic and Financial Statistics Division/External Trade Branch is responsible for compilation and analysis of the Merchandise Trade Statistics between Zambia and the rest of the world. It receives its data from Customs; there are no indicators to measure e-commerce separately from all trade. Neither the Ministry of Finance nor the Bank of Zambia have statistics on e-commerce.



2. ICT INFRASTRUCTURE AND SERVICES

Zambia is a mobile-only country when it comes to the use of broadband Internet. Three Mobile Network Operators (MNO) are currently active, with a fourth recently licensed and expected to enter the market shortly. Although the impending arrival of the fourth operator seems to have already improved the pricing and reliability of mobile Internet, both remain inadequate especially for application-based e-commerce firms. Moreover, while Internet penetration has increased in Lusaka and other key cities, connecting rural populations and lower-income consumers remains an issue. The Smart Zambia Master Plan is aimed at addressing many of the challenges that may be inhibiting the growth of affordable and reliable Internet, including harmonized construction of national ICT infrastructure.

The 7NDP identified ICT as a catalyst for socioeconomic development and for promoting competitiveness, as well as an enabler of good governance. However, there are several challenges regarding access to and utilization of ICT in Zambia. ICT infrastructure, both public and private, is inadequate and fragmented, resulting in generally poor connectivity and communication. This is particularly true in rural areas.

2.1 Broadband/Mobile/Smartphone penetration

Zambia is a mobile-only country when it comes to broadband Internet. The country's fixed broadband Internet subscription rate is very low and below the average for African countries.

Zambia's fully licensed Mobile Network Operators (MNO) currently active are MTN Zambia, with the country's largest market share (about 48.3 per cent in 2016), Airtel Zambia (41.4 per cent in 2016) and the government-owned Zamtel.

Table 4: Network coverage in Zambia, 2010-2017

Network Coverage	2010	2011	2012	2013	2014	2015	2016	2017
Internet Points of Presence (Districts)	–	–	–	99	–	–	–	–
Public Switched Telephone Network (PSTN) ⁷ Area Coverage (%)	90	90	90	90	90	90	91	91
National Network Geographical Coverage (%)			78	78	78	78	78	78
National Network Geographical by Population (%)						93	93	93
Number of Towers								2,426
Number of 2G Sites							2,697	2,990
Number of 2G/3G Sites							2,354	2,141
Number of 4G Sites							192	254
Number of 2G/3G/4G Sites							254	803
Network Coverage by Airtel Zambia		–	–	42.7%	42.7%	42.7%	42.7%	42.7%
Network Coverage by MTN Zambia		36.6%	37.5%	39.4%	31.7%	45.4%	44.1%	44.1%
Network Coverage by Zamtel		75.0%	75.0%	29.7%	27.0%	27.0%	27.0%	27.0%

Source: ZICTA

⁷ The public switched telephone network (PSTN) is the aggregate of the world's circuit-switched telephone networks that are operated by national, regional, or local telephony operators, providing infrastructure and services for public telecommunication. The PSTN consists of telephone lines, fiber optic cables, microwave transmission links, cellular networks, communications satellites, and undersea telephone cables, all interconnected by switching centres, thus allowing most telephones to communicate with each other.



Zamtel is the only MNO with a fixed network design categorization while Airtel and MTN Zambia are additionally licensed to provide wireless network, public payphone, public data, carrier of carriers, Internet service and value-added service. The duration of the mobile cellular licence is 15 years, whereas the licence for Internet service is five years. MTN Zambia and Zamtel's mobile cellular licences are valid until 2025 while Airtel Networks Zambia is covered until 2028. A fixed network is valid for 25 years and Zamtel's jurisdiction is currently valid until 2035.

In March 2018, ZICTA officially announced that they have given a notification to award a fourth MNO licence to UZI Zambia Limited, based on reviews carried out over the past two years. The notification is for a Network Licence under the International Market Segment and a Service Licence under the National Market Segment.

Vodafone Zambia, meanwhile, has been in operation since 2016. ZICTA has not issued any licence to Vodafone Zambia to offer voice services in the country and the firm's licence is restricted to Internet services only. In March 2018, ZICTA, however, granted the

company a licence allowing provision of voice over data services – a first for Zambia. Vodafone Zambia is also set to launch 4G voice services (Voice over LTE – VoLTE) commercially in the very near future.

There are 20 Internet Service Providers (ISP) currently in Zambia, and the duration of the Internet Service licence is five years.

Social media is a popular means for communication between citizens and between citizens and the state. Social media platforms are also used to buy and sell some goods and services, however information on the volume of such basic e-commerce is not available. A 2015 ICT survey by ZICTA found that Internet users in the country spend their time online primarily on social networking sites.

Zambia was the first country in Africa to implement the Facebook's Internet.org (now called Free Basics) initiative in 2014 in partnership with Airtel. The platform enabled access to designated online sites including basic Facebook content and its instant messaging service, Wikipedia, Google and AccuWeather, as well as local health and jobs services including

Table 5: Zambia's key ICT indicators

Volume Statistics	2010	2011	2012	2013	2014	2015	2016	2017
Population - CSO Estimate	13,092,666	13,721,498	14,156,468	14,605,555	15,068,729	15,545,778	16,037,474	16,405,229
Number of Mobile Operators	3	3	3	3	3	3	3	3
Number of Registered SIM Cards ⁸			1,046,288	4,986,192	10,231,609	12,133,818	–	14,508,953
Number of active Subscribers	5,447,536	8,164,553	10,524,676	10,395,801	10,114,867	11,557,725	12,017,034	13,438,539
Mobile Penetration/100 Inhabitants	41.6	59.5	74.3	71.2	67.1	74.3	79.4	81.9
Mobile Broadband users	–	379,888	2,314,983	2,211,640	3,741,615	6,090,412	5,156,365	7,723,855
Mobile Broadband penetration/100 users		2.8	16.4	15.1	24.8	39.2	32.2	47.1
Number of Active ISPs				16	16	16	16	14
Number of Fixed Broadband Subscribers	10,267	19,795	15,839	17,231	29,349	38,316	35,919	36,108
Fixed Internet Penetration per 100 inhabitants	0.08	0.14	0.11	0.14	0.19	0.25	0.22	0.22

Source: ZICTA

⁸ According to ZICTA, in 2012-2013 SIM card registration was optional, and data for the "Number of Registered SIM Cards" has in some years been erratic or missing because of challenges faced in receiving the data from operators.



Go Zambia Jobs, Mobile Alliance for Maternal Action and Women's Rights App.⁹

Currently, other social media seem to be gaining popularity and with most of the start-up/e-commerce vendors not operating on Facebook, indications are that Zambians are not limiting themselves to the contents made available by Free Basics.

2.2 Reliability, affordability, latency, speed, coverage

The cost and reliability of Internet must be enhanced if the country is to maximize the benefits of e-commerce.

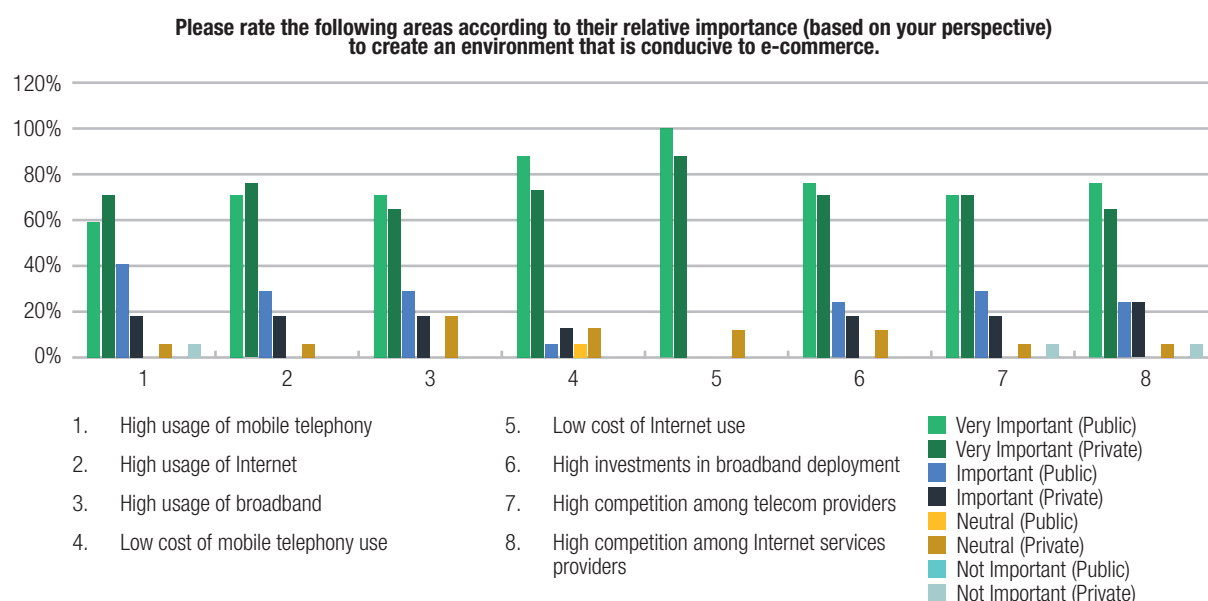
Public and private sector stakeholders indicated that affordable and reliable Internet is a critical factor for creating an environment conducive to e-commerce. As an example, representatives of Ulendo Taxi mentioned that Fridays and Saturdays are the busiest days for them but also the time when the Internet is the least reliable. This can be detrimental to their business, as a customer may not be able to obtain the services of Ulendo Taxi because of patchy Internet access. For these types of new services, customers are not likely to try the service again if the first attempt does not succeed. Also, representatives of both Ulendo Taxi and Zoom Delivery (a food delivery company) brought up the varying levels of access in different locations.

Both companies use apps that rely on a website with GPS, which requires fast and reliable Internet that is not always readily available to customers.

All MNOs (MTN, Airtel, Zamtel) and mobile ISP Vodafone have dropped prices of mobile broadband over the first half of 2018. The price reduction presumably has taken place in anticipation of increased competition with the fourth MNO licence awarded. However, according to local software developers the cost of mobile broadband is still relatively high, partly due to the high daily usage of Internet (typically about 4 GB a day) in this sector. While very welcome from a financial point of view, some software developments expressed concern that the reliability of mobile broadband would eventually suffer as more people take advantage of the lower prices.

During the fact-finding mission, Government stakeholders and regulators noted the need for an enforced policy or standard for ISPs, including MNOs, on access, speed, price and overall reliability of the Internet. They also mentioned that regulators in charge of enforcing such standards should be assessed from time-to-time. On this topic, ZICTA noted that networks are up 90 per cent of the time, messages are delivered in certain number of seconds and, in general, there are quality service parameters that the ISPs needed to observe.

Figure 3: Key ICT infrastructure and services areas to create an environment that is conducive to e-commerce (combined responses by the public sector and the private sector: 34 total respondents)



Source: UNCTAD

⁹ ZICTA, 2015 ICT Survey Report – Households and Individuals, <http://www.zicta.zm/Views/Publications/2015ICTSURVEYREPORT.pdf>



2.3 Major infrastructure projects

Zambia is centrally located and surrounded by eight countries, with high potential and opportunity to be the ICT hub in the region. However, the country faces several infrastructure and services challenges, such as limited broadband infrastructure, underutilization of ICT in industries and business, and an underdeveloped ICT industry and innovations ecosystem.

Zambia's bandwidth availability from cross-border fibre-optic has improved over the years and, by 2017, fibre connections became available in all the country's ten provincial centres. Direct interconnections with Namibia, Botswana, Zimbabwe, Malawi and Tanzania enable digital traffic to these countries and beyond through the submarine cables that connect Africa to the rest of the world. To address remaining challenges, the Smart Zambia Master Plan has been developed to leverage ICT for job creation, value addition and global competitiveness.

Through the Smart Zambia Master Plan, the Government aims to achieve the harmonized construction of national ICT infrastructure in a phased approach.

Smart Zambia Phase I: National Data Center established.

The Zambia National Data Center project officially commenced in January 2016; installation and delivery were completed by the end of December 2016. The Center was handed over to the Government in February 2017. Financed by China at a total value of US\$ 440 million, the National Data Center was Phase I of the Smart Zambia Project.

