



Republic of Uganda 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.

Reference to companies and their activities should not be construed as an endorsement by UNCTAD of those companies or their activities.

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.



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 Uganda Rapid eTrade Readiness Assessment is the thirteenth such assessment conducted by UNCTAD and the first in Eastern and Southern Africa. This report is expected to contribute to the Government of Uganda's efforts to build a robust, safe and business-friendly e-commerce ecosystem.

With the eTrade for all partners, UNCTAD is committed to supporting Uganda in its resolve to harness the potential of e-commerce for development.

Shamika N. Sirimanne

Director, Division on Technology and Logistics, UNCTAD



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TABLE OF CONTENTS

NOTE	III
PREFACE	IV
ACKNOWLEDGEMENTS	V
ABBREVIATIONS	VII
EXECUTIVE SUMMARY	1
METHODOLOGY	3
SUMMARY OF MAIN FINDINGS AND MAIN RECOMMENDATIONS	4
FINDINGS UNDER THE SEVEN ETRADE FOR ALL POLICY AREAS	7
1. E-COMMERCE READINESS ASSESSMENTS AND STRATEGY FORMULATION	7
2. ICT INFRASTRUCTURE AND SERVICES	14
3. TRADE LOGISTICS AND TRADE FACILITATION	18
4. PAYMENT SOLUTIONS	22
5. LEGAL AND REGULATORY FRAMEWORK	27
6. E-COMMERCE SKILLS DEVELOPMENT	31
7. ACCESS TO FINANCING.....	35
CONCLUSION	39
THE WAY FORWARD: ACTION MATRIX	40
Annex I: Uganda country profile on etradeforall.org	45
Annex II: Bibliography and websites used	47
Annex III : List of UNCTAD Rapid eTrade Readiness Assessments of LDCs	48



ABBREVIATIONS

BPO	Business Process Outsourcing
BoU	Bank of Uganda
CERT	Computer Emergency Response Team
COMESA	Common Market for Eastern and Southern Africa
DFS	Digital Financial Services
EAC	East African Community
EAPS	East African Payment Systems
EIF	Enhanced Integrated Framework
FY	Financial Year
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
GoU	Government of Uganda
GVC	Global Value Chains
ICT	Information and Communications Technology
IDI	ICT Developmental Index
IP	Internet Protocol
IPv6	Internet Protocol version six
IRA	Insurance Regulatory Authority
ISPs	Internet Service Providers
IoT	Internet of Things
ITC	International Trade Centre
ITU	International Telecommunication Union
LGs	Local Governments
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MDAs	Ministries, Departments and Agencies
MDI	Microfinance Deposit-taking Institutions
MEACA	Ministry of East African Community Affairs
MoFPED	Ministry of Finance, Planning and Economic Development
MoGLSD	Ministry of Gender, Labour and Social Development
MoICT & NG	Ministry of Information, Communications Technology and National Guidance
MoIA	Ministry of Internal Affairs
MoTIC	Ministry of Trade, Industry and Cooperatives
MNO	Mobile Network Operators
MSME	Micro, Small and Medium Enterprise
MVNO	Mobile Virtual Network Operator
NBI	National Backbone Infrastructure
NCDC	National Curriculum Development Centre
NDP	National Development Plan
NIISP	National ICT Initiatives Support Program
NITA-U	National Information Technology Authority of Uganda
NFIS	National Financial Inclusion Strategy
OECD	Organisation for Economic Co-operation and Development
OPM	Office of the Prime Minister



OSS	Open Source Software
OTT	Over-The-Top
PIP	Public Infrastructure Providers
PPP	Public Private Partnership
PSFU	Private Sector Foundation Uganda
PSP	Public Service Provider
QoS	Quality of Service
RCDF	Rural Communications Development Fund
RCIP	Regional Communication Infrastructure Program
SDGs	Sustainable Development Goals
TVET	Technical and Vocational Education and Training
UCC	Uganda Communications Commission
UEPB	Uganda Export Promotion Board
UICT	Uganda Institute of Information and Communication Technology
UGX	Ugandan Shilling
UMRA	Uganda Micro Finance Regulatory Authority
UNCCI	Uganda National Chamber of Commerce and Industry
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UPU	Universal Postal Union
UPL	Uganda Post Limited [Posta Uganda]
URA	Uganda Revenue Authority
US\$	United States Dollars
URBRA	Uganda Retirement Benefits Regulatory Authority
URSB	Uganda Registration Services Bureau
USSD	Unstructured Supplementary Service Data
VoLTE	Voice over Long-Term Evolution
VPN	Virtual Private Network



EXECUTIVE SUMMARY

E-commerce is not new in Uganda. Information and communication technologies (ICT) play an important role in the daily life of the Ugandan population through Internet access and mobile payments. Innovative local solutions have also emerged in e-commerce delivery logistics. The ICT market also offers opportunities that increase the attractiveness of the country to ICT supply companies. Thus, there is great potential for further e-commerce growth in Uganda, with many businesses seeing it as a way to attract international customers and to increase their competitiveness. Yet, more efforts are needed by different stakeholders for e-commerce to reach its full potential in Uganda.

E-commerce readiness assessment and strategy formulation

E-commerce is a priority in the most recent sectoral strategies and the National Development Plan II of Uganda. This has allowed the country to become somewhat of a success story in terms of providing access to ICT services to consumers and for encouraging the entry of large foreign e-commerce companies. The Digital Uganda Vision is expected to be published in the coming months and reflects the importance of the ICT sector for e-government and e-commerce. Yet, strengthening domestic productive capacities and the creation of local digital content are not adequately supported or promoted. The overall ICT sector, which is distinct from e-commerce, only represented 2.5 per cent of Gross Domestic Product (GDP) and contributed 7.5 per cent of the total revenue collection in the fiscal years 2016/2017.

ICT infrastructure and services

The Government, with the support of development partners, has invested significant resources in implementing ICT infrastructure throughout the country. This has resulted in the exponential growth of mobile telecommunications, with about 70 per cent of the population having access to a mobile phone. As of March 2018, there were 9.8 million Internet subscribers in Uganda. At the same time, large segments of the rural populations remain excluded from not only the Internet but also electricity (a key enabler of ICT services and e-commerce).

Trade logistics and trade facilitation

As a landlocked country, Uganda faces inherent geographical constraints and depends on the efficiency of transport networks in neighbouring countries for its access to the major ports in East Africa. To lessen the impact of these constraints, increased focus has been placed on improving the postal network services within the country, reducing clearance time for expedited shipments and improving last-mile delivery for e-commerce parcels. In June 2018, Uganda ratified the WTO Trade Facilitation Agreement, which is aimed at simplifying, standardizing and harmonizing trade procedures and documentation related to import, export and transit. Private transport companies and logistics couriers also provide important e-commerce delivery services.

Payment solutions

Uganda is among the pioneers of mobile payments in Africa, and many e-commerce transactions are in fact m-commerce transactions. The population is accustomed to making transactions through Unstructured Supplementary Service Data (USSD) or other mobile solutions. In June 2017, there were nearly 23 million mobile money accounts in the country. The total value of mobile money transactions is estimated at Ugandan Shilling 63 trillion (United States \$16.3 billion) amounting to half of the national GDP. To some extent, mobile network operators have supplanted traditional banks as the main payment service providers in Uganda. However, perceived risks related to the use of electronic payments in general still creates uncertainty and mistrust among the population when it comes to online shopping.

Legal and regulatory framework

As part of the East African Community (EAC), Uganda has benefited from the EAC regional harmonized frameworks for cyberlaws enacted in 2011-2013 with the assistance of UNCTAD. Uganda has exhaustive legal frameworks in place such as the Electronic Transactions Act 2011; the Electronic Signatures Act 2011; and the Consumer Protection and Competition Bill 2015. The Data Protection and Privacy Bill 2015 remains to be enacted by the Parliament. However, some of these laws need to be reviewed in light



of recent technological developments related to e-commerce. Moreover, the lack of awareness about the legal frameworks in place creates a trust deficit with the broader population, particularly in cases of fraudulent online transactions.

Skills development for e-commerce

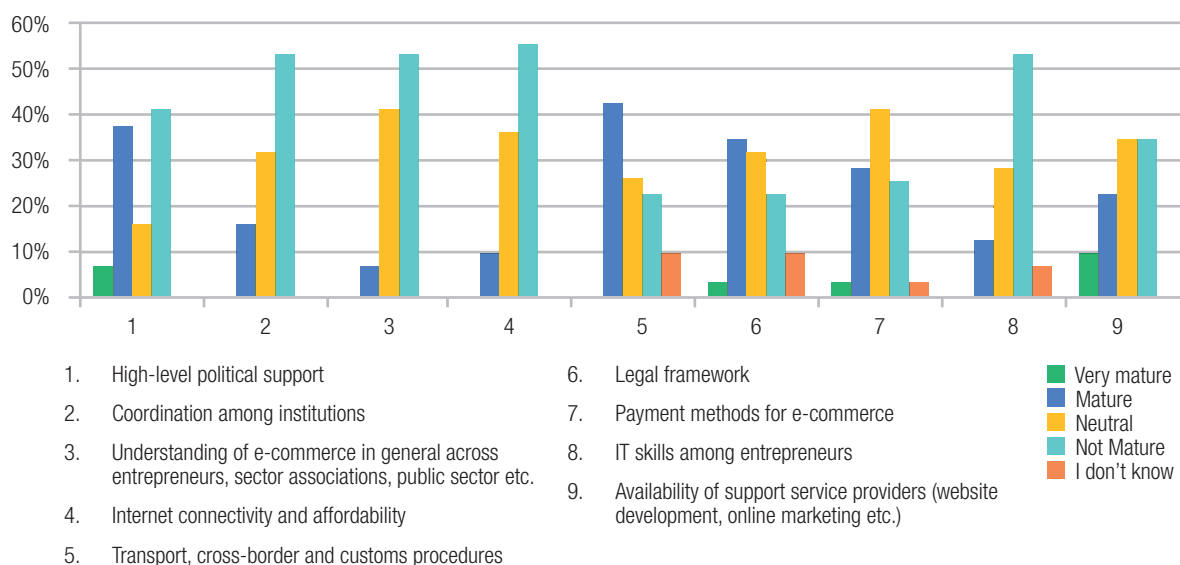
Despite some advancements, Ugandan firms are not yet fully-equipped with the skills necessary to take advantage of e-commerce. This includes business management skills that are essential to e-commerce, such as online content management and digital marketing, compliance with payment provider and e-commerce platform requirements, and the ability to package and ship large volumes of small parcels. As a result, the country largely depends on foreign e-commerce firms while local companies struggle to develop their own digital content and online services. Although the use of computers is still limited at school, the current National ICT Policy has the objective of providing broadband connectivity to 50 per cent of primary schools by 2020. Efforts at the primary and secondary education levels are considered a priority by the Government to boost the ICT and e-commerce literacy of the overall population and provide employment opportunities. In parallel, at the vocational level, innovation hubs and skills projects are being put in place to boost the skills of IT experts.

Access to financing

Although the banking and non-banking systems are relatively well developed in Uganda, access to financing is one of the main bottlenecks for e-commerce development. Participating in e-commerce requires access to capital, which is not always available for existing businesses, let alone new business start-ups. Start-ups and Micro, Small and Medium Enterprises (MSMEs) face financing constraints as formal institutions require conditions that are often difficult to meet. Although the non-banking financial sector is quite developed, it does not commonly provide credit. In the absence of borrowing capacity, businesses limit their online expansion and often look for cheaper, yet unsustainable, ways to grow online.

There is significant potential for continued e-commerce growth in Uganda. The country should consider e-commerce as a way to trade more and create jobs, giving full support to boosting local productive capacities, increasing exports and integrating into regional and Global Value Chains (GVCs). This should be done in an inclusive manner, giving equal opportunities to men and women from both urban and rural areas.

Figure 1 : Rate the following items on their level of maturity in your country in terms of e-commerce development



METHODOLOGY

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

Figure 2: Assessment methodology



- ✓ **Phase 1 | Stakeholder engagement and literature review, 1-30 April 2018.** It included official communications between UNCTAD, the Ministry of Trade, Industry and Cooperatives (MoTIC) and the National Information Technology Authority (NITA-U). Literature review and data analysis was facilitated based on up-to-date statistics provided by the national institutions as well as International Telecommunication Union (ITU), the Universal Postal Union (UPU), in addition to data compiled by UNCTAD on behalf of the eTrade for all initiative.
- ✓ **Phase 2 | Online survey customization and dissemination, 19 April 2018.** Two customized questionnaires for the public and private sectors were distributed by MoTIC and NITA-U to more than 120 stakeholders. Responses were received from 38 respondents from the public sector and 41 respondents from the private sector.
- ✓ **Phase 3 | Focus-group discussions, semi-structured interviews and bilateral meetings during the consultants’ mission to Kampala, on 21-25 May 2018.** Several workshops were held with all stakeholders. A briefing on early findings and suggestions took place on 25 May 2018 with MoTIC and NITA-U.

✓ **Phase 4 | Report writing and finalization, 1 June - 30 September 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>E-commerce has been a major topic in Ugandan national development policies and strategies in recent years. The country is currently in the final stages of formulating the Digital Uganda Vision. Most government institutions have included ICT in their strategic plans. Though this is positive, it also creates some confusion about institutional mandates and risks overlap between various Ministries, departments and agencies. The private sector is not adequately involved in contributing to policymaking related to e-commerce.</p>	<p>The development of a national e-commerce strategy, aligned with the Digital Uganda Vision and local government frameworks, should be prioritized. The strategy should emphasize the importance of boosting domestic productive capacities, integrating local firms into regional and global value chains, developing local digital content and upgrading digital entrepreneurship and e-business skills. A national multi-sectoral task force on e-commerce should be established, to feed into the Inter-Ministerial Task Force on Digital Vision Uganda and the Inter-Institutional Trade Committee. This would help improve coordination between public and private sector actors. Private sector associations should also increase their involvement in the policymaking process.</p>
 ICT Infrastructure and Services	
<p>The Government, with the support of development partners, has invested significant resources into implementing ICT infrastructure throughout the country. The number of Internet users has doubled since 2014, reaching over 21 million users in 2017. Although the Government's National Backbone Infrastructure (NBI) covers 39 districts (out of 121 districts in total) with over 2,400 km of fibre-optic cable, it has a relatively low penetration in rural areas. Uncoordinated deployment of ICT infrastructure remains a challenge, including lack of an interoperability framework for system integration.</p>	<p>The National Backbone Infrastructure should be expanded into rural areas to provide affordable and reliable broadband Internet to all segment of the population. Investment policy should be aimed at supporting the growth of the digital economy to help reduce social and economic inequalities. A study of the cost structure of Internet connectivity and data affordability could be undertaken to identify concrete steps to reduce current costs. Specific policies and regulations should be put in place to ensure fair competition in the telecommunications sector. Post-investment support to new Mobile Network Operator (MNO) investors, in the form of advisory services and technical support, should be strengthened. Access to electricity should be expanded across the country, especially in rural areas.</p>
 Trade Logistics and Trade Facilitation	
<p>Efforts have been made to strengthen last-mile delivery in the national postal service network. Uganda Post Limited (UPL) has increased its delivery fleet and services for home delivery service, and the Government is in the process of providing each household with a formal postal code. Despite these improvement to the national postal service, a large portion of goods-based e-commerce is being delivered by express couriers or by third parties. Taxis services such as Uber Uganda, Friendship Taxi, SafeBoda and Quick Taxi already provide some transport logistics for e-commerce, and private couriers such as DHL Express, Yellow Pages Express and CourierMate Uganda also form an important part of the delivery logistics market. Bottlenecks remain in implementing the TFA Articles on expedited shipments and electronic payments. The absence of insurance companies providing services in this area increases the risk of e-commerce transactions.</p>	<p>Encourage the establishment of innovative partnerships between UPL and local private actors to increase the coverage of goods-based e-commerce deliveries across the country. Capacity of UPL and border agencies should be strengthened to increase faster processing and release of cross-border e-commerce goods. Continue coordinating with neighboring countries on common procedures for customs and quality control. Increase awareness of the potential of e-commerce to insurance companies and encourage the provision of insurance services in this area. Leverage the postal network outside of the main cities as an agency for trade facilitation, enabling MSMEs to sell and distribute their products across the country or internationally. Accelerate the operational readiness for e-commerce (ORE) project to enhance the e-commerce delivery efficiency of UPL. Dedicated legislative provisions on expedited shipments should be considered, to promote cross border e-commerce.</p>



