

Kenya eTrade Readiness Assessment



**United
Nations**

Geneva, 2022

© 2022, United Nations
All rights reserved worldwide

Requests to reproduce excerpts or to photocopy should be addressed to the Copyright Clearance Center at copyright.com.

All other queries on rights and licences, including subsidiary rights, should be addressed to:

United Nations Publications

405 East 42nd Street

New York, New York 10017

United States of America

Email: publications@un.org

Website: <https://shop.un.org/>

The designations employed and the presentation of material on any map in this work do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Mention of any firm or licensed process does not imply the endorsement of the United Nations.

This publication has been edited externally.

United Nations publication issued by the United Nations Conference on Trade and Development

UNCTAD/DTL/ECDE/2022/2

ISBN: 978-92-1-113058-4

eISBN: 978-92-1-001863-0

Sales No. E.22.II.D.29

This report was developed with the technical and financial support of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) and technical inputs from the British Standards Institution (BSI).



Implemented by

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

bsi.



NOTE

Within the UNCTAD Division on Technology and Logistics, the E-Commerce and Digital Economy Branch carries out policy-oriented analytical work on the development implications of information and communication technologies (ICTs), e-commerce and the digital economy. It is responsible for the preparation of the Digital Economy Report (DER) as well as thematic studies on ICT for Development.

The Branch promotes international dialogue on issues related to ICTs for development and contributes to building developing countries' capacities to measure the digital economy and to design and implement relevant policies and legal frameworks. It also monitors the global status of e-commerce legislation ([UNCTAD Cyberlaw Tracker](#)). Since 2016, the Branch has coordinated a multi-stakeholder 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. The initiative is also behind the UNCTAD eTrade for Women (eT4w) programme, launched in 2019, which aims to promote a more inclusive digital economy, in particular through its network of Advocates. These female digital entrepreneurs are active in all developing regions and contribute to capacity-building, mentoring and awareness raising activities for more inclusive gender policies.

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 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;

Reference to "K Sh" means Kenya shilling;

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 session of the United Nations Conference on Trade and Development (UNCTAD XIV) 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 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 valuable inputs 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 further help developing countries and least developed countries (LDCs) to identify areas in which they could benefit from assistance by partners of eTrade for all.

The Kenya eTrade Readiness Assessment is the fifth assessment conducted by UNCTAD in a non LDC country, and follows an enhanced methodology. As per this methodology, surveys were disseminated as part of the data collection effort. In Kenya, they targeted respondents in three distinct groups – public sector, private sector and consumers. Through collaboration with the British Standards Institution (BSI), an eTrade for all partner, the surveys were enriched to investigate the role of standards in e-commerce development. The assessment adds to the 31 assessments conducted by UNCTAD since 2017. The eTrade Readiness Assessment for Kenya was conducted during a period when the coronavirus disease (COVID-19) pandemic was ongoing, and it is reflected in some of the findings of the report. The enduring economic and social impacts of the pandemic make it even more important for policymakers and other stakeholders to join forces to take actions aimed at addressing the e-commerce situations. With the eTrade for all partners, UNCTAD is committed to supporting Kenya in its resolve to harness the potential of e-commerce for development.

Shamika N. Sirimanne
Director, Division on Technology and Logistics, UNCTAD



ACKNOWLEDGEMENTS

This eTrade Readiness Assessment for Kenya was prepared by Dr. Monica Kerrets-Makau, (Thunderbird Academic Director, Africa Center of Excellence, Nairobi) UNCTAD lead consultant. Ms. Josephine Towett, UNCTAD consultant, provided support in developing and collecting questionnaire feedback from stakeholders. Mr. Limo Taboi, Mr. Ben Muhindi Abas and Ms. Caroline Ngugi reviewed the document and developed graphs and figures from the stakeholder feedback. UNCTAD staff including Ms. Martine Julsaint Kidane, Mr. Rishab Raturi and Ms. Luisa Sande Lemos provided coordination and expert support, under the direct supervision of Ms. Cécile Barayre-El Shami and overall guidance of Mr. Torbjörn Fredriksson.

The UNCTAD team wishes to express its profound gratitude to Ms. Juliana Yipapan, Secretary of Administration, Ministry of ICT, Innovation and Youth Affairs (MoICT); and Dr. Fred Simiyu, Director of Research and Consultancy Services, State Department of Trade, Ministry of Industrialization, Trade and Enterprise Development (MoITED), for the instrumental technical support and in-country coordination throughout the evaluation process. In addition, UNCTAD greatly appreciates the contributions provided by Ms. Mercy Wanjau, MBS, Director Legal Services, Communications Authority of Kenya; Mr. Matano Ndaro, Director, Licensing, Compliance and Standards, Communications Authority of Kenya; Mr. Bernard M. Nderitu, Licensing, Compliance and Standards, Communications Authority of Kenya; Dr. Jane Munga, Economics Expert, National Communications Secretariat; Mr. Rikei Tadayo, Senior Trade Development Officer, E-commerce and Trade Facilitation, State Department for Trade and Enterprise Development; and Mr. Abaga Abner, Head of ICT, State Department for Trade, MoITED.

Comments and inputs provided by experts from the following eTrade for all partner agencies have substantially improved the final report: BSI, the International Trade Centre, the United Nations Commission on International Trade Law (UNCITRAL), the United Nations Economic Commission for Africa (UNECA) and the Universal Postal Union (UPU). Valuable contributions were received from UNCTAD's Division on Technology and Logistics and Division on Africa, Least Developed Countries and Special Programmes.

In Geneva, the assessment was made possible thanks to the timely support of H.E. Mr. Cleopa Kilonzo Mailu, Ambassador Extraordinary and Plenipotentiary, Permanent Mission of the Republic of Kenya to the United Nations Office and other international organizations in Switzerland; and Mr. Peter Nalanda, Second Counsellor, Permanent Mission of the Republic of Kenya to the United Nations Office and other international organizations in Switzerland.

The assessment benefited from the inputs of several institutions from the public and private sectors, as well as non-State actors, through the online eTrade Readiness Assessment (eT Ready) surveys and bilateral interviews. Further, UNCTAD wishes to thank all individuals who participated in the consultations that took place in a hybrid format on 22 and 23 November 2021, and in the validation workshop that took place virtually on 6 April 2022.

Technical and financial support for this report was provided by GIZ, implementing agency, on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ).



TABLE OF CONTENTS

PREFACE.....	IV
ACKNOWLEDGEMENTS.....	V
FIGURES, TABLES AND BOXES.....	VIII
ABBREVIATIONS.....	IX
EXECUTIVE SUMMARY.....	1
METHODOLOGY OF THE ASSESSMENT.....	4
PHASE 1 – INITIAL CONSULTATIONS.....	4
PHASE 2 – INSTITUTIONAL SETTING AND MAPPING.....	4
PHASE 4 – REPORT DRAFTING.....	4
PHASE 5 – FINALIZATION AND LAUNCH OF THE REPORT.....	4
SUMMARY OF KEY FINDINGS AND RECOMMENDATIONS.....	6
FINDINGS UNDER THE SEVEN ETRADE FOR ALL POLICY AREAS.....	10
1. ETRADE READINESS ASSESSMENTS AND STRATEGY FORMULATION.....	10
1.1 NATIONAL POLICIES RELATED TO ICT, E-GOVERNMENT AND E-COMMERCE.....	10
1.2 NATIONAL POLICIES RELATING TO TRADE.....	12
1.3 NATIONAL COORDINATION.....	13
1.4 CURRENT STATE OF E-COMMERCE ACTIVITIES IN KENYA.....	16
1.5 ACCESS TO RELEVANT STATISTICS.....	20
2. ICT INFRASTRUCTURE AND SERVICES.....	21
2.1 BROADBAND, MOBILE AND SMARTPHONE PENETRATION.....	21
2.2 RELIABILITY, AFFORDABILITY, LATENCY, SPEED AND COVERAGE.....	23
2.3 MAJOR INFRASTRUCTURE PROJECTS.....	25
2.4 ICT-ENABLED PUBLIC SERVICES.....	28
3. TRADE LOGISTICS AND TRADE FACILITATION.....	30
3.1 MODE OF DELIVERY, LAST-MILE DELIVERY, TRAFFIC AND REGULATIONS.....	30



3.2 CROSS-BORDER TRADE FACILITATION.....	32
4. PAYMENT SOLUTIONS	37
4.1 BANKING PENETRATION AND FINANCIAL INCLUSION	37
4.2 FINANCIAL REGULATIONS	39
4.3 DIGITAL PAYMENTS: MAIN MOBILE AND CASHLESS PAYMENT SOLUTIONS AVAILABLE.....	39
5. LEGAL AND REGULATORY FRAMEWORKS	42
5.1 STATUS OF MAIN LAWS RELATING TO E-COMMERCE.....	42
5.2 OTHER RELATED LAWS, ACTS AND REGULATIONS.....	48
5.3 TRADE AND OTHER ECONOMIC AGREEMENTS.....	49
6. E-COMMERCE SKILLS DEVELOPMENT	51
6.1 SKILLS GAP IDENTIFICATION.....	51
6.2 AVAILABILITY OF TERTIARY EDUCATION/CURRICULUM, PROFESSIONAL TRAINING	53
6.3 START-UP AND BUSINESS DEVELOPMENT SUPPORT LANDSCAPE WITH FOCUS ON E-COMMERCE.....	54
7. ACCESS TO FINANCING.....	56
7.1 FINANCING BY BANKS AND MICROFINANCE INSTITUTIONS	56
7.2 KEY CHALLENGES FACED BY ENTREPRENEURS	59
7.3 BUSINESS INCUBATORS, BUSINESS ACCELERATORS AND VENTURE CAPITALISTS.....	62
7.4 FINANCING BY DEVELOPMENT PARTNERS.....	65
CONCLUSION	66
THE WAY FORWARD: ACTION MATRIX	67
ANNEX I: KENYA COUNTRY PROFILE ON ETRADEFORALL.ORG	71
ANNEX II: LIST OF KENYAN LAWS INTRODUCED OR REPEALED IN RESPONSE TO COVID-19.....	73
ANNEX III: KENYA'S UNIFIED LICENSING FRAMEWORK	77
ANNEX IV: LIST OF UNCTAD ETRADE READINESS ASSESSMENTS.....	78
REFERENCES	79
ENDNOTES.....	85



FIGURES, TABLES AND BOXES

FIGURES

Figure 1: Enabling factors for e-commerce development in Kenya	3
Figure 2: African countries leading in e-commerce in 2019–2020	11
Figure 3: Dialogue between the Government and the private sector	15
Figure 4: Dialogue between the Government and development partners	15
Figure 5: Impact of COVID-19 on sales among businesses in the private sector	16
Figure 6: Services sectors that benefited the most from e-commerce in Kenya (current and future)	17
Figure 7: Goods sectors that benefited the most from e-commerce in Kenya (current and future)	18
Figure 8: Consumer purchases of goods	19
Figure 9: Consumer purchases of services	20
Figure 10: Kenya Network Readiness Index performance	22
Figure 11: Most pressing issues regarding ICT infrastructure to create an environment conducive to e-commerce.....	24
Figure 12: Map of community networks in Kenya.....	27
Figure 13: Preferred delivery method for local and international deliveries	33
Figure 14: Logistics and trade facilitation priorities	36
Figure 15: Forms of payment offered to local and international customers	38
Figure 16: Important factors for making an online purchase in Kenya.....	40
Figure 17: Most pressing issues to promote e-payment solutions in Kenya.....	41
Figure 18: Law enforcement in Kenya.....	43
Figure 19: Implications of international standards on trust in e-commerce	48
Figure 20: Most pressing issues in terms of legislative and regulatory frameworks	50
Figure 21: E-commerce skills and capacity-building needs	52
Figure 22: Kenya's banking structure as of December 2020	56
Figure 23: Banks in Kenya by total assets (in billion US\$).....	57
Figure 24: Maps of financial inclusion and exclusion	58
Figure 25: Access to finance: the most pressing issues for e-commerce development in Kenya	61
Figure 26: Main reasons for not applying for funding.....	61
Figure 27: Location of innovation hubs in Kenya	62

TABLES

Table 1: Status of four key laws as per UNCTAD Global Cyberlaw Tracker	43
Table 2: Government of Kenya's digital skills pillar	53
Table 3: Loan accounts per sector.....	59

BOXES

Box 1: Bridging the digital divide: Current efforts to draft the national ICT accessibility standard	23
Box 2: Kenya's Licensing and Shared Spectrum Framework for Community Networks aimed at minimizing the digital divide.....	28
Box 3: Costly and complex trade logistics continue to hinder the expansion of Enda's reach to international markets	35
Box 4: Improvement in advanced digital skills is important to grow e-commerce in Kenya – the example of Shop Nanjala.....	54
Box 5: Accelerating the digital economy through women-owned businesses.....	63