The National Data Center at the Information and Communication Technology Authority (ZICTA) is located in Lusaka. The ZICTA Center covers an area about 450 square meters, with an equipment room containing 72 server cabinets, a power room, monitoring room, and two outdoor diesel-engine generators supported by underground fuel tanks. The ZICTA cloud platform was designed to provide processing, networking, and storage facilities for Government and public institutions, and commercial enterprise services. Two backup data centres have been established, one at the Zamtel switch office in Roma and the other at the Zamtel switch office in Kitwe.

Smart Zambia Phase II: Focus on telecommunications networks, data centres and access devices.

The 7NDP proposed that the Smart Zambia Phase II Project be financed through a concessional loan at an estimated cost of US\$ 369 million. The project was envisaged to develop the National Optic Fibre Backbone, Metropolitan Area Network, Access Network (fibre and fixed wireless), Government Campus Network, Virtual Landing Stations, Regional Data Centre and a One-Stop Government Service Centre. The project is expected to improve the flow of information within and among government institutions, enterprises and citizens to bring about social and economic benefits.

In August 2017, the President of the Republic of Zambia signed a framework agreement between China and Zambia for this phase of the project. The project includes the construction of 808 new communication towers and 1,009 2G/3G/4G wireless stations. The voice service penetration is expected to increase from 70 per cent to nearly 100 per cent and data service penetration from 5 per cent to 40 per cent. It is also expected to create over 2,000 jobs, provide connectivity for entrepreneurs who will now save time and costs by transacting online, and promote financial inclusion by capturing the unbanked population.

Smart Zambia supports the e-commerce environment.

In order to strengthen the enabling environment for e-commerce, the projects that fall under the Smart Zambia Master Plan should be fully utilized. Utilization of the National Data Center by the Government has thus far been limited and although in principle the Data Center would be open to the private sector, there are no private sector users to date. The limited uptake by the Ministries could be due to the lack of information about the benefits of the National Data Centre, resulting in limited impetus to change current practices. Similarly, lack of awareness by the private sector of the opportunities related to using the National Data Center could be constraining their interest. Issues pertaining to trust, data protection and trade secrets may be additional contributing factors limiting uptake by the private sector.

Despite these initial challenges, the Smart Zambia Phase I and Phase II have the potential to contribute significantly to the country's e-commerce development.



3. TRADE LOGISTICS AND TRADE FACILITATION

Despite the approval in 2012 of the National Addressing Policy and the installation of more than 60,000 addressing plates since 2014, physical addressing remains relatively weak in Zambia. Only a small proportion of the population in Zambia has a home address, which creates a challenge for goods-based e-commerce activity. Goods that are ordered online cannot always be efficiently and reliably delivered to the buyer. Weak physical addressing is also a problem for a number of the local start-ups and e-commerce vendors, in particular delivery and taxi businesses. Nevertheless, ZICTA is working to complete the national rollout of its physical addressing project in all ten provinces by 2023. Long distances, toll fees and many non-tariff barriers make trade logistics expensive in Southern Africa in general and Zambia in particular. This affects all cross-border trade, including cross-border e-commerce activity.

3.1 Mode of delivery, last mile delivery, traffic, regulations

Only a small proportion of the population in Zambia has a home address. Weak physical addressing is a problem for a number of the local start-ups and e-commerce vendors, in particular delivery and taxi businesses as well as for overseas e-commerce vendors who may not be able to deliver ordered goods. In the end, it is the customers of these businesses that suffer from the weak physical addressing.¹⁰

ZICTA, through the Postal Services Act Number 22 of 2009, has the mandate to ensure that the entire population has access to a wide range of affordable, acceptable quality postal and courier services. The Act further provides ZICTA with the mandate to stimulate and foster growth and investment in the postal sector. Nevertheless, the inadequate addressing infrastructure in the country is a clear barrier to new entrants into the market and further investment by existing operators.

Through ZICTA, the Government is working to implement a National Addressing and Postcode Project. In 2012, a National Addressing Policy was formulated together with the individual local policies for the Lusaka, Kabwe, Ndola, Kitwe and Chingola districts. Implementation of the project is done in collaboration with local (municipal) authorities, who are responsible for providing initial mapping resources and supervision of the work. The management of address data is a key component of the project. In order to streamline the collection, verification and uploading of data into the national address database,

data collection is conducted simultaneously with the installation of house numbers.

Since 2014, physical addressing has been implemented through pilots in selected areas of the five aforementioned districts. More than 60,000 house number and street name signs have been installed over the past four years. The project is planned to continue over a five-year period until its completion in 2023 at a total estimated cost of ZMW 200 million (approximately US\$ 20 million). ZICTA is seeking funds to proceed with the 2019-2023 addressing rollout program.

At the same time, ZAMPOST is handling an increasing volume of parcels and small packets driven by e-commerce. As seen in the table below, the growth in import volume has been significant.

Table 6: Volume of letter-post items and parcels, 2014-2015

VOLUME STATISTICS	2014	2015
Number of letter-post items, domestic service	1,390,560	2,640,128
Number of letter-post items, international service - dispatch	335,517	365,674
Number of letter-post items, international service - receipt	471,927	1,218,986
Number of parcels, domestic service	N/A	7,825
Number of parcels, international service - dispatch	1,197	3,251
Number of parcels, international service - receipt	8,268	22,994

Source: UPU

¹⁰ "The food is getting cold and hungry customers start making calls", summarizes Zoom Delivery regarding the fundamental problems created by missing street names and house numbers.



In 2017, ZAMPOST joined the UPU operational readiness for e-commerce project for quality of service improvement for postal deliveries.

Trade logistics

Long distance, toll fees and many non-tariff barriers make trade logistics expensive in Southern Africa in general and Zambia in particular. This affects all cross-border trade, including cross-border e-commerce activity.

Although roads are in relatively good shape and a number of trade facilitation interventions have been implemented over the years, high logistics and road transport costs remain. Toll costs in SADC and COMESA are not yet fully harmonized. According to the information by the European Union office in Lusaka, driving a loaded Long-Distance Cross Border Vehicle from Johannesburg results in toll costs of US\$ 0.34/km; second highest in the region.¹¹

Road blocks also cause delays. From Lusaka to Beira (approximately 27 road blocks each way) the delay is 227 km per day; from Lusaka to Sasolburg, via Zimbabwe (approximately 50 road blocks each way) the delay is 291 km per day.

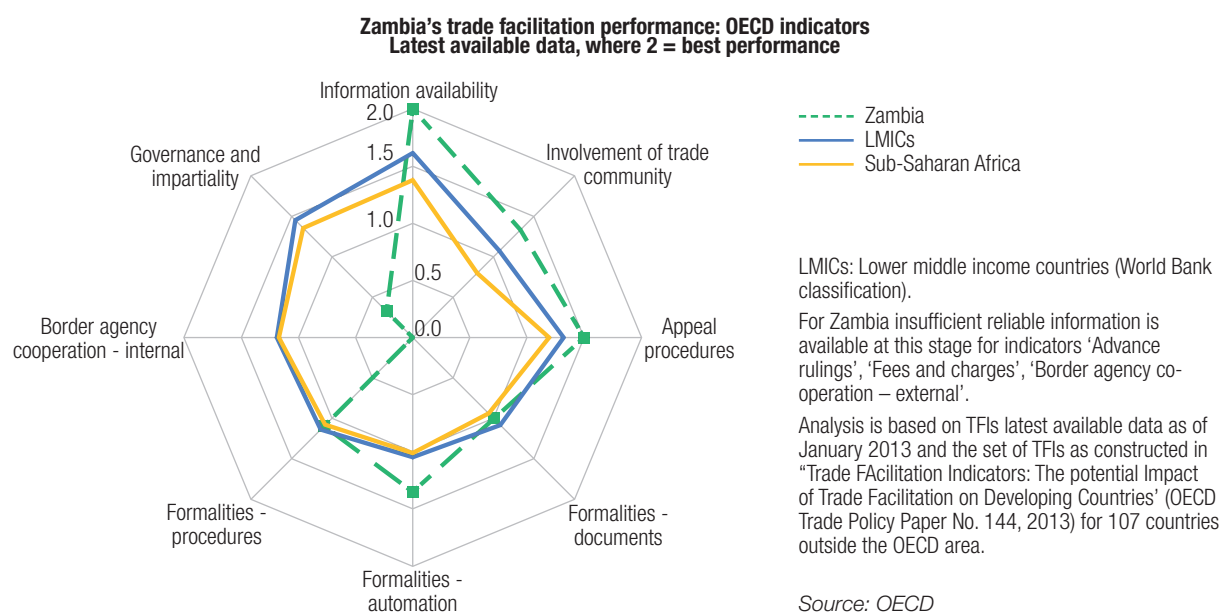
3.2 Trade facilitation

Zambia ratified the WTO Trade Facilitation Agreement (TFA) in December 2015 and was one of the first LDCs to develop an implementation schedule for the reforms. The country has attracted implementation support by development partners, including GIZ, EU, USAID and the World Bank.

According to OECD trade facilitation indicators (see Figure 4), Zambia performs better than the averages of Sub-Saharan African and lower middle-income countries in the areas of information availability, involvement of the trade community, appeal procedures and automation. Zambia's performance for internal border agency cooperation, and governance and impartiality is below the averages of Sub-Saharan African and lower middle-income countries.

OECD quantitative analysis for the group of lower-middle income countries, which includes Zambia, shows that the areas with the greatest impact on increasing bilateral trade flows and lowering trade costs are: formalities (documents, procedures, and automation); governance and impartiality; and information availability. If Zambia improved these areas, it could benefit considerably in terms of trade volumes and reduction of trade costs. Continued efforts in the areas of the harmonization and simplification of documents and streamlining of procedures would bring further benefits.

Figure 4: Zambia's trade facilitation performance: OECD indicators



¹¹ Highest being US\$ 0.37/km to Mozambique.



Customs

Part of Zambia Revenue Authority, Zambian Customs provides e-services through the Customs Electronic Licensing System, ASYCUDA World. All TFA Category 1 measures falling under them have been implemented.

Registered Agents can pay customs and excise duties on any inbound cargo online. Use of an Agent is not necessary, though, because an importing company can also opt to register for self-clearance; there are even apps available to do so.¹² Relating to the Smart Zambia Project Phase II, the Huawei-supplied e-government platform is supporting an e-customs system for twelve entry points (border posts). The project includes various components, including baggage scanners and an Electronic Cargo Tracking System (ECTS). The new system will add logistics tracking, cargo testing and ensure the collection of tax revenues for all goods passing through customs. The Zambia Customs Commission will use the system to combat tax evasion and increase total revenue.

At customs, the de minimis value on imports eligible for simplified clearance is US\$ 2,000. There is some confusion about this threshold, with some people believing that items imported under this threshold must be strictly for personal use. In fact, the US\$ 2,000 threshold simply means that formal clearance with an agent is not required. Although eligible for simplified clearance, such imports could still be subject to tax if intended for commercial sale. Despite sensitization and awareness-raising, there are still attempts to import items below the threshold for commercial sale without paying tax. The travelers rebate meanwhile, with a threshold of US\$ 1,000, applies to goods for personal use and not for business.

¹² Information on FNB Online Banking and the FNB App can be found at <https://www.fnbzambia.co.zn/for-my-business/services/PayZraCustomsAndDuties.html>



4. PAYMENT SOLUTIONS

Mobile money has gained significant momentum and is widely seen as a component of the financial inclusion agenda in Zambia. It is offered by banks, MNOs and Information Technology and Services companies focusing specifically on digital financial services (DFS). Yet, cash-on-delivery remains the most common form of payment for e-commerce transactions. For financial inclusion and electronic payments to reach all segments of the underserved market, interoperability between banks and mobile money operators, trust building in the general population and innovative ways of risk management will be required.

4.1 Banking penetration

Commercial banks still dominate the financial services market in Zambia. The Bank of Zambia is focused on building a reliable and secure National Payment System.

Banking ecosystem

There are 19 registered commercial banks in Zambia and they generally focus on low-risk, high-value services to a limited number of clients. They have the most formal branches of any financial provider category and their ATM networks extend their reach even further. These banks account for 84 per cent of the total institutional financial assets and credit by value in the market (across banks, non-bank financial institutions, pension funds and insurers). The share of deposits held by banks is even higher.

National Payment System (NPS)

Similar to other markets, the Zambian payment system is composed of Large Value Payment Systems (LVPS), for transactions between banks, and Retail Payment Systems, for transactions between consumers and financial service providers. The Zambia Interbank Payment and Settlement System (ZIPSS) is the only system in Zambia that facilitates large payments.