MAIN FINDINGS	MAIN RECOMMENDATIONS
<div style="display: flex; justify-content: space-between; align-items: center;">  Payment Solutions </div>	
<p>The main e-commerce payment solutions are cash on delivery and mobile payments. There were nearly 23 million mobile money accounts in 2017 and the total value of mobile money transactions reached US\$ 16.3 billion. USSD is the most common technology in mobile financial services but the lack of regulations on the use and security of USSD transactions increases risks for end-users. Large MNOs are providing services for mobile payment as well as NFIs through e-wallets, using a growing agent banking network. Potentially unfair competition in the mobile money market appears to favor the leading MNOs. The agent banking network provides important services, including cash withdrawals and cash deposit, to rural populations that are largely excluded from the formal banking sector. The Excise Duty (Amendment) Act, which imposes a 0.5 per cent levy on withdrawals through mobile money platforms, is affecting consumer behaviour.</p>	<p>Assess the financial and social impact of the newly adopted Excise Duty (Amendment) Act 2018, which levies a tax on mobile transactions. Based on the findings of the study on USSD carried out by the Uganda Communications Commission, consider drafting regulations to ensure competition in USSD and mobile solutions services. In the short-term, increase information security mechanisms in USSD and payment solutions including for cross-border payments. In the medium-term, given inherent security limitations in USSD, promote smartphones and mobile applications as a potential replacement for USSD. Organize awareness and sensitization campaigns for both public and private sector stakeholders to reduce fears and lack of trust in e-payment solutions. In semi-urban and rural areas, there are opportunities for UPL to sign master agent agreements with DFS providers and e-commerce platforms to facilitate electronic payments.</p>
<div style="display: flex; justify-content: space-between; align-items: center;">  Legal and Regulatory Framework </div>	
<p>Several laws and regulations under the EAC Framework governing ICT that relate to e-commerce are in place. The Data Protection and Privacy Bill still needs to be reviewed and adopted. Most of the main entities within government are involved to some extent in e-commerce, but the general population is not aware and informed about existing legal and regulatory frameworks that protect consumers. Although some regulations are in place, lack of trust and fear of online transactions remain key challenges. There are several obstacles to establishing an IT or e-commerce business, including lack of information and lack of assistance for entrepreneurs.</p>	<p>Implement information and awareness-raising programmes on ICT and e-commerce laws and regulations across all levels of society, including those who do not read and write. Review and pass the Cybersecurity and Data Protection and Privacy Bill, accompanied by an awareness-raising campaign on the new Bill and its implications. Facilitate the creation of IT firms and online businesses through investment incentives, particularly tax incentives. Create a mentoring program under the Private Sector Foundation Uganda (PSFU) for young entrepreneurs.</p>
<div style="display: flex; justify-content: space-between; align-items: center;">  e-Commerce Skills Development </div>	
<p>The labor force in Uganda is not adequately equipped with e-commerce knowledge and skills, which are distinct from ICT skills. For example, training on how to manage online content, conduct digital marketing, packaging goods for domestic and international shipment, and achieve compliance with e-commerce platforms and payment providers is limited. The Government has been providing training in e-government service to its employees, however targeted e-commerce training is lacking. Innovation hubs and on-the-job training fill some of the training needs for young entrepreneurs, but the development of specific e-commerce skills such as the operation of a digital business remains a challenge. Efforts to introduce ICT education in Ugandan primary and secondary school curriculum and mainstreaming ICT into teacher education curriculum remain very low.</p>	<p>Increase the availability of courses and training dedicated to digital business entrepreneurship (formalization of a digital business; distance-selling; managing online content; managing online orders; packaging for e-commerce; logistics; digital marketing; and compliance with e-commerce platform and payment provider requirements). Increase access to ICT and e-commerce skills at an earlier age through revised national curriculum. Promote ICT research and innovation through financial support and technical assistance to the Regional Communication Development Fund and the Innovation Hub for start-ups hosted by the Uganda Information and Technology Institute. Conduct a gap analysis to determine which e-commerce skills are most lacking among entrepreneurs and MSMEs. Based on this, develop a package of support provided by the Chamber of Commerce and PSFU, which could include trainings and ongoing mentorship, for MSMEs and start-ups in e-commerce.</p>



MAIN FINDINGS	MAIN RECOMMENDATIONS
 Access to Financing	
<p>Access to financing is critical to establishing and maintaining an e-commerce firm, or to adding an online presence to an existing brick-and-mortar business. Commercial banks are beginning to consider lending to e-commerce firms, but generally do so for large established firms and do not target start-ups or MSMEs. Although payment aggregation through MNOs is very common in Uganda, innovative ways of financing such as crowdfunding or venture capital are not yet developed.</p>	<p>Improve funding opportunities for e-commerce firms by sensitizing banks and non-financial institutions to the unique operating models of such firms. This should be coordinated by the private sector associations and networks along with advocacy for better access to financing. Launch innovative fintech and financial-insurance products for use by MSMEs interested in e-commerce. Using the agency banking model, banks and insurance companies should leverage the postal network outside of the main cities to sell their products to entrepreneurs and MSMEs. Promote crowdfunding and venture capital as alternative sources of funding for e-commerce ventures. A network of women in e-commerce and digital business could also be established to help women employees and entrepreneurs in this sector.</p>

FINDINGS UNDER THE SEVEN ETRADE FOR ALL POLICY AREAS

1. E-COMMERCE READINESS ASSESSMENTS AND STRATEGY FORMULATION

E-commerce is a priority in the most recent sectoral strategies and the National Development Plan II of Uganda. It has allowed the country to become somewhat of a success story in terms of providing access to ICT services to consumers and for encouraging the entry of large foreign e-commerce companies. Yet, domestic productive capacities through export promotion and the creation of local digital content are not adequately supported or promoted. Currently, e-commerce contributes only marginally to exports and national economic growth. Furthermore, e-commerce services tend to be provided by foreign companies that in some cases could be to the detriment of emerging local firms.

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

E-commerce is high on the national agenda of Uganda and is mainstreamed into the main national development strategies and policies.

Uganda is among the East Africa region's leaders in promoting e-commerce and the ICT sector in general. The digital economy is a growing component of Uganda's economy, particularly in mobile payment solutions, and has boosted the ICT sector and overall trade development. The demographic structure of the country is also stimulating demand for digital development, with approximately 50 per cent of the population in the 0-14-year-old age group.

At the global level, Uganda is doing fairly well and is on a steady path to improving its ICT Development Index (IDI) ranking. The IDI is an index showing the developments in ICT in a country, across a range of indicators, and the comparison between countries. In 2016, Uganda's IDI value was 1.90, ranking 158th globally. By 2017, its IDI value has risen to 2.19 and its ranking had improved to 152nd. Regionally, Uganda improved its ranking to 20th in Africa and 2nd in the East Africa region. E-commerce has been a major topic of Ugandan national policies and strategies in the recent years. As a matter of fact, the country is at the final stage of formulating the Digital Uganda Vision which will harmonize and integrate all ICT related initiatives. The Digital Uganda Vision will aim at building a "digitally-enabled society that is secure, sustainable, innovative, transformative and to create a positive social and economic impact".

Table 1: IT Development Ranking in Selected Countries in East Africa

Country	ITU IDI rank (2017)	ITU IDI value (2017)	ITU IDI rank (2016)	ITU IDI value (2016)	Rank change
Kenya	138	2.91	137	2.67	↓
Uganda	152	2.19	158	1.90	↑
Rwanda	153	2.18	151	2.10	↓
Tanzania	165	1.81	164	1.73	↓

Source: ITU (IDI 2017 report)



Table 2: References to e-commerce in the Uganda National Development Plan II (2015/16 - 2019-20)

Objective	Interventions
1. Increase Market share for tourism	I. Aggressive marketing in source markets. II. Promote domestic tourism through cultural and regional cluster initiatives, and national events. III. Develop and upgrade tourism support infrastructure. IV. Promote the utility of e-commerce tools such as credit cards, web based booking and tracking facilities.
2. Enhance the usage and application of ICT services in business and service delivery	I. Operationalize the e-government master plan. II. Establish regional information access centres. III. Promote the use of ICT tools for trade, service delivery and exchange of information. IV. Develop and implement a National Postal and Courier Services Master Plan to exploit opportunities in e-Government and e-Commerce. V. Develop a coherent strategy for mass sensitization and awareness about ICTs.

Source: Uganda, National Development Plan II (2015/16 - 2019-20)

The Digital Uganda Vision stems from the National Development Plan (NDP) II of Uganda, which views ICT as one of the drivers of the economy and key to strengthening Uganda's competitiveness. Specific references to the role of ICT can be found as standalone objectives in NDP II, or as targeted interventions within sector-based strategic objectives. For example, one of the objectives of NDP II is to "enhance the usage and application of ICT services in business and service delivery" and the strategic objective on tourism includes an intervention aimed at increasing the use of e-commerce tools such as web-based bookings¹.

The role of ICT is also mentioned in the Uganda Vision 2040 which was formulated in 2007 to operationalize the national Vision Statement: "A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years". The Uganda Vision 2040 notes the role of ICT to increase "national productivity by making Government and business enterprises more efficient, effective and globally competitive"². Though e-commerce is not explicitly mentioned, the role of ICT in the trade sector is highlighted. The Vision also notes the potential of developing digital industries and establishing a high-tech city as a hub to improve local content and that e-products should "contribute to the national GDP and create employment opportunities"³.

The country has developed several policies and strategies related to ICT with a focus on infrastructure development and inclusion of new technologies

in public services delivery. These ICT policies and strategies are in place and operational. They were all formulated under the stewardship of the Ministry of Information and Communication Technology and include:

- National Electronic Government (E-Government) Policy Framework, 2008;
- IPv6 transition Policy, 2010;
- e-Governance Framework Policy, 2011;
- Telecommunications Policy, 2011;
- e-Waste Management Policy, 2012;
- National ICT Policy, 2014;
- National Broadband Strategy, 2016-2020;
- Open Data Policy (first draft), May 2017.

The National ICT Policy identifies e-commerce as an emerging policy area with the following objectives:

- I. to promote the benefits of international trade and the use of e-commerce, and promote the use of local e-commerce models;
- II. through the adoption of an enabling environment, and based on widely available Internet access, seek to stimulate private sector investment, foster new applications, content development and public/private partnerships; and
- III. provide assistance to, and growth of, SMEs in the ICT industry, as well as their entry into e-commerce, to stimulate economic growth and job creation as an element of a strategy for poverty reduction through wealth creation.

¹ Uganda National Development Plan II (2015/16 – 2019/20)

² Uganda Vision 2040 (4.1.7)

³ Ibid



These objectives reflect the strategic decision of the Government to provide the digital economy with a more prominent role in national economic growth. In addition, the five-year ICT Sector Strategic and Investment Plan 2015/16 - 2019/20 guides the national ICT development in line with the Uganda Vision 2040 and the NDP II. The Strategic and Investment Plan covers the key strategic areas of infrastructure, human capacity, cybersecurity, e-government, and local content and services. It aims to increase ICT access and broadband speeds to 4 Mbit/s and 30 Mbit/s for rural and urban households, respectively.

In 2017, a National Policy on Services Trade was approved by the Cabinet to ensure competitiveness in the services sector. This national policy will stimulate investment in the services sector, particularly in the e-commerce related services.

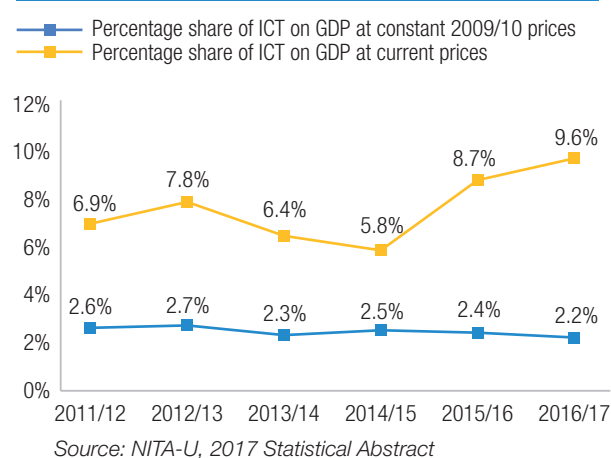
1.2 Current e-commerce marketplace activity

The contribution of e-commerce activity to national GDP is still relatively low.

Although the ICT sector is distinct from e-commerce more generally, some indication of marketplace activity can be gleaned from available statistics related to the contribution of the ICT sector to the economy. In the fiscal years 2016/2017, the ICT sector contributed 7.5 per cent of the total revenue collection with the ICT services being the main contributor to the sector. In terms of the national economy, the ICT sector only represented 2.2 per cent of GDP.

Evidence shows that up to now the digital economy has mainly contributed to facilitating the demand for foreign products such as cars and IT goods. The export of ICT goods remains very low and domestic productive capacities have not yet fully tapped into the potential of e-commerce. Indeed, access to ICT infrastructure is not equally available across the country, both geographically but also in terms of categories of companies. While large foreign companies can enjoy ICT infrastructure in the country, the MSMEs remain behind with limited access to the supply of sophisticated ICT services.

Figure 3: Percentage share of ICT on GDP



1.3 National policies related to trade

The development and success of the Uganda E-Government Gateway has helped increase the use and awareness of new technologies and e-commerce in general.

E-commerce was already included in the National Trade Policy back in 2007 under the following policy action: “Formulate and implement measures and strategies aimed at enhancing the usage of electronic commerce” to achieve policy objective in relation to cross-cutting issues and synergies⁴. Then, electronic commerce was one of the 13 thematic areas for intervention in the National Trade Sector Development Plan (2008/9 -2012/13). In the Diagnostic Trade Integration Study Update of the Enhanced Integrated Framework (EIF), electronic commerce is not mentioned per se, however the Government is encouraged to support the “expansion of mobile banking and new offers of mobile-phone based financial transactions by telecom companies which are a potentially very powerful innovation”.⁵

E-government services

To attract Ugandan citizens to the use of online services, the Government has developed the National Electronic Government (e-Government) Policy Framework. Adopted in 2008, the Policy Framework has facilitated the introduction of new technologies in e-government services, with the support of the World Bank in implementation. The main achievement

⁴ Ministry of Tourism, Trade and Industry, *National Trade Policy, Trading out of Poverty, into Wealth and Prosperity*, 200

⁵ World Bank, *Uganda Diagnostic Trade Integration Study Update prepared for the EIF*, July 2013



thus far has been the establishment of a national Identification Document (ID) which has contributed to greater trust in online transactions between traders and customers and provided more information and security about the persons involved in the transaction. As of today, there are 28 million national IDs issued in the country.

The Government e-Payment Gateway and the eCitizen Portal are also considered flagships efforts by the Government to upscale the delivery of public services. The eCitizen Portal is a one-stop online centre for Government online services, aimed at increasing the efficiency of public services. The Government e-Payment Gateway Service is part of efforts to move towards a cashless and chequeless economy in the next five years. It will also help financial inclusion as the system allows the use of mobile money, which is the most commonly used payment solution among the poorest categories of the population, for any public service transaction. Other projects included in the eGovernment Framework are the Electronic Government Procurement, the Unified Messaging and Collaboration System to facilitate communication among Government agencies, and the Electronic Voucher (eVoucher), which enables the Government

to effectively extend subsidized farm inputs to farmers (See Box 1).

In addition, some other initiatives such as the eRegistration have helped companies carry out administrative procedures online. The upcoming Trade Information Portal under the Ministry of Trade, Industry and Cooperatives, implemented by UNCTAD with TradeMark EA, is also contributing to an increase in transparency and efficiency of trade procedures related to import, export and transit operations. Through the Trade Information Portal, the objective is to set up an e-commerce desk in the Ministry of Trade over the next five years.

Uganda is also developing the Electronic Single Window (eSW) for customs operations. This eSW is connected to the ASYCUDA Customs software and is aimed at improving the coordination and sharing of data amongst trade regulatory agencies involved in the clearance process of goods.

Clearly, the Government has invested heavily in providing online public services to respond to the needs of citizens. Although this can be seen as a significant achievement, the low uptake of these e-services by the citizens remains a challenge largely due to the lack

Box 1: Case Study – e-Voucher Farmer Scheme in Uganda

The e-Voucher project being implemented by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) is intended to provide matching grants to farmers to enable them to place online orders for seeds, fertilizers, pest control chemicals, and post-harvest handling materials from agro-input dealers. The beneficiary farmers are expected to view their matching grant vouchers on an online (e-Voucher) platform. The farmers will have three payment instalment opportunities to acquire relevant agro-inputs during three crop cycles as indicated in the table below. There is no cash given directly to the beneficiaries.

Table: Operation of the e-Voucher scheme for an individual farmer

	1 st crop cycle	2 nd crop cycle	3 rd crop cycle
Overall investment	300,000	300,000	300,000
Beneficiary contribution	100,000	150,000	200,000
Matching grant (UGX)	200,00	150,000	100,000
Matching grant (%)	67	50	33
Expected incremental investments in inputs (UGX)	250,000	250,000	250,000

The e-Voucher subsidy project is being rolled out to 450,000 farm families in 42 participating districts. This project aims to raise on-farm productivity, production and marketable surplus of maize, beans, rice, cassava and coffee in twelve high potential agricultural clusters.

During the e-Voucher system implementation, the beneficiary farmers and agro-input dealers are being registered, enrolled and trained on the use of the e-Voucher platform. The beneficiary farmers are expected to place online purchase orders with the agro-input dealers who in turn are expected to stock upon receipt of these orders. The beneficiary farmers are to present voucher codes to the agro-input dealers to access the agro-inputs.

Source: UNCTAD Interview with Implementation Team (MAAIF & NITA-Uganda)



of information about the existence of these systems. There is also a trust deficit when it comes to using technology in official procedures with the Government. Another obstacle is the lack of accessibility to these services due to poor infrastructure coverage in the rural and remote areas of the country.

1.4 National coordination

A stronger public-private dialogue is required for the development of e-commerce. Local private sector stakeholders remain relatively weak in the decision-making process.

Several Government agencies are responsible for providing ICT services and infrastructure. The Ministry of Information and Communication Technology and National Guidance oversees the ICT sector. The Ministry of Trade, Industry and Cooperatives supervises and coordinates the development of e-commerce services. To coordinate and monitor the implementation of the national IT strategy, the Government established the National Information Technology Authority - Uganda (NITA-U) in 2009. NITA-U is responsible for regulating all Information Technology sub-sector initiatives and more specifically:⁶

- to provide first level technical support for Government Information Technology (IT) systems;
- to effect national IT policies, strategies and master plans;
- to promote e-government and e-commerce amongst others;
- to acquire, implement, deliver, support, organize and help with the sustenance of IT equipment and services in Government;
- to set and monitor IT standards and guidance for quality services including risk management and contingency planning;
- to identify and establish IT training requirements for effective utilization of the technologies;
- to provide IT capacity-building and awareness facilities; and
- to ensure data protection and information security for the IT systems deployed.

NITA-U is the coordinating agency for the technical assistance projects in the IT sub-sector, mainly

the World Bank contribution to infrastructure development with the Regional Communication Infrastructure Program (RCIP). The other projects coordinated by NITA-U are the Business Process Outsourcing-IT Enabled Services (BPO-ITES), the National Data Transmission Backbone Infrastructure and e-Government Infrastructure (NBI/EGI) Project for the e-government services provision platform.

The World Bank project on “Uganda Energy for Rural Transformation III” (US\$ 168 Million), which aims at providing access to electricity in the rural areas of the country, has also a direct contribution to the development of e-commerce.

The Uganda Communications Commission (UCC) is the regulatory authority of the telecommunications, broadcasting, and posts sub-sectors. The UCC is essential to the smooth development of the ICT sector and e-commerce, particularly because it oversees fixing of prices and the entry into the market. There is a Rural Communications Development Fund established under the rural communications framework to provide funding for the extension of ICT coverage to rural areas, development of ICT training centres, tele-centres, and other activities. In addition, a National Computer Emergency Response Team has been put in place under NITA-U.

Inadequate coordination among stakeholders involved in e-commerce from the public and private sectors was mentioned during the fact-finding mission for this report. In addition, there appears to be inadequate sensitization and awareness-raising of the general public and MSMEs on the various completed, ongoing, and planned ICT initiatives geared towards the promotion of e-commerce and other e-government services.