ABBREVIATIONS

AfCFTA	African Continental Free Trade Area
AfDB	African Development Bank
API	Application Programming Interface
B2C	Business-To-Consumer
BSI	British Standards Institution
CA	Communications Authority of Kenya
CAK	Competition Authority of Kenya
CBK	Central Bank of Kenya
CCP	County Connectivity Project
COMESA	Common Market for Eastern and Southern Africa
COVID-19	Coronavirus Disease
DLP	Digital Literacy Programme
DST	Digital Services Tax
EAC	East African Community
EPA	Economic Partnership Agreement
eT Ready	eTrade Readiness Assessment
FSD Kenya	Financial Sector Deepening Kenya
GDP	Gross Domestic Product
ICT	Information and Communications Technology
KBA	Kenya Bankers Association
KEPSA	Kenya Private Sector Alliance
KICA	Kenya Information and Communications Act
KNBS	Kenya National Bureau of Statistics
KNCCI	Kenya National Chamber of Commerce and Industry
KRA	Kenya Revenue Authority
LDC	Least Developed Country
Mbps	Megabits per Second
MoEP	Ministry of Energy and Petroleum
MoICT	Ministry of ICT, Innovation and Youth Affairs
MoITED	Ministry of Industrialization, Trade and Enterprise Development
MSMEs	Micro, Small and Medium-Sized Enterprises
NAS	National Addressing System
NOFBI	National Optic Fibre Backbone Infrastructure
NRI	Network Readiness Index
ODR	Online Dispute Resolution
PCK	Postal Corporation of Kenya
PSP	Payment Service Provider
PWD	Person With Disability
SACCO	Savings and Credit Cooperative Society
SADC	Southern African Development Community
SGR	Standard Gauge Railway
SMEs	Small and Medium-Sized Enterprises



TFA	Trade Facilitation Agreement (WTO)
ToT	Turn-over-Tax
TVET	Technical and Vocational Education and Training
ULF	Unified Licensing Framework
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa
UPU	Universal Postal Union
USF	Universal Service Fund
VAT	Value Added Tax
WTO	World Trade Organization

EXECUTIVE SUMMARY

Kenya has a robust digital infrastructure, due to the investments the Government and other stakeholders have made over the last three decades. This has resulted in increased Internet adoption, uptake of digital devices, and mobile money innovations, which have collectively been critical enablers to the growth of e-commerce in the country. To this extent, Kenya is among the leaders in e-commerce on the African continent, with combined revenues expected to hit US\$ 3.6 billion in 2022. In 2020, 13 e-commerce start-ups from Kenya raised US\$ 43,505,467 in funding (Disrupt Africa, 2021). Nonetheless, there are several barriers to this growth, and several policy measures need to be taken for more participants to fully benefit from e-commerce. Since this assessment was conducted during the COVID-19 pandemic, this report brings to light the impact of the pandemic on e-commerce in the country, and ponders strategies to improve e-commerce moving forward.

eTrade readiness assessment and strategy formulation

National policies on ICT, e-government and the existing trade policies indicate Kenya's readiness to engage in and benefit from e-commerce. The Government is also aware of the role of public-private dialogue in the development of e-commerce, and regularly engages the private sector in policy formulation. Additionally, significant strides have been made to create an enabling regulatory environment for businesses and trade to flourish within the digital space. Nevertheless, Kenya still lacks an e-commerce strategy to propel growth in this space, while an eTrade policy is yet to be developed. Likewise, there is a dearth of business and consumer data on e-commerce, which is essential in policy formulation for the industry.

ICT infrastructure and services

Kenya has made substantial investments in ICT infrastructure, essential for the growth of e-commerce. This includes core digital infrastructure for connectivity and data infrastructure (data centres, submarine cables and cloud infrastructure). These developments are accompanied by efforts to increase the generation of electricity, including from renewable energy sources. Consequently, this has resulted in exponential growth in mobile subscriptions, broadband subscriptions

and improved international Internet bandwidth. There is also increased digitization of public services, with several government services available online. Nevertheless, the country is grappling with a digital divide in the uptake of digital devices, a gap in mobile network coverage, inadequate access to reliable and affordable electricity, a gap in last-mile broadband connectivity, relatively high costs of data, and high cost of essential infrastructure hardware. These gaps continue to be a deterrent for increased e-commerce adoption.

Trade logistics and trade facilitation

Kenya has relatively well-developed transport and logistics infrastructure, including four international airports, an extensive road and railway network, and two modern deep seaports at Mombasa and Lamu, which have been critical enablers of e-commerce development in the country. It also has several national and international couriers serving its domestic market. However, the absence of physical addressing systems, heavy road congestion, lack of track-and-trace capabilities among smaller logistics companies, and poor road infrastructure in some parts of Kenya are critical challenges to e-commerce in the country. Kenya has ratified the Trade Facilitation Agreement (TFA) of the World Trade Organization (WTO), which requires it to make several reforms to its trade and customs facilitation laws.

Payment solutions

Kenya is a continental leader in mobile money innovation. It is the home of M-Pesa, the leading mobile money transfer service in Africa, with over 50 million active users. Consequently, mobile money is the most prevalent payment method for e-commerce. In 2020, there were more than 30 million active registered mobile money subscriptions in Kenya, while the total value of mobile money transactions in the same year was US\$ 50 billion. Additionally, bank transfers, debit and credit cards, and cash are widely used for e-commerce. Nonetheless, the high cost of transactions, and concerns about fraud, continue to hamper trust and hinder the use of electronic payments for e-commerce.



Legal and regulatory framework

Kenya has adopted legal frameworks that have a bearing on e-commerce. These include the Kenya Information and Communications Act, Rev. 2009 (amended in 2013), the Consumer Protection Act of 2012, the Data Protection Act of 2019, the Computer Misuse and Cybercrimes Act of 2018, the Electronic Transaction Bill of 2007, and the Information and Communication Bill of 2008. The country has also put in place laws that promote the protection of intellectual property rights; these are in the Constitution that was promulgated in 2010, the Industrial Property Act of 2001 and the Copyright Act of 2001.

Nonetheless, the Consumer Protection Act of 2012 needs to be amended to address several gaps relating to e-commerce. There is also a need for increased public sensitization on these laws and sensitization of the duty bearers for increased compliance. There is also a need for improved enforcement of these regulations to stem the cases of fraud (such as misleading advertisement, payment fraud and non-delivery of goods), cybercrime and other issues hindering the growth of e-commerce.

E-commerce skills development

The Government is aware of the glaring digital skills deficit in the country, and has put in place policy measures to address them. One of these measures entails mainstreaming ICT at all levels of education, as highlighted in the National ICT Strategy for Education and Training and the country's "Vision 2030" policy document. Nevertheless, there is still a skills mismatch between curricula in institutions of higher learning and labour market demands. This has resulted in high unemployment among youth, particularly recent graduates. The private sector and other development partners have also initiated several programmes to complement the Government's efforts to upskill the public. Private sector companies such

as AkiraChix, Moringa School and Andela also offer digital skills courses to close the skills gap in the country. In addition to targeting schoolchildren and the youth, both public and private sector agencies have developed digital literacy skills programmes for women and persons living with disabilities. Additionally, e-commerce marketplaces have been instrumental in equipping entrepreneurs with hands-on e-commerce skills. While a couple of development centres were established in the first half of 2022, they may ultimately add to the skills gap problem rather than address it poaching top developers from existing local start-ups. Google has also announced that it will open an Africa Development Centre in Nairobi.

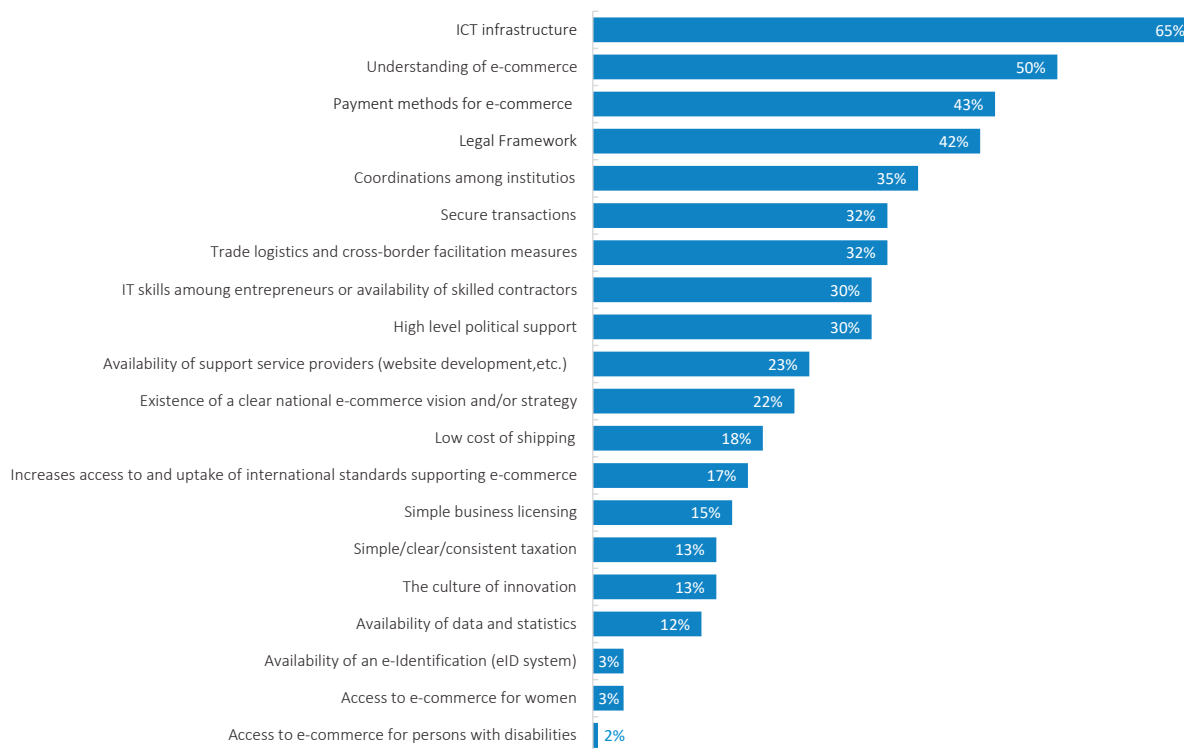
Access to finance

There are several forms of financing, both formal and informal, available to e-commerce companies in the country. The formal sources include banks, savings and credit cooperative societies (SACCOs), mobile loans, government funds, venture capital firms, private equity firms and development partners, among others. The informal ones include chama groups, informal money lenders and employers. Nonetheless, entrepreneurs still face lots of challenges in accessing financing for their businesses. These challenges include inadequate fundraising/pitching skills necessary to raise funds for viable ideas, lack of collateral, the prohibitive cost of borrowing, inability to find guarantors, short repayment period, and the lengthy approval processes for bank business loans. These challenges are exacerbated among women, who face numerous gender-based, cultural and social-based challenges when accessing finance. Financial institutions also face several challenges in lending to these businesses. Though several measures are in place to address these challenges (including the availability of business incubators; the Kenya Start-Up Bill; and the Central Bank of Kenya (Amendment) Act, 2021), much more needs to be done to improve access to financing among e-commerce companies.



Figure 1 : Enabling factors for e-commerce development in Kenya

Among the following, please indicate the most important issues to create an environment conducive to e-commerce in Kenya (Public and private sector surveys, 60 responses)



Source: UNCTAD.



METHODOLOGY OF THE ASSESSMENT

The eTrade Readiness Assessment of Kenya aims at identifying the main barriers and opportunities for e-commerce development in the seven policy areas of eTrade for all, by providing a detailed diagnostic of the digital ecosystem and identifying key policy actions for which support can be mobilized.

UNCTAD has developed a five-phase methodology for the project in order to (a) ensure a high level of participation and engagement of key stakeholders in the overall assessment process, (b) raise awareness on the opportunities offered by e-commerce (through capacity-building and knowledge-sharing), (c) strengthen the public-private sector dialogue and enhance inter-ministerial coordination and policy coherence in the field of e-commerce, and (d) mobilize support from development partners to accelerate the country's digital transformation.

✓ Phase 1 | Initial Consultations

Initial consultations and outreach were conducted with the Government of Kenya and the community of eTrade for all, with GIZ as the main funding partner.