Under the retail payment streams, a number of payment mechanisms are available. These include the Electronic Funds Transfer (EFTs), cheques, Automated Teller Machines (ATMs), Point of Sale (PoS), remittance systems (both for domestic and international) and mobile payment systems.

Bank of Zambia's National Payment Systems Vision and Strategy 2018-2022

The National Payment Systems Vision and Strategy 2018-2022 emphasizes the need to build a reliable and secure National Payment System through the

creation of appropriate regulation, enhancement of the Zambia Interbank Payment and Settlement System for Large Value Payments, achievement of interoperability between the various electronic retail payment methods, active participation in regional (SADC and COMESA) integration initiatives, and consumer education.

The primary goals of the strategy are to:

- Encourage safety and efficiency in the transfer of value in the economy
- Promote a cash lite society
- Increase use of and access to electronic payment methods
- Reduce transaction costs for all payment system services
- Increase the use of formal remittance channels

Progress made under the previous National Payments System Vision (until 2017):

Regulatory Environment

- The National Payment System Directives on Electronic Money Issuance were issued in June 2015. The purpose of these directives was to give specific guidance on electronic money issuance in order to protect the integrity of the payment stream.
- The BoZ and ZICTA signed a MOU aimed at promoting integrity, efficiency and financial soundness of mobile financial service providers by improving effective regulation and supervision of cross authority transactions.
- To promote safety of card payments, the BoZ issued a circular on the implementation of Europay, MasterCard and Visa chip and pin standards to all commercial banks and card-based payment systems businesses. The



requirement for the industry to implement the chip and pin standards was aimed at minimizing card frauds and thereby safeguard customer funds.

- Revision of the item value limits in 2017 was aimed at promoting the use of electronic payment methods.

Retail Payments

- In the 2017 vision, the establishment of the National Financial Switch (NFS) was determined to be a critical success for the development of retail payments. Significant progress has been made on implementing the NFS, including the delivery of hardware and software, configuration testing and drafting of the NFS rules. Final implementation of project is pending and will be in two phases. Phase One will cover ATM and POS payment streams and is expected to go live in 2018. Phase Two will cover mobile payments.

Cross-Border Payments

- Zambia went live on the SADC Integrated Regional Electronic Settlement System (SIRESS) and the COMESA Regional Payment and Settlement System (COMESA REPSS) in September and December 2014, respectively. These regional payment systems have been expected to reduce the transaction time and cost of making payments.
- According to the SADC Banking Association, SIRESS has been successful in meeting these objectives. SIRESS is being further developed and United States dollar (US\$) will be introduced as a settlement currency on the SIRESS cross-border payment system. Bank of Zambia indicates benefits in transaction cost and delay with the REPSS too.

Consumer Education

- Nationwide campaigns to promote electronic payment methods have taken place.

4.2 Financial regulation

The cost of safeguarding cash at a micro and macro level is high. The Bank of Zambia actively promotes the use of electronic payment methods to reduce the use of cash and paper-based payment instruments.

One role of the Bank of Zambia (BoZ) is to regulate companies offering digital financial payment services. They license or designate these businesses, evaluate their products and offer minimal licence fees (Kwacha 500 for startups and Kwacha 1,000 for more established companies) as an incentive to attract more players. Although the bank has seen an increase in the number of companies registering for licences to set up a financial-technology and other digital financial services providers, there is space for additional companies operating in this space.

The BoZ is seeking to encourage the development of appropriate digital financial products and services. They have observed that in many cases people adopt services such as M-Pesa, developed in Kenya, and assume that these products will work as efficiently in Zambia when often they do not. The bank has asked companies involved in the design of such products to have customer centres where they can interact more closely with their customers in order to thoroughly understand what customers value and how they transact. The bank is working with various stakeholders and development partners to identify companies that can help create products specifically targeted to local clients. BoZ is also working in collaboration with its development partners such as Financial Sector Deepening Zambia (FSDZ) and the United Nations Capital Development Fund (UNCDF) to obtain disaggregated data especially focused on women, to help increase their access to finance.

The BoZ is also working with companies dealing in payments, such as the Zambia Electronic Clearing House, to create a new centralized system. The primary aim of this system will be to support the interaction of various e-payment methods through one platform. With the upcoming centralized system, it would be possible for a customer to transact with different payments solutions providers from one terminal. For example, it should be possible for customers to receive or send money using a single terminal.



The BoZ is also advocating for financial services providers to join forces to devise a centralized ‘Know Your Customers’ (KYC) system. They believe this will play a significant role in speeding up access to various forms of digital financial services. They propose that the centralized system be managed by the Ministry of Home Affairs.

Figure 5: Key payment solutions areas to create an environment conducive to e-commerce (total number of public sector respondents: 17)

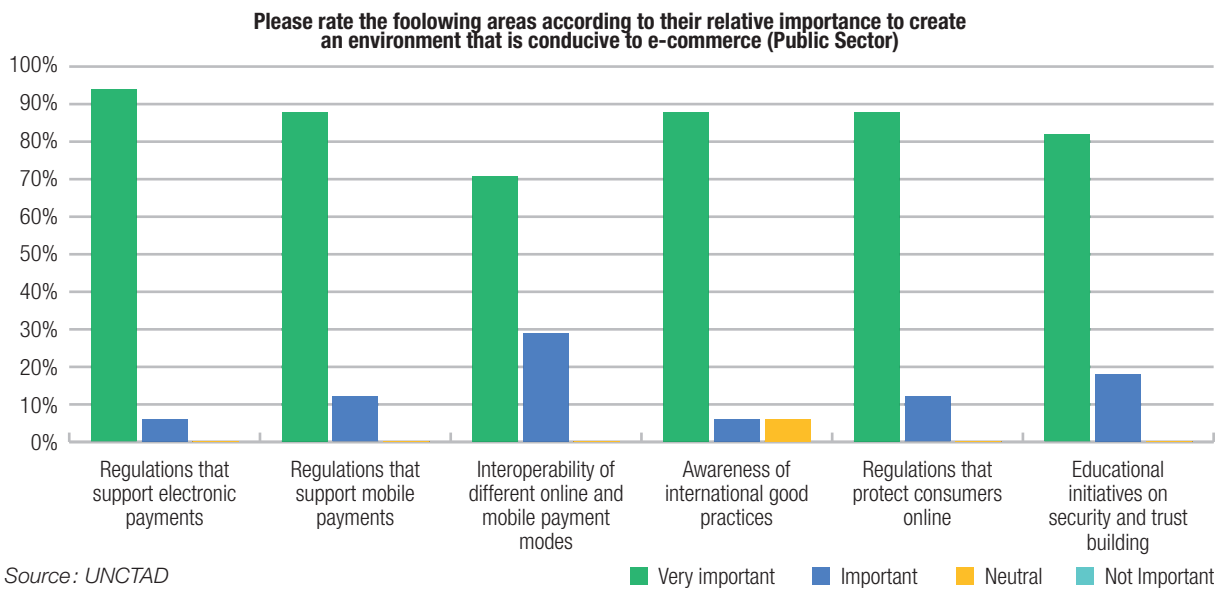
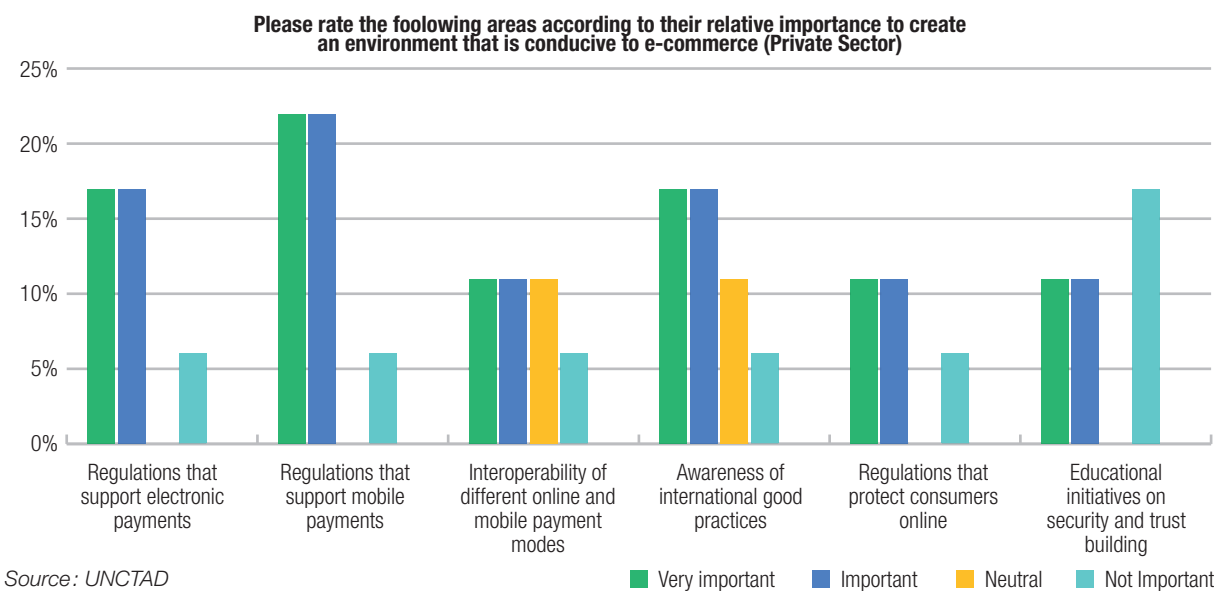


Figure 6: Key payment solutions areas to create an environment conducive to e-commerce (total number of private sector respondents: 16)



4.3 Main mobile, cashless payment solutions available

Mobile Money has gained significant momentum in Zambia. It is offered by mobile operators, banks and financial services providers focusing specifically on mobile money. Interoperability between banks/financial services providers, mobile wallets and mobile operators is improving but not on a universal scale.

Mobile banking is seen as key component of the enabling environment for e-commerce. Zanaco Bank, with a mission to serve the underserved farmers' segment of the market, was the first bank in Zambia to introduce agency and mobile banking in 2008. Since then, many others have followed in their footsteps. In fact, the sector is becoming crowded, with Mobile Network Operators, Information Technology and Services companies and others entering the market.

While the banks may regret the trend towards mobile money services being offered by MNOs, in order to create the enabling environment to reach their clients in a risk-managed manner, they themselves are striking partnerships with MNOs and other operators. Zanaco is trying to minimize the risk caused by a clientele with no payment record nor collateral, and to reach their potential customers, by establishing a chain of partners that include an MNO (MTN) and a South-African company Jumo.

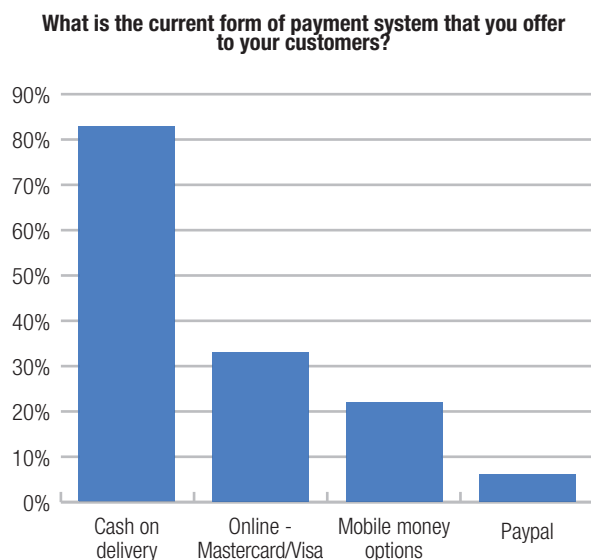
Yet, so far, there is no full interoperability between banks and mobile money operators. Both MNOs and the banks are pushing for interoperability, though to fully achieve financial inclusion, a network of agents providing financial services in-place, where clients are located, would be needed. ZAMPOST is also planning to develop an e-commerce platform with an integrated digital payment solution. The UNCDF recently led a DFS strategy and business case assessment for this project and the UPU has started discussions with ZAMPOST to explore opportunities to move forward.

Financial institutions also noted that trust and risk management were key issues hindering financial inclusion in Zambia. For banks and other financial service providers, creating a business model that increases trust among customers, some of whom may have never had an account, will be critical.

Cash remains the main means of making payments.