At the regional level, initiatives aimed at digitalization have the potential to pave the way for the development of e-commerce. The COMESA Digital Free Trade Area, which is to be rolled out in 2018, is composed of digital instruments to support trade in COMESA, including an electronic certificate of origin, underpinned by blockchain technology, and a mobile application for cross-border traders. In East Africa, the East African Payment System (EAPS) was launched to facilitate cross-border funds transfers and transaction within the region.

⁶ National ICT Policy, Uganda, 2014



Role of the private sector associations and business community.

In the context of e-government services and the development of e-commerce, the private sector associations and business community at large have expressed concerns about the low levels of productive capacities in the ICT sector. This is largely related to the limited accessibility and affordability of ICT services and products for investors and traders.

The Government has developed the means to respond to the demand for imports (cars, IT equipment mainly), but little has been done in terms of promoting local capacities for non-IT firms to upgrade their systems or to develop online shops, or for small ICT enterprises to grow their businesses. As a result, only a small portion of the domestic export base benefits from the economic opportunities provided by e-commerce. This could be a potential area of focus for the Government, as existing businesses identified e-commerce as a way to increase their competitive advantage and attract international customers.

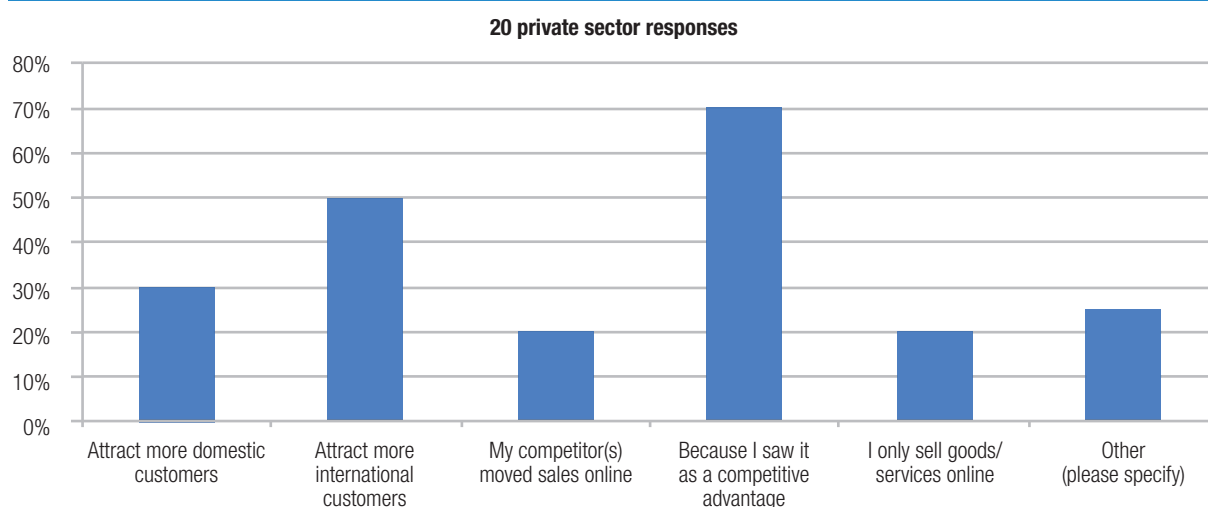
The first sector to have introduced ICT in their business management is the tourism sector. The tourism sector is a major source of revenue for Uganda based on gorilla trekking and safaris in the national parks. The online selling of these safaris has allowed the local companies to reach and attract clients all over the world in recent years. The World Bank has provided support to the sector by implementing the

Tourism Management Information System with an information portal on Tourism. Private companies are not yet included in the Portal but should be soon. An e-payment system for national wildlife authority has also replaced the Visa card system to gain access to the national parks. However, there are still some connectivity challenges in remote areas.

More sectors, particularly agro-business, could benefit from e-commerce to increase their competitiveness. Indeed, while Uganda is a net importer of consumer goods with a trade deficit of US\$ 2,416 million ⁷, the need for building domestic productive capacities, adding value to exports and developing domestic demand through e-commerce should be a priority for trade and economic growth. Although there is strong capacity and willingness to create local content with about 600 local solutions registered in the Uganda Communication Commission (UCC) database for commercialization, small local enterprises and start-ups face challenges in setting up their business and upgrading their system. This is in part explained by the lack of trust from consumers towards local businesses, which are not considered competitive in terms of quality and are associated with fears of fraud and abuses.

Lack of awareness about the benefits of e-commerce and the regulatory framework in place related to the ICT sector and e-commerce has slowed the development of online businesses in Uganda. Though policies and strategies have guided the development

Figure 4: What motivated you to sell goods/services online?



Source: UNCTAD

⁷ IMF, Data 2017



of technologies to increase online purchase of goods, they did not provide equal support to developing local productive capacities. Therefore, e-commerce imports currently contribute more to overall e-commerce activity in the country than the export of Ugandan products.

From the gender perspective, although women represent 54 per cent of the total population the ICT sector remains predominantly composed of men. As an illustration, only 11 of 79 respondents to the surveys for this assessment were women. Women are underrepresented in e-commerce and to a certain extent, cultural factors still create obstacles for women to be able to join and contribute to the ICT sector. The latest NITA-U Statistics also show that there are fewer women than men among staff in MDAs.

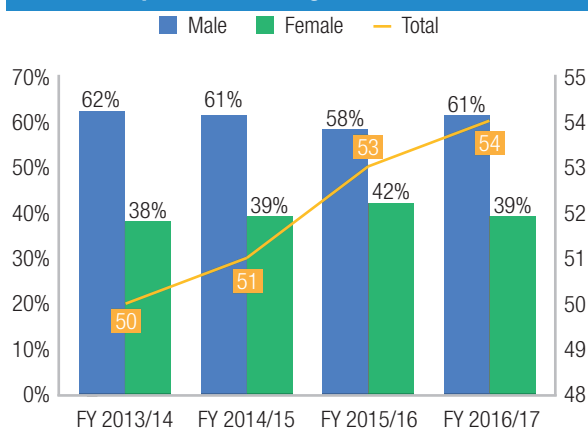
Therefore, efforts have to be made on changing cultural expectations about the role of women in the work place and the types of jobs that women can do. This could be done through awareness-raising and sensitization campaigns. A network of women in e-commerce and digital business could also be set up to help women employees and entrepreneurs in this sector.

1.5 Access to relevant statistics

Data on the ICT sector are widely available, however access to e-commerce statistics remains a challenge.

Access to statistics specific to e-commerce is not easy in Uganda since most of the available data is related to the ICT sector in general. However, the Ministry of ICT and National Guidance and NITA-U have done several studies and surveys of which the latest one published early 2018 is referenced in this report.⁸ Moving forward, clear and authoritative data on the ICT sector in general and e-commerce specifically will be critical to reliably inform policy reforms. Robust data will support the planning, monitoring and evaluation of various ICT and e-commerce initiatives. Reliable data on the number of mobile and fixed-broadband Internet subscribers, and number of overall Internet users, will be particularly important for benchmarking and measurement of progress. To achieve this, harmony in data collection, storage, processing and sharing of information among all ICT stakeholders will be needed.

Figure 5: Percentage of staff by gender in Ministries, Departments and Agencies



Source: NITA-U, 2017 Statistical Abstract

⁸ NITA-U, 2017 Statistical Abstract



2. ICT INFRASTRUCTURE AND SERVICES

Access to affordable and reliable ICT infrastructure is of paramount importance to e-commerce. The Government, with the support of development partners, has invested significant resources into implementing ICT infrastructure throughout the country. This has resulted in the exponential growth of mobile telecommunications, with about 70 per cent of the population having a mobile phone. The number of Internet users has doubled since 2014, reaching over 21 million users in 2017. At the same time, large segments of the rural populations remain excluded from not only the Internet but also electricity (a key enabler of ICT services and e-commerce).

2.1 Broadband, mobile and smartphone penetration

Mobile phone use is widespread in Uganda; about 70 per cent of the population have access to a mobile phone. There are 9.8 million verified Internet subscribers across the country.

As of March 2018, there were 9.8 million verified Internet subscribers in Uganda. The estimate of total Internet users (21 million) is significantly higher but this figure could not be verified during the assessment. Estimates also show that the majority of Internet subscribers are mobile Internet subscribers (as opposed to fixed-broadband Internet subscribers).

There are 22 million active mobile phone subscriptions, but this figure is to be taken with caution as people may have up to 4 phones each. Nearly 70 per cent of households own mobile phones: 62 per cent in rural and 86 per cent in urban areas (Uganda National Household Survey 2016-17). Yet the use of smart phones in Uganda remains quite low, mainly due to the high cost. For consumers, feature phones are more affordable and generally easier to maintain than smartphones.

The telecommunication sector in Uganda is quite attractive to investors given the large size of population. Uganda Telecom (UTL) is the main provider of fixed-telephone service through copper lines and wireless local loop. UTL offers fixed ADSL and fixed wireless broadband. UTL is in partnership with the Internet Service Providers (ISPs) offering fixed wireless broadband access. The other operators in place include: MTN, Airtel, Orange/Africell, Smile, Sure Telecom, and K2. The telecoms market remains overcrowded with several networks in contention.

Despite the number of telecom operators, there is an unequal distribution of ICT services and coverage

in the country. Indeed, the current ICT infrastructure was designed for large companies and not MSMEs. The adaption of IT products and services to smaller companies is expected to come later once the IT companies break even on their investments.

Regulation of the ICT sector is undertaken by the Uganda Communication Commission (UCC) and National Information Technology Authority – Uganda (NITA-U) under the oversight of the Ministry of ICT and National Guidance.

2.2 Reliability, affordability, latency, speed and coverage

The affordability of ICT infrastructure in Uganda remains a challenge.

The five-year ICT Sectoral Strategic and Investment Plan 2015/16-2019/20 aims to increase broadband speeds to 4 Mbit/s and 30 Mbit/s for rural and urban households, respectively. Given the current low affordability of broadband Internet, the National Broadband Policy and Implementation Strategy is aimed at ensuring the provision of high-speed Internet at affordable prices.

As a contribution to the construction and maintenance of the ICT infrastructure, Internet Service Providers pay a 2 per cent levy on their gross annual revenues to the Rural Communication Development Fund (RCDF), which is a Universal Service Fund established in 2003 and administered by the Uganda Communication Commission. The Fund helps finance ICT infrastructure, especially network and ICT facilities.

The deployment of the National Backbone Infrastructure (NBI) has led to a reduction in Internet bandwidth prices. The average market price for 1Mbps has been reduced from US\$ 632 in 2011 to US\$ 267 in 2017. Although prices have come down



considerably over the past six years, more action is needed to reduce prices to a level that would be affordable to the overall population.

In this context, the recent adoption of the Excise Duty (Amendment) Act 2018 by the Uganda Parliament is somewhat surprising and has created confusion and criticism among consumers and ICT stakeholders. The Excise Duty Act imposes a 0.5 per cent levy on withdrawals through mobile money platforms. In addition, it imposes a specific charge of Uganda Shillings (UGX) 200 on over-the-top (OTT) services per day of data access. This is essentially aimed at taxing the use of social media. This is considered by some as a double taxation since the Government already taxes airtime and data. Therefore, some consumers and businesses are trying to bypass the Act by connecting through Virtual Private Networks (VPN).

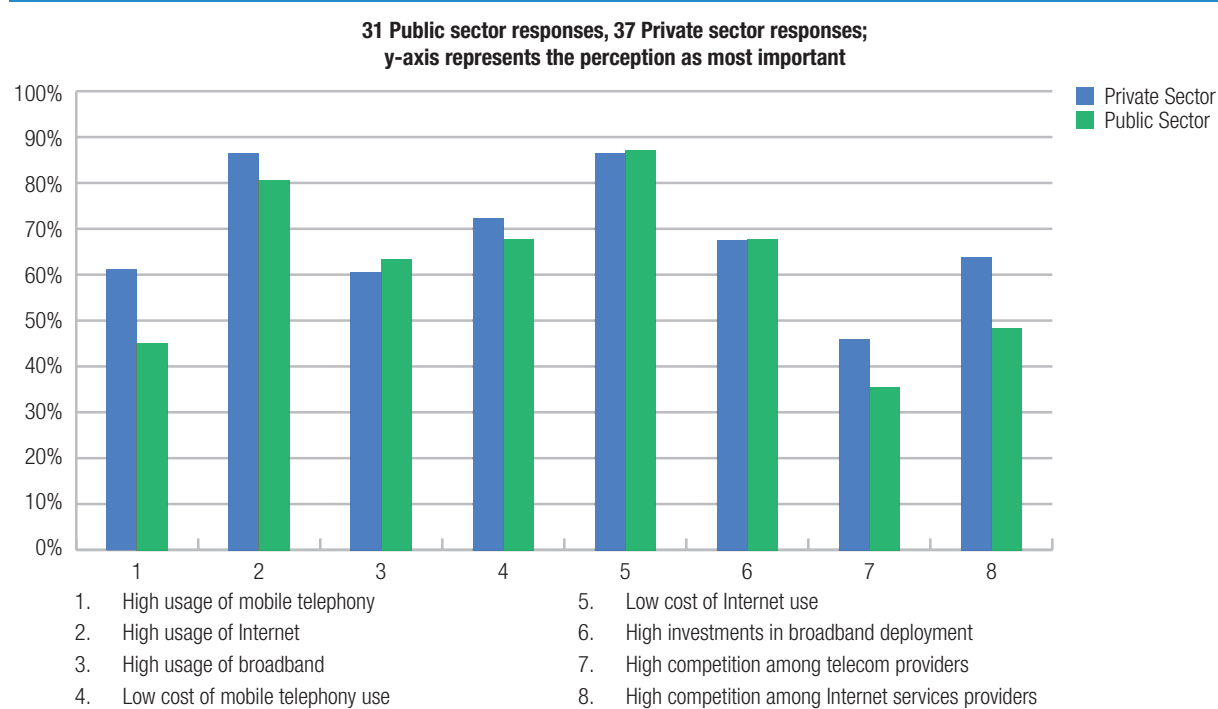
2.3 Major infrastructure projects

Despite investment in ICT infrastructure to cover the last mile connectivity, large segments of the population still cannot afford comprehensive broadband data packages that would allow them to reap the benefits of e-commerce.

The Government’s National Backbone Infrastructure (NBI) covers 39 districts (out of the 121 districts in total) with over 2,400 km of fibre-optic cable that is linked to neighbouring countries’ borders. Indeed, Uganda benefited from two main ICT infrastructure projects. In 2009, the first under-sea fibre optic cable network, SEACOM, reached East Africa. In 2010, the second sub-marine fibre optic cable system, Eastern Africa Submarine Cable System (EASSy), became operational. Yet, the NBI still has a low penetration in the rural areas with less than 5 per cent of rural areas covered by the NBI. Out of the 612 sub-counties having 3G coverage, 384 do not have any fibre to support data backhaul, leading to limited access speeds. The Uganda Interconnect Exchange Point (UIXP) infrastructure, launched in 2001, is not yet being utilized optimally to route domestic traffic, keeping the carriage cost for domestic Internet traffic high.

Given the limited reach in rural areas, the Government is committed to improving and developing ICT infrastructure towards the objective of reaching the poorest segments of society. The Government is also focused on covering the needs of the public agencies across the country.

Figure 6: Rate the following areas according to their relative importance (as perceived by you) to create an environment that is conducive to e-commerce



Source: UNCTAD



Map 1: Connectivity through the National Backbone Infrastructure



Source: NITA-U website. Coverage of the NBI as at December 2017. Green is completed, blue to be implemented in FY2018/19, maroon is under funding review.

The National Backbone Infrastructure has not yet been fully completed to achieve last-mile coverage. Private sector involvement in the financing of ICT infrastructure has started relatively recently and a new ICT infrastructure business is not always attractive for investors. There are promising developments, however. Private operators have deployed mobile-broadband networks, including the latest generation LTE by Smile in 2012 and Africell and MTN in 2013, promoting access to e-services like mobile money, Pay Way, e-Government, m-Banking, m-Commerce services, etc. Smile Communications has launched commercial Voice-over LTE (VoLTE) service and Smart Pesa mobile-money service, and Ericsson has deployed a Converged Wallet platform for MTN Uganda.

Though they have decreased over the years, data costs are out of reach for many consumers and businesses. The provision of affordable and reliable broadband Internet was a key priority for end-users who were surveyed and interviewed for this assessment. Without affordable and reliable Internet access, e-commerce growth will remain constrained.

The Government, through the Uganda Communication Commission, is negotiating with the telecommunication

companies for the reduction of data costs and to make ICT infrastructure cheaper. NITA-U offers cheaper Internet prices to the Government, with bulk broadband Internet supplied by the National Data Transmission Backbone Infrastructure. Therefore, the aim of the negotiation is to reach some uniformity in market prices as well.

This overall low affordability comes, to a certain extent, from the dominant position of a few telecommunications companies, which tend to have monopolistic behaviour in terms of fixing prices. The UCC is in charge of ensuring competition in the ICT sector and all data prices must be approved by UCC. In reality, however, the large capital investment required in that sector exclude smaller investors.

The current ICT infrastructure development has been undertaken with the support of the World Bank under the "Regional Communication Infrastructure Program," which is now in Phase 5 (US\$ 85 Million) until 2022. The objectives of this program are to lower prices for international capacity, extend the geographic reach of broadband network and improve the government's efficiency and transparency through e-government applications. Under this program, security for online transactions is included and will contribute to



e-commerce development with the e-signature and mobile authentication of users as well as data centre upgrades.

In addition, tech giant Google has invested in the CSquared project and built metro fibre networks in Entebbe and Kampala. It is now offering wholesale Wi-Fi access as well as optical fibre to premises for resale by ISPs. Private Telecoms Operators have also deployed fibre-optic networks linking to the Kenyan border for access to undersea cables, serving Kampala, Entebbe, and some municipalities and towns.

At the same time, access to basic electricity (a basic requirement for e-commerce) remains a gap in Uganda. The population of Uganda is 41.5 million, of which 76 per cent live in rural areas. Only 23 per cent of the total population is connected to the national grid and in rural areas, this figure is less than 7 per cent. The Government target is to achieve electricity coverage of 26 per cent of the population by 2022. Without a proper and reliable power system, the development of e-commerce will remain constrained.