✓ Phase 2 | Institutional setting and mapping

This included the establishment of an eT Ready group of focal points, representing the Ministry of ICT, Innovation and Youth Affairs (MoICT) and two of its agencies; and the Ministry of International Trade and Enterprise Development (MoITED). A mapping of national stakeholders and resident development partners active in e-commerce and digital development in Kenya was conducted.

✓ Phase 3 | Data collection

(a) Desk review: A comprehensive desk research exercise was carried out to analyse secondary data (national and sector-specific strategies, and relevant programme and policy documents) and compile statistics and digital-related indicators.

(b) Three online eT Ready surveys: Two questionnaires (for public and private stakeholders) and one consumer readiness survey were carefully adapted to the national context. Through collaboration with BSI, an eTrade for all partner, the surveys were enriched to investigate the role of standards in e-commerce development. The surveys were disseminated online between 5 and 29 October 2021. A total of 59 valid responses from the private sector, 23 from the public sector and 35 from consumers were collected and analysed for the assessment.

(c) National multi-stakeholder consultations: Consultations were organized in a hybrid format (with both in-person and online participants) through focus group discussions with relevant experts and stakeholders, covering the seven key policy areas.

(d) Bilateral meetings: A series of meetings was organized with key e-commerce players and public institutions to discuss their role in ongoing e-commerce initiatives, and elaborate on key issues raised during the national consultations.

✓ Phase 4 | Report drafting

(a) The first draft of the assessment covered the seven key policy areas, and the eT Ready Action Matrix.

(b) Initial (internal and external) review was conducted by UNCTAD and eTrade for all partners.

✓ Phase 5 | Finalization and launch of the report

(a) A national workshop to review and validate the results of the eT Ready assessment and action matrix by national stakeholders was organized on 6 April 2022.

(b) The final draft of the report was completed.

(c) Editing, layout and printing were done.

(d) The national launch of the report was carried out, including a high-level policy dialogue with key stakeholders on the implementation of the eT Ready recommendations.





In line with the eT Ready methodology, the seven eTrade for all policy areas were used as entry points for the assessment. These were:

- ✓ eTrade 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 qualitative and quantitative data collected from (a) desk research; (b) responses from the three online surveys (public sector, private sector and consumers); (c) the results of the national multi-stakeholder and bilateral consultations; and (d) specific contributions made by eTrade for all and development partners.



SUMMARY OF KEY FINDINGS AND RECOMMENDATIONS

MAIN FINDINGS	MAIN RECOMMENDATIONS
 eTrade Readiness Assessment and strategy formulation	
<p>Kenya lacks a strategy to propel the growth of e-commerce.</p> <p>The eTrade policy is also yet to be developed as envisioned in Vision 2030.</p> <p>There is regular engagement at different levels of the Government on broad issues relating to e-commerce. The Government also engages the private sector, among other stakeholders, on the same. However, the lack of a single coordination entity could lead to duplication of efforts.</p> <p>E-commerce remains an urban phenomenon, with concentrations in the cities of Nairobi, Kiambu, Nakuru, Mombasa and Eldoret.</p> <p>There are no comprehensive statistics on the state of e-commerce in the country, which is necessary for policy formulation.</p> <p>The Government has been offering several services to the public since 2014, and has served over 27.2 million unique customers since its inception. Nevertheless, not all government services are available on the platform.</p>	<p>Develop an e-commerce strategy for the country.</p> <p>Develop an eTrade policy strategy for the country.</p> <p>Set up a national task force on e-commerce to coordinate such engagements.</p> <p>Organize national awareness-raising campaigns on e-commerce and its benefits to the general public.</p> <p>Improve statistics and data collection efforts across all the concerned agencies of the Government.</p> <p>Increase the number of government services on eCitizen. For instance, the provision of monetary transfers to the most vulnerable groups should be moved to eCitizen.</p>
 ICT infrastructure and services	
<p>There is a digital divide in mobile network coverage and last-mile connectivity gaps across the country.</p> <p>The cost of airtime and data increased on 1 July 2021, following implementation of the Finance Act of 2021, which adjusted excise duty on airtime and telephone services to 20 per cent from 15 per cent. This is likely to disenfranchise many from taking part in the digital economy.</p> <p>Most e-commerce platforms operating in Kenya have their servers located in Europe and the United States, a situation that makes it difficult to enforce regulations, as well as carry out any fraud-related investigations.</p>	<p>Fast-track implementation of key infrastructure projects such as the National Optic Fibre Backbone Infrastructure (NOFBI).</p> <p>Expand Internet access levels across rural Kenya, including counties in the northern and north eastern parts of the country (West Pokot, Turkana, Samburu, Marsabit, Wajir, Mandera, Garissa, Isiolo, and Tana River).</p> <p>The Government should consider revising these taxes downwards.</p> <p>Encourage collaboration between national data centres to facilitate more affordable hosting of national online marketplaces.</p> <p>Support and promote investment in cloud and data hosting infrastructure, and a regional Internet exchange point to host data for e-commerce.</p>



<p>There is substantial progress towards achieving universal access to electricity in Kenya through the Last Mile Connectivity Programme. The Government has also diversified its sources of electricity towards renewable energy (wind and geothermal). Nevertheless, the cost of electricity remains high.</p> <p>The COVID-19 pandemic led to increased uptake of digital devices in the country. Nonetheless, the cost of these devices remains beyond the reach of most Kenyans.</p> <p>The cost of essential infrastructure hardware is high.</p>	<p>Review power purchase agreements signed between the Kenya Power and Lighting Company and all electricity generators to renegotiate the energy prices and other terms downwards.</p> <p>Promote the use of alternative energy sources.</p> <p>Reduce the tax burden on digital devices (smartphones, tablets, laptops and desktop computers) imposed in the form of import duties and sales taxes.</p> <p>Formulate and/or enhance infrastructure-sharing policies and regulations to minimize the costs of developing ICT infrastructure, hence boosting connectivity and enhancing affordability.</p>
---	---

 **Trade logistics and trade facilitation**

<p>The lack of a National Addressing System (NAS) in the country remains a barrier to the development of e-commerce, mainly because it hampers the safe and efficient delivery of e-commerce parcels.</p> <p>Poor road infrastructure in some parts continues to hamper last-mile delivery of items.</p> <p>Smaller logistics companies in the industry do not provide track-and-trace service for shipped items.</p> <p>The many and often overlapping licences, permits and clearance processes from various agencies, which each impose their own requirements on business operations, are still a constraint to the realization of the objectives of this system.</p>	<p>Fastrack the National Addressing Bill 2021.</p> <p>Enhance surface transportation infrastructure to enable efficient and timely delivery of e-commerce packages.</p> <p>Enforce existing guidelines for postal and courier licensees on the promotion of e-commerce in the country. These guidelines require courier operators to put in place either automated or non-automated mechanisms by which a customer can track their package to ascertain its location.</p> <p>Develop integrated single-window solutions, including the ability to obtain and submit all the needed documents simultaneously, using electronic signatures.</p>
---	---

 **Payment solutions**

<p>Increased cases of identity theft and mobile fraud are observed amid dwindling cases of card skimming fraud.</p> <p>The cost of transactions remains a big hindrance to those in the informal sector seeking to enter the e-commerce space.</p> <p>Cross-border traders experience challenges such as the inability to transfer money across networks in the region and overlapping transaction costs.</p>	<p>Engage in close collaboration with all the stakeholders to raise awareness of current and future threats, and to disrupt and dismantle the networks and enablers that are facilitating fraud.</p> <p>Increase public sensitization on the importance of safeguarding bank account details, including PINs and passwords, while transacting at ATMs and via mobile banking, online platforms and other channels.</p> <p>Repeal section 357 of the Penal Code to allow for stringent punishment to deter those who may be tempted to commit offences.</p> <p>Promote the use of escrow payments for cross-border trade to stem cases of non-delivery of goods after payment and non-receipt of payment after delivery of goods.</p>
---	--



	<p>Promote competition to bring down the cost of transactions through interconnected payment platforms.</p> <p>Review the taxation structure and interconnection fees.</p> <p>Harmonize transaction cost of payment services across East African Community (EAC) partner States to make e-commerce affordable.</p> <p>Develop guidelines for mobile money payment interoperability across EAC.</p>
--	--



Legal and regulatory framework

E-commerce-related legislation has been adopted, including the Kenya Information and Communications Act of 2009, Consumer Protection Act of 2012 (consumer protection), Data Protection Act of 2019 (data protection and privacy), Computer Misuse and Cybercrimes Act of 2018 (cybercrime), among others. Nonetheless, challenges such as fraud (misleading advertisement, payment fraud, non-delivery of goods), cybercrime, inadequate trust and fear of online transactions and inadequate complaint management processes remain.

There is also limited awareness among consumers about existing legal and regulatory frameworks that protect consumers.

Even though the Consumer Protection Act of 2012 has been adopted, it has several gaps that make it insufficient and/or lacking in protecting e-commerce.

There are evident gaps in the recently adopted Data Protection Act.

The Government introduced the Digital Services Tax (DST), a 1.5 per cent tax payable on income derived or accrued in Kenya from services offered through a digital marketplace. However, compliance with this regulation has been minimal, owing to inadequate infrastructure to register, motivate and monitor compliance.

Enforce existing laws and regulations on e-commerce for desired outcomes.

Sensitize stakeholders to adhere to existing consumer protection laws.

Increasing public sensitization on existing e-commerce legislation could help to create public awareness of laws related to e-commerce, enhance trust, and encourage more people and businesses to participate in e-commerce.

Amend the Consumer Protection Act of 2012 to address the gaps relating to e-commerce.

Collaborate with the private sector to ensure the requirements in the Data Protection Act are practical and provide technical support to ensure compliance.

Review and simplify the tax framework for e-commerce firms. It was subsequently amended to apply only to foreign firms, but the nature of e-commerce often involves complex cross-border actions of goods, services and payments.



E-commerce skills development

Capacity-building on e-commerce for micro, small and medium-sized enterprises (MSMEs) was identified as the most important issue in e-commerce skills development in Kenya.

The demand for digital skills surpasses the supply, signalling a digital skills gap in the country.

There is a skills mismatch owing to the weak linkages between education and industry.

Conduct a digital skills gap assessment and capacity-building for small businesses.


Increase digital literacy skills training for the general public.

Revise the curriculum to address digital skills gaps, and monitor and evaluate the implementation of the Competency-Based Curriculum to ensure desired outcomes.

Conduct sensitization of the public on e-commerce.

Revise the curriculum to address skills mismatch. Also, monitor and evaluate the implementation of the Competency-Based Curriculum to ensure desired outcomes.



 Access to financing	
<p>Even though the banking and non-banking systems are relatively well developed, access to finance remains a challenge for entrepreneurs.</p> <p>Financial institutions also face some challenges in lending to businesses. This is a bottleneck to the development of e-commerce.</p> <p>Entrepreneurs lack the fundraising/pitching skills, despite having good or viable ideas.</p> <p>There is no local crowdfunding legal framework to regulate equity and debt-based crowdfunding models.</p> <p>There is no leasing framework that SMEs can use to finance credit.</p> <p>Kenyan investors are unwilling to invest in local businesses, because they are risk-averse.</p> <p>Credit facilities and mobile loans increased during the COVID-19 pandemic, and so did harassment by some lenders in cases of loan default.</p> <p>Women lag men in loans, despite having an almost equal contribution of banking deposits.</p>	<p>Commercial banks should have programmes to assist small and medium-sized enterprises (SMEs) but need to be guided by the Central Bank of Kenya (CBK) on how to extend credit services to e-commerce firms that are unlike the traditional institutions that they lend to, in terms of revenue and collateral.</p> <p>Also, new regulations being formulated at Parliament in 2022 will give the CBK powers to regulate digital lenders operating in the country.</p> <p>The Government, innovation hubs and higher learning institutions should connect entrepreneurs with the knowledge, training and tools needed to help them successfully present their ideas to access funding.</p> <p>The Capital Markets Authority should finalize and implement the draft Capital Markets (Investment-Based Crowdfunding) Regulations 2021.</p> <p>The Competition Authority of Kenya (CAK) should revise the existing Leasing Act to include SME leasing.</p> <p>The Kenya Investment Authority (KenInvest) should provide accurate and timely information to Kenyan investors on laws and regulations, business opportunities and government incentives.</p> <p>Fast-track the implementation of the Central Bank of Kenya (Amendment) Act, 2021, which provides CBK with the powers to license and oversee the previously unregulated digital credit providers.</p> <p>Develop investment incentive packages for women-founded e-commerce start-ups and businesses.</p>



FINDINGS UNDER THE SEVEN ETRADE FOR ALL POLICY AREAS

1. ETRADE READINESS ASSESSMENTS AND STRATEGY FORMULATION

National policies on ICT, e-government and existing trade policies indicate Kenya's readiness to engage in and benefit from e-commerce. The Government is aware of the role of public-private dialogue in the development of e-commerce, and engages the private sector regularly on policy formulation. Additionally, significant strides have been made towards creating an enabling regulatory environment for businesses and trade to flourish, more so within the digital space. Nevertheless, Kenya still lacks a strategy to propel growth in e-commerce. The eTrade policy strategy is also yet to be developed. Likewise, there is a dearth of business and consumer data on e-commerce, which is essential in e-commerce policy formulation.