Despite the progress made in the implementation of the National Payment System and momentum in mobile payments, the use of cash and other paper-based payment instruments remains the main payment method in Zambia. Currency in circulation has over the last 10 years increased by 21 per cent on a year-to-year basis. Although no data were found on the main payment method for e-commerce activity in Zambia, the majority of private sector stakeholders who sell goods or services online said that they offer their customers cash-on-delivery as payment choice.

Figure 7: Payment systems offered to customers (total respondents: 18)



Source: UNCTAD



Box 1: Information Technology and Services company Kazang: providing micro-payment processing services

Kazang is one of Africa's leading micro-payment processing services. They provide prepaid services in South Africa, Namibia, Zambia, Mozambique, Zimbabwe, Botswana, Kenya and Ghana. Kazang offers vendors a range of mobile electronic vending products and services. With Kazang's offerings, vendors' customers can pre-pay for airtime, mobile data, lifestyle content, and electricity. Kazang's offer to vendors is that they can have inventory available but won't have their cash tied up in it. Vendors would also avoid the security risk of prepaid inventory being stolen.

The company has established a network of Super Vendors that eliminate the vendor's need to go to a bank to top up their own Kazang wallet. The Super Vendor takes the cash from the vendor and then tops up the depositing vendor's Kazang mobile wallet from their own. Finally, Kazang is in partnership with Muku, a money transfer company operating in several African countries. As their payment partner, Kazang collects the cash and facilitates international money transfers on their behalf. The company has also developed an in-country money transfer system in Zambia called Kazang Money, which also has cash-in and cash-out facilities.

Kazang is trying to do their bit in supporting tech start-ups and overall business digitalization. They have increased the price of payment by cheque to 50 Kwacha, while the price of making an e-payment is three Kwacha. Competition in the market has become high, states Kazang. Their growth rate between 2014-2016 had been 100 per cent but significantly dropped in 2017 due to the number of new entries to the market.

Source: UNCTAD and <http://paycorp.co.za/kazang/>



5. LEGAL AND REGULATORY FRAMEWORK

In the spirit of Smart Zambia and the 7NDP's quest to achieve a "diversified and inclusive economy", the Government has engaged in a number of initiatives to better govern digitalization and to improve the overall business environment. Legal and regulatory improvements directed at supporting e-commerce are limited however, and the overall challenge is the limited interface between the Government and the private sector on legal and regulatory matters. While regulators are clearly doing their best to facilitate setting up and running businesses, including e-commerce companies, there are gaps that may severely affect e-commerce vendors.

5.1 Status of four key laws as per UNCTAD Cyberlaw tracker¹³

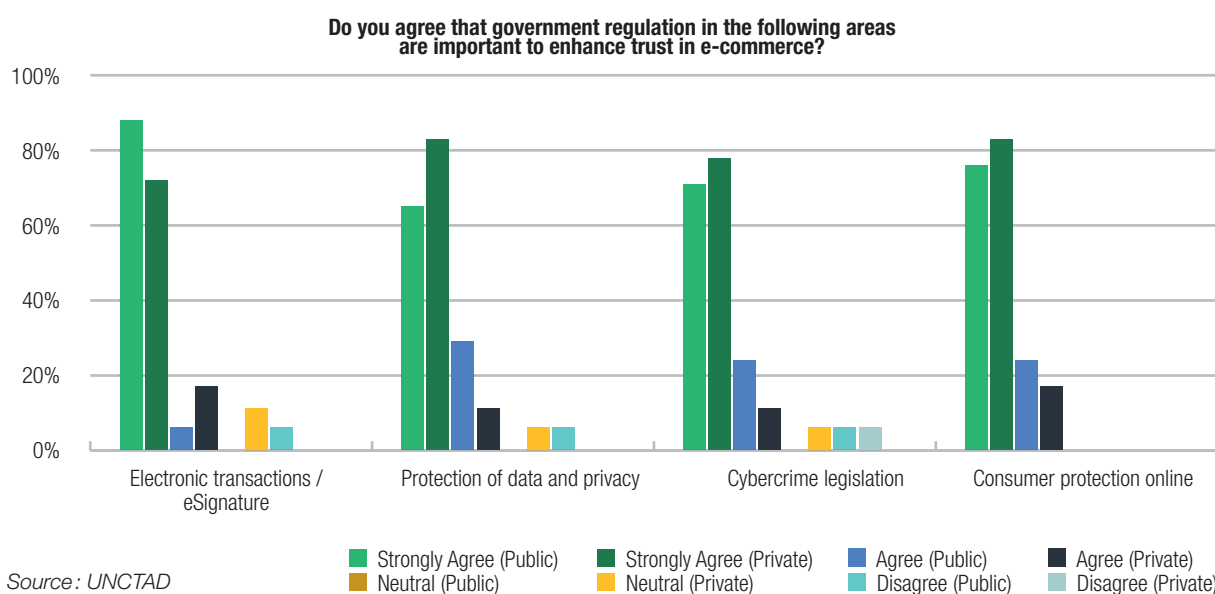
The Electronic Communications and Transactions Act (2009) will be partially updated by new Data Protection Bill, Cyber Crime and Security bill and the e-Commerce and e-Transactions Act.

The Electronic Communications and Transactions Act, 2009, aims to: "develop a safe, secure and effective environment for the consumer, business sector and the Government to conduct and use electronic communications; promote legal certainty and confidence, and encourage investment and innovation, in the electronic communications industry; facilitate the creation of secure communication systems and networks; establish the Central Monitoring and

Coordination Centre and define its functions; repeal the Computer Misuse and Crimes Act, 2004; and provide for matters connected with or incidental to the foregoing."

The Act covers legislation in the field of e-transactions, consumer protection, data protection/privacy and cybercrime adoption. The sections of the Act dealing with electronic transactions and signatures are an enactment of the UNCITRAL Model Law on Electronic Commerce and of the UNCITRAL Model Law on Electronic Signatures. In addition to the Act, the following three pieces of legislation are currently undergoing review through a consultative process with the participation of all relevant stakeholders: Data Protection Bill, Cyber Crime and Security Bill, and e-Commerce and e-Transactions Act.

Figure 8: Importance of government regulations in enhancing trust in e-commerce (combined responses by the public sector and the private sector: 35 total respondents)



¹³ The UNCTAD Global Cyberlaw Tracker is the first ever global mapping of cyberlaws. It tracks the state of e-commerce legislation in the field of e-transactions, consumer protection, data protection/privacy and cybercrime adoption in the 194 UNCTAD member states. It indicates whether or not a given country has adopted legislation, or has a draft law pending adoption. http://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx



The new Cyber Crime and Security Bill would authorize the taking of measures to ensure cyber-security in Zambia; establish the Zambia National Cyber Security Agency and provide for its functions; protect victims against cyber crime; provide for Child Online Protection; provide Information and Communication Technology user education on cyber-security and develop local skills in cyber-security; facilitate identification, declaration and protection of critical information infrastructure; repeal certain provision in the Electronic and Communications Transactions Act No. 21 of 2009; and provide powers to investigate and prevent cyber-security incidents. Zambia is also a signatory to the African Union Convention on Cyber Security and Personal Data Protection.

5.2 Other related laws, acts, regulations

One of the issues that could be holding Zambia back in e-commerce is regulations that lag the evolving nature of tech start-ups and e-commerce vendors. The issue is intensified because of the shortcomings in inter-governmental coordination and the lack of a public-private coordination on e-commerce.

Business registration and taxation

While regulators are doing their best to facilitate the establishment and operation of businesses, gaps may affect tech start-ups and e-commerce vendors. One such gap could be the absence of an appropriate classification system for start-ups and e-commerce vendors by the Patents and Companies Registrations Agency (PACRA) and the Zambia Revenue Authority (ZRA). The existing arrangement is that 30 days after

a company is registered with PACRA the company is required to register with ZRA for taxation purposes. Although the taxpayer classifications currently set by ZRA are relatively broad and capture most economic and business activities, evolving technologies may necessitate new tax categories in the future.

Telecommunications, postal services

The Zambia Information and Communications Technology Authority (ZICTA) is responsible for regulating the ICT Sector in Zambia. It falls under the Ministry of Transport and Communications and derives its mandate from three Acts¹⁴ to regulate the following organizations: Internet Service Providers (ISPs); Postal and Courier Service Providers; Mobile Network Operators (MNOs); and Electronic and Communications Equipment Dealers.

ZICTA is mandated to:

1. Regulate the provision of electronic communication services and products in Zambia;
2. Monitor the performance of the sector including levels of investment and availability, quality, costs and standards of electronic communication services;
3. Administer the Country Code Top Level Domain as well as electronic addresses;
4. Disseminate information and promote the participation by the public in the provision of electronic communication services;
5. Provide for a national frequency and numbering plan;

Box 2: Regulations outpaced by tech start-ups

Ulendo Taxi is a technology company that works with both retail and corporate clients by providing taxi services that utilize the Ulendo Passenger App and computer dispatch system. From the customers perspective, Ulendo Taxi is a location-based app that makes booking a taxi or hiring a cab easy, affordable, convenient and safe. In other words, Ulendo Taxi provides Uber-style services. Ulendo Taxi was launched in 2017 and unlike some competitors that entered the market around the same time, it remains in operation and is gradually growing.

In registering his business, Ulendo Taxi's start-up entrepreneur Mr. Haggai Mandefu noted that Ulendo Taxi is a technology company. Such classification, however, did not exist at the Patents and Companies Registration Agency (PACRA) and the Zambia Revenue Authority (ZRA). Ulendo Taxi was registered as a transportation company and taxed accordingly. Yet, Ulendo Taxi does not own or employ vehicles and its business model is aimed at connecting customers with taxi drivers. The policy and tax challenges of these new types of tech services are by no means an issue specific to Zambia – virtually all economies are struggling with similar issues – but they show the complex nature of e-commerce requiring all stakeholders to come together to resolve the issues to the benefit of both the companies and society at large.

Source: UNCTAD

¹⁴ These are the Postal Services Act No. 22 of 2009, Electronic Communications and Transactions Act No. 21 and the Information and Communications Technologies (ICT) Act No. 15 of 2009.



6. Set standards for the ICT sector;
7. Promote competition in the sector and also regulate tariffs charged by operators offering electronic communication services; and
8. Protect the rights and interests of consumers, service providers, suppliers and manufacturers.

Some item value limits set by the Bank of Zambia could affect competition in the provision of financial services, especially in regard to amount users can hold in mobile accounts. According to some commercial banks, a user of a mobile account offered by a Mobile Network Operator can carry up to 20,000 Kwacha, whereas a user of a mobile account offered by a bank can only carry up to 10,000 Kwacha at a time. From the consumers perspective, using a mobile account offered by an MNO would seem to be the preferable option.

Financial services

The Bank of Zambia (BoZ) is the Central Bank of Zambia, deriving its functions and authority from the Bank of Zambia Act, 1996, and the Banking and Financial Services Act. The BoZ plays a crucial role in increasing financial inclusion, including promoting mobile money and mobile banking.

Generally, the regulations in place are flexible enough to support tech companies, particularly those offering digital financial solutions. It is evident that technology evolves much faster than regulation, and with that in mind, the BoZ uses a Sandbox Approach. In cases where they have no policy addressing a specific element in the digital financial services space, they allow companies to pilot their products and during that learning process, they structure policy. In the quest to harmonize standards, the BoZ has been part of the ten central banks in the SADC region that developed regulatory sandboxes for the e-payments systems.

Yet, when it comes to mobile-banking, there is some evidence that regulations seem to affect commercial banks unfavorably compared to the MNO's. The Know Your Customer (KYC) requirements for banks appear to be much more stringent than those for an MNO or other mobile-banking service providers.

Business Regulatory Review Agency

With the assistance of the World Bank, the Government established a Business Regulatory

Review Agency (BRRA) as a statutory body under the Ministry of Commerce, Trade and Industry.¹⁵ BRRA's overall mandate is to "create a conducive business environment". Its key functions include carrying out Regulatory Impact Assessments (RIA) and public consultations, monitoring and evaluating existing regulatory frameworks with the aim of avoiding unnecessarily burdensome regulations for businesses, establishing and managing the e-registry, and establishing and coordinating Regulatory Services Centres.

While BRRA has likely contributed to improvements in the Zambian business environment, the findings of this assessment suggest that it may not have had an opportunity to fully execute its mandate regarding e-commerce regulations. The functions of BRRA should be encouraged to extend into the realm of e-commerce and the digital economy, and its services should be further promoted. BRRA services are expected to become digital by the end of 2018.