ICT services

As of today, there are 23 Public Infrastructure Providers (PIPs) for which a licence from UCC is mandatory and 33 Public Service Providers (PSPs) currently operating in Uganda. All the licenced operators are listed on the Uganda Communication Commission's website.

The PSPs are using ICT infrastructure to develop IT services. However, infrastructure costs are high and are not always accessible to small IT providers. Therefore, data and infrastructure sharing has been discussed for several years and the Government is working on regulations to encourage infrastructure sharing among companies. In that regard, the National Open Data policy (first draft) was formulated in May 2017 to encourage such initiatives.

NITA-U is currently developing guidelines and tools for information infrastructure sharing through the Application and Data Integration Platform and the National Data Centre. With the guidelines in place, the PSPs may be provided with an opportunity at a later stage to use the applications uploaded into the cloud of the Data Centre. Indeed, applying to a foreign

domain to establish an IT platform is usually cheaper than applying to a local one. As of today, a domain costs 130,000 UGX, hence the establishment of the NITA-U's Data Centre gives private businesses the ability to increase the speed of local websites and platforms. There is also the need to facilitate better access to domains by small businesses.

In parallel, infrastructure sharing policy among operators has been adopted and is ongoing. Private companies are offering more services in infrastructure and data sharing, such as MTN that offers free domains and cloud system access to MSMEs. With limited access to infrastructure for MSMEs, infrastructure and data sharing will become essential to the development of e-commerce.

The Government through NITA-U has also implemented an e-Services Portal through which major systems can be accessed, with 74 current online services. However, still some information is manually exchanged between Ministries, Departments and Agencies (MDAs). The systems currently do not seamlessly exchange information, the Government is currently embarking on integrating all government systems.

Finally, the Digital Government (e- and m-government) Services are now taking shape after years of development and upgrading of the system. The e-Government Gateway is encouraging a complete re-structuring of the government management and public services delivery. Currently, 321 Ministries, Departments, and Agencies (MDAs) and Local Governments (LGs) are already connected to the NBI, with a plan to connect 730 MDAs and Local Governments by end of FY 2017/18. In February 2016, government MDA employees routinely used computers (44.9 per cent) and Internet (43.4 per cent) for work purposes.⁹

⁹ NITA-U 2016 Statistical Abstract



3. TRADE LOGISTICS AND TRADE FACILITATION

As a landlocked country, Uganda faces inherent geographical constraints and depends on the efficiency of transport networks in neighbouring countries for its access to the major ports in East Africa. To lessen the impact of these constraints, increased focus has been placed on improving the postal network services within the country, reducing clearance time for expedited shipments and improving last-mile delivery for e-commerce parcels. In June 2018, Uganda ratified the WTO Trade Facilitation Agreement which is aimed at simplifying, standardizing and harmonizing trade procedures and documentation related to import, export and transit.

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

Currently, transport for e-commerce goods is mainly done by express delivery helped by recent developments in the physical addressing implemented by Uganda Post Limited.

Transport infrastructure is essential to Uganda as a landlocked country. The country depends on the sea ports in Mombasa, Kenya and Dar es Salaam, Tanzania for access to international trade. Air freight trade is small, accounting for five per cent of cargo freight (59,556 tonnes in 2016) while 95 per cent of cargo freight is moved by road. Currently, nearly 21 per cent (4,257 km in 2016/2017¹⁰) of the national road network is paved (roads having a bituminous surface). The rest of the road system consists of gravel or dirt roads.

The rail network in Uganda currently extends for an estimated 1,260 kms. The railway transport system also includes rail wagon ferry services on Lake Victoria connecting Port Bell and/or Jinja to rail networks in Tanzania and Kenya. Although rail net cargo increased to 118.9 million ton-Km in FY 2016/17, some wagon transit times have increased. For example, the wagon transit time for Mombasa-Kampala-Mombasa increased from 25 days in 2015 to 34 days in 2017.

The railway system is currently being revamped mainly as part of the Standard Gauge Railway (SGR) project under the EAC connecting Rwanda and Uganda with Mombasa. With the introduction of a modern railway system, the project is expected to reduce the travel time between Kampala to Mombasa to one day. This is important for the development of e-commerce, as rail is typically cheaper than road transport. Improving

the road system for the more efficient transport of goods would also help boost e-commerce in Uganda with greater access to the most remote areas.

Uganda has two major African corridors crossing its territory:

- **Northern Corridor:** Burundi, Democratic Republic of Congo (DRC), Rwanda and Uganda to the sea port of Mombasa in Kenya. It also serves Northern Tanzania, South Sudan and Ethiopia (1,700 km);
- **Central Corridor:** Tanzania, Zambia, Eastern DRC, Burundi, Rwanda and Uganda to the sea port of Dar es Salaam in Tanzania (1,300 km).

The Government has placed a priority on improving the overall transport and logistics system. The National Development Plan II of Uganda identified the following objectives related to strengthening transport infrastructure:

- ✓ Developing an adequate, reliable and efficient multi-modal transport network in the country;
- ✓ Improving the human resource and institutional capacity of the Sector to efficiently execute the planned interventions;
- ✓ Improving the National Construction Industry (policy, legal, regulatory and institutional framework for the construction industry);
- ✓ Increasing safety of transport services;
- ✓ Supporting the National Construction Industry; and
- ✓ Developing adequate, reliable and efficient air transport network in the country.

¹⁰ Uganda Ministry of Works and Transport, Annual Sector Performance Report FY2016/2017, September 2017



Over the NDP II period, Government has set a target to upgrade 2,205 km of gravel roads to tarmac and to rehabilitate 700 km of old paved roads. In addition, the plan aims to maintain 2,500 km of paved roads and 10,000 km of unpaved roads.

E-commerce should benefit from the efforts being made to improve the transport infrastructure across the country. More efficient multi-modal transport, particularly in rural areas, makes it easier for e-commerce firms to quickly and reliably deliver products ordered online. Currently, transport for e-commerce goods is mostly carried out by express delivery couriers as shown in the figure below from the UNCTAD survey responses. Self-operated delivery services and third-party logistics providers are also more commonly used than the national postal service.

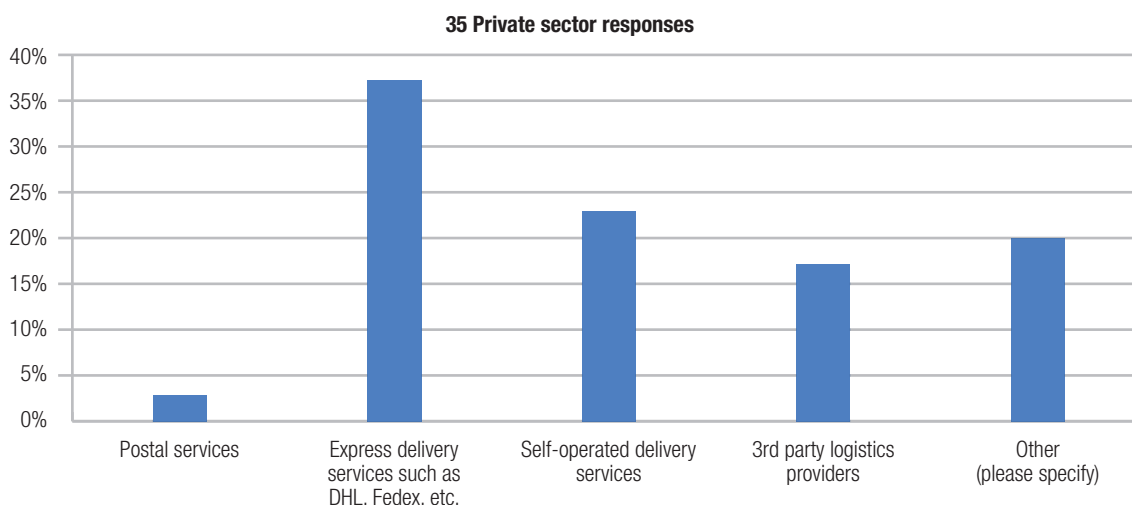
As in many developing countries, one of the key e-commerce challenges facing Uganda is the weak physical addressing system which hampers the safe and efficient delivery of e-commerce parcels. Therefore, several initiatives are being undertaken in order to improve the delivery of goods ordered online. Since the launching of the “Addressing the world - An address for everyone” initiative, led by the Universal Postal Union (UPU) in 2009, Uganda has worked on ensuring that the entire population, including those in the most remote areas of the country, have a physical address. One of the main benefits of the project was to facilitate e-commerce by ensuring that a customer who orders for goods online (electronically), has a physical address where those goods can be delivered”.¹¹

As a national policy, each household has been provided with a post code by the Government since 2015. In 2017, a draft National Postcode and Addressing System Policy was formulated under the Ministry of ICT and National Guidance. The objective of the Policy is to guide the development of a robust Postcode and Addressing System, create working synergies and harmonize human and material resources from the different sectors involved. The objectives of this Policy are to:

- a. Provide a policy, legal and regulatory framework necessary to support development of a National Postcode and Addressing System for Uganda;
- b. Promote national rollout of Postcode and Addressing system infrastructure;
- c. Promote human resource capacity development in Postcode and Addressing Systems;
- d. Promote innovation in an environment created by use of Postcode and Addressing systems;
- e. Engage all stakeholders and promote participation in development of Postcode and Addressing systems for the country.

Aware of the need for more efficiency and speed in e-commerce delivery, the Uganda Post Limited (UPL) is also working on widening their network to ensure last-mile delivery with a home service delivery based on physical addresses. To move in this direction, UPL has increased their fleet and transportation with buses and motorbikes to deliver e-commerce parcels.

Figure 7: Which vendor do you use to ship products?



Source : UNCTAD

¹¹ <http://www.ict.go.ug/sites/default/files/Resource/Postcode%20project%20.pdf>



Currently, over 500 post offices including postal agencies and post shops exist nationwide. The new quality standards published by the UCC in May 2017 with the Postal Services Quality of Service Framework¹² have also improved the timeliness and reliability of delivery of goods. In addition, the ongoing project of digital mapping with GPS coordinates is being carried out by the Uganda Revenue Authority, thus at a later stage it could also be used for e-commerce operations.

Regarding operational readiness for e-commerce (ORE), Uganda Post Limited and the UPU have designed a national project with a roadmap and an Action Plan. It is aimed at reducing operational obstacles that prevent consumers from buying online cross-border; modernizing delivery operational processes and improving the quality of service for postal deliveries; and using all available IT tools and EDI messages to enhance data sharing with international supply chain partners including airlines, customs authorities and Posts. UPL's usage of the IPS System satisfies an important criterion of e-commerce operational readiness. This system introduced by UPU globally functions as a single platform for exchanging electronic data. It includes a 'track & trace' capability where inward and outward dispatches are barcoded and can be tracked and traced. This capability is essential for facilitating efficiency gains and transparency in postal delivery services and has strong relevance for e-commerce (for instance, allowing consumers to view the status of their orders online).

The Uganda Post Limited signed a partnership with Jumia, the African online store (see Box 2), to use

the UPL national post office network in the delivery of goods bought on the website. Taxis services that utilize mobile applications, such as Uber Uganda, Friendship Taxi, SafeBoda and Quick Taxi, also present potential partnership opportunities for UPL as they already provide some transport logistics for e-commerce. Private courier services such as DHL Express, Yellow Pages Express and CourierMate Uganda also form an important part of the delivery logistics market.

A UPL project is also ongoing, which aims at setting an e-commerce platform where UPL will be able to tap into the e-commerce business, offer customers online service and equip the Post to handle related e-services.

Discussion is ongoing about the introduction of drones for parcel delivery. Drones are regulated by the Civil Aviation Authority of Uganda. Some online stores¹³ have already started the delivery of medicine and perishable goods through drones. This will definitely help delivery to the most remote and isolated areas of the country. Still several challenges remain particularly in terms of security and safety before operationalizing large-scale delivery by drones.

The absence of Ugandan insurance companies in e-commerce operations also increases risks in the delivery market. The overall commercial insurance sector has not yet fully grasped the potential of e-commerce, but there is space for them to enter the market to address the risk of theft or loss of products ordered online, particularly those transported by informal transport such as buses or "boda boda" (motorcycle taxis). Insurance also has

Box 2: Case Study - Jumia Uganda, Number 1 Online Retailer Business

Jumia is the largest online retail store in Uganda with a vision to "Revolutionize the Shopping Experience in Africa". It was established in May 2012 with the aim of becoming the one-stop shop for online retail in Africa. Average delivery time of goods ordered online is 3 to 6 days. Deliveries are currently made to all regions across Uganda. The current available payment methods are Cash on Delivery (COD) at the doorstep or collection points, or through Mobile Money.

Jumia Uganda offers opportunities to shop for and sell different products online with more than 200,000 assorted products from companies all over the world. It is dealing in 820 international and national brands, with over 1,500,000 subscribers across Africa, 1,200 employees, and over 15,000,000 monthly visitors.

Jumia Uganda is committed to respecting Intellectual Property Rights ("IPR") and encourages its users to respect them as well. Listings of counterfeits or other unauthorized items are strictly prohibited on its online marketplace. Jumia developed and is enforcing a Privacy Policy for how information on buyers and sellers is collected, used, disclosed, transferred, and stored. In the process of building e-Commerce skills, Jumia has also set-up an e-commerce academy—the Jumia Academy—that is continuously building young entrepreneurs pioneering various aspects of e-commerce business in Africa.

Source: UNCTAD Interview with Jumia Ugandan Beneficiaries and <https://www.jumia.ug/>

¹² https://www.ucc.co.ug/files/downloads/UCC_2017_Postal_QoS_Framework_2017.pdf

¹³ <http://www.pmldaily.com/news/2018/01/new-online-shop-in-uganda-to-deliver-goods-using-drones.html>



the potential to protect the physical assets linked to the e-commerce supply chain. The recent Reliability Guidelines published by the Uganda Communication Commission should facilitate the entry of insurance companies into the e-commerce market. In addition, an awareness-raising campaign about the benefits of e-commerce and the importance of ensuring the safe delivery of e-commerce parcels should be organized for insurance companies based in the country. There is a sensitization program organized by the Ugandan Association of Insurance, but it is underfunded.

In general, to further open up the Ugandan market to e-commerce it will be necessary to facilitate the entry of express couriers into the domestic market to increase the volume and reduce the time and cost of e-commerce deliveries.

3.2 Trade facilitation

Uganda ratified the WTO Trade Facilitation Agreement in June 2018. The WTO TFA is a binding multilateral trade agreement which aims to expedite import, export and transit of goods.

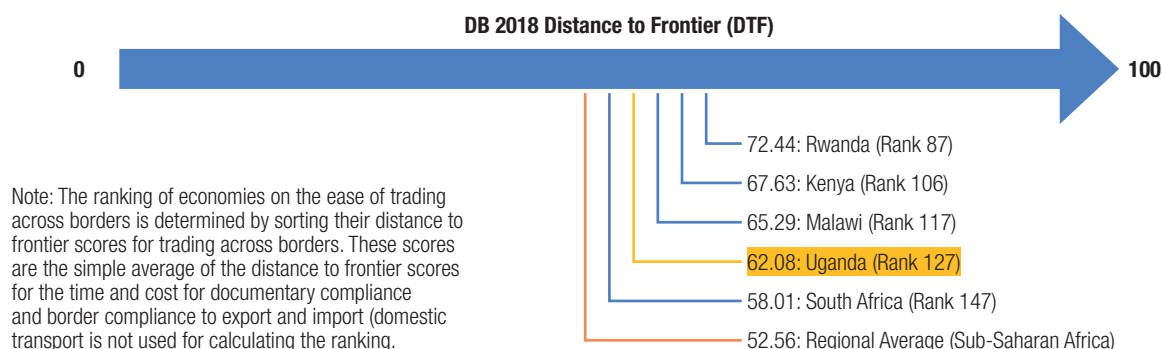
Uganda ratified the WTO Trade Facilitation Agreement on 27 June 2018. The WTO TFA is a multilateral trade agreement aimed at expediting import, export and transit administrative procedures. Uganda also notified the trade facilitation measures for category A, which are for the measures already in place at the time when the TFA entered into force on 22 February 2017. Uganda has a National Trade Facilitation Committee in place that coordinates and oversees the implementation of trade facilitation projects.

In relation to e-commerce development, two TFA articles play a major role: Article 7.2 on Electronic Payment and Article 7.8 on Expedited Shipments. Article 7.2 on Electronic Payment has been partially in place in Uganda with the existence of the Electronic Clearing System (ECS) since 2002 and the Electronic Funds Transfer (EFT) since 2003 for credit transfers and direct debit. Banks are now connected to URA, which allows tax payments by mobile money. Thanks to the implementation of the electronic single window, the One-Stop Border Posts (OSBPs) connect with the electronic payment system of the Bank of Uganda.

Article 7.8 of the TFA on expedited shipments is partially implemented mainly for perishable goods that are transported by air. Companies such as DHL and FedEx do not have special conditions in terms of clearance process. The lack of effective legislation on the expedited shipments should be addressed quickly so as to ensure smooth development of the e-commerce delivery. In addition, regarding the de minimis principle, Uganda applies small package relief allowing low value goods imported individually to escape taxation. In Uganda, goods imported individually worth less than US\$ 50 are not subject to customs duty or VAT.

In clearance time, progress has been made with the implementation of the Single Customs Territory of the East African Community and the building of five One-Stop Border Posts. The position of Uganda on the World Bank Doing Business Index shows progress in that regard, particularly on the Trading Across Borders. Yet, Uganda remains behind Kenya and Rwanda in distance to frontier for import and export goods in 2017.

Figure 8: Trading Across Borders (World Bank Doing Business Index 2018)



Note: The ranking of economies on the ease of trading across borders is determined by sorting their distance to frontier scores for trading across borders. These scores are the simple average of the distance to frontier scores for the time and cost for documentary compliance and border compliance to export and import (domestic transport is not used for calculating the ranking).

Source: World Bank Doing Business Index 2018



4. PAYMENT SOLUTIONS

Uganda is among the pioneers of mobile payments in Africa, and many e-commerce transactions are in fact m-commerce transactions. The population is accustomed to making transactions through Unstructured Supplementary Service Data (USSD) or other mobile solutions. In June 2017, there were nearly 23 million mobile money accounts in the country. To some extent, mobile network operators have supplanted traditional banks as the main payment providers with an increasing role for the agent banking network. However, perceived risks related to the use of USSD and mobile solutions still creates uncertainty and mistrust among the population when it comes to online shopping, particularly for local products. The upcoming law on the National Payment System will increase financial inclusion and help support e-commerce growth.