Kenya is a prominent and open economy in Africa with a large market size. It is also the leading economy within EAC, accounting for approximately 40 per cent of the regional gross domestic product (GDP) (WTO, 2019). While its economy grew by 5 per cent in 2019, dampened domestic economic activities due to COVID-19-related containment measures, coupled with disruption in trade and travel and severe drought, which affected 23 of the 47 counties, resulted in the overall contraction of the country's economy by 0.3 per cent in 2020 (Kenya National Bureau of Statistics (KNBS), 2021). This was followed by a significant improvement, and in his eighth state of the nation address, President Uhuru Kenyatta disclosed that the country's GDP had grown by 10.1 per cent in the second quarter of 2021, the first such growth in the history of the economy.

Kenya has experienced unprecedented growth in its digital economy in the last three decades. From a negligible share of the digital economy in the 1990s, Kenya now leads other African countries in terms of the digital economy's contribution to the GDP, at 7.7 per cent (Google and IFC, 2020). This growth is driven by, among other factors, (a) investment in digital infrastructure, such as mobile connectivity, devices and data; (b) a vibrant start-up technology ecosystem supported by an improved regulatory environment; (c) enabling resources such as digital ID agreed, addressing systems, and mobile money innovation; and (d) public and private sector investment in creating awareness and building the capacity of citizens in the use of digital devices and services (Koyoma and others, 2021). Nevertheless, the value of output from the ICT sector rose by 2.5 per cent in 2020 compared to a growth of 5.7 per cent registered in 2019. (KNBS, 2021). Even so, there was increased

uptake of digital services, mainly due to COVID-19, which saw an increased demand for data, remote working, e-learning activities, online purchases and cashless payments (KNBS, 2021; ECA, 2021; World Bank, 2020).

In relation to e-commerce, Kenya ranked 88th globally and 4th in sub-Saharan Africa, after Mauritius, South Africa and Nigeria, according to the 2020 UNCTAD B2C (business-to-consumer) index, which assesses the country's readiness to engage in and benefit from e-commerce. It also ranked third, after South Africa and Nigeria, in terms of e-commerce transaction volumes in 2019 and 2020 (figure 2) (Visa Consulting and Analytics, 2021).¹ Mauritius and Zambia followed in the fourth and fifth positions, respectively.

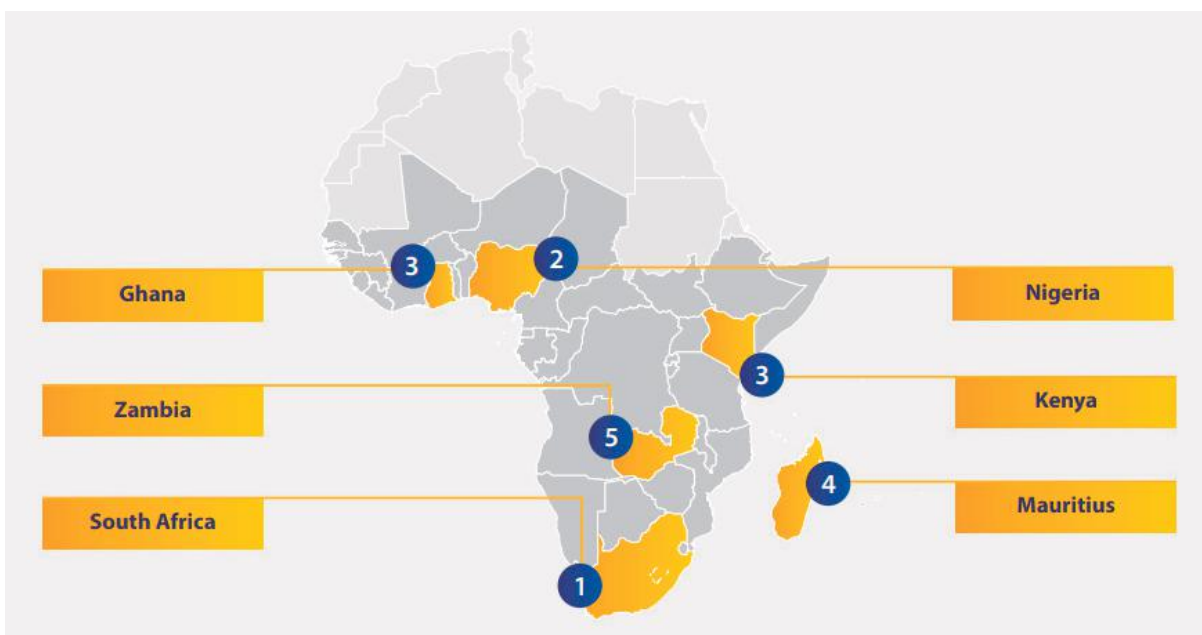
1.1 National policies related to ICT, e-government and e-commerce

Despite being an early adopter of e-commerce on the continent (Communications Authority of Kenya (CA, 2015), Kenya still lacks an e-commerce strategy to propel growth in e-commerce. If put in place, the strategy would help the country to leverage its strengths in eTrade and tackle the bottlenecks that hinder e-commerce. Nevertheless, there are several policies and strategies in place on ICT and e-governance. These include Kenya Vision 2030, National ICT Policy (2019), National Broadband Strategy (2018–2023), National Cyber Security Strategy (2014), Digital Economy Blueprint, the National ICT Infrastructure Master Plan (2014–2017) and the draft National ICT Masterplan (2019–2029).

Kenya's National ICT Policy was developed in 2003 and reviewed in 2006 and 2019. Its main objectives



Figure 2: African countries leading in e-commerce in 2019–2020



Source: Visa Consulting and Analytics (2021).

are to (a) create the infrastructure that enables access to high-speed, wireless Internet connectivity across the country; (b) support the creation of a secure, innovative start-up ecosystem that will take advantage of the emerging developments in the digital economy and encourage Kenyans to acquire digital skills; (c) grow the contribution of the ICT sector to 10 per cent of GDP by 2030; (d) position the country to take advantage of emerging trends such as the shared and gig economy; and (e) gain worldwide recognition for innovative, efficient and quality public service delivery (MoICT, 2020b).

The National Broadband Strategy (2018–2023) seeks to transform Kenya into a globally competitive knowledge-based society enabled by affordable, secure and fast broadband connectivity. The National Cyber Security Strategy (2014) provides a strategic cybersecurity direction for the country and the accompanying implementation actions to secure the nation's critical cyber infrastructure against existing and emerging threats. Additionally, the Digital Economy Blueprint identifies the further action that the country needs to take to grow its digital economy and thrive in a global digital economy.

The National ICT Masterplan (2014–2017) aims to provide an integrated infrastructure backbone to

enable the cost-effective delivery of ICT products and services. It also emphasizes the delivery of e-government servicesⁱⁱ (MoICT, 2013). Meanwhile, the draft National ICT Masterplan (2019–2029), which has not yet been adopted, seeks to ensure that all government offices at both national and county levels, schools, academic institutions, hospitals and public institutions have access to e-government services and the Internet through last-mile connectivity. It also recognizes that a Critical Infrastructure Bill and the ICT Authority Act will be pivotal for the success of ICT in Kenya.

Effective and operational e-government is heralded as one of the public sector reforms in the country's Vision 2030 aimed at improving public service delivery in the country. In a demonstration of its commitment to this goal, the Government developed an e-government strategy in 2014 to facilitate the realization of e-government. Consequently, e-government was considered one of the pillars of the country's ICT Masterplan (2017). To this end, electronic systems have been implemented across both national and county government to offer various public services to citizens and businesses. The Government has also rolled out several *Huduma* centres to enable various government agencies to offer their services to the public from a single building or site.



The mandate of the Communications Authority of Kenya (CA) includes the facilitation of e-commerce development. Following the promulgation of the Constitution in 2010, the development of new policy regulations has to include an element of public participation.¹⁰ Consequently, CA has conducted public consultations with stakeholders on aspects such as frequency spectrum management, guidelines for SIM card registration, increasing the uptake of ICT devices, framework for authorization of the use of TV white spaces, the administration of telecommunications numbering resources, and assessments of the quality of services by broadcasters.

1.2 National policies relating to trade

Kenya has been pursuing several trade reforms central to the realization of its national long-term development plan, Kenya Vision 2030. Some of the reforms outlined in this plan – in the form of objectives – are the adoption of a national trade policy, fast-tracking enactment of the trade development bill and the trade remedies bill, and the development of an eTrade policy. The National Trade Policy was developed and approved by the Cabinet in December 2016, and launched in July 2017. It builds on the momentum of trade policy reforms that have been ongoing since the mid-1980s and articulates the country's aspirations towards sustainable economic development through the provision of opportunities for expanded markets, income generation and distribution, increased employment and competitiveness. It also introduces trade-targeted policy formulation across various sectors of the economy as an approach to transform the country to a competitive and prosperous trading nation. It also offers policy objectives and implementation measures to support e-commerce in the country (Ministry of Industrialization, Trade and Enterprise Development (MoITED), 2017).

Kenya is a member of the World Trade Organization (WTO), and in 2015 it ratified the Trade Facilitation Agreement (TFA). This ratification requires it to make several reforms to its trade and customs facilitation laws, in a time frame of February 2017 to June 2023. As of December 2021, the implementation rate of the commitments in this agreement was 7.6 per cent. For instance, the Information for Trade in Kenya Portal (InfoTradeKenya) was launched to ensure compliance with provisions under article 1.2 of the TFA, which deals with the availability and publication of information

on trade facilitation. Besides, Kenya has ratified the Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPS Agreement), which sets out the minimum standards of protection that each member should provide in relation to intellectual property rights, the general principles applicable to enforcement procedures of these rights, and dispute settlement procedures.

At a regional level, the country is a member of EAC, a regional bloc with an estimated population of 177 million spanning six countries – Burundi, Kenya, Rwanda, South Sudan, the United Republic of Tanzania and Uganda. It is also a member of the Common Market for Eastern and Southern Africa (COMESA), with an estimated population of 540 million. Exports and imports within member countries enjoy preferential tariff rates. Kenya's trade with Africa maintains a surplus position, with its exports to the continent rising from K Sh 238.1 billion in 2016 to K Sh 246.1 billion in 2020. Exports to EAC rose from K Sh 123.9 billion to K Sh 158.3 billion, while exports to COMESA dipped from K Sh 84.4 billion in 2016 to K Sh 63.2 billion in 2020 (KNBS, 2021).

EAC is currently undertaking several projects related to (a) broadband ICT network (East African Community Broadband ICT Infrastructure Network); (b) legal framework on cyber laws (EAC Legal Framework for Cyber Laws); (c) harmonization of domestic ICT policies (Regional Framework for Harmonisation of National ICT Policies and a Study on the EAC Communications Regime); and (d) developing a regional e-commerce strategy (EAC, 2021).

COMESA is working on a Digital Free Trade Area, an online platform to allow traders to conduct business online, for e-logistics and e-legislation. The Digital Free Trade Area is expected to increase trade among COMESA member States, and to reduce paperwork and time involved in clearing goods across COMESA member State borders. Kenya is also a party to the African Continental Free Trade Area (AfCFTA), and it was among the first countries to ratify the African Continental Free Trade Agreement in May 2018. Although trading under the Agreement officially started in January 2021, AfCFTA is still in the process of developing an e-commerce protocol. Stakeholders have an opportunity to participate in developing the protocol and are encouraged to participate in this process through their national Chambers of



Commerce at the country level. Traders can also access information on business opportunities through the Africa Trade Observatory, one of five operational instruments of AfCFTA.

Additionally, Kenya signed and ratified the Economic Partnership Agreement (EPA), a trade agreement between the European Union and EAC, allowing its goods to access European Union markets duty-free (Andae, 2021). To this end, a strategic dialogue between Kenya and the European Union was launched on 21 June 2021 towards implementing the EAC EPA in Kenya. In 2020, the United Kingdom–Kenya EPA came into force, allowing Kenyan companies to benefit from duty-free and quota-free access to United Kingdom markets (British High Commission, 2021). Additionally, it is engaged in trade negotiations with the United States to establish a United States–Kenya Free Trade Agreement (Schneidman and Dawson, 2020).