As part of this assessment, both public and the private sector stakeholders viewed "carrying out a regulatory gap analysis on e-commerce" as very important. In this context, the BRRA could be assigned to perform a Regulatory Impact Assessment (RIA), complete with public consultations, on regulations pertaining to e-commerce.

Competition and consumer protection

The Competition and Consumer Protection Commission (CCPC) is a statutory body established with a unique dual mandate to protect the competition process in the Zambian economy and to protect consumers. CCPC regulates the Zambian economy to avoid restrictive business practices, abuse of dominant position and market power, and anti-competitive mergers and acquisitions that erode consumer welfare. The key objectives of CCPC are to:

- Promote a culture of competition for sustained economic growth and wealth creation;
- Protect and enhance consumer welfare in the economy for the benefit of all Zambians.

The CCPC will play an important role as e-commerce evolves in Zambia, in terms of promoting fair competition and protecting consumers in the digital space.

¹⁵ Established by Business Regulatory Act No.3 of 2014



6. E-COMMERCE SKILLS DEVELOPMENT

Limited awareness and understanding of e-commerce persist within the Government, the private sector and civil society, leading to a trust deficit between those providing public and private e-services and their customers. Skills gaps exist at many levels, among the greater public and consumers, and in the sectors needed for e-commerce to flourish (web development, application development, content management, digital products development). The Government has increased the offering of IT training at all levels of education, but challenges persist, including access to IT equipment and connectivity. For development of the skills required for e-commerce, some of the universities and start-up hubs (BongoHive, Hackers Guild, Agora Code Community and Jacaranda Hub) offer certain services but the hubs themselves are under-resourced.

6.1 Skills gap identification

ICT training at the primary and secondary school level is hampered by the lack of IT equipment. At the tertiary level, some IT training exists but dedicated programmes on e-commerce are lacking. In general, recent graduates lack the skills to immediately contribute to e-commerce development.

While ICT has been introduced as part of the curriculum of secondary schools, focus group discussion participants explained that even in Lusaka, typically there is only one computer for 20 students and that the situation outside of the capital is far worse. Information on any syllabus or qualifications of ICT teachers at the primary and secondary education levels could not be found.

Smart Zambia Institute, a Government entity, promotes citizen centredness and ICT inclusiveness, e-government and e-services, and focuses on increasing awareness, empowering youth and building skills for women. Although the Smart Zambia Institute does run some campaigns for the broader public, it seems that their focus is still more on sensitizing and training Government officials.

Since 2016, the Bank of Zambia has been deploying digital sensitization programmes across the ten provinces of Zambia to encourage the use of digital financial services. The sensitization programs are conducted together with the financial service providers. Both the BoZ and the financial service providers have noticed that some customers are not interested in using digital services because of (i) the lack of knowledge about the benefits or efficiencies of using these services and (ii) the lack of trust that emanates from not knowing how customers who use digital financial services are protected.

Consumer Unity Trust Society (CUTS) analyses ICT and e-services access discrepancy issues from the perspective of social justice and campaigns for the MSMEs and consumers who have issues with infrastructure and prices. They also build awareness to address the lack of trust in the marketplace.

6.2 Availability of tertiary education, professional training

In higher education, Zambia ICT College (ZICT) and the Department of Computer Science at the University of Zambia appear to be the country's most prominent providers of ICT training. ZICT is a government-owned technical and business college registered with the Technical Education, Vocational and Entrepreneurship Training Authority Zambia. The College was established in 1972 with the assistance of the United Nations Development Programme (UNDP) through its partnership with the International Telecommunication Union (ITU). Over the years, the College evolved from just offering in-service training to providing diverse programs ranging from telecommunication courses to professional accountancy and business programs.

The Department of Computer Science at the University of Zambia was established in 1997 with the technical and financial assistance of the Belgian government. The department offers a number of specialized short courses and a wide range of programmes for both undergraduate and postgraduate students. To address the skills gap, the Department has been attempting to align its courses with the demands of the market and in line with the objectives of the 7NDP. The Department aspires to make their courses more contextual by bringing in lecturers with more hands-on industrial experience. Currently, the Department does not run e-commerce specific courses.



The Zambia Chamber of Commerce and Industry (ZACCI) in June 2017 announced the launch of a collaboration with ABMA Education. ABMA is a UK-based provider of vocational qualifications, including in business management, computer engineering, and computing and information systems. Although this partnership is expected to provide a further avenue for IT and computer sciences training, in reality degree and certificate programmes focused on e-commerce and the digital economy are lacking.

Huawei Authorised Network Academy

In 2017, again as a part of the Smart Zambia Project, the Huawei Authorised Network Academy (HANA) was established at the Department of Computer Science at the University of Zambia. The HANA runs a university-enterprise cooperation model that supports course development, training and certification. The newly-launched academy will accommodate training-the-trainer programmes that will help UNZA to support ICT trainers in familiarizing themselves with ICT industry practices and promote professional development.

Smart Centre

The Government established the Smart Centre in 2016 as part of the nation-wide Smart Zambia Project. The Centre is positioned as an ICT Talent Development

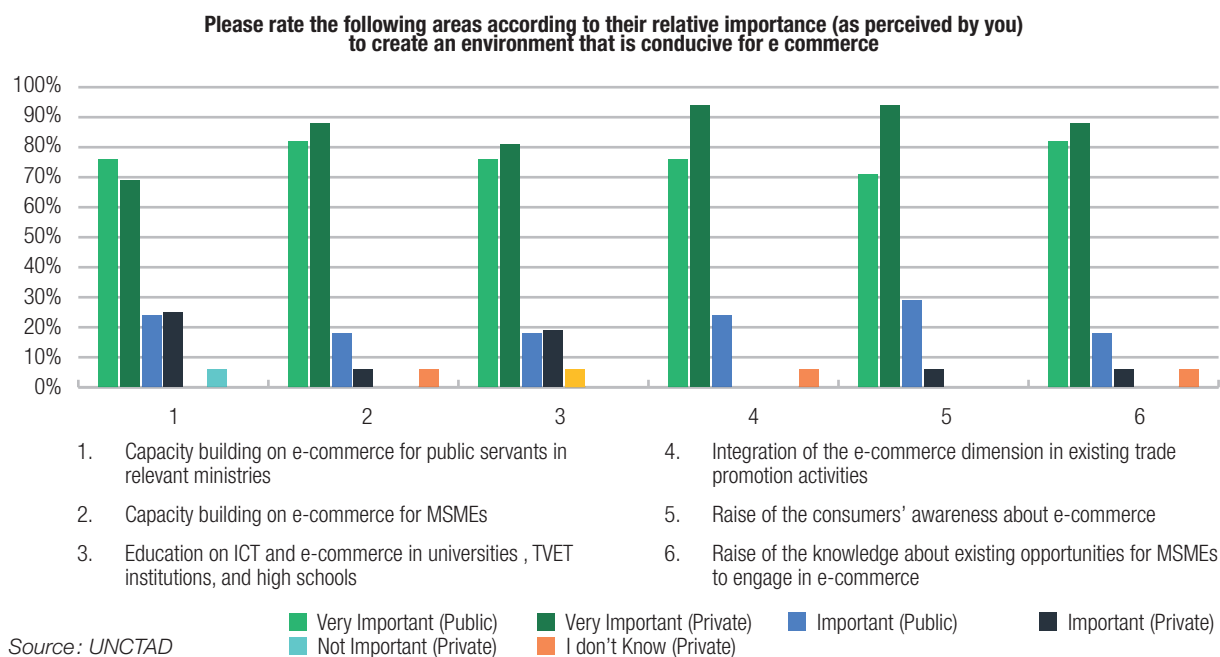
Centre and offers specialized training in industry-relevant ICT and vocational courses. Currently, the Centre does not run e-commerce specific courses.

The Smart Centre also serves as a Centre of Excellence in ICTs by supporting colleges and universities with their technology needs. According to the Centre, a number of Government institutions staff members have trained there, on topics like e-Procurement Systems, Management of Online Courses, Launch of e-Cabinet, and Internet Café Entrepreneurship Training.

Despite these recent developments, skills gaps persist in the private sector job market. Although graduates of IT programmes or certificate holders have some technical skills, they tend to lack the skills that are necessary to contribute to e-commerce growth such as web development, application development, content management, digital products development.

The Smart Centre and UNZA's collaboration with private institutions, as well as the ZACCI-ABMA collaboration, are steps in the right direction. But much more needs to be done to upgrade tertiary education programs to ensure graduates are equipped with adequate e-commerce skills.

Figure 9: Key skills development, awareness and sensitization areas to create an environment that is conducive to e-commerce (combined responses by the public sector and the private sector: 33 total respondents)



6.3 Business incubators and business accelerators

Significant skills gaps remain among ICT practitioners trained in Zambian universities. On-the-job training helps ameliorate some of this, but in general recent graduates are not well-equipped with the technical and business management skills to contribute to e-commerce development. Some start-up hubs (BongoHive, Hackers Guild, Agora Code Community and Jacaranda Hub) offer certain services but the hubs themselves are under-resourced.

Some of the employers who hire recent ICT graduates offer internships and on-the-job training to further build the skills and capacities of the graduates. For instance, the BoZ offers internship programs for up to four students to work on a specific project in their IT department.

In the sectors needed for e-commerce (web development, application development, content management, digital products development), start-up hubs provide some training and support. There are no tech hubs at UNZA or Copperbelt University (the second university in the country). There are at least four technology hubs/incubators/accelerators in the country - BongoHive, Hackers Guild, Agora Code Community and Jacaranda Hub Zambia – and UNCTAD met with the first two during its fact-finding mission.

Hackers Guild is a tech hub that aims to enhance the skills of developers in Zambia. Although they have not yet built an app specific for e-commerce, they have built other types of apps and have worked with Musanga Logistics to build their platform. To continuously improve their skills, Hackers Guild has established a relationship with the University of Alabama in the US to run a project called SparkED. The University has offered to fully support Hackers Guild by supplementing their skills through an exchange program.

Hackers Guild also runs innovation centres in 25 schools in Lusaka and the Copperbelt region. The purpose of the centres is to encourage students to take an interest in coding, web development and similar topics. Interest in these has hubs has increased and Hackers Guild has been asked by some schools to offer IT training to teachers in the schools. In addition to this, the Hackers Guilds organises Hackathons in Lusaka, a competition that allows young tech savvy individuals to showcase their talent. Since its inception, 10 of the Hackers Guild graduates have left the enterprise and are either freelancing or have joined a mobile payments solutions provider.

Box 3: BongoHive - Zambia's first technology and innovation hub

Established in May 2011 and based in Lusaka, the founders of BongoHive sought to address the gaps they experienced while working in the local technology industry. BongoHive has evolved to assist scalable startups of any background by enhancing skills, accelerating growth, strengthening networks, increasing collaboration, providing a forum for ideas exchange and reducing the barriers to entrepreneurship.

BongoHive runs startup programmes from discovery to launch and to thriving. Discover is for aspiring entrepreneurs wanting to turn a business idea into a launchable startup. Launch is built for launched early-stage startups. The programme takes a handful of promising founders through a three-month programme that accelerates their growth. Thrive is an invitation-only programme for the most promising startups in Launch.

There are also Entrepreneurship Bootcamps on different themes, and Launch Accelerator programmes. BongoHive Masterclasses are geared towards teaching specific skills needed to grow a startup or small business. These include Website and App Development; Social Media; Vital Business Skills; and Innovative Skills.

BongoHive's student-focused entrepreneurship programmes help share knowledge and increase collaboration for young people to realise their entrepreneurial potential. The programme focuses on imparting skills including critical thinking, problem solving, business modelling, customer research and strategy, and digital marketing.

Source: UNCTAD and <https://bongohive.co.zm/>



7. ACCESS TO FINANCING

Zambia has a strong policy focus on extending financial inclusion. Led by the Ministry of Finance, the Government released in late November 2017 a national strategy to guide policymakers, regulators and the private sector to extend financial inclusion to all segments of society. Increased financial inclusion would not only enhance the welfare of individuals but also help to deliver on fundamental policy objectives, including economic growth and employment generation. The Government notes that financial inclusion and access to financing is particularly relevant to facilitating the growth of MSMEs. Yet, specific financing solutions for early stage start-ups and growth-oriented businesses in the e-commerce ecosystem still do not seem to be widely available. Furthermore, information is scarce on the limited financing opportunities that do exist for these types of businesses.