4.1 Main mobile and cashless payment solutions

The rapid development of payment solutions in Uganda over the past few years has provided a strong foundation for the further development of e-commerce. Uganda is among the leaders in mobile payment solutions that have emerged in East Africa. The USSD is the largest communications technology to deliver mobile financial services in Uganda today.

The main payment solutions for e-commerce in Uganda are cash on delivery and mobile payments, as shown in the figure 9. Mobile payments are widely used as in the rest of East Africa, which has been a pioneer in mobile payment with the creation of M-Pesa, the mobile payment and money transfer system launched by Vodafone for Safaricom in 2007. Money payment is done by using PIN-secured SMS text messages to other users. The system quickly spread and is now used for any kind of daily transaction, from payment of electricity bills to the purchase of flight tickets.

Mobile money was introduced in 2009 in Uganda. The number of mobile money accounts has dramatically increased in the country over the years to 22.9 million accounts, almost one account per inhabitant, by June 2017. At the same time, the total value of mobile money transactions was estimated at UGX 63 trillion (US\$ 16.3 million) amounting to half of the national Gross Domestic Product (GDP).

The use of USSD is also a major tool for mobile payments in Uganda. It is the largest communications technology to deliver mobile financial services in Uganda today, which explains why feature phones (instead of smartphones) are the most common type of phones used in the country. Yet a lack of regulations

on the use and security of USSD transactions presents significant risks for the end-users.

There is also the development of online payment systems in East Africa by mobile money payment service providers such as Jpesa and JamboPay, which are used on e-commerce platforms and at the point of delivery. Although these systems allow consumers to purchase goods and services without having a Visa or Mastercard, it is difficult to determine what percentage of the mobile payments are made on e-commerce platforms versus at the point of delivery. In general, payments initiated and completed on e-commerce platforms would be more efficient than mobile payments made at the point of delivery (which would essentially be an alternative to cash-on-delivery).

Paypal, an internationally recognized payment platform, also provides a trusted payment option for e-commerce transactions. One option to increase the use of Paypal, particularly for cross-border payments, would be to plug the Government's e-payment gateway into PayPal.

Although mobile money and cash-on-delivery are the most common forms of payment for e-commerce transactions, credit and debit cards also play an important role and should be promoted among the general population. Different methods of payment will suit different segments of the society, and the overarching goal should be to promote cashless transactions in general.

It appears the Government is also receptive to the use of cryptocurrencies and blockchain technology. In May 2018, during a Blockchain Conference, the President of Uganda recognized the potential of cryptocurrencies and blockchain in critical areas of the economy such



as food production and the services industry. At the same conference, a taskforce was established to review the challenges and opportunities presented by blockchain, and to advise the Government on how to best utilize the technology. This is a promising step, as blockchain technology has the potential to contribute to innovative e-commerce solutions in Uganda.

4.2 Financial regulation (financial service providers, payment service providers, cashless, e-payment gateways)

The regulations in place have supported the emergence of the agency banking network in Uganda, which is now the most used system along with the formal banking system. This has largely contributed to increasing financial inclusion of the poorest living in the most remote areas.

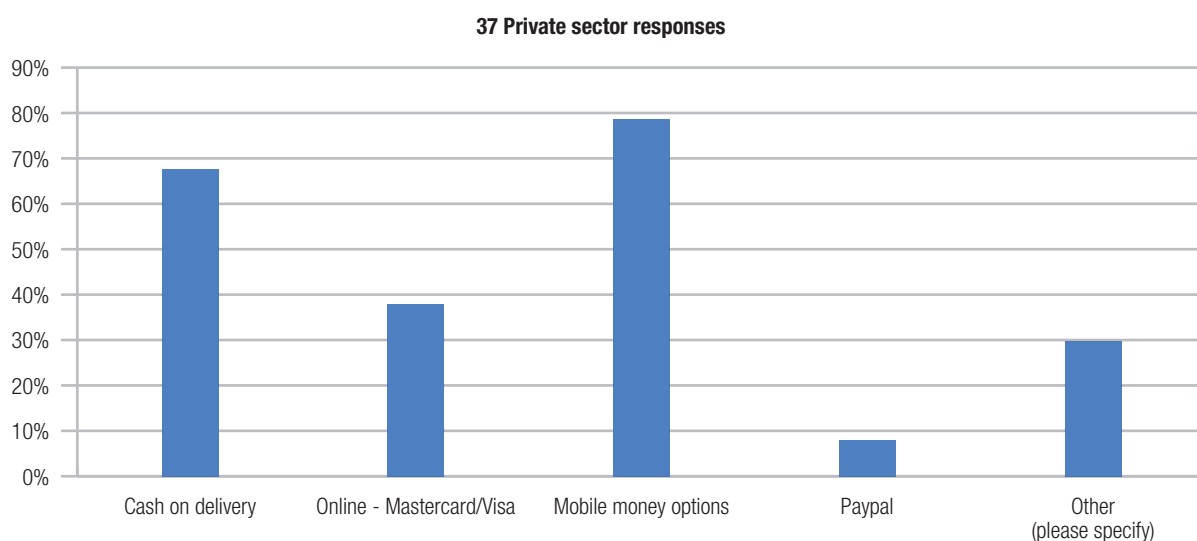
The regulatory framework of Uganda on the banking and financial sector is quite exhaustive with strong regulations in the formal banking sector. However, the introduction of new payment solutions has changed the legal spectrum and the country is revising their legal texts to allow new systems and the emergence of the Digital Financial Services (DFS). The Bank of Uganda is adjusting the regulations on e-commerce to better respond to the needs of consumers, particularly in terms of consumer protection and the safety of online financial transactions. The Bank of Uganda enacted the Financial Consumer Protection Guidelines in 2011 and the Mobile Money Guidelines in 2013. The Mobile

Money Guidelines defined the procedures for NFIs to foster consumer protection; enhance competition and promote financial inclusion. A review and update of the Mobile Money Guidelines would be useful to reflect the new changes in payment solutions and ensure that the stakeholders and end-users have payment solutions that are well regulated, protect against fraud, address security issues and ensure fair competition.

The National Payment System (NPS) Bill should be enacted soon and will incorporate major reforms and changes in the banking and non-financial sector to facilitate mobile payment transactions. In addition, the Bank of Uganda will soon start the distribution of free mobile devices to the marginalized population. Mobile money is seen as a key tool for increasing financial inclusion, particularly for the young population and informal businesses.

Large mobile network operators (MNOs) such as MTN and Airtel provide services for mobile payments, however they have monopolistic positions in the market. Yet recently, non-financial institutions (NFIs) have appeared on the mobile money market through the introduction of e-wallets using the growing agent banking network in Uganda. In 2016, the Bank of Uganda adopted the Agency Banking Guidelines regulating the growing agent banking sector. Indeed, there is an increasing development of non-banking institutions (see Box 3) associated with phone and retails companies that provide financial products and services.

Figure 9: What is the current form of payment system that you offer to your customers?



Source: UNCTAD



The agent banking network provides banking services outside a bank office. This is an advantage for the country's rural population that is largely excluded from the formal banking sector. The agents are usually businesses, such as a petrol station, post office, or any shop with a physical address, which could provide cash withdrawals, cash deposits and balance inquiries. The network is developing rapidly throughout the country, though they are still scarce in the rural areas. In 2015, there were 540 mobile money agent outlets per 100,000 adults which is considered a very high rate of coverage for mobile money. As a result, 54 per cent of the population had a mobile money point of service within one kilometre while only 16 per cent had a bank branch within one kilometre.

The United Nations Capital Development Fund (UNCDF) has identified a few conditions for a sustainable and efficient agent banking system:

- ✓ Pricing needs to be appropriate;
- ✓ Customers need to know that agents can be trusted and that transactions will be safe;
- ✓ Technology and IT systems needed to make transactions must be working and reliable;
- ✓ Agents will need to have a high enough balance in their account, as well as cash in their till, to deliver these banking services;
- ✓ Both agents and customers should be trained on the use of agency banking; and
- ✓ Opening a bank account should be simple and relatively easy.

Though there are still some gaps in the regulation of the agent banking network, the Bank of Uganda has formulated a number of legal texts to better harmonize and regulate the market, particularly in terms of consumer protection. These reforms support e-commerce growth by securing the transactions between operators and consumers. Yet several reforms need to be implemented that are related to the level of preparedness of the agents to enter into financial activities and to address challenges linked to security, fraud, lack of technology, product knowledge and awareness from both agents and consumers. The availability of working capital to handle such transactions is also an issue. Given the importance of the agent banking network, the banks are now developing agency banking strategies to give more financial capacity and liquidity to the financial market. These developments will further strengthen the enabling environment for the development of financial inclusion, electronic transactions and e-commerce.

As shown in Figure 10, the development of e-commerce is strongly linked to the availability of mobile payment solutions. The emergence of new payment solutions in East Africa, including in Uganda, have allowed e-commerce to grow more quickly than in other regions of Africa.

Box 3: Case Study – Xente in Uganda

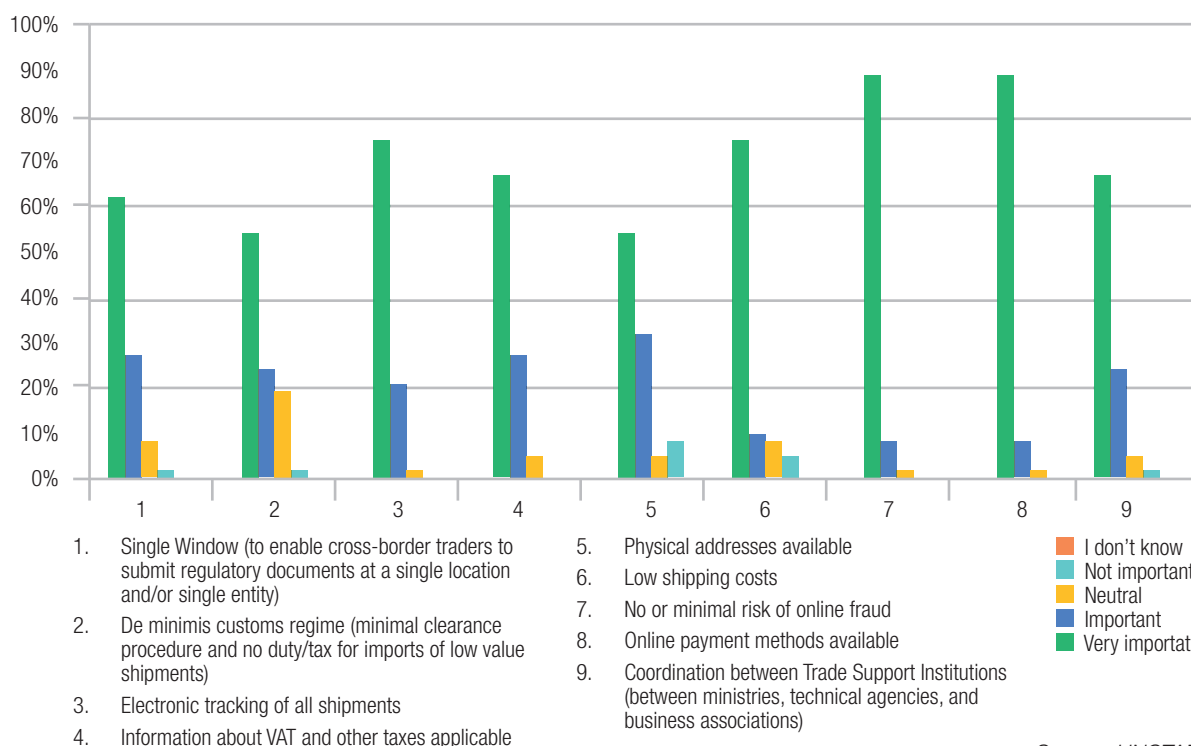
Xente is a mobile payments and mobile commerce platform in Uganda. The Xente Vision is to “ensure that everyone, no matter where they are in the world participate in the global digital economy”. The Xente consumer brand is premised on the fact that in the world today, there exist two broad economies, an old economy and a new economy. In the old economy, business is done at brick-and-mortar locations using cash and is constrained by geographical location. The new economy is mobile and online, and transactions are cashless and not constrained by geography.

The Xente platform enables Ugandan and African businesses at large to sell their products on any mobile channel and get paid from anywhere in the world via digital payments methods such as mobile money, bank cards (Visa, MasterCard, Amex etc.), bitcoin and other digital payment instruments. The Xente team is advocating for financial inclusion for people who do not have access to formal financial services. The team is promoting solutions that will give everyone with a mobile money account access to a global market base so that they can sell their products and services beyond their locale. Xente is making sure that at least 20 per cent of products and services sold on its e-Commerce platform are produced by people who live on less than \$ 1 dollar a day. Once an item is sold, Xente remits the funds to their mobile money accounts enabling them to participate in the formal financial services.

Source: UNCTAD Interview with Xente Team, Kanjokya, Kampala, Uganda



Figure 10: Rate the following items on their level of maturity in your country in terms of e-commerce development



Source: UNCTAD

The Government has the objective to make government operations cashless within five years to increase efficiency and reduce corruption. To this end, Uganda has implemented the Government e-Payment Gateway Service to enable government institutions to quickly and efficiently deploy e-services by leveraging the common payment Gateway and in the long run promote e-Commerce in Uganda. The e-Payment gateway is also expected to promote financial inclusion in Uganda through an enhanced use of mobile money among all the categories of the population to pay for public services, especially among the financially underserved communities and the business community at large.

The East African Payment System (EAPS) is also promoting e-commerce by facilitating cross-border funds transfer and transactions in the EAC region. Launched in 2014, the system operates on a real time gross settlement basis by utilizing the linkage between the various Partner States' Real Time Gross Settlement (RTGS) systems using SWIFT (Society for Worldwide Interbank Financial Telecommunication) messaging network for safe and secure delivery of payment and settlement messages to each other This

step was made towards the integration of the EAC's financial sector for the creation of the EAC Monetary Union. These regional initiatives have led Uganda to integrate more rapidly into the global digital economy.

However, there are still challenges in the access to financial products by the population such as issues related to credit cards and interoperability between banks. The NPS Bill will have the objective, among others, to have user friendly interfaces and to increase trust in the financial e-commerce transactions. Indeed, trust is the biggest obstacle since the Ugandan population fears the lack of information about the sellers and the risks related to the payment solutions. Although many people in Uganda remain fearful of using mobile payments, it has been quickly accepted by the young population and thus makes the sector an attractive investment for e-commerce firms.

The growth of mobile money is, however, also seen by some as a means to increase national revenue. The recent decision by the Parliament to adopt a 1 per cent excise duty tax on mobile money transactions from 1 July 2018 was aimed at tapping into mobile money transactions to increase national revenue. After



general criticism, the tax has been revised down to 0.5 per cent by the President, who considers mobile money essential to the daily needs of the Ugandan population.

The tax regime of e-commerce is quite heavy and does not support the promotion of the sector. The delivery of electronic services to a person in Uganda is taxable¹⁴. The Income Tax Act Cap 340 (ITA) provides that resident individuals and companies are taxed on worldwide sourced income while non-residents are taxed on income sourced from Uganda. The issue related to e-commerce is the absence of physical location of businesses which may be located abroad. Thus, the Government of Uganda has just passed an amendment to the Value Added Tax Act of Uganda to include electronic remote delivery of services under the Section 16 of the VAT Act Cap 349. This was aimed at broadening the scope of “electronic services”¹⁵ in order to include the Over the Top Services that are gaining popularity in Uganda.

The supplier is ordinarily responsible for the remittance of output VAT to the tax authorities. With regard to services imported into the country, the responsibility of paying tax is upon the person receiving the taxable services¹⁶. Registration thresholds are used to relieve small enterprises from levying and collecting VAT. In Uganda the threshold is currently UGX 150 million (US\$ 43,000)¹⁷. Since 1998, there has been a moratorium on customs duties levied on electronics transmissions, under the WTO Work Programme on E-commerce. This was extended by WTO members at the 11th Ministerial Conference held in Buenos Aires in December 2017.

Uganda is a member of the East African Community and the OECD Global Forum through which it cooperates in international action against tax avoidance and evasion.

¹⁴ Section 16(2) (d) of the VAT Act

¹⁵ “Electronic services” includes the following when provided or delivered remotely: (i) websites, web-hosting or remote maintenance of programs and equipment; (ii) software and the updating of software; (iii) images, text and information; (iv) access to databases; (v) self-education packages; (vi) music, films and games including games of chance; or (vii) political, cultural, artistic, sporting, scientific and other broadcasts and events including television.

¹⁶ Section 5 of the Value Added Tax Act

¹⁷ Section 7(2) of the Value Added Tax Act



5. LEGAL AND REGULATORY FRAMEWORK

As part of the East African Community (EAC), Uganda has benefited from the EAC regional harmonized frameworks for cyberlaws enacted in 2011-2013 with the assistance of UNCTAD. Uganda has exhaustive legal frameworks in place such as the Electronic Transactions Act, 2011; the Electronic Signatures Act, 2011; and the Consumer Protection and Competition Bill, 2015. The Data Protection and Privacy Bill remains to be enacted by the Parliament. Some of these laws need to be reviewed in light of recent technological developments related to e-commerce. Moreover, the lack of awareness about the legal frameworks in place creates a trust deficit with the broader the population, particularly in cases of fraudulent online transactions.

5.1 Status of four key laws as per UNCTAD Cyberlaw Tracker

Thanks to the EAC membership, Uganda has adopted an overall legal framework for the development of e-commerce. Key gaps remain, including the lack of legislative provisions for cross-border e-commerce. The enactment of the Data Protection and Privacy Bill would strengthen the overall legal framework.

Several laws and regulations governing e-commerce and e-government, and more generally the digital economy, are already in place. Uganda, as Partner State of the East African Community, has followed the EAC e-government Framework since 2006, which was identified as a critical factor for the effective implementation of e-government and e-commerce strategies at national and regional levels. To achieve operational efficiency of such strategies, strong support was needed in terms of legislation related to data security, network security, cybercrime, information systems and electronic transactions.