1.3 National coordination

The Government is aware of the role of the private sector in the development of e-commerce. Consequently, consultations with all relevant stakeholders are regularly taking place, particularly on broader ICT issues affecting the country's e-commerce development. Results from the survey administered to the public sector show that 75 per cent of the respondents are aware of platforms/mechanisms/committees that are involved in policymaking for e-commerce in the country. Additionally, 70 per cent of them indicated that their organizations were involved in the development of e-government policies. Some of the agencies driving the public–private dialogues include MoICT, MoITED, CA, the Kenya Private Sector Alliance (KEPSA) and the Kenya National Chamber of Commerce and Industry (KNCCI), among others.

MoICT, which is responsible for formulating, administering, managing and developing the Information, Broadcasting and Communication policy, has been working with various stakeholders from the private sector on broad issues pertaining to e-commerce in the country. For instance, it established the National Addressing System (NAS) Steering Committee, with representatives from both the public and private sectors, to deliver NAS for the country. An accurate NAS is critical to the quality and cost-effective provision of e-commerce, among other services in the country.

Digital skills are a prerequisite for benefiting from any technology, including e-commerce. The Government has identified digital skills and values as a critical pillar in its digital economy blueprint, and is working closely with the private sector to improve the levels of digital and entrepreneurial skills. The National ICT Policy also outlines digital skills improvement as one of its four policy objectives.

MoITED is responsible for the management of the country's international trade relations, and the promotion and protection of its interests overseas. It has been instrumental in coordinating trade and related negotiations with various countries. These negotiations and the resulting trade agreements have implications for e-commerce. In addition to reducing and eliminating tariffs, they are essential in addressing behind-the-border barriers that would otherwise impede the flow of goods and services. Additionally, it has been instrumental in mainstreaming trade across all sectors of the economy.

CA, the regulatory authority for the information and communications sectors in the country, has also been at the forefront in facilitating e-commerce, in collaboration with the private sector. Its guidelines are often a culmination of an extensive consultation process with its stakeholders. It is responsible for the stable telecommunications licensing environment in the country, where existing carriers offer services at relatively competitive rates, leading to widespread access to the Internet. Additionally, it provides licensing and guidelines for courier companies responsible for delivering items purchased online. These guidelines require couriers to implement processes and procedures for adequate security of consumer packages, and track-and-trace services for couriered items. Given its mandate on facilitation of e-commerce development, CA has appointed an Assistant Director for Cyber Security and E-commerce, reporting to an Assistant Director General for Commerce and Infrastructure.

KEPSA, the umbrella body of the country's business community, launched an E-commerce Booster Programme, targeting at least 2,000 MSMEs, on 25 February 2021. Some of the objectives of this programme include (a) to help MSMEs gain the digital skills necessary to engage in a digital economy and improve livelihoods; (b) to support them to expand their local and cross-border e-commerce presence;



and (c) to build their capacity to raise their proficiency in implementing effective digital campaigns, and increase their brand awareness, value and sales conversions across multiple digital channels. A total of 2,545 MSMEs took part in the training, and 1,605 were successfully onboarded onto various e-commerce platforms (KEPSA, 2021).

KEPSA is also working with the Government to implement the Ajira Digital programme. This programme aims to introduce youths to online work and provide them with tools, training, certification and mentorship. So far, over 60,000 youths have been trained under the programme across the country since its inception. The skills acquired during this training, such as digital marketing and basic financial management skills, can be leveraged for e-commerce.

KNCCI has also set up an entrepreneurship centre to fund, train and connect SMEs in the country with local and foreign investors. The centre will enable local entrepreneurs to adapt to a changing business environment by equipping them with digital skills and connecting them to investors. It will further enable them to tap into cross-border and regional trade, which they can use as a steppingstone to venture into overseas markets.

Likewise, Kenya's Export Promotion Branding Agency is currently concerting with ITC's ecomConnect programme to build a community for e-commerce entrepreneurs and MSMEs in Kenya, with the ultimate goal of raising awareness on the potential of

e-commerce, capacity building, and putting in place partnerships to support the uptake of, and success in, e-commerce. The goal is to support entrepreneurs and MSMEs in acquiring the necessary e-commerce skills and developing e-commerce capabilities to trade on e-commerce channels, provide access to ITC's online e-commerce resources and tools, organize technical workshops and trainings, and support networking opportunities via the ecomconnect.org online community

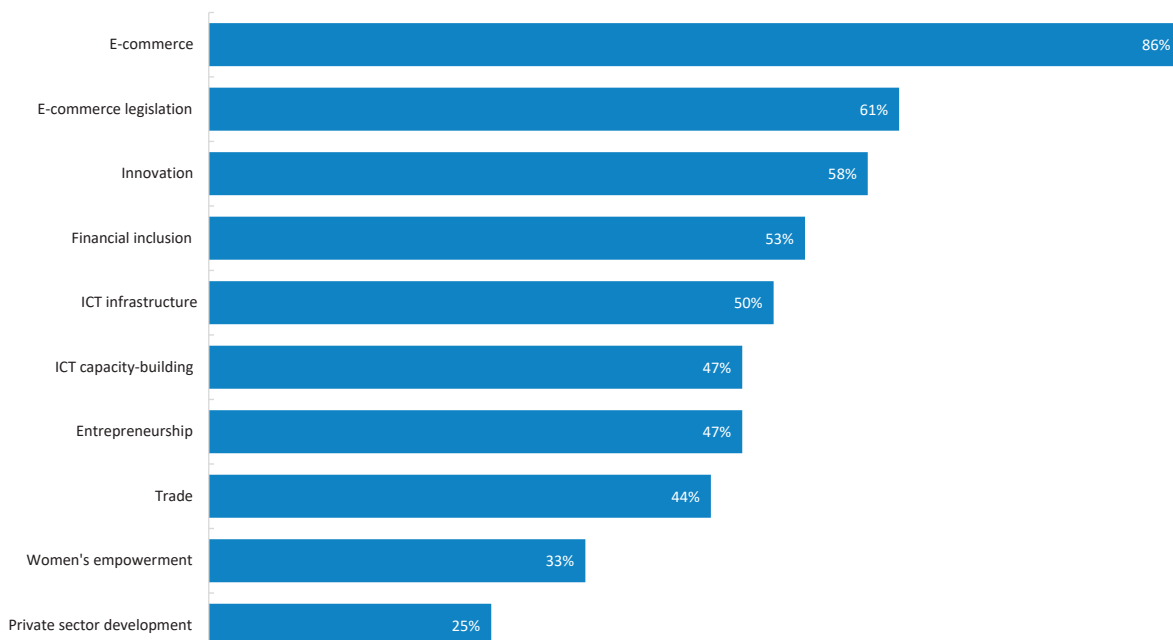
Additionally, 86 per cent of private sector respondents indicated that they would like to see e-commerce as part of the dialogue between the Government and the private sector. The other themes on which they would like to have a dialogue include e-commerce legislation, innovation, financial inclusion and ICT infrastructure, ICT capacity-building, entrepreneurship, trade, women's empowerment and private sector development (figure 3).

Public sector respondents indicated that the following themes were already part of a dialogue between the Government and development partners on e-commerce-related technical assistance: e-commerce, ICT infrastructure, trade, financial inclusion, women's empowerment, e-commerce legislation, standards and quality infrastructure, innovation, ICT capacity-building, entrepreneurship and private sector development (figure 4).



Figure 3: Dialogue between the Government and the private sector

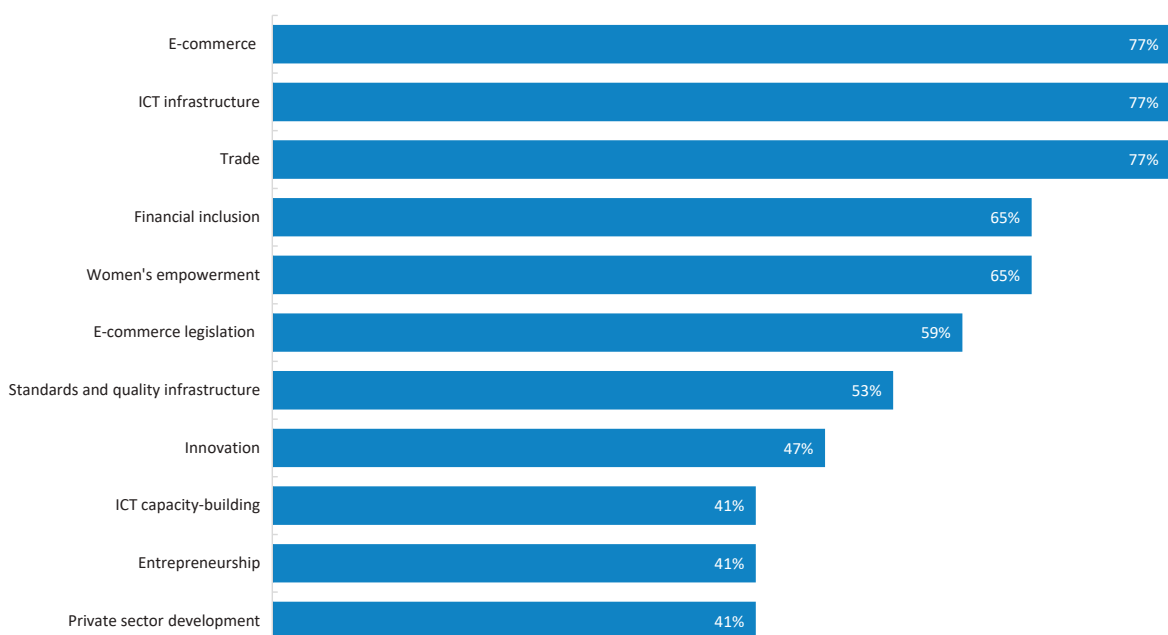
Which of the following themes would you like to see as part of the dialogue between the Government and the private sector? (Private sector survey, 36 responses)



Source: UNCTAD.

Figure 4: Dialogue between the Government and development partners

To your knowledge, are the following themes part of the dialogue between the Government and development partners on e-commerce-related technical assistance? (Public sector survey, 17 responses)



Source: UNCTAD.



1.4 Current state of e-commerce activities in Kenya

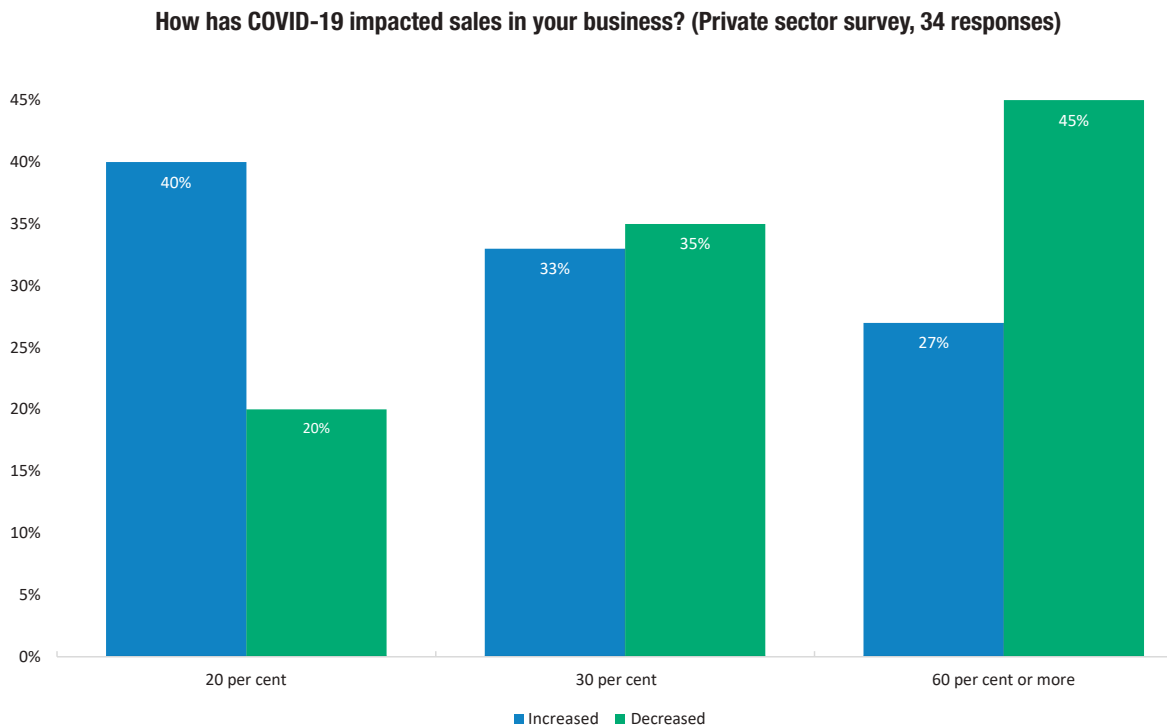
The first cases of COVID-19 were discovered in the country in March 2020. They were followed by an unprecedented lockdown of movement in two counties, Nairobi and Mombasa, Kenya’s two most populous areas. There was a shutdown of eating places, reduced hours of business, and a nationwide closure of schools, which saw all physical education halted for about six months. Businesses that traditionally relied on foot traffic turned to online delivery, doing sales online and using social platforms such as Instagram, Facebook and WhatsApp. Supermarkets and restaurants transitioned into delivery businesses, and motorcycle couriers became the de facto means of their connections with consumers.