7.1 Financing by banks and MFIs

Zambia is one of the countries with the highest levels of financial exclusion. FinScope (2015) indicates that 40.7 per cent of all Zambian adults remain without any type of formal or informal financial services. Further, amongst those who are formally or informally served, an average 1.54 products have been adopted.

A substantive rural-urban divide exists in terms of access to financial services. Bank product penetration is more than twice as high among urban adults compared to rural adults. The DTIS analysis shows that 22.6 per cent of adults in urban areas use a bank product, compared to only 8.6 per cent of adults in rural areas. The informal sector is an important driving force of financial inclusion – with 16.5 per cent of adults in rural areas and 10.2 per cent of urban adults using only informal products. There is a regional dimension; Lusaka and Copperbelt provinces have the highest numbers of depositors and borrowers, while Western and Luapula provinces are lagging.

Interest rates are perceived to be generally high, but they are decreasing. Latest pressure towards commercial banks to decrease interest rates in lending came in February 2018 when the central bank cut its benchmark lending rate by 50 basis points to 9.75 per cent.¹⁶ Although interest income from loans and advances are the single largest income source for banks, it accounts for less than 45 per cent of bank income. Within this, interest from government securities plays a prominent role: almost 20 per cent of bank income in 2015 was from interest on government securities – a low-risk, high-value investment strategy.¹⁷

Non-bank financial institutions (NBFIs) do little to expand access. NBFIs regulated by the Bank of Zambia (BoZ) include building societies, leasing companies, MFIs, and state-owned financial institutions such as the National Savings and Credit Bank, or joint ventures between the state, public sector institutions and private sector, such as the Development Bank of Zambia. Although limited deposit-taking does exist, most of these NBFIs focus on the provision of credit, with some of them acting as agents for insurers.

By far the biggest NBFI sub-group is consumer credit MFIs, accounting for almost half of NBFI assets. These MFIs focus mostly on payroll loans to formal employees. Other NBFIs also mimic this business model to some extent. NBFIs are mostly limited to the same geographic areas and client groups as banks. Although enterprise MFIs, NatSave and the Development Bank have mandates to serve more rural and excluded groups, their combined client pool and reach is too small to extend credit access to any significant degree.¹⁸

During the implementation of the 7NDP, Government policy will be aimed at ensuring stability in the banking and non-banking sectors, including enhancing financial market deepening to stimulate increased access to financial services. The Government's priority in the 7NDP period will be to address the high cost of borrowing and put in place measures to improve credit provision to MSMEs. This will include mitigating risks in key sectors such as agriculture, tourism and mining. Harmonization and strengthening of various pieces of legislation governing the financial sector will also be a priority as part of broader monetary and financial sector reforms.

¹⁶ Reuters, Feb 21, 2018

¹⁷ MAP, 2018

¹⁸ MAP, 2018



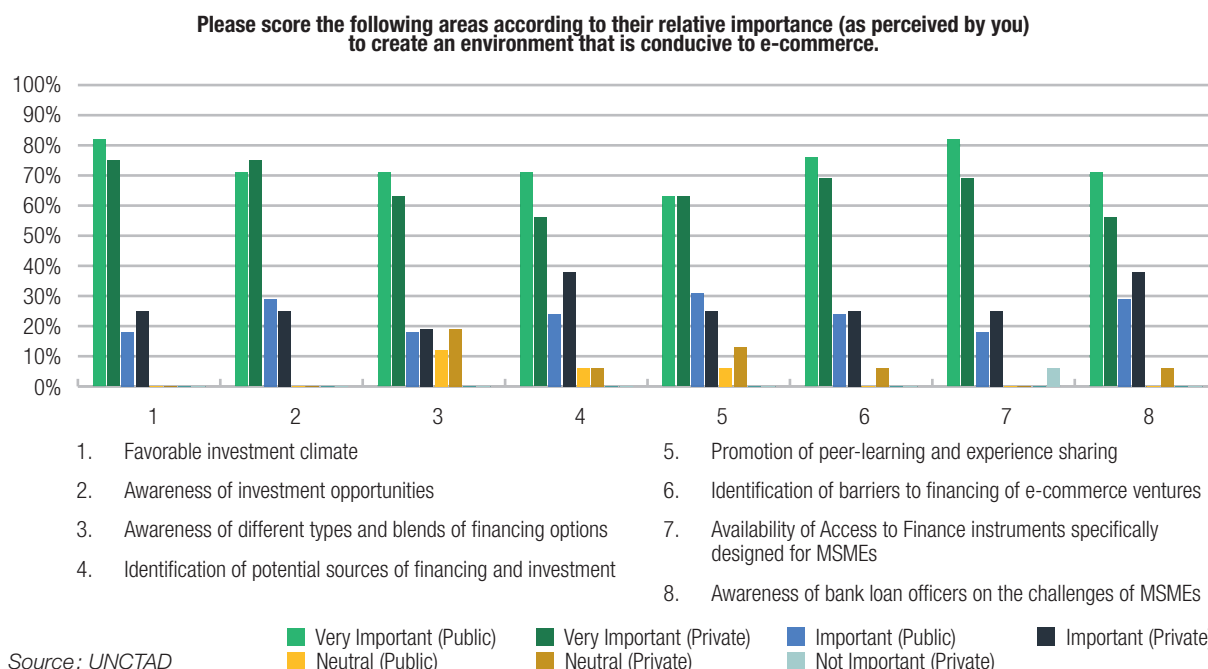
MSME and start-up/e-commerce vendor market

Approximately 1.4 million Zambian adults (17 per cent of the adult population) derive their main source of income from owning and running their own business. Women represent a large portion of this target market (57 per cent). Access to financing for these business owners is extremely challenging. Only two per cent of the MSME business owners are covered by formal credit services; five per cent rely on credit by informal service providers; 22 per cent receive loans from family and friends or draw on their own resources; and 71 per cent are not financed by any source of credit.

In making payments, 38 per cent of the MSMEs have access to formal modalities, while 62 per cent are excluded. Only two per cent of MSMEs have formal insurance coverage. Twenty-three per cent of MSME entrepreneurs have access to formal savings schemes and 31 per cent to informal; 20 per cent rely on family and friends, and the rest (26 per cent) have no savings scheme.¹⁹

Start-ups and many e-commerce vendors find themselves similarly underserved in the financial market. Moreover, the national financial inclusion strategies and policies do not appear to recognize technology start-ups and e-commerce vendors as a group in need of financial inclusion, at least not explicitly. Likewise, the Bank of Zambia (BoZ) does not appear to have any special financing products for MSMEs involved in electronic commerce. They have, however, organized seminars to encourage financiers and startups to work together to address the high cost of capital and for micro financiers to keep the cost of capital low. For companies providing electronic payment solutions, the BoZ has kept licence fees at a minimum: Kwacha 500 for start-ups and Kwacha 1,000 for more established e-commerce companies. These are encouraging steps and further action should be taken to support technology startups and e-commerce vendors.

Figure 10: Key access to financing areas to create an environment that is conducive to e-commerce (combined responses by the public sector and the private sector: 33 total respondents)



¹⁹ *ibid*



7.2 By business incubators, business accelerators, venture capitalists

The business hub-incubator-business accelerator scene is growing, particularly in Lusaka, but funding of these entities remains an issue. Their capacity to support start-ups and e-commerce vendors beyond the start-up phase to attract venture capital is low and overall venture capital in Zambia is limited. Interesting developments are, however, taking place, including in impact investment.

According to the hubs, incubators and accelerators met during the fact-finding mission, access to financing remains a huge challenge for start-ups and e-commerce vendors that are seeking to grow. Similarly, funding is an issue for the hubs themselves. Hackers Guild²⁰ and BongoHive have received financial support through development partners like Finland or have had to engage in providing consultancy services (beyond the programmes they run for start-ups) to finance themselves. While the start-ups participating in the programmes and activities of these hubs pay a fee, the fee level is modest and does not offset the operating costs.

The ability of the hubs, incubators and accelerators to assist start-ups in attracting angel investment or other form of venture capital is limited. They are providing their start-ups with information on opportunities such as those related to the Southern Africa Innovation Support (SAIS) programme,²¹ Global Startup Awards, Africa Sustainability Challenge, and others that may provide selected entrepreneurs with either access to funding or financing for specific activities/ventures. They also provide access to networks that may assist them in attracting capital.

A limited number of venture capital companies operate in Zambia. Kukula Capital appears to be the most prominent venture finance and private equity firm, operating under two main business areas: Fund Management and Advisory. Founded in 2009 as a Joint Venture between Danish and Zambian partners, they act as a fund manager to their two venture funds: Kukula Fund I and Kukula Seed Fund. Through the funds, Kukula Capital invests capital and expertise

in Zambian growth companies. The company has offices in Lusaka and Solwezi and is regulated by the Securities and Exchange Commission of Zambia. Another relatively prominent venture capital company is Venture Capital for Africa (VC4A). VC4A is a global platform that brings together entrepreneurs, investors, relevant top talent and opportunities to foster enterprise development in Africa.

A partnership launched in April 2018 between Impact Capital Africa, the Zambia Development Agency (ZDA) and other partners, "Impact Capital Africa: Zambia" takes a new approach to connecting investors with entrepreneurs. Using Impact Capital Africa's Impact Starter platform, Zambian entrepreneurs have the opportunity to access business support to become investment ready. The target group is established SMEs looking for an investment of more than Kwacha 500,000. According to Impact Capital Africa, smaller companies or start-ups can also take advantage of the initiative; their applications will be channeled to finding 'angel investors'. This year's programme culminated in an impact investment conference held in October 2018 in Lusaka.

The Citizens Economic Empowerment Fund, established under the Citizens Economic Empowerment Act, aims to support the development of broad-based empowerment programs. Funded mainly by Parliament through the Ministry of Finance and National Planning, the empowerment fund provides resources to citizen-owned, -empowered or -influenced companies, groups of citizens or co-operatives, as well as broad-based economic empowerment programs that require financial assistance. MSMEs, existing companies needing working capital and start-up companies whose owners have no access to capital are some of the targets of the Fund.

²⁰ Hackers Guild was interviewed by Mr. Luipa Mondoka, UNCTAD National Consultant, on May 24, 2018.

²¹ The Southern Africa Innovation Support (SAIS) programme is a development initiative that supports the growth of new businesses through strengthened innovation ecosystems and cross-border cooperation. Since 2011, SAIS has provided capacity-building and funding for networking and knowledge-sharing and supported projects piloting new mechanisms for enhanced innovation and enterprise development in the SADC.



7.3 Financing by development partners

Several development partners provide support to financial inclusion programmes in Zambia. In addition to the programmes discussed below, the African Development Bank, the European Investment Bank and the World Bank, through their national partners including the Bank of Zambia, the Zambia Development Bank and commercial banks based in Zambia, run credit lines and loan guarantee schemes to facilitate access to financing.

UK Aid and Swedish Sida: Financial Sector Deepening Zambia (FSDZ)

Financial Sector Deepening Zambia (FSDZ) is a national nonprofit company providing information, innovation, and impact to increase financial inclusion. They work with financial service providers, policymakers and civil society to make Zambia's financial sector more robust, efficient and inclusive. FSDZ's goal is to stimulate the market to increase the volume of financial services accessed by SMEs, and to increase the overall number of SMEs that use these services.

FSDZ is also active in digital financial inclusion. They work with financial service providers including Mobile Network Operators to move the market forward and bring banking and other services within reach of the poor. They support training, technical assistance and share the cost of reaching new markets and using new channels.

UK Aid: Private Enterprise Programme Zambia (PEPZ)

The Private Enterprise Programme Zambia (PEPZ) supports profitable business growth across three focus sectors: food and agriculture, mining and mining supplies, and tourism and hospitality. They work in partnership with the private sector to promote Zambian agricultural productivity and food processing, strengthen Zambian manufacturing in the mining sector, and increase the local share of the tourist spend. The objective of PEPZ is to increase the size and capability of Zambian firms. They help Zambian businesses to invest, add value and create jobs by: (1) providing strategic guidance and technical assistance; (2) offsetting some of the risk associated with innovation and (3) facilitating market linkages within value chains.