Cyberlaws were identified as key cross-cutting issues that need to be in place for the successful implementation of e-Government applications and the development of e-commerce in the region. Regional ICT growth, together with the expected increase in online activities by the private sector as well as public administration, underline the need to develop up-to-date harmonized cyberlaws in the region, reflecting international best practice. The EAC recommended the following¹⁸, among others:

- a. the EAC should ensure necessary coordination intended to harmonize regional and national legal frameworks in order to create an enabling

environment for the successful implementation of the e-Government and e-Commerce Programmes in the region, and

- b. a Task Force should be constituted from amongst key players and stakeholders in the region to spearhead the implementation of a roadmap towards the creation of a harmonized legal framework for cyberlaws in the EAC.

From 2008 to 2013, UNCTAD provided technical assistance to the East Africa Community in the formulation of the EAC e-Government Framework. The UNCTAD publication “Harmonizing Cyberlaws and Regulations, the Experience of the East African Community, 2012” described the process and the challenges of the formulation of a regional legal framework on cyberlaws, based on the partnership with the East African Community. Therefore, with the support of UNCTAD, the EAC Partner States adopted the legal framework to be undertaken into two phases. In Phase I, the harmonization of cyberlaw reforms for e-commerce focused on five key topics:

- ✓ electronic transactions;
- ✓ electronic signature and authentication;
- ✓ data protection and privacy;
- ✓ consumer protection; and
- ✓ computer crime.

The Phase II ended in 2013 and addressed four topics affecting cyberspace activities, but also raised broader issues of concern that were beyond the scope of the Task Force:

- ✓ intellectual property rights;
- ✓ competition;
- ✓ taxation; and
- ✓ information security.

¹⁸ UNCTAD, *Harmonizing Cyberlaws and Regulations, the Experience of the East African Community, 2012*



As a result of the EAC regional approach, all the EAC Partner States were requested by the EAC Council of Ministers to domesticate the EAC Framework at national level. Thus, Uganda set up the legal and regulatory framework of the e-commerce by enacting the following laws:

- ✓ Access to Information Act, 2005;
- ✓ Establishment of NITA-U Act, 2009;
- ✓ Interception of Communications Act, 2010;
- ✓ BoU Financial Consumer Protection Guidelines, 2011;
- ✓ Computer Misuse Act, 2011;
- ✓ Electronic Transactions Act, 2011;
- ✓ Electronic Signatures Act, 2011;
- ✓ Uganda Communications Act, 2013.

These Laws address the requirement that the cyberlaw reforms would focus on five key topics: electronic transactions, electronic signature and authentication, data protection and privacy, consumer protection and computer crime. The Electronic Transactions Act gives legal recognition to data messages and electronic contracting with provisions following the UNCITRAL Model Law on Electronic Commerce, 1996. It also contains rules on consumer protection and on liability of Internet Service Providers. Under this Act (section 24 on Consumer Protection), consumers are given 14 days after the delivery to complain. Companies do not always comply with this provision. The BoU Financial Consumer Protection Guidelines, 2011, provides the requirements for the fairness, reliability and transparency of financial transactions to safeguard consumer protection. Through the Electronic Signatures Act, 2011, Government recognizes electronic signatures by law, thereby boosting its efforts to offer ICT-based services to the general public and the business community. By preventing unlawful access and misuse of information systems, the Computer Misuse Act, 2011 provides protection to users against potential abuse of ICT services in the country.

Although it is still being debated by Parliament, adoption of the Data Protection and Privacy Bill would significantly strengthen the legal framework for e-commerce. This Bill is meant to protect the privacy of individuals and of personal data by regulating the collection and processing of personal information among others. The Bill was referred to the Parliamentary Committee on Information and

Communications Technology (ICT) for further scrutiny after the recent developments in the ICT sector such as the General Data Protection Regulation (GDPR) Act. The committee has conducted various stakeholder consultations on the content of the Bill. Once it is passed by the Parliament, it should then be followed by a sensitization campaign towards the general public about the benefits and implications of the Bill. Once the Data Protection and Privacy Bill is enacted, Uganda will have fully implemented Phase 1 of the Framework.

In addition, Uganda is in the process of putting in place a National Competition law. The Consumer Protection and Competition Bill was approved by Cabinet in November 2015. The Policy promotes fair competition and consumer welfare while giving force of law in the country to related commitments Uganda has made at the EAC and COMESA. Yet, according to the regulations of the EAC Regional Competition Authority, every Partner State must enact a Competition Law. The Competition Bill has been postponed for several years for various reasons and particularly the cost estimates relating to the implementation of the Bill and the impact on the national revenue for the country.

Intellectual property rights are ensured by the Ugandan Registration Services Bureau (URSB) of which mandate is to provide a standardized process for registering each type of intellectual property with an enforcement of rights through the court system. In 2010 and 2014, Uganda adopted respectively the TradeMarks Act and the Industrial Property Act in order to include the new international standards on intellectual property. Yet the country does not have an Intellectual Property Law, and little has been done in terms of legal recourse to prevent piracy and counterfeit.

Lastly, the country adopted a National information Security Policy in 2014. This is accompanied with the establishment of the Uganda National Computer Emergency Response Team which is already active. The private sector is also investing in protecting themselves against unlawful access, abuse and misuse of information and data by implementing internal cybersecurity programmes.

The main entities in the regulation of the legal framework are the following: the Uganda Communications Commission (UCC), regulator of the telecommunications, broadcasting, and posts sectors; NITA-U regulating all Information Technology sub-



sector initiatives, the Ministry of ICT actively involved in the policy framework, the Ministry of Finance, Planning and Economic Development, Uganda Revenue Authority (URA), the Bank of Uganda (BoU) and the Ministry of Justice.

5.2 Impact of legal and regulatory framework on development of e-commerce

Awareness and sensitization of the laws are needed in regard to the general public to ensure a good understanding of the benefits and implications of e-commerce.

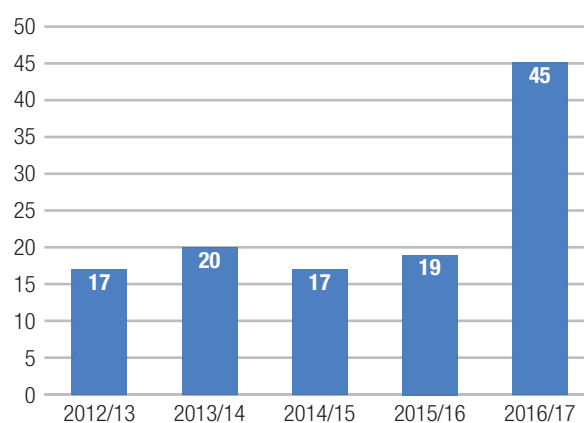
The enforcement of the legal and regulatory framework remains a challenge when it comes to e-commerce. While Uganda is considered to have a robust legal system, the enforcement and application of the laws have been proven very difficult. This is due to the lack of knowledge and skills of the Government staff and the lack of equipment and enforcement channels to follow up any recourse. While fraud is mostly on mobile payment, the problem lies on the lack of proof for legal filing at court. For instance, the e-transactions through USSD on the phone cannot be recorded and there is no picture application of the screen on the feature phones. Although cybercrime is certainly not the only case of fraud or economic crime in Uganda¹⁹, the threat is growing rapidly and is considered the “highest form of economic crime likely to be most disruptive”. Cybercrime acts which take place in Uganda are mainly malware and phishing. Abuse by IT providers not officially licensed but still operating on the domestic market is also a major issue. The UCC has attempted to address this issue by publishing the official list of licenced PIPs and PSPs on its website.

In order to address this issue, the Uganda Communication Commission has a dedicated customer service for all communication issues working 10 hours a day. Yet, for fraud related payment solutions, it is not the jurisdiction of the UCC. Jurisdiction falls under the financial agents of IT providers, for which the existing legal framework does not provide enough guarantees for securing the online transactions.

Survey results indicated very little knowledge from the private sector stakeholders about the legal and regulatory frameworks in place in Uganda. While the Government has prioritized a strong and safe

environment for ICT development and has organized a total of 118 sensitization sessions on cyberlaws between 2012 and 2017 (see Figure 11), the perceptions and behaviour of the ICT sector players, MSMEs and consumers stems from the assumption that the online transactions cannot be trusted due to the high level of fraud and misuses without any legal recourse to prevent them. This has a major impact on the ICT sector and impedes faster growth of e-commerce and the digital economy. As a result, the consumers tend to favour online transactions with foreign companies that are considered to be safer than the local ones. The lack of trust in online transactions also has a dampening effect on investments in the ICT sector and e-commerce.

Figure 11: Number of sensitization sessions on cyberlaws, FY2012/13-2016/17



Source: NITA-U, 2017 Statistical Abstract

On the productive capacity side, there are significant obstacles in the establishment and management of businesses in the e-commerce sector. The lack of information about the procedures to follow, the limited consideration for young investors, particularly young women, and the lack of access to existing private sector associations create challenges for start-ups. It is also a challenge for businesses that simply want information to upgrade their ICT systems to sell products or service online. The licensing system is also perceived to be complicated by most of the private stakeholders interviewed during our assessment. The legal procedure for setting up a mobile money solution is to first obtain the no-objection from the Uganda Communication Commission, and then to seek a licence for the company from the Bank of Uganda. In

¹⁹ PWC, *Fraud: The Overlooked Competitor, 2018 Global Economic Crime and Fraud Survey, Uganda Report*



reality, this is unknown to most of the entrepreneurs who want to open a business in this sector.

As a result, efforts continue by the Government to provide information to the population about the legal framework in place to protect the consumers and the business in e-commerce, as well as the requirements to set up a business in this sector. The main objective of Uganda should be to make it easy to start new e-commerce firms, or to allow existing MSMEs to open online channels. This would help enhance domestic productive capacities.



6. E-COMMERCE SKILLS DEVELOPMENT

Despite some advancements, employees in Ugandan firms are not yet fully-equipped with the skills necessary to take advantage of e-commerce. This includes ICT skills and non-ICT skills that are essential to e-commerce, such as marketing and search engine optimization. As a result, the country largely depends on foreign e-commerce providers while local companies struggle to develop their own digital content and online services. Efforts at the primary and secondary education levels are considered a priority by the Government to boost the ICT literacy of the overall population. In parallel, at the vocational level, innovation hubs and skills projects are being put in place to boost the skills of IT experts.

6.1 Skill gaps identification

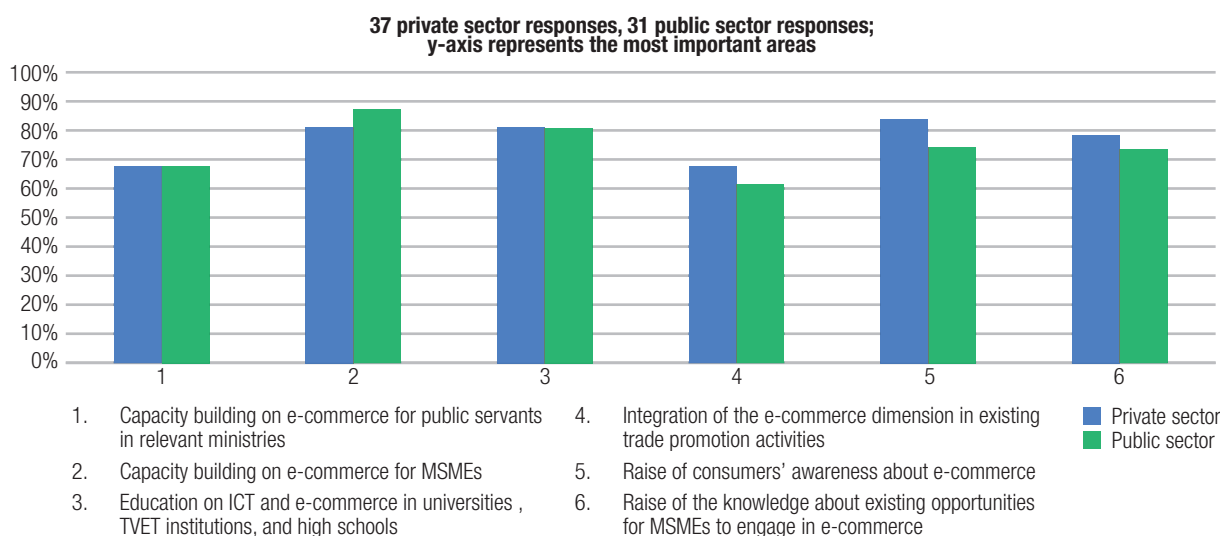
Despite some advancements, employees in Ugandan firms are not yet fully equipped with the skills necessary to take advantage of e-commerce.

Uganda faces a challenge in e-commerce and digital business skills. Faster development in e-commerce is challenged by the absence of IT experts and skilled e-commerce professionals who can drive the sector. Businesses are generally not equipped to introduce a digital aspect to their business, including opening an online channel for the sale of goods and services. As of today, there are few formal specialized skills training options for e-commerce in the country. These skills tend to be attained on an individual basis when needed to be able to transact business online. In terms of technical skills, most IT experts are trained during their first jobs and not through the education system. There is also a tendency to equate IT skills with e-commerce skills, which is a misconception. Most IT

experts in Uganda do not have the skills necessary to set up and manage an online business (formalization of a digital business; distance-selling; managing online content; managing online orders; packaging for e-commerce; logistics; digital marketing; and compliance with e-commerce platform and payment provider requirements). The lack of broad business and e-commerce skills often lead to the quick end of start-ups and e-commerce ventures.

With more than 40 local languages, it is also difficult and expensive to engage the local people through e-commerce ventures. Developing user interfaces in multiple languages can be time-consuming and expensive, and sensitization and awareness-raising campaigns in local language also increases costs. For start-ups or small businesses, these costs can be prohibitive. Respondents to the survey clearly saw capacity-building in e-commerce as a priority (see figure 12).

Figure 12: Score the following areas according to their relative importance (based on your perspective) to create an environment that is conducive to e-commerce



Source: UNCTAD



6.2 Availability of tertiary education/curriculum, professional training

Although there is some formal education curriculum on ICT in Uganda, there is no curriculum related to e-commerce. The Rural Communication Development Fund (RCDF) is working to increase digital skills through the provision of financial and technical support to rural areas.

Efforts to introduce ICT and e-commerce education in Ugandan primary and secondary school curriculum and mainstreaming ICT into teacher education curriculum remain very low. There has been some progress however. There was a 7 per cent increase in total computer units in institutions of higher learning from 14,941 in academic year 2012/13 to 15,913 in 2013/2014. The number of computers dedicated to staff rose by about 50 per cent to 4,716 from 2,372 in 2012/13 while 1,682 were “shared” between staff and students. The number of computers linked to Internet more than doubled between 2012 and 2014.

Given the growing role of ICT and e-commerce in daily life, a review of the national curriculum for primary and secondary schools could also be carried out. Basic skills related to email, e-payment and e-transactions could be introduced through the classroom.

Between 2016 and 2017, Uganda had an impressive improvement in the mean years of schooling rate but was affected by the low performance in the secondary and tertiary education levels despite efforts to introduce ICT education in Ugandan primary and secondary school curriculum.

Uganda has nevertheless invested in several initiatives to enhance digital skills from early age. The Uganda

Rural Communication Development Fund (RCDF) has the mandate to develop commercially viable communications infrastructure in rural Uganda, but also works to increase digital skills through the provision of financial and technical support to the rural areas. Stemming from the National ICT Policy adopted in 2014, the priority actions of the RCDF should aim at universal access to high level capacity broadband with the following key broadband targets that need to be achieved by 2020:

- Minimum broadband speeds of 3Mbps;
- Broadband access penetration of 50 per cent and 100 per cent for rural and urban areas respectively;
- 100 per cent of district and sub-county headquarters, health centre IVs and secondary schools with broadband connectivity;
- 50 per cent of primary schools with broadband connectivity;
- Cost per Mbps of broadband in relation to average income reduced to 10 per cent;
- 40 per cent of the population digitally literate.

Therefore, as the implementing arm of the Uganda Communication Commission, the RCDF has developed several projects with quite successful results pursuing the following activities related to digital and IT skills:

- Provide computers in public places (e.g. post offices, schools, public libraries, etc.) in small and large communities to help low-income segments of society gain access to the Internet and for business, educational and other purposes;

Table 3: ITU e-Readiness assessment summary matrix in Digital Literacy and Inclusion (2015/16 – 2017)

Category	Area	Global Indicator	Source	Uganda	
				2015/2016	2017
Digital Literacy and Inclusion	ICT Education and Skills (Index Uganda 2.29, Kenya 3.79)	Quality of the education system	WEF		3.5
		Mean years of schooling		5.4	5.70
		Secondary enrolment ratio		27.6	26.1
		Tertiary Enrolment ratio	ITU/WEF	9.1	4.48
		Internet access in schools (out of 7 points)			3.2

Source: ITU



- Facilitate and encourage the use of ICT by special interest groups to make them more productive in the society and utilize this largely untapped human resource. (Special interest groups include: women, youth and persons with disabilities);
- Promote the development of telecommunications products and services in local languages, taking into consideration the special needs of rural or poor communities, women, and people with disabilities;
- Create opportunities and provide assistance for the disadvantaged, people with special needs, women and the youth to acquire ICT skills;
- Awareness creation and mind-set change;
- Increasing penetration of ICT equipment, services and applications.

The RCDF operational guidelines 2017/18-2021/22 defines the activities to be undertaken based on three programmes: broadband connectivity and access; content mediation; and research and advocacy. This amounts a total of US\$ 428.5 million for the five-year plan. The upcoming projects of the RCDF are linked to the development of the e-government gateway that is expected to promote the use of the Internet and email by the population in rural areas.

In higher education, the Uganda Institute of Communication and Technology (UICT) provides awareness and specialized trainings for IT experts and those working in the e-commerce space. In its ICT and business-related programmes, e-commerce is offered as a course unit. The Institute has also developed a dedicated programme on Business Process Outsourcing at the Diploma level and plans to offer a certificate level course on e-commerce.

Financial sustainability is a challenge for many of the education programmes and institutes, reducing the opportunity to develop new courses and curriculum, integrate new technologies and conduct trainings. At the government level, training in ICT skills are generally provided to public employees. Between 2014 and 2017, 1,156 government employees were trained in e-government services.

6.3 Business incubators and business accelerator

Uganda continues to be a place of experimentation for e-commerce ventures. Many business incubators and a few business accelerators are leading the way to support the growing number of e-commerce start-ups.