The CA chairperson noted^{iv} that, in the wake of the pandemic, the transformative impact of ICTs came to the fore. The pandemic saw an acceleration of the digital transformation of many industries, as firms and individuals adapted to the changed realities. As a

result, there was an upsurge in e-commerce, increased uptake of ICTs and a marked surge in innovation. The use of digital services went up significantly, with activities such as remote working, online learning, video streaming and e-commerce (KNBS, 2021).

Ultimately, the impact of digital systems during COVID-19 on e-commerce was mixed. Naoko and others (2021) found that, while Kenyans increased their usage of digital communication tools and social media, 16 per cent increased their usage of e-commerce, and 21 per cent reduced their use of the platforms. Usage went up among those whose incomes increased during this period, but there was a larger reduction for Kenyans in rural areas and those whose incomes decreased as a result of the lockdown. Overall, the value of mobile commerce transactions in Kenya rose by 35 per cent in 2020, from K Sh 6.95 trillion to K Sh 9.39 trillion. Additionally, while there were 2.2 billion mobile transactions in 2019, a survey to measure these transactions was decommissioned in 2020 (KNBS, 2021).

Figure 5: Impact of COVID-19 on sales among businesses in the private sector



Source: UNCTAD.



Figure 5 shows the impact of COVID-19 on sales among businesses in the private sector and indicates if the businesses experienced increases (or decreases) of 20, 30, or 60 per cent or more. Among businesses realizing an increase in sales, most experienced an increase of 20 per cent while the majority of businesses experiencing decreases in sales dealt with reductions by 60 per cent and more. This can be attributed to the reduced trading hours during the lockdown period. Most respondents in the public sector indicated that COVID-19 increased the uptake of e-commerce in the country, as physical interactions were discouraged. Notably, most large-scale companies could conduct business online because they could afford it. However, most MSMEs were unable to do so because of the associated cost and lack of awareness of the available opportunity, and their competitiveness.

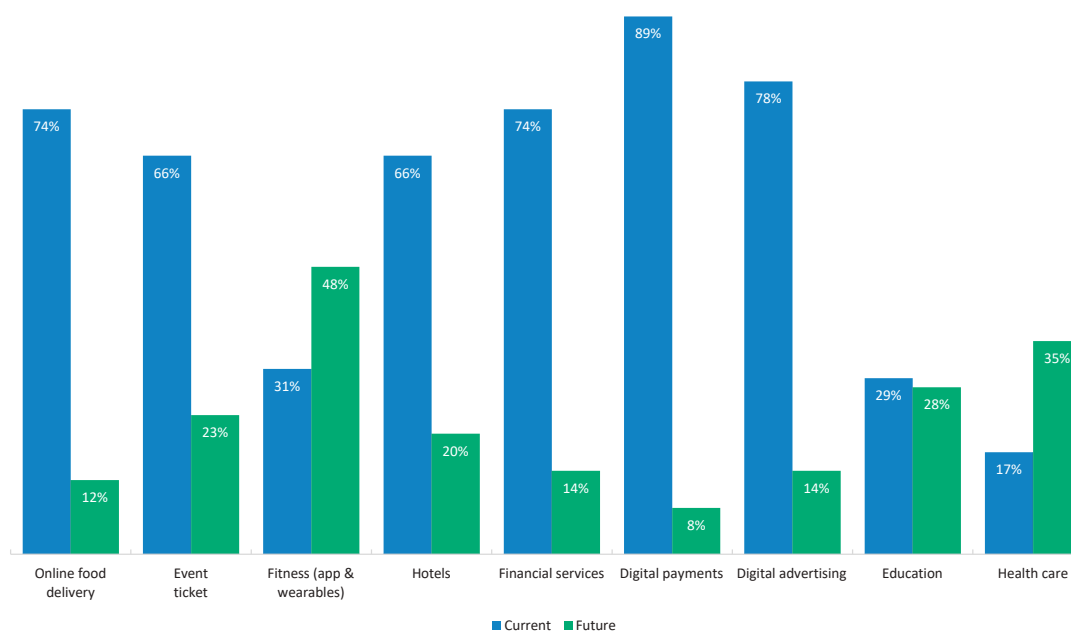
the urban areas, with several platforms operating mainly in Nairobi, Kiambu, Nakuru, Mombasa and Eldoret (Njoroge, 2021). The private sector survey responses show that most of the respondents indicated they sold their goods within the country (86.4 per cent), followed by international markets (beyond Africa) (40.9 per cent) and other African countries (36.4 per cent).

Notably, e-commerce is dispersed across all sectors of the economy. The third edition of the Kenya E-commerce Awards,^v which took place in June 2021, showcased the breadth of e-commerce in the country, as participants were featured across 40 categories ranging across logistics, payments, marketing, e-commerce enablers and companies in personal care, electronics, apparel, food, furniture, books, pharmaceuticals, supermarket, ticketing and agriculture.

Despite an increased uptake of e-commerce during the COVID-19 pandemic, e-commerce remains popular in

Figure 6: Services sectors that benefited the most from e-commerce in Kenya (current and future)

In your opinion, which services sectors benefit the most from e-commerce in Kenya (currently and in the future)? (Public and private sector surveys, 65 responses)



Source: UNCTAD.

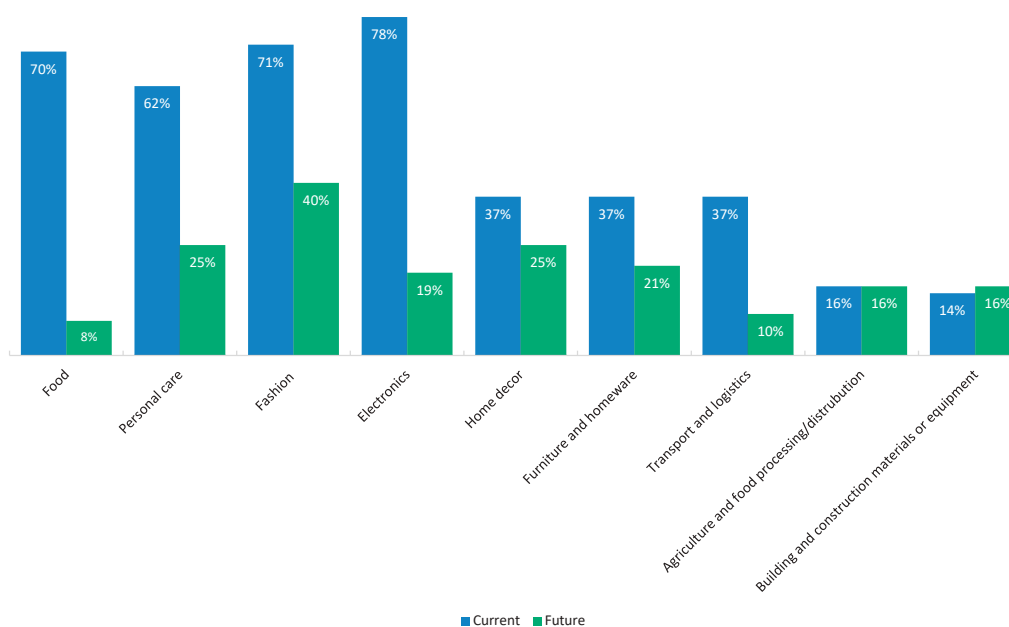


According to the surveys administered to both the public and private sectors, most respondents (89 per cent) believe that digital payments are the service sector that currently benefits the most from e-commerce in Kenya (figure 6). Health care trails the

list of the service sectors that currently benefit from e-commerce. In the future, most of them (48 per cent) believe that fitness (apps and wearables) will benefit the most from e-commerce.

Figure 7: Goods sectors that benefited the most from e-commerce in Kenya (current and future)

In your opinion, which goods sectors benefit the most from e-commerce in Kenya (current and future)? (Public and private sector surveys, 63 responses)



Source: UNCTAD.

Most respondents (78 per cent) believe that the goods sector that currently benefits the most from e-commerce in Kenya is electronics goods (figure 7). Building and construction materials trail the lists of sectors that currently benefit the most from e-commerce. In the future, the highest percentage of them (40 per cent) believe that fashion (apparel, footwear, bags and accessories) will benefit from e-commerce. The food sector is believed to benefit the least from e-commerce in the future.

E-commerce in Kenya is offered through various channels. According to the surveys administered to the private sector, most respondents (86 per cent) use their websites or platforms for e-commerce. Social media, such as Facebook and Instagram, (61 per cent) follows with 61 per cent, then instant messaging

applications, for example, WhatsApp and Messenger, with (52 per cent). Social commerce is prevalent among vendors in the country, owing to its low barriers to entry and huge customer base. Kenya has about 11 million social media users, an equivalent of about 20 per cent of the country's population spread across platforms such as WhatsApp, Instagram and Facebook (Wamuyu, 2020). The other channels used include third-party national e-commerce platforms (for example, Jumia, Kilimall and Sky Garden) at 30 per cent, and third party international platforms (for example, Amazon, Etsy and Booking) at 20 per cent.

The main reason for selling online according to these respondents is to attract or reach out to more domestic customers (76 per cent). The other reasons are (a) respondents seeing it as a competitive advantage (58

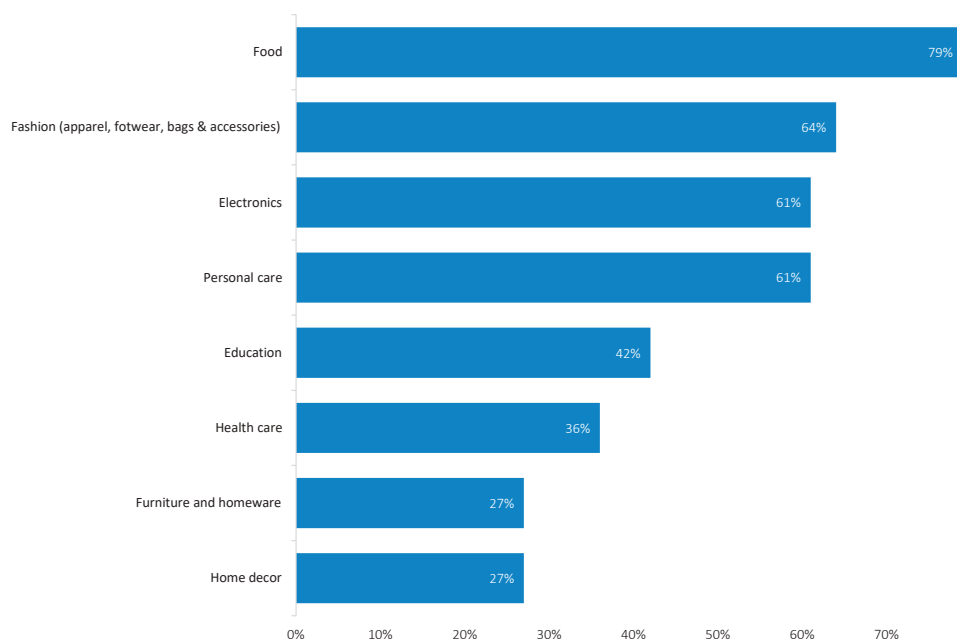


per cent), (b) increasing demand by customers (50 per cent), (c) attracting/reaching out to more international customers (34 per cent), (d) only selling goods/services

online (18 per cent), and (e) competitor(s) moved sales online (13 per cent).

Figure 8: Consumer purchases of goods

**If you make online purchases of goods, do these purchases relate to the following goods categories?
(Consumer survey, 33 responses)**



Source: UNCTAD.

Consumers make online purchases in both the goods (91 per cent) and services (88 per cent) sectors, according to the results of the survey administered to them. Most purchases in the goods sector were related to food (79 per cent), while the least purchases were related to home decor (27 per cent) (figure 8). In the services sector, most purchases were related to digital payments (79.4 per cent), and the least purchases were related to digital advertisements (24 per cent) (figure 9).