United Nations Capital Development Fund (UNCDF)

The United Nations Capital Development Fund (UNCDF) works in Zambia to promote accessible financial services and create financial systems for sustainable and inclusive local development. UNCDF implements the Making Access Possible (MAP) and YouthStart, a global initiative that aims at increasing access to financial services for low-income youth, with an emphasis on savings and financial education. Zambia is also one of the eight countries where UNCDF implements its Mobile Money for the Poor (MM4P) programme, which is designed to focus intently on some of the poorer countries where the commercial business case for digital financial services (DFS) is marginal, but the needs of the population are great. MM4P is working with banks, mobile network operators, regulators and users of these services to help them reach the unbanked.

Finland's Accelerated Growth for MSMEs in Zambia Project, 2018-2022

Launched in June 2018, the key objectives of this project are to make companies and projects bankable through Business Development Services and provide access to affordable loans through the establishment of a loan facility with a Zambian entity. The project will also conduct outreach to women-headed businesses, provide business management training and equipment for selected MSMEs, and deliver technical training at local vocational training centres.



CONCLUSION

MCTI requested this assessment at an opportune moment. Evolving around the Smart Zambia Master Plan, the Government is investing significant time and resources in ICT infrastructure, updating legislation and regulations, and building public sector capacity to provide e-services. Despite significant strides taken by the Government, there is no inter-ministerial coordination body on e-commerce and the digital economy. There is also weak public-private dialogue on key issues and the perception exists that the voices of tech startups and e-commerce entrepreneurs are not fully heard in the policymaking process.

Yet against long odds, Zambia has a growing start-up and broader e-commerce scene. Several challenges identified in this assessment are being tackled by a range of stakeholders, including efforts underway to address issues pertaining to access to financing, Internet reliability and price, physical addressing, the cost of trade logistics, lack of trust in online transactions and the e-commerce skills gaps in the marketplace.

Putting in place both an inter-ministerial coordination body and a public-private coordination body on digital e-commerce and the digital economy is of key importance. Engaging in a national e-commerce strategy development process would likely give inter-ministerial and public-private coordination and collaboration the much-needed impetus to move forward. It would also help to create a common understanding of e-commerce across stakeholders and expand the overall knowledge and understanding of it. It would enhance information sharing and boost trust in online transactions.

Any inter-ministerial coordination mechanism on e-commerce should include relevant regulators. The Government is putting in place many strategies, legislation and regulation, centralised data storage facilities and electronic services, but coordination and collaboration across the entities responsible for each of these initiatives is limited. The Government's efforts to strengthen e-government should happen in unison with efforts to strengthen the enabling environment for e-commerce.

The request for this assessment also sends a strong signal: Zambia is interested in e-commerce and is ready to increase efforts to strengthen the enabling environment for e-commerce and the digital economy. Although not currently active in the negotiations of the WTO Work Programme on E-commerce, the country has decided to make e-commerce work for itself in line with national development strategies. To make it happen, Zambia will require assistance from development partners. Currently, there is limited programming by development partners on ICT, and support for e-commerce specifically is nearly non-existent. Yet, there is a lot of programming on trade facilitation, some on private sector development (including access to financing) and even some that supports start-ups and start-up hubs. These will all contribute to creating a conducive environment for e-commerce, but much more needs to be done.

This report is a crucial step in making e-commerce work for Zambia's overall development. The policy recommendations contained in this report are aimed at addressing key barriers identified during the assessment process, and all stakeholders - the Government, the private sector, donor agencies, development partners and international organizations - should work together to implement the recommendations.



THE WAY FORWARD: ACTION MATRIX

E-COMMERCE READINESS ASSESSMENT AND STRATEGY FORMULATION			
Indicative action	Expected results	Priority Level	Potential support by
Initiate discussions on engaging in a national e-commerce strategy development process, which would require broad multi-stakeholder consultations.	A common understanding on what e-commerce in Zambia is, an acknowledgement of its importance, improved ability to attract domestic and foreign partners and investors in the sector.	High	MCTI (lead), E-Government Division at the Cabinet Office, Smart Zambia Institute, UNCTAD, ITC
For inter-ministerial and public-private coordination, include e-commerce in one of the existing 7NDP Cluster Advisory Groups (CAG). Alternatively, create a new inter-ministerial and a public-private coordination mechanism for e-commerce. Ensure regulators are included in any such coordination mechanisms.	Enhanced public sector coordination and coherence, improved e-commerce business environment, expanded knowledge and understanding of e-commerce, enhanced information sharing. New PPP opportunities.	High	MCTI (lead), E-Government Division at the Cabinet Office, other Ministries, Departments and Agencies
Facilitate the tech start-ups and other e-businesses to get organized in the form of a chapter of an association or chamber of commerce.	Improved ability by these small businesses to get their voices heard in e-commerce discussions.	High	ITC, WB
Open up public procurement and other opportunities for tech start-ups and e-commerce firms to do business with the Government. Aggregate the currently disaggregated Government procurement system.	Domestic profit and revenue generation, e-commerce skills development and enhanced competitiveness of Zambian companies.	Medium	MCTI (lead), E-Government Division at the Cabinet Office, Smart Zambia Institute
MCTI to revise their service provision in a way that allows them to better manage their e-commerce leadership portfolio.	Implementation of policies that support start-ups and e-commerce firms.	Medium	MCTI

ICT INFRASTRUCTURE AND SERVICES			
Indicative action	Expected results	Priority Level	Potential support by
Sensitize and train all Government Ministries and other agencies to make use of the National Data Center.	Enhanced uniformity of the Government and greater use of the Center.	Medium	MOTC, E-Government Division at the Cabinet Office, Smart Zambia
Consider further increasing the number of MNO licences to foster competition and improve telecommunications services to all areas of the country.	Improved speed, reliability and affordability of broadband Internet, particularly mobile broadband.	Medium	ZICTA
Ensure MNO quality service parameters are at an agreeable level and fully enforced to secure servicing all areas of the country.	Enhanced price and quality of broadband Internet, particularly mobile broadband.	Medium	MOTC, BRRA



TRADE LOGISTICS AND TRADE FACILITATION			
Indicative action	Expected results	Priority Level	Potential support by:
Support with resources the implementation of the second phase of the national addressing rollout program. This is needed to speed up implementation to cover the entire country by 2023.	Improved quality of service and delivery success; potential for development of untapped revenue streams (including from e-commerce), and potential for increased efficiency from automated mail processing.	High	ZICTA, UPU, WB, UN-Habitat, Sida
Continue addressing issues pertaining to non-tariff barriers in trade logistics and trade facilitation, including by ensuring implementation of harmonization of toll fees, eliminating of road blocks and increasing the efficiency of One Stop Border Posts.	Significant reduction in cost of trade logistics; improved country competitiveness and enhanced e-commerce environment.	High	NTFC, MCTI, ZRA/ Customs, SADC, COMESA, BRRA and regulators, GIZ, WB, EU
Expedite implementation of the TFA and cross-border paperless trade reforms in the areas of governance and impartiality, harmonization and simplification of documents and streamlining of procedures.	Significant reduction in cost of trade logistics; improved country competitiveness and enhanced e-commerce environment.	High	NTFC, MCTI, ZRA/ Customs, SADC, COMESA, BRRA and regulators, GIZ, WB, EU
Ensure sufficient information provision to the e-commerce vendors and platforms on issues pertaining to customs clearance, including the de minimis threshold and its impact.	Improved tech start-up and e-commerce business environment.	High	ZRA/ Customs
Conduct operational readiness for e-commerce (ORE) assessment and implement relevant recommendations to enhance e-commerce postal deliveries.	ZAMPOST is in a position to deliver e-commerce items efficiently and reliably for the entire population.	High	ZICTA, ZAMPOST, UPU
Ensure proper mapping of all parts of Lusaka and eventually the entire country.	Improved postal and courier services sector, improved tech start-up and e-commerce business environment.	Medium	ZICTA, Local (municipal) authorities
Aim at swift integration of the address database (generated as part of the National Addressing project) with those of other regulators.	Further benefits to the postal and courier services sector, improved tech start-up and e-commerce business environment.	Medium	ZICTA, BRRA and relevant regulators
Identify and address weaknesses of ZAMPOST.	Improved postal and courier services sector, improved tech start-up and e-commerce business environment.	Medium	ZICTA, Zampost, BRRA, UPU
Implement the postal easy export-easy import services.	MSMEs across the country can access export and import markets using the postal network.	Medium	NTFC, MICT, ZAMPOST, UPU
Encourage more private sector entrants into the delivery business.	Improved postal and courier services sector, improved tech start-up and e-commerce business environment.	Medium	ZICTA, ZDA, relevant regulators and the private sector

PAYMENT SOLUTIONS			
Indicative action	Expected results	Priority Level	Potential support by:
Run public campaigns to inform and sensitize potential agents, vendors and customers on mobile money and mobile banking.	Enhanced trust for financial inclusion to succeed.	High	BoZ, NBFIs, FSDZ, UNCDF, commercial banks



PAYMENT SOLUTIONS			
Indicative action	Expected results	Priority Level	Potential support by:
Continue and expand incentives for companies registering for licences to set up FinTech and other digital financial services.	Enhanced mobile payment systems business environment, improved tech start-up/e-commerce vendor business environment.	High	MoF, BoZ
Achieve full interoperability between banks and mobile money operators (ensure full implementation of the National Financial Switch).	Enhanced financial inclusion by providing services for all people. Improved tech start-up and e-commerce business environment.	Medium	MoF, BoZ, NBFIs, FSDZ, UNCDF, commercial banks
Actively seek to engage local skills-base into developing appropriate digital financial products and services for the Zambian market.	Localized digital financial products and services, domestic profit and revenue generation, skills development and enhanced competitiveness of Zambian companies.	Medium	BoZ, NBFIs, FSDZ, UNCDF, commercial banks, hubs/incubators/accelerators
Encourage DFS companies to incentivize business digitalization by offering benefits to customers who go digital. Encourage private companies, including MNOs, to implement electronic bidding platforms for their suppliers.	Enhanced mobile payment systems business environment, improved tech start-up and e-commerce business environment.	Medium	BoZ, NBFIs, FSDZ, UNCDF, commercial banks, hubs/incubators/accelerators
Consider adding mobile-money as a payment option for Zambian online shops (along the lines of PayPal) and offline in physical shops and stores.	Expanded mobile-pay, enhanced mobile payment systems business environment, improved tech start-up and e-commerce business environment.	Low	BoZ, NBFIs, FSDZ, UNCDF, commercial banks, hubs/incubators/accelerators

LEGAL AND REGULATORY FRAMEWORK			
Indicative action	Expected results	Priority Level	Potential support by:
Submit the following pieces of draft legislation for an RIA and public consultation by BRRRA: Data Protection Bill, Cyber Crime and Security Bill, and e-Commerce and e-Transactions Act.	High quality legislation that is e-commerce friendly.	High	MOTC, BRRRA, MCTI, UNCTAD, WB
Ensure the BRRRA can fully discharge their mandate and becomes digital on schedule. Encourage it to focus on carrying out a regulatory gap analysis on e-commerce.	Improved predictability of regulations pertaining to start-ups and e-commerce vendors. Enhanced e-commerce business environment.	High	BRRRA, MCTI, WB
Ensure that a regulatory gap analysis be included as part of any e-commerce strategy development process.	Enhanced e-commerce business environment, improved ability to attract domestic and foreign partners and investors.	High	MCTI (lead), E-Government Division at the Cabinet Office, Smart Zambia Institute, UNCTAD, BRRRA, WB
Ensure that there is an appropriate classification of e-commerce companies by the Patents and Companies Registration Agency (PACRA) and the Zambia Revenue Authority (ZRA).	Enhanced tech start-up and e-commerce business environment, higher survival rate of start-ups and more dynamic start-up scene.	Medium	PACRA, ZRA, MCTI, MoF, WB
Ensure a level playing field in mobile-money for financial institutions, MNOs and other service providers.	Fair and competitive market, including in relation to storage limits in mobile money accounts and to KYC. Enhanced e-commerce business environment and improved trust.	Medium	BoZ, ZICTA, MCTI



LEGAL AND REGULATORY FRAMEWORK			
Indicative action	Expected results	Priority Level	Potential support by:
Make regulations predictable and supportive to the fast-moving start-up and e-commerce business scene. Consider organizing workshops or hackathons with the private sector to understand their business models and perspectives.	Improved predictability of regulations pertaining to start-ups and e-commerce vendors at large.	Medium	BRRA, relevant regulators, hubs/incubators/accelerators