In parallel to the formal education sector, many other initiatives are in place to promote digital skills and entrepreneurship. For instance, the Information Centre located at the Ministry of ICT promotes the use of IT and trains young entrepreneurs to facilitate their entry into the market. As of today, there are several business incubators, including well known ones such as the Innovation Hub, which continues to function despite relatively weak financial capacity. Therefore, financial support to the business incubation sector is strongly needed and could be coordinated by a private sector association to ensure the linkage between the skills development in the formal sector and the realities of the e-commerce market. The Government could also play a role in providing support to the incubators and innovation hubs.

The Private Sector Association through the Private Sector Foundation of Uganda also encourages such business incubation initiatives through the Skills Development Facility²⁰, of which Window III on support to Innovative Skills Training targets companies with a minimum of two years of activity that want to develop and upgrade their ICT systems. The Facility is funded by the World Bank and implemented by the PSFU. A grant of US\$ 100 million was given by the World Bank to the Ministry of Education (US\$ 80 Million) and PSFU (US\$ 20 million) to develop ICT skilling training. These programs are ongoing in different education institutions and private sector companies across the country.

Private sector associations in Uganda have been working on promoting e-commerce in different ways. For example, the Chamber of Commerce has been active in creating a partnership with NITA-U to work on dissemination and awareness-raising on e-commerce through their network of regional offices. The Private Sector Foundation of Uganda (PSFU) works on promoting young enterprises in the ICT sector through a Business Development Support Program (US\$ 3 million in a basket fund). The PSFU has also

²⁰ Skills Development Facility, www.sdfuganda.org



developed a skills fund which is linked to job creation. Yet small companies have expressed concerns that the support of these associations and the Chamber of Commerce was not readily accessible and did not provide adequate information. In that regard, more information campaigns and a mentoring program through these institutions could better link the support provided by these organizations with the enterprises that seek it.



7. ACCESS TO FINANCING

Although the banking and non-banking systems are relatively well developed in Uganda, access to financing is one of the main bottlenecks for e-commerce development. Participating in e-commerce requires access to capital, which is not always available for existing businesses, let alone new business start-ups. Start-ups and MSMEs face financing constraints as formal institutions require conditions that are often difficult to meet. Although the non-banking formal sector is quite developed, it does not commonly provide credit. In the absence of borrowing capacity, businesses limit their online expansion and often look for cheaper, yet unsustainable, ways to grow online.

7.1 Financing by banks and MDIs

Access to financing is a primary obstacle to the development of e-commerce in Uganda.

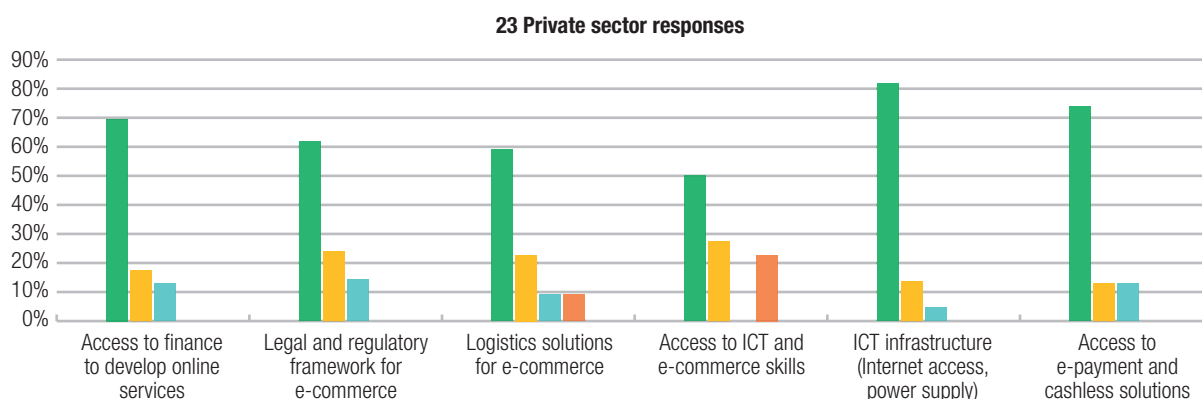
According to our survey, access to financing is very important for creating a conducive environment for e-commerce development.

The bank and non-bank systems in Uganda are actually quite developed in the urban areas, however the coverage drops drastically in rural areas. In 2018, an estimated 78 per cent of the population had a formal or informal account, 57 per cent had an account in a non-bank formal sector (i.e., mobile money service provider) and 11 per cent had an account in formal commercial bank or Microfinance Deposit-taking Institutions (MDIs)²¹. While these number may appear relatively high, there is a significant urban-rural divide. While up to 76 per cent of adults living in urban areas utilized either formal financial institutions (banks, microfinance deposit-taking institutions), or non-banks (mobile money, credit co-operatives and MDIs), only 49 per cent of rural population utilized these types

of financial services. This leaves a significant share of population with no or limited access the formal banking system. According to the Finscope study, 22 per cent of the adult population is completely excluded from financial services.

Access to financing is very challenging for entrepreneurs and small businesses, making it difficult to develop their businesses and build the domestic capacities required for e-commerce to thrive. Average interest rates for loans are about 23 per cent while the cost for acquiring IT equipment, a domain or USSD code is very expensive. In addition to the high costs, eligibility conditions required for a loan are often not met by the MSMEs. As a result, traditional borrowing through family, friends and saving groups are the most common ways to raise capital. As shown in figure 14, there are very few loan applications in the transport and communication sector and business services sector, which are sectors that would most likely be linked to an e-commerce venture. Specific data for loan applications directly related to e-commerce ventures is not available.

Figure 13: How important have been the following enabling factors in your decision to invest in e-commerce solutions?



Source: UNCTAD

²¹ Finscope Survey Uganda, 2018



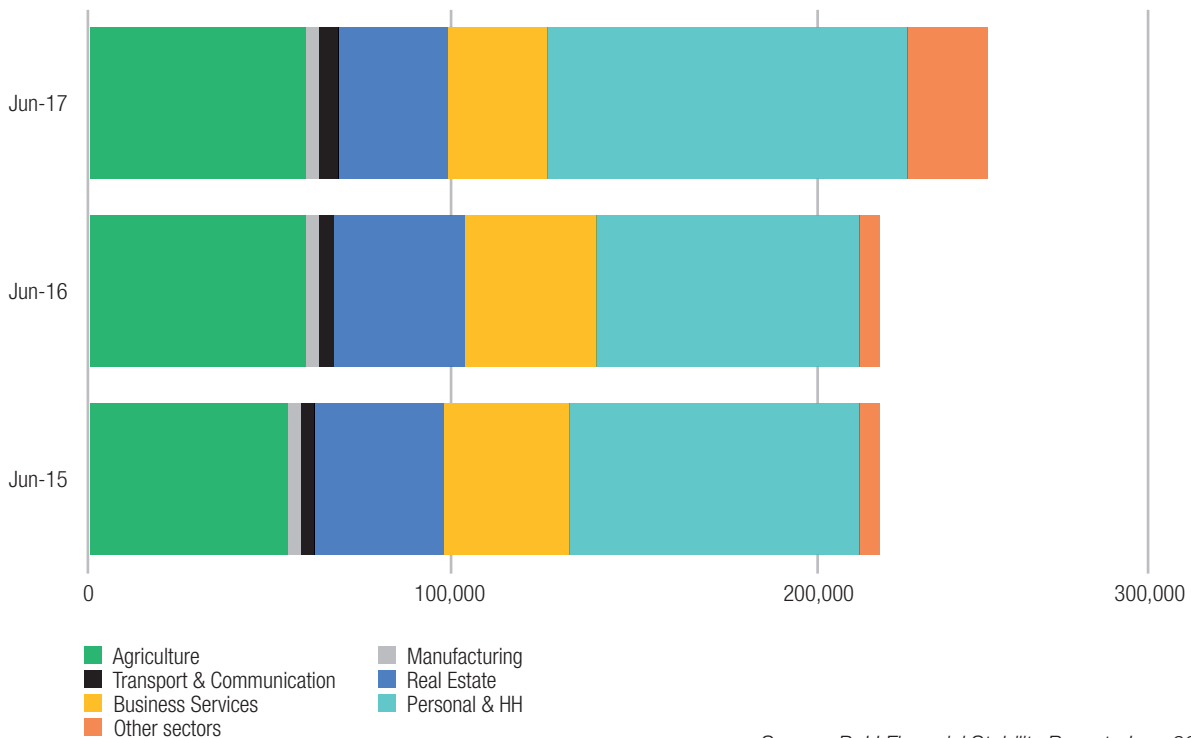
The formal banking system is relatively consolidated with only a few banks active in Uganda. This has led to the emergence of the non-financial sector composed of mobile money solutions and microfinance using new technologies. In 2016, the financial sector in Uganda was composed of:

Table 4: Financial Sector Institutions as of November 2016

Savings	Credit	Mobile money	Payments	Insurance
<ul style="list-style-type: none"> • 25 Banks • 4 Credit Institutions • 5 Microfinance Depository institutions • 1900 SACCOs • 1 Public Pension Fund • 1 Social security fund • 60 Private Retirements Benefits Schemes <p>Regulators: BOU, UMRA, URBRA</p>	<ul style="list-style-type: none"> • 25 Banks • 4 Credit institutions • 5 Microfinance Depository institutions • 1900 SACCOs • 70 MFIs • 200 Money Lenders <p>Regulators: BOU, UMRA</p>	<ul style="list-style-type: none"> • 7 mobile money Service Providers • Regulators: BOU, UCC 	<ul style="list-style-type: none"> • 25 Banks • 4 Credit Institutions • 5 Microfinance Depository institutions <p>Regulators: BOU</p>	<ul style="list-style-type: none"> • 22 Non-life Insurance companies • 7 Life insurance companies <p>Regulators: IRA</p>

Source: BoU, National Financial Inclusion Strategy, 2017

Figure 14: Number of Annual Loan Applications per business sector



Source: BoU Financial Stability Report, June 2017



Banks have just started to recognize the extent of e-commerce and its opportunities. Up to now, they have mainly focused their products and services on large companies, leaving behind the MSMEs that are the major source of income for the country. Although still at an early stage, banks are now starting to offer a new range of financial products and services to MSMEs. For instance, Barclays has just developed an e-commerce platform for individual companies and the Kenyan bank, Equity Bank, through a fintech business Finserve has just set up a new payment platform operating in East Africa.

New financial institutions have also begun operating as aggregators, a phenomenon that is growing rapidly in East Africa. An aggregator enables the seamless collection, disbursement and circulation of digital payments across multiple payment providers. Most of the aggregators are Mobile Network Operators (MNOs) but new actors are also entering the market. The advantage of the payment aggregator is to reduce the cost of each transaction by compiling all the payment solutions using either the back-end transaction process, meaning that the customer is unaware of the presence of an intermediary or a front-end payment aggregation whereby the customer is engaged directly. The same applies for the micro enterprises where microfinance money lenders are turning into digital platforms. The example of MoKash, result of the partnership of MTN Uganda and the Commercial Bank of Africa enables clients to cash in, cash out and take short-term micro loans using their mobile phones. As a result, the volume of digital financial solutions is skyrocketing and has made Uganda a success story in this sector.

While innovations are being made in terms of offering payment solutions for e-commerce, businesses seeking to develop online sales channels still face great challenges in access to financing. Indeed, efforts remain in the use of credit and debit cards, which are still poorly accepted for online transactions and the perception of cards as means of payment has not yet been integrated in the general mindset. Most of all, financial exclusion remains high in Uganda despite the high number of initiatives to develop payment solutions. Therefore, the Government adopted a National Financial Inclusion Strategy (NFIS) 2017-2022, implemented by the Bank of Uganda to provide access and use of a broad range of quality and affordable financial services to all Ugandans

by 2022, but also to increase credit supply to small entrepreneurs and reduce the gap in the access to finance between the urban and rural populations. The strategy has four objectives as follows:

- ✓ **Objective 1:** Reduce Financial Exclusion and Access Barriers to Financial Services;
- ✓ **Objective 2:** Develop the Credit Infrastructure for Growth;
- ✓ **Objective 3:** Build Out the Digital Infrastructure for Efficiency;
- ✓ **Objective 4:** Deepen and Broaden Formal Savings, Investment and Insurance Usage;
- ✓ **Objective 5:** Empower and Protect Individuals with Enhanced Financial Capability.

In addition, the Bank of Uganda is about to adopt the National Payment System Bill of which the objective is to update the payment system environment, promote cashless transactions across government entities and within the private sector, and provide free digital devices to marginalized individuals and targeted support to the digital sector.

7.2 Financing by business incubators, business accelerators, venture capitalists

Business incubators and accelerators are numerous, yet Uganda needs to attract more new venture capital partnerships and business angels to meet the local demand for financing e-commerce ventures.

Uganda has several business incubators specializing in tech companies such as the Hive Colab, the Hub Kampala, the Mazawo Innovation Hub and the Government owned/operated Uganda Industrial Research Institute. Hive Colab for instance provides support to financial technology startups developing solutions for e-commerce. These business incubators help start-ups and small businesses to set up and grow in a sustainable manner by providing them with the legal, financial, technical and management support. This increases the survival rate of these companies over the long run. There are also many business accelerators in Uganda. A new Internet of Things (IoT) innovation program named Wazihub was launched in May 2018 as a business accelerator to provide technical and business capacity-building programs to IoT startups and entrepreneurs.



Crowdfunding and crowdsourcing have also developed in Uganda though they are not yet regulated by the Bank of Uganda. Some well-known websites such as Kickstarter, Uganda Crowdfunding Network and Akabbo are commonly used in the country for access to financing. Yet, innovative ways of financing such as venture capital are still quite limited. The promotion of venture capital and business angels should be encouraged by the Government through tax incentives and promotion of the opportunities in the Ugandan e-commerce market. This could be initiated by the Fintech Association of Uganda that was created in 2017 to enhance the role of FinTechs in Uganda through an efficient and enabling legal and regulatory framework and stronger public-private dialogue.

Ultimately, the success of existing e-commerce ventures in Uganda and the entry of new players will partly depend greater access to financing for all segments of the population.



CONCLUSION

A solid foundation exists to boost the development of e-commerce in Uganda. The Government has taken a leading role by developing the Digital Uganda Vision, in which e-commerce will play a major role. It is now necessary to define a long-term strategy for e-commerce growth based on a strong public-private dialogue. This will help ensure that national productive capacities are strengthened to benefit Ugandan businesses, particularly MSMEs and entrepreneurs. Today, e-commerce activity is mainly focused on purchasing foreign goods such as cars and high-tech products. Therefore, the country should focus on creating wealth by promoting and encouraging the private sector to create local digital content and to sell local products and services through e-commerce, in sectors such as tourism and agro-business.

–The emergence of new mobile payment solutions in East Africa, particularly in Uganda and Kenya, combined with the widespread use of mobile phones, has changed the way people purchase and pay for goods and services. Mobile payment is now the most common method of payment in Uganda. This has great potential for e-commerce growth and provides new opportunities for Ugandan traders and businesses. These technological advancements and their implications should be reflected in the revision of key legal texts, including those related to mobile payments, the National Payment System Bill and the Data Protection and Privacy Bill.

One of the main challenges of e-commerce in Uganda is the lack of trust in online transactions. Consumers are not comfortable sharing personal details during online financial transactions and may not trust that a

product ordered online will be delivered. To address this issue, the Government could increase awareness-raising campaigns to inform the population about the benefits of e-commerce and the existing legal framework in place to protect the consumers. Also recommended is the encouragement of increased digital skills among the general population to increase confidence and trust in new technologies and e-commerce, particularly in remote areas of the country.

Indeed, the majority of the population - mainly the poorest living in the rural areas - is detached from ICT infrastructure and access to financing for setting up businesses in e-commerce and/or to purchase and sell through e-commerce platforms. Challenges linked to accessibility and affordability hinder the development of e-commerce that reinforces the economic and social divide between urban centres and rural areas. It is also important to enhance the role of women in the e-commerce. One way to do this would be to create an ICT network dedicated for women entrepreneurs, who are far outnumbered by men in this sector.

Finally, the Government of Uganda in partnership with the private stakeholders should emphasize the supply-side of e-commerce to boost productive capacities, increase Ugandan exports and integrate into regional and global value chains. This should be done in an inclusive way, giving equal opportunities to men and women from both urban and rural areas. E-commerce should be considered as another way to trade, more and better, and as a way to help domestic firms harness trade opportunities and push national economic growth.