The most used channels among consumers are the third party national platforms (such as Masoko and Jumia), as reported by 79 per cent of the respondents in the surveys administered to consumers. Social media (for example, Facebook and Instagram, among others) follows at 71 per cent and instant messaging applications (for example, WhatsApp and Messenger) at 65 per cent. Third party international platforms (for example, Amazon and Booking) are the least

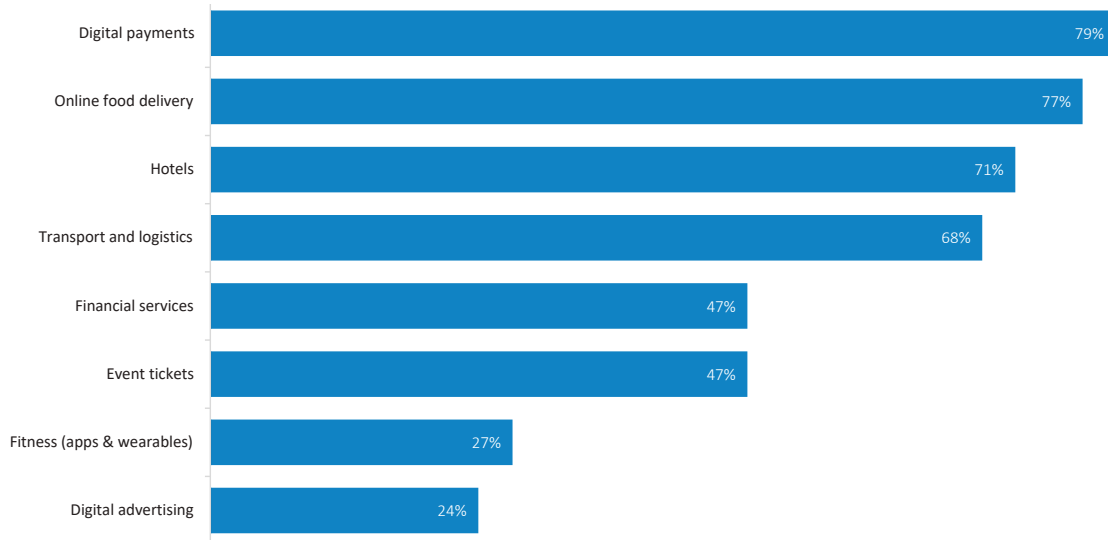
used channel among these consumers, at 62 per cent. Furthermore, 76.5 per cent of these purchases involved online food purchases, and 79.4 per cent were settled using digital payments.

The Government, through the eCitizen portal, has been offering several services to the public since 2014. These services include business name registration, university loan applications, environmental permits, building permits, marriage registration, passport services and driver's licence applications from different government agencies, such as the National Transport and Safety Authority and the Ministry of Lands. Speaking during the commemoration of Mashujaa Day celebrations held on 20 October 2021, President Kenyatta noted that the eCitizen portal had served 27.2 million unique customers since inception, and had brought in over K Sh 87.1 billion in revenues. Despite this impressive outcome, it is important to note that not all government services are available on eCitizen.



Figure 9: Consumer purchases of services

**If you make online purchases of services, do these purchases relate to the following services categories?
(Consumer survey, 34 responses)**



Source: UNCTAD.

1.5 Access to relevant statistics

KNBS is the principal agency of the Government in charge of collecting, analysing and disseminating statistical data in Kenya. It produces an annual economic survey report on the country's socioeconomic state. Although it contains data on broad issues relating to e-commerce (statistics on trade, ICT, and transport and storage), it lacks consumer data on e-commerce. The document is accessible for download on the KNBS website^{vi} and is used as a reference by government agencies and private sector companies.

Additionally, other organizations produce various periodic reports that touch on broad issues of e-commerce. For instance, CBK produces Bank Supervision and Banking Sector reports on an annual and quarterly basis, providing an outlook of the performance and developments in the banking sector. It has also partnered with the KNBS and Financial Sector Deepening (FSD) Kenya to produce Financial Access Household surveys to monitor the state of financial inclusion in the country (CBK, KNBS and FSD Kenya, 2019).

CA also produces sector statistics reports every quarter that provide an overview of the performance and trends in the ICT sector. It covers mobile telephone services, fixed telephony services, data/Internet services, the national cyber security landscape, frequency spectrum management and broadcasting services. It also occasionally undertakes surveys in partnership with KNBS, such as the National ICT Survey carried out in 2016. The data emanating from these surveys are not e-commerce-specific.

Notably, the existing statistics are not specific to e-commerce. Consequently, there is a dearth of business and consumer data on e-commerce. As such, it is arduous to estimate the value of e-commerce in the country, let alone project its current growth, impact and future potential. Although Jumia and Visa, two of the major players in the market, have released several white papers on e-commerce consumer data, there is a need for comprehensive statistics on the state of e-commerce in the country.



2. ICT INFRASTRUCTURE AND SERVICES

Kenya has one of the most advanced digital infrastructures in East Africa and the continent as a whole. It ranked 3rd in Africa and 84th out of the 130 economies included in the Network Readiness Index (NRI) 2021. This advancement can be attributed to the early liberalization of the telecom sector and improvements to its national connectivity backbone.^{vii} It has also taken various steps to enhance its ICT infrastructure and services capacities. These steps have translated into increases in international Internet bandwidth, mobile cellular subscriptions and active mobile broadband subscriptions over the years. However, challenges to ICT infrastructure and services continue to persist. These include inadequate access to reliable and affordable electricity, weak last-mile broadband connectivity, and the high cost of essential infrastructure hardware. Some of these factors were recognized in the Kenya Vision 2030 plan, and policy efforts are underway to address them.

2.1 Broadband, mobile and smartphone penetration

Mobile cellular subscriptions in the country have been on an upward trend, with the number of active SIM card subscriptions surpassing the total population (CA, 2020). The total number stood at 57.0 million as of June 2020, up from 52.1 million the previous year. This translates to a mobile penetration rate of almost 109 per cent (many users have more than one SIM card). This is in tandem with the finding that the country's mobile cellular subscriptions were 114.20 per 100 inhabitants in 2020 (ITU, 2021).

Conversely, fixed telephone subscriptions continue to decline. Fixed-line services dropped by 3.8 per cent to 19,100 in June 2020. Fixed telephone subscriptions per 100 inhabitants fell from 0.13 in 2019 to 0.12 in 2020 (ITU, 2021). Similarly, fixed wireless and voice over Internet Protocol (VoIP) declined by 7.2 and 0.3 per cent, respectively (CA, 2020). The reduced office activities owing to the COVID-19 pandemic led to a decline in fixed voice network traffic of 19.7 per cent to 4.8 million minutes in June 2020.

The percentage of individuals using the Internet in the country has been rising, increasing from 6.10 per cent in 2009 to 22.57 per cent in 2019. Internet use among men is still higher than among women (ITU, 2021). The low access to education among women, in turn, inhibits their entry into the job market, and means that most women are not able to use or afford the Internet. The gender differences in technology experience and attitudes, as well as the masculinization of technology, could be other reasons behind this trend. The increased demand for access to information online during the pandemic points to even higher Internet use in the country in 2020.

As of 30 June 2020, total broadband subscriptions were 22.6 million, with mobile broadband subscriptions accounting for 97.3 per cent and fixed broadband subscriptions the rest (CA, 2020). Nevertheless, a comparison of mobile broadband subscriptions per 100 inhabitants across the globe in 2019 showed that Kenya (41) is trailing far behind the world average of 75 per 100 inhabitants. South Africa, Ghana, Gabon, Seychelles, Botswana, Mauritius and Cabo Verde had active mobile broadband subscription rates per 100 inhabitants above the world average (ITU, 2021).

Notably, fixed broadband subscriptions increased by 14.7 per cent, to 609,611, due to the high demand for broadband services, as more consumers worked from home and students continued to attend online classes and access e-content during the pandemic (CA, 2020). The rate of fixed broadband subscriptions per 100 inhabitants rose from 0.93 in 2019 to 1.25 in 2020. Despite having less penetration than Seychelles and Mauritius, it was well above the average for the continent.

Safaricom had the highest market share in the mobile broadband market (64.2 per cent) in 2020. Airtel Kenya, Telkom and Equitel accounted for 25.8 per cent, 5 per cent and 0.4 per cent, respectively. Safaricom also had the highest market share in the fixed broadband market (33.5 per cent), followed by Wananchi Group (Kenya) (32.5 per cent), Jamii Telecommunications (19.1 per cent), and Poa Internet Kenya (8.8 per cent). The rest accounted for 6.1 per cent of the market share (Liquid Telecommunications Kenya Limited, Internet Solutions Kenya Limited, Telkom Kenya Limited, Mobile Telephone Network (MTN) and other fixed service providers).



Figure 10: Kenya Network Readiness Index performance (2021)



Source: Network Readiness Index (NRI).

Kenya Power and Lighting Company also plans to utilize its fibre-optic cables attached to its transmission lines to connect millions of its customers in rural homes with high-speed Internet. Kenya Power and Lighting Company has been leasing these cables to various Internet service providers in the country. Having conducted pilot testing with a section of power users, it is expected to launch a package that will allow its corporate clients to buy Internet and electricity as a package soon. Kenya Electricity Transmission Company Limited also operates an optical ground wire fibre cable, which has also been leased to various Internet service providers in the country. And in April 2022, the Kenya Pipeline Company launched its fibre-optic cable.

Additionally, the undersea bandwidth capacity utilized within the country has increased by 6.1 per cent to stand at 2,002.11 Gbps in 2020 (CA, 2020). A regional comparison for 2015–2019 shows that Kenya had the highest international bandwidth per Internet user

in Africa, with 566.41 kbit/s and a compound annual growth rate of 52 per cent (ITU, 2021). This can be attributed to several undersea cable broadband infrastructures that link the country to the rest of the world.

Kenya is ranked 3rd in Africa, and 84th out of the 130 economies included in the Network Readiness Index (NRI) 2021, one of the leading global indices on the application and impact of ICT in economies around the world. It had an outstanding performance in international Internet bandwidth, after ranking 13th among all 130 economies.

Availability of adequate, affordable and reliable electricity supply is also critical, especially when it comes to the prospect of e-commerce development outside of the main cities. In this regard, the Government, through the Last Mile Connectivity Programme, lowered the cost of connection per household from US\$ 313 (K Sh 35,000) to US\$ 134 (K Sh 15,000). Nonetheless, the



majority of Kenyans, particularly those in rural regions, are unable to afford this fee. As a result, solar lighting adoption in rural areas (29.9 per cent) remains strong when compared with rural national grid connections (26 per cent) (KNBS, 2020a). Even so, Kenya still has the highest rate of electricity access in East Africa, with 69.7 per cent of the population having access (Dubey and others, 2021).

Digital devices – particularly Internet-enabled devices such as smartphones, tablets, laptops and desktop computers – play a pivotal role in access to e-commerce. Several steps – such as searching for a product, selecting the product and transferring the funds via electronic mediums for final purchase – take place through such devices (Rigby, 2014). Such access represents an even bigger challenge for specific vulnerable categories in society, particularly people with disabilities (box 1). Notably, 47.3 per cent of the 43.73 million individuals aged 3 years and

above in the country had access to a mobile phone in 2020, with most of them still on 2G and 3G devices. Similarly, 8.8 per cent of the 12,043,016 conventional households in the country reported having either a desktop computer, laptop or tablet (KNBS, 2020a).

Although these figures point to an increase in the uptake of digital devices, the costs are still out of reach for most Kenyans. In this regard, CA is developing the requisite framework for enhancing the uptake of digital devices following a public consultation with various stakeholders (CA, 2020). The private sector has been at the forefront of driving device affordability. In July 2020, Safaricom launched a device financing programme called Lipa Mdogo, which enables Kenyans to purchase 4G-enabled smartphones by making manageable payments of K Sh 20 (US\$ 0.18) per day. By December 2021, 500,000 people had signed up for the affordable smartphone programme.

Box1: Bridging the digital divide: Current efforts to draft the national ICT accessibility standard

E-commerce is considered to be an equalizer for women, youth and persons with disabilities (PWDs) to participate in national economies. However, insufficient ICT accessibility for PWDs, while not a new phenomenon, is among the many challenges that have become even more prominent during the pandemic. Developing an integrated approach that ensures inclusive design for PWDs in the digital economy has become more urgent. In January 2022, UNCTAD conducted an interview with PWDs who were entrepreneurs, to learn about their experience with e-commerce. It emerged that the entrepreneurs were not necessarily involved in e-commerce, and were not aware of any PWDs using e-commerce for their businesses. Although e-commerce could significantly contribute to sales, the entrepreneurs stated that lack of knowledge and skills hindered their engagement in e-commerce. Their businesses were, however, relying on social media, using Facebook and WhatsApp. They were also not aware of any initiatives, whether financial or other, aimed at improving digital skills, towards empowering PWDs to engage in e-commerce.