E-COMMERCE SKILLS DEVELOPMENT			
Indicative action	Expected results	Priority Level	Potential support by:
Conduct a gap analysis to determine which e-commerce skills are most lacking among entrepreneurs and MSMEs.	MSMEs and start-ups are enabled to manage their business in e-commerce in a sustainable manner.	High	MCTI, ITC
Promote inclusion of e-commerce specific training into degrees and courses offered by the higher-level education providers.	Entrepreneurs are skilled in e-commerce; domestic profit and revenue generation; and improved e-commerce business environment.	High	Universities and institutions that provide degrees and certificates, making use of PPPs
Develop technical and vocational training for targeted e-commerce skills such as business proposal development, digital marketing, warehousing and logistics.	Higher-skilled workforce able to feed into existing and new e-commerce firms.	High	Vocational and technical institutions
Continue and intensify campaigns to sensitize, build awareness and educate citizens on the digital economy, including e-commerce.	Enhanced e-commerce business environment, local solutions, skills development, domestic profit and revenue generation.	High	Smart Zambia Institute, MCTI, ZACCI, ITC
Promote inclusion of ICT in primary, secondary and tertiary school curricula and enhanced training of teachers.	Students are exposed to ICT and learn basic skills related to e-commerce. Supports the Smart Zambia Master Plan.	Medium	MOTC, UN agencies, WB, making use of PPPs
Facilitate local developers and start-ups to work with industry leaders in telecom, finance and other industry sectors to encourage local value chains and supplying.	Domestic profit and revenue generation, local solutions, skills development and enhanced competitiveness of the Zambian companies.	Medium	Hubs/incubators/accelerators, PEPS, ITC, other development partners

ACCESS TO FINANCING			
Indicative action	Expected results	Priority Level	Potential support by:
Continue to harmonize and strengthen various pieces of legislation governing the financial sector.	Enhanced financial inclusion, improved tech start-up and e-commerce business environment, higher survival rate of start-ups.	High	MoF (lead), MCTI, BOZ, FSDZ, UNCDF, hubs/incubators/accelerators, AfDB, WB
In further developing policies and strategies for financial inclusion, institute consultative processes with start-ups and e-commerce vendors.	Enhanced financial inclusion, improved tech start-up and e-commerce business environment, higher survival rate of start-ups.	High	MoF (lead), MCTI, BOZ, FSDZ, UNCDF, hubs/incubators/accelerators, AfDB, WB



ACCESS TO FINANCING			
Indicative action	Expected results	Priority Level	Potential support by:
Design and implement special financing products for MSMEs involved in electronic commerce.	Improved access to financing by start-ups and e-commerce vendors, enhanced financial inclusion and higher survival rate of start-ups.	Medium	BOZ, NBFIs, FSDZ, UNCDF, commercial banks, hubs/incubators/accelerators, AfDB, WB
Invest resources in existing hubs, incubators and accelerators. This could be in the form of local expertise or in collaboration with development partners and outside investors	Improved use of existing resources, improved access to financing by start-ups and e-commerce vendors.	Medium	Hubs/incubators/accelerators, PEPZ, Government collaboration with development partners



Annex I: Zambia country profile on etradeforall.org



COUNTRY PROFILE: ZAMBIA

Contact: info@etradeforall.org

GENERAL INFORMATION - 2016

Population 16.6 Millions	GDP 21 063 Millions current US\$	Merchandise trade 12 846 Millions current US\$
Internet users 4.2 Millions	GDP growth 3.6 %	Land area 743 390 km ²

Source: UNCTAD and ITU (complete URL addresses in the General Notes)

E-COMMERCE ASSESSMENT - 2017

Rank in UNCTAD B2C E-commerce Index 121/144	Rank in ITU ICT Development Index 146/176	Rank in WEF Networked Readiness Index 116/139
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Source: UNCTAD, ITU and WEF (complete URL address in the General Notes) Note: 1 = Best

ICT INFRASTRUCTURE AND SERVICES - 2016

Internet users, 25.5

Fixed broadband subscriptions, 0.2

Active mobile broadband subscriptions, 31.1

Fixed broadband Internet tariffs, PPP \$/month

Source: ITU (complete URL address in the General Notes)

PAYMENTS - 2014

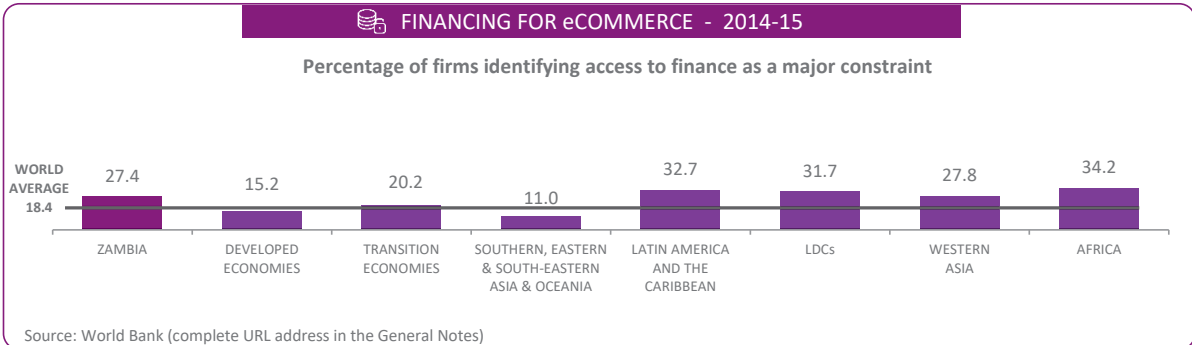
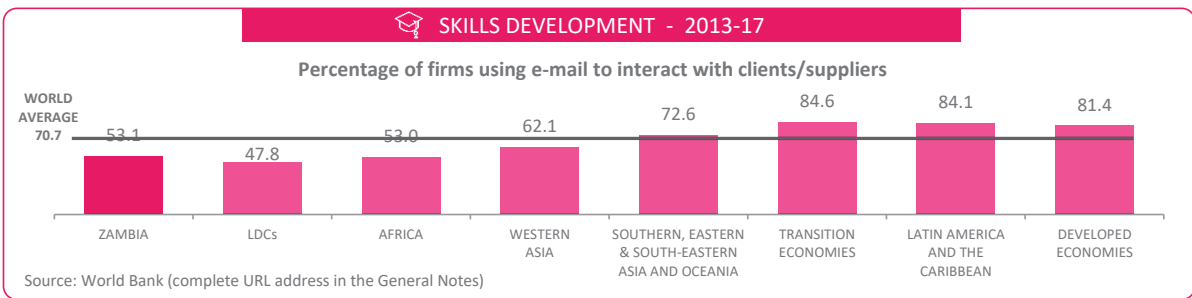
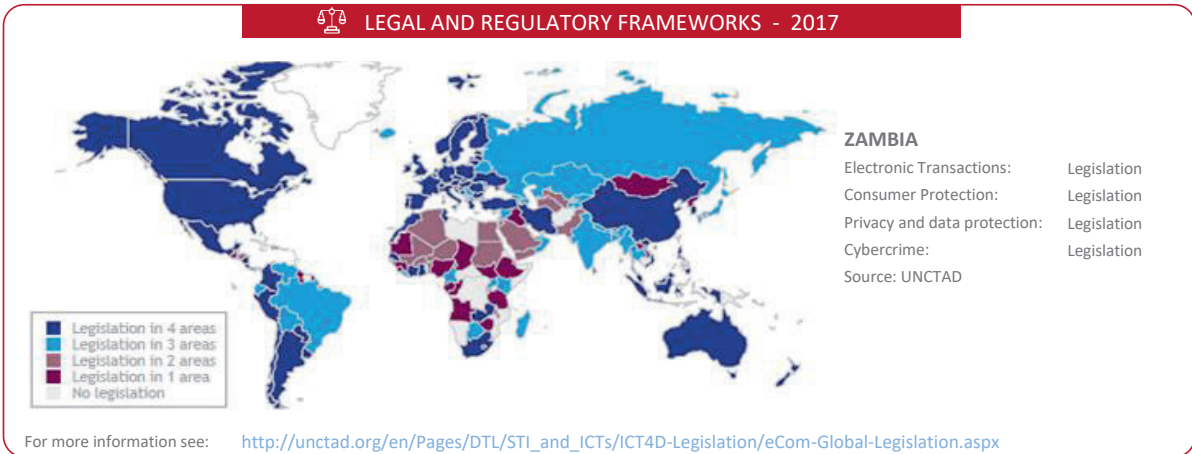
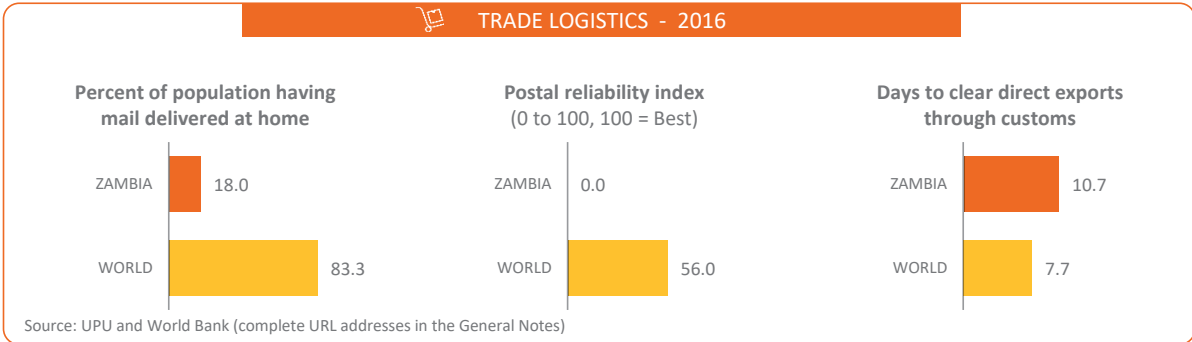
Debit card used in the past year	ZAMBIA, 7.3	AFRICA, 7.6	WORLD, 21.9
Credit card used in the past year	ZAMBIA, 1.1	AFRICA, 1.8	WORLD, 13.5
Used an account to make a transaction through a mobile phone	ZAMBIA, 7.3	AFRICA, 4.9	WORLD, 8.5

Per 100 inhabitants

Source: World Bank (complete URL address in the General Notes)



COUNTRY PROFILE: ZAMBIA



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- Huawei: “New ICT Helps Build Smart Zambia” at <https://e.huawei.com/en/case-studies/global/2017/201710091443>
- Kazang <http://paycorp.co.za/kazang/>
- Ministry of Finance <http://www.mof.gov.zm/>
- UNCTAD B2C Index https://unctad.org/en/PublicationsLibrary/tn_unctad_ict4d09_en.pdf UNCTAD Cyberlaw tracker http://unctad.org/en/Pages/DTL/STI_and ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx
- “SMART ZAMBIA” TARGETS 100% MOBILE VOICE COVERAGE” Ministerial Bulletin Aug 4, 2017, at <http://www.mof.gov.zm/index.php/achived-news/315-smart-zambia-targets-100-mobile-voice-coverage>
- Zambia Information and Communications Technology Authority (ZICTA) <https://www.zicta.zm/>



Annex III: List of UNCTAD Rapid eTrade Readiness Assessments of LDCs

- Burkina Faso: Evaluation rapide de l'état de préparation au commerce électronique, October 2018.
- République togolaise: Evaluation rapide de l'état de préparation au commerce électronique, October 2018.
- Solomon Islands: Rapid eTrade Readiness Assessment, July 2018.
- Republic of Vanuatu: Rapid eTrade Readiness Assessment, July 2018.
- République du Sénégal: Evaluation rapide de l'état de préparation au commerce électronique, June 2018.
- Lao People's Democratic Republic: Rapid eTrade Readiness Assessment, April 2018.
- Liberia: Rapid eTrade Readiness Assessment, April 2018.
- Myanmar: Rapid eTrade Readiness Assessment, April 2018.
- Nepal Rapid eTrade Readiness Assessment , December 2017.
- Samoa Rapid eTrade Readiness Assessment, October 2017.
- Bhutan Rapid eTrade Readiness Assessment, April 2017.
- Cambodia Rapid eTrade Readiness Assessment, April 2017.

And: <http://unctad.org/en/Pages/Publications/E-Trade-Readiness-Assessment.aspx>