THE WAY FORWARD: ACTION MATRIX

E-COMMERCE READINESS ASSESSMENT AND STRATEGY FORMULATION			
Indicative action	Expected results	Priority Level	Potential support by
Develop a national e-commerce strategy, aligned with the Digital Uganda Vision and local government frameworks.	A clear and strategic plan for the development of e-commerce reflecting the needs and opportunities of each sector.	High	MoTIC, MoICT&NG, MoFPED, PSFU, UNCCI, Uganda BPO Association, Fintech Association of Uganda, Chamber of Commerce, UNCTAD, World Bank, ITC
Establish a national multi-sectoral task force on e-commerce to feed into the Inter-Ministerial Task Force on Digital Uganda Vision and the Inter-Institutional Trade Committee.	Stronger coordination between different stakeholders working on e-commerce policy, within the broader framework of Digital Uganda Vision.	High	MoTIC, MoICT&NG, MoFPED, PSFU, UNCCI, Uganda BPO Association, Fintech Association of Uganda, Chamber of Commerce, UNCTAD, World Bank, ITC
Focus on the development of national productive capacities in e-commerce.	Increased exports and domestic production in all sectors and integrated global and regional GVCs.	High	MoTIC, MAAIF, MoICT&NG, NPA, EIF, World Bank, ITC
Set up a coordination mechanism to integrate the voices of the private sector into the policymaking process.	Enhanced interaction and synergies among government entities and the private sector.	High	MoTIC, MoICT&NG, MoFPED, PSFU, UNCCI, the World Bank, Uganda BPO Association, Fintech Association of Uganda
Organize national awareness-raising campaigns on e-commerce and its benefits to the general public.	The population is aware of e-commerce as well as the legal frameworks in place to resolve trust issues.	High	All stakeholders from public and private sectors.
Encourage the creation of private sector associations and networks in e-commerce.	The private sector is more coordinated and structured and benefits from a sharing of experience and knowledge.	High	PSFU, Chamber of Commerce, Uganda BPO Association, Fintech Association of Uganda
Establish a robust monitoring and evaluation framework and system for the e-commerce sector.	A monitoring and evaluation framework is in place and helps monitor e-commerce development and progress.	Medium	MoICT&NG, MoTIC, OPM
Increase harmony in data collection on standard ICT and e-commerce statistics, including number of Internet users (both mobile broadband and fixed broadband).	Enhanced monitoring and evaluation of ICT and e-commerce programmes and activities. Better benchmarking and assessment of progress.	Medium	MoTIC, MoICT&NG, MoFPED, UNCCI
Organize awareness-raising and sensitization campaigns to promote both the use of e-government and m-government services to the population.	Population is informed and sensitized about the benefits of ICT in their daily lives.	Medium	MoICT&NG, NITA-U, UCC, World Bank



ICT INFRASTRUCTURE AND SERVICES			
Indicative action	Expected results	Priority Level	Potential support by
Expand the National Backbone Infrastructure in rural areas to cover the entire territory.	The entire population has access to the national backbone infrastructure and affordable and reliable broadband Internet.	High	MOICT&NG, UCC, NITA-U, UTL, World Bank
Undertake an impact assessment of the cost structure (tax, fees, etc.) of existing telecommunications and data services.	The price for telecommunications data services is affordable to all.	High	MOICT&NG, UCC
Facilitate market entry and competition among MNOs by ensuring entry fees that are not prohibitive. Also provide post-investment support.	Increased number of MNOs operate in the Uganda ICT market leading to reduced prices.	High	UCC
Accelerate the Government's plan to achieve electricity coverage of 26 per cent of the population by 2022. A more ambitious target could also be considered (for example, a target of 50 per cent coverage by 2025).	Enhanced electricity coverage, particularly in rural areas, which is a basic requirement for e-commerce development.	High	Rural Electrification Agency
Extend access to the NBI to operators that offer Internet services to the general population.	Lower cost Internet access for the general population.	Medium	MoICT&NG, NITA-U, UCC
Strengthen information security systems.	Risks of fraud and cybercrime are reduced.	Medium	MoICT&NG, NITA-U, UCC

TRADE LOGISTICS AND TRADE FACILITATION			
Indicative action	Expected results	Priority Level	Potential support by:
Draft a law on expedited shipments to promote e-commerce, for perishable goods and goods with specific criteria (weight and value).	Entry is facilitated for express couriers' services and a simplified clearance process is in place for e-commerce transactions.	High	MoTIC, MAAIF, UPU, UPL, TMEA, MoEACA, UEPB
Implement a simple export-easy import programme using the national postal infrastructure.	MSMEs in rural areas are helped to export and import items using the universal postal network.	High	MoTI, MoEACA, TMEA, UEPB, UPL, UPU
Continue coordinating with neighbors on common procedures for customs and quality control.	Intra-regional trade on e-commerce is facilitated.	High	MoTI, MoEACA, TMEA, UEPB, UPL, UPU
Organize awareness-raising campaigns aimed at insurance companies and develop specific commercial insurance products for e-commerce.	Safety and quality are ensured in the delivery of e-commerce transactions and businesses assets. Trust in e-commerce is increased.	High	Insurance Regulatory Authority of Uganda/ Chamber of Commerce
Inform e-commerce businesses about the benefits of commercial insurance (liability, property and transit insurance) to cover risks.	E-commerce assets and shipping are safe and protected, minimizing risks. Trust in e-commerce is increased.	High	Insurance Regulatory Authority of Uganda/ Chamber of Commerce
Provide higher capacities to border agencies to do faster processing and release of e-commerce parcels. Implementation of paperless customs processing (CDS) between Post and Customs would support this.	Border agencies have the capacity to do efficient and fast clearance process of e-commerce parcels entering and exiting the country.	Medium	MoTIC, MOICT&NG, MoIA, TMEA, MoEACA, UEPB, UPU, UPL



TRADE LOGISTICS AND TRADE FACILITATION			
Indicative action	Expected results	Priority Level	Potential support by:
Support the operational readiness for e-commerce (ORE) programme through capacity-building and implementation of relevant IT tools.	Improved postal processes through targeted operational training (distribution of postal items and parcels, and operational organization). Uganda Post is in a position to improve quality of service control and deliver e-commerce items efficiently and reliably.	High	UPU, Uganda Post Limited
Development of bankable PPP to allow private couriers to access the postal network in remote areas where the private operators cannot afford to deliver.	Improved coverage of affordable e-commerce to all areas of the country.	Medium	MoTIC, MOICT, Uganda Post Limited, UNCCI

PAYMENT SOLUTIONS			
Indicative action	Expected results	Priority Level	Potential support by:
Draft regulations to ensure competition in USSD and mobile payment solutions services.	Increased MNOs in the mobile payment market. Reduced consumer prices.	High	UCC
Enact the National Payment System Bill including the new changes in financial technologies.	The legal environment enables investment in payment solutions and facilitates e-commerce transactions.	High	UCC, MoTIC, NITA-U, BoU, MoFPED
Incorporate any desired changes to the Mobile Money Guidelines (adopted in 2013) into the National Payment Systems Bill.	The stakeholders and end-users of payment solutions are well regulated and protected against fraud and security issues and fair competition.	High	UCC, MoTIC, NITA-U, BoU
Organize awareness-raising and sensitization campaigns for both public and private sector stakeholders about the benefits of digital payment solutions.	General public is aware and is more willing to do online transactions. Higher trust in e-commerce.	High	UCC, MoTIC, NITA-U, BoU
Train the agency banking and consumers on digital financial services.	Agency banking and end users know more about the electronic payments and digital financial services.	High	BoU, Agency banking, banks, MNOs
Improve financial capacity and working conditions of the agent banking sector.	The agent banking sector has a bigger technical and financial capacity to serve e-commerce development.	High	BoU, Agency banking, banks, MNOs
Increase information security mechanisms in current electronic payment solutions (USSD, e-banking, etc.).	Security is increased for USSD use and transactions.	Medium	UCC, MoICT & NG
Given inherent security limitations of USSD, promote smartphones and mobile applications as a potential replacement for USSD.	Enhanced security of electronic payments and online transactions. Increased trust in e-commerce.	Medium	UCC, MoICT & NG

LEGAL AND REGULATORY FRAMEWORK			
Indicative action	Expected results	Priority Level	Potential support by:
Promote information dissemination and awareness-raising programs about existing ICT and e-commerce laws and regulations across all levels of society.	Population feels secured by the legal framework in place and knows where to get the appropriate laws and regulations. Higher trust in e-commerce.	High	MoTIC, MoICT&NG, NITA-U, UCC



LEGAL AND REGULATORY FRAMEWORK			
Indicative action	Expected results	Priority Level	Potential support by:
Review and pass the Data Protection and Privacy Bill, accompanied by an awareness-raising campaign about the new Bills.	Security and protection of consumers is ensured.	High	MoICT&NG, NITA-U, UCC
Review existing policy and legal frameworks to ensure they are up to date with technological developments related to mobile payments and e-commerce.	The legal framework (Policy and Strategy) is up to date and includes the implications of e-commerce.	High	MoICT&NG, MoTIC, UNCTAD, UNCITRAL
Review the Excise Duty Act (2018) and its impact on e-commerce transactions.	If tax is proven to be needed, the general public is informed and understands the need for a tax. A consultative process is undertaken to agree on the level of the tax, if needed.	High	UCC, MoTIC, NITA-U, MoFPED, URA
Develop specific MSMEs support (tax incentives, grants, etc.) and increase information dissemination on setting up a business.	MSMEs development and creation is facilitated and number of businesses and start-ups operating in e-commerce is increased.	High	MoTIC, PSFU, UNCCI
Create an ICT women's network to enhance their participation in ICT sector and exchange best practices and experiences.	Women are encouraged and more willing to go into the ICT business.	High	MoTIC, NITA-U, MoICT&NG, MoGLSD, ITC

E-COMMERCE SKILLS DEVELOPMENT			
Indicative action	Expected results	Priority Level	Potential support by:
Undertake capacity-building in digital literacy and skills to encourage the development of localized digital content.	Uganda has the capacity to develop local content, reducing foreign dependency in the development of IT applications and products.	High	NITA-U, National Curriculum Development Centre, Ministry of Education and Sports, UCC/RCDF
Increase numbers of computers, tablets and IT tools at primary and secondary education levels.	Children, boys and girls are exposed to the use of ICT tools at early age.	High	Ministry of Education and Sports, NITA-U, UCC/RCDF, UNICEF, the World Bank
Conduct a review of national curriculum to introduce e-commerce skills at various levels of education.	Students at various levels of education progressively learn e-commerce skills.	High	Ministry of Education and Sports, NITA-U, UCC/RCDF, UNICEF, the World Bank
Increase technical and financial support to UICT, innovation hubs, incubators and other institutes involved with upgrading ICT and e-commerce skills.	Ugandan ICT services and products are developed, adding value to export.	High	Ministry of Education and Sports, NITA-U, UCC/RCDF, UNESCO, the World Bank, ITC
Increase the number and scope of training to allow upgrading of skills for government employees and MSMEs.	Government employees and MSMEs receive regular training on ICT issues and business-related issues to create linkages between business skills and ICT skills (for MSMEs only).	High	Ministry of Education and Sports, NITA-U, RCDF, PSFU, Chamber of Commerce
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	Chamber of Commerce, PSFU, ITC



E-COMMERCE SKILLS DEVELOPMENT			
Indicative action	Expected results	Priority Level	Potential support by:
Create a local network for start-ups and young entrepreneurs.	Local start-ups and MSMEs are promoted. Local digital content is developed and commercialized.	Medium	MoICT&NG, NITA-U, UCC, MoST, Uganda BPO Association
Utilize TV and radio to carry out sensitization and awareness-raising campaigns on e-commerce for the general public, government officials, the business community and civil society.	Greater awareness of the benefits of e-commerce and cashless transactions.	Medium	MoICT&NG, NITA-U, UCC, PSFU, private companies, civil society organizations
Create mentoring programs, under the innovation funds in various government institutions, to help young entrepreneurs currently involved e-commerce.	Young businesses are provided with guidance and advices on the best strategies by experienced people proven to be successful in e-commerce.	Medium	MoTIC, PSFU

ACCESS TO FINANCING			
Indicative action	Expected results	Priority Level	Potential support by:
Sensitize banks and non-financial institutions to the unique business model of e-commerce ventures, which differs from traditional brick-and-mortar businesses.	Start-ups and MSMEs have access to financing to develop and upscale their ICT infrastructure to do e-commerce.	High	PSFU, Chamber of Commerce, MoTIC, BoU, ITC
Organize events where start-ups and entrepreneurs could meet with potential investors in the financial sector.	Business angels and venture capital are developing on the Uganda ICT and e-commerce market and help promote emergence of domestic productive capacities.	High	PSFU, Chamber of Commerce, MoTIC, BoU
Launch new products related to Fintech and Financial-insurance specifically designed to e-commerce.	E-commerce is offered with a wide range of products in financing and insurance to secure the sector and make it more sustainable.	Medium	PSFU, Chamber of Commerce, MoTIC, BoU, Fintech Association of Uganda, Financial Sector Deepening Uganda
Encourage partnerships between start-ups and large companies (banks, businesses, MNOs, etc.).	Start-ups receive technical and financial support from big companies and reduce the trust problem from consumers who prefer to buy to well-known companies.	Medium	PSFU, Chamber of Commerce, MoTIC, banks, Financial Sector Deepening Uganda



Annex I: Uganda country profile on etradeforall.org



COUNTRY PROFILE: UGANDA

Contact: info@etradeforall.org

GENERAL INFORMATION - 2016

Population 41.5 Millions	GDP 25 308 Millions current US\$	Merchandise trade 7 643 Millions current US\$
Internet users 9.1 Millions	GDP growth 2.3 %	Land area 200 520 km2

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

E-COMMERCE ASSESSMENT - 2017

Rank in UNCTAD B2C E-commerce Index 86/144	Rank in ITU ICT Development Index 152/176	Rank in WEF Networked Readiness Index 121/139
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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, 21.9

Fixed broadband subscriptions, 0.3

Active mobile broadband subscriptions, 33.7

Fixed broadband Internet tariffs, PPP \$/month

Highest tariff: 874.4

500

50

Tariffs in 50% of eco. are below this value: 34.1

UGANDA, 16.9

Lowest tariff: 5.1

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

PAYMENTS - 2014

Debit card used in the past year	UGANDA, 6.6	AFRICA, 7.6	WORLD, 21.9
Credit card used in the past year	UGANDA, 0.9	AFRICA, 1.8	WORLD, 13.5
Used an account to make a transaction through a mobile phone	UGANDA, 9.6	AFRICA, 4.9	WORLD, 8.5

Per 100 inhabitants

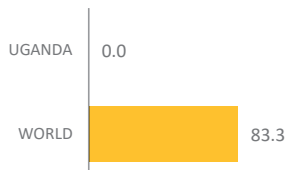
Source: World Bank (complete URL address in the General Notes)



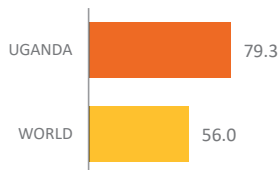
COUNTRY PROFILE: UGANDA

TRADE LOGISTICS - 2016

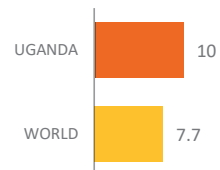
Percent of population having mail delivered at home



Postal reliability index (0 to 100, 100 = Best)

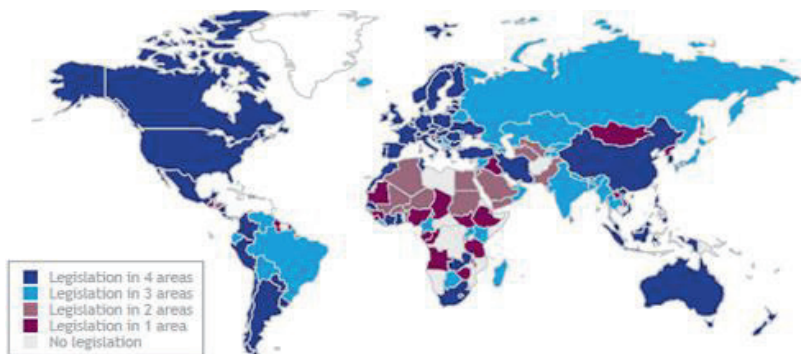


Days to clear direct exports through customs



Source: UPU and World Bank (complete URL addresses in the General Notes)

LEGAL AND REGULATORY FRAMEWORKS - 2017



UGANDA

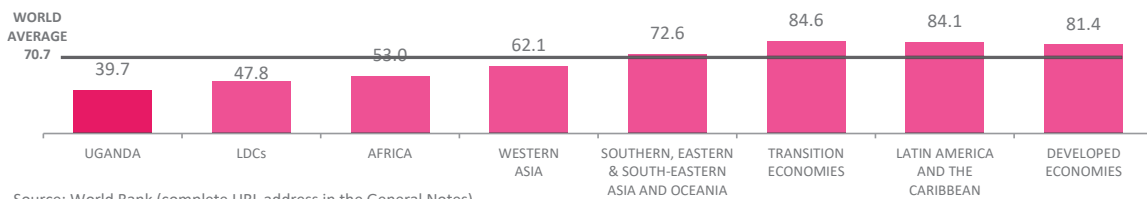
- Electronic Transactions: Legislation
- Consumer Protection: Legislation
- Privacy and data protection: Draft legislation
- Cybercrime: Legislation

Source: UNCTAD

For more information see: http://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx

SKILLS DEVELOPMENT - 2013-17

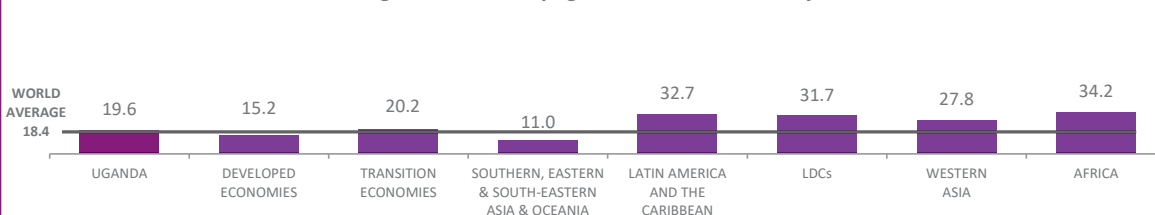
Percentage of firms using e-mail to interact with clients/suppliers



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

FINANCING FOR eCOMMERCE - 2014-15

Percentage of firms identifying access to finance as a major constraint



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



Annex II: Bibliography and websites used

Policies and reports

- Draft National Broadband Strategy, 2016-2020
- Finscope Survey Uganda, 2018
- CT Developmental Index (IDU) - ITU
- ICT Sector Investment Plan 2015/16 – 2019/20
- Inclusive Internet Index – Economic Intelligence Unit (EIU)
- Ministry of Tourism, Trade and Industry, National Trade Policy, Trading out of Poverty, into Wealth and Prosperity, 2007
- MoICT & NG Ministerial Policy Statement, 2017/18
- National Development Plan II 2015/16 – 2019/20
- National ICT Policy, Uganda, 2014
- National Electronic Government (E-Government) Policy Framework, 2008
- National Telecommunications Policy
- NITA-U Statistical Abstract, 2016
- PWC, Fraud: The Overlooked Competitor, 2018 Global Economic Crime and Fraud Survey, Uganda Report
- RCDF III Operational Guidelines (2017/18 – 2021/22)
- UCC Strategic Plan (2015/16 – 2019/20)
- Uganda Vision 2040
- Uganda National Development Plan II (2015/16 – 2019/20)
- UNCTAD, Harmonizing Cyberlaws and Regulations, the Experience of the East African Community, 2012
- WEF Global Technology Index - WEF
- World Bank, Uganda Diagnostic Trade Integration Study Update prepared for the EIF, July 2013

Main websites

- https://www.ucc.co.ug/files/downloads/UCC_2017_Postal_QoS_Framework_2017.pdf
- <http://www.pmldaily.com/news/2018/01/new-online-shop-in-uganda-to-deliver-goods-using-drones.html>
- <http://www.ict.go.ug/sites/default/files/Resource/Postcode%20project%20.pdf>
- <http://www.uncdf.org/article/2084/the-potential-of-agency-banking-in-uganda>



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>