As showcased above, while much ground remains to be covered, the Government is taking steps to understand and address the needs of PWDs through policymaking. Guided by its National ICT Policy, Kenya is on track to become one of the first countries in Africa to develop ICT accessibility standards. The National ICT Accessibility Standard, scheduled to be launched in May 2022, is a collaboration between inABLE.org and the Kenya Bureau of Standards, the National Council of People with Disabilities in Kenya, CA and the ICT Authority that aims to bridge the existing digital divide and exclusion of PWDs in the country, by making public and private sector digital products usable to all Kenyans, including for the purpose of engaging in e-commerce activities.

Source: inABLE (2021) and UNCTAD.

2.2 Reliability, affordability, latency, speed and coverage

Tremendous progress has been made towards achieving Kenya's objective of becoming a competitive knowledge-based society that is enabled by affordable, secure and fast broadband connectivity, though much remains to be done. Kenya ranked 28th in the provision of universal and affordable Internet across

the globe, according to the Affordability Report 2020 (Alliance for Affordable Internet, 2020), which tracks progress towards this Sustainable Development Goal. Although this is a significant improvement from 2018, when it ranked number 38, Kenya still lags many of its peers on the continent. Morocco (10), Botswana (13) and Mauritius (15) are the leading countries in Africa in providing universal and affordable Internet. Kenya comes in a distant 10th on the continent,



behind Nigeria (19), Ghana (23), Tunisia (24), Senegal (25), South Africa (26) and Benin (27). Nonetheless, it outperforms its peers in the East African region.

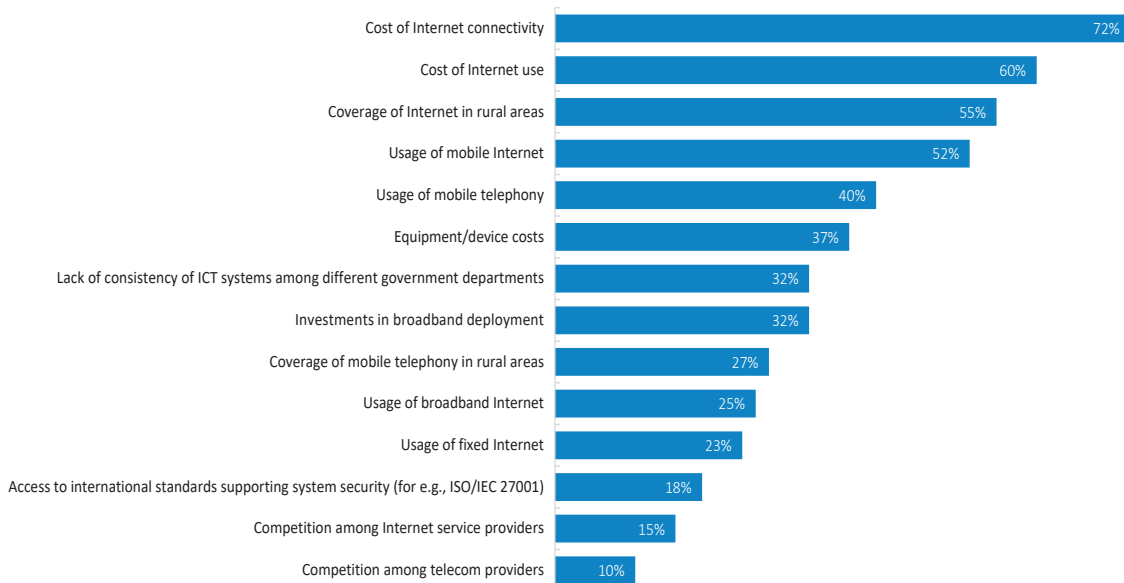
Cost of Internet connectivity and Internet use topped the list as the most important issue regarding ICT infrastructure impeding e-commerce in the country, according to the surveys administered to respondents in both the public and private sectors (figure 10). The Finance Act of 2021 has brought a raft of amendments to various taxes and duties. For instance, it increased the excise duty on airtime and data from 15 per cent to 20 per cent, effective 1 July 2021. Subsequently, telecommunication companies have revised their airtime and data charges upwards and passed the tax burden on to their customers. This may partially

reverse the country's gains in e-commerce and financial inclusion.

Kenya's median mobile broadband download speed was 16.79 megabits per second (Mbps) in April 2022, compared with 8.54 Mbps for fixed broadband (Ookla, 2021). The latency for mobile broadband was 28 milliseconds, compared with 15 milliseconds for fixed broadband. A regional comparison shows that it outperforms its peers in East Africa in terms of Internet speed and latency. Additionally, Safaricom was the fastest mobile operator among top providers in Kenya in the same period. It also had the highest consistency in the same period, with 85.0 per cent of results showing at least a 5 Mbps minimum download speed and 1 Mbps minimum upload speed. Faiba had the lowest latency, at 23 milliseconds.

Figure 11: Most pressing issues regarding ICT infrastructure to create an environment conducive to e-commerce

In your opinion, what are the five most important issues regarding ICT infrastructure to create an environment conducive to e-commerce in Kenya? (Public and private sector surveys, 60 responses)



Source: UNCTAD.

Mombasa had the fastest mean mobile download speed, at 28.25 Mbps, and a latency of 35 milliseconds. Nairobi followed, with a speed of 22.89 Mbps and a latency of 35 milliseconds. Kisumu, Eldoret and Nakuru had speeds of 21.09, 18.21 and 17.54 Mbps, and latency of 58, 40 and 45 milliseconds, respectively.

Kenya has 2G, 3G and 4G mobile broadband networks. The narrowband mobile network (2G) covers 45 per cent of Kenya's land area, and 94.4 per cent of the population. The 3G mobile broadband network covers 17 per cent of the country's land area and 78 per cent of the population, and 4G covers 15 per cent of Kenya's land area and 37 per cent of the



population. Safaricom, one of the five mobile operators that received 5G test and trial licences in March 2020, launched a 5G network in March 2021. It is currently trialling the technology in four towns (Nairobi, Kisumu, Kisii and Kakamega), and expects to expand to nine towns over the next year (Mureithi, 2021). This made Kenya the second country in Africa to roll out a 5G network after South Africa.

Notably, most of the network coverage in the country is concentrated in counties located in central, coastal and western parts of the country. Several counties, particularly those in the northern and north-eastern parts of the country (West Pokot, Turkana, Samburu, Marsabit, Wajir, Mandera, Garissa, Isiolo and Tana River), have sparse coverage (GSMA, 2022). The low population density in these counties appears to be a deterrent for these operators, as the cost of providing physical Internet infrastructure outweighs the benefits of subscriptions.

Office or home Internet is the most used type of Internet connection for professional activities, according to 100 per cent of the private sector respondents and 98 per cent of the public sector respondents. A third of the public sector's respondents (30 per cent) and slightly less than a third of the private sector respondents (28 per cent) use mobile Internet for professional activities. There is little fibre outside towns, and using data bundles for connectivity becomes costly.

2.3 Major infrastructure projects

National Optical Fibre Backbone Infrastructure (NOFBI): Kenya has laid 5,900 km of the 6,400 km NOFBI (phase I, 4,300 km and phase II, 1,600 km) that is expected to provide last-mile fibre connectivity to all 47 county headquarters and improve government service delivery to citizens. This US\$ 71 million project is in keeping with the National Broadband Strategy 2023, which seeks to position Kenya as a globally competitive knowledge-based society that is enabled by affordable, secure and fast broadband connectivity. Currently, more than 3,000 km of cable are already in use by the national Government and firms such as Telkom, Safaricom, Jamii Telecom and KENET (ICT Authority, 2021).

Last-mile delivery is implemented through the County Connectivity Project (CCP) to connect all government institutions across the county with the backbone infrastructure provided by NOFBI. The

CCP has been divided into three phases, and phase III was due to be completed by 2020 (ICT Authority, 2021). However, information on the status of phase III remains unavailable. Some of the challenges in implementing last-mile connectivity through the CCP include the lack of proper standards for connectivity, lack of sustainable models for last-mile infrastructure, and limited local area network connections.

Additionally, the Government is implementing a 630 km fibre-optic cable system as part of the Eastern Africa regional transport, trade and development facilitation project. The project is expected to improve the movement of goods and people along the Lesseru–Nadapal/Nakodok Road in the north-western part of Kenya. It is further expected to enhance Internet connectivity by connecting Uasin Gishu, West Pokot and Turkana counties to Nadapal/Nakodok, which lies at the border of Kenya and South Sudan (ICT Authority, 2021).

Undersea cable broadband infrastructure: Kenya also has high-capacity international Internet bandwidth due to several undersea cable broadband infrastructures that connect it to the rest of the world. Following the arrival of the SEACOM cable, the first undersea fibre cable to reach East Africa, in 2009 the Government collaborated with the United Arab Emirates to install the East African Marine Systems, a submarine cable that connects Mombasa to Fujairah in the United Arab Emirates. The East African Submarine Cable System cable followed in 2010, the Lower Indian Ocean Network 2 (LION2) cable in 2012, the Djibouti Africa Regional Express 1 (DARE 1) cable in 2020, and the Pakistan and East Africa Connecting to Europe (PEACE) cable in 2021. These cables have improved connectivity between Kenya and the rest of the world by providing a low-cost, always-on Internet connection.

Data centres: Kenya is one of the continent's primary data centre hubs, and is considered the gateway to the East African region. A tier II Government Data Centre was established in 2008 to ensure the security of the Government's critical data and applications. It is connected to the Government Common Core Network, a network infrastructure that connects all major government buildings within Nairobi's central business district (ICT Authority, 2021).

Phase I of the Konza National Data Centre – which officially commenced in June 2019 and is implemented



by the Government of Kenya through MolCT, with Konza Technopolis Development Authority as the Project Implementing Agency – is complete and supports Platform as a Service and Infrastructure as a Service. Phase II, a Tier III National Data Centre with Smart City facilities and services to support Konza Technopolis, as well as the Small and Medium Enterprises Services, is also complete and has been live since July 2021. To this end, Kenya hosts East Africa’s biggest public data centre, with a capacity of 1.6 petabytes, at Konza Technology City. Additionally, it hosts nine other colocation data centres by third-party providers – seven in Nairobi and two in Mombasa – making it the country with the highest number of colocation data centres in East and Central Africa, and fourth in Africa, after South Africa (25), Nigeria (11), and Mauritius (10).^{viii}

Data centres enable e-commerce platforms to leverage cloud computing, thus reducing costs related to leasing or renting hardware and downloading software and applications (asset-lightness). In addition to providing security against cyberattacks, data centres enable e-commerce platforms to maintain an online presence at all times. In case of downtime, there are always disaster recovery centres that ensure uninterrupted operations. Platforms operating on the cloud are also able to withstand high traffic, particularly during sales or events promotions, by easily scaling the resources available to them. This results in a stable and hassle-free shopping experience. Despite these immense opportunities, these data centres are faced with several challenges relating to reliability and high power costs, reliable connectivity (relatively high latency), functional disaster recovery facilities, and a shortage of skills to manage data centres.

Internet domains: Kenya Network Information Centre (KeNIC), the organization licensed to manage and administer the country code top-level domain (.ke) name, rolled out the .ke domain extension, which is the country’s second-level domain, on 23 July 2017. KeNIC also manages the country’s third-level domain extension, which has variants such as co.ke (companies), .ac.ke (higher learning institutions), sc.ke (lower and middle colleges), .or.ke (non-profit organizations), .me.ke (personal names), .mobi.ke (mobile content), .go.ke (government agencies), .info.ke (information) and .ne.ke (network devices). Unlike the top-level domain extension, second-level domain does not have a specialization angle. Therefore, it

gives more emphasis to the brand. It is also shorter and easier to remember.

In as much as the .ke domain registrations have grown from 83,646 in 2018 to 102,775 in 2021, the domain uptake (third-level and second-level domains) is lower compared with South Africa and Nigeria. This shortfall can be attributed to reasons such as pricing and competition from generic top-level domains such as .com and .org, and also competition from geographic domains such as the new .africa. Other reasons include apprehension about political interference in .ke registered domains, in which political orders may be used to take down a registered domain without following due process, and downtime at the registry, which costs .ke-dependent businesses unjustified business losses.

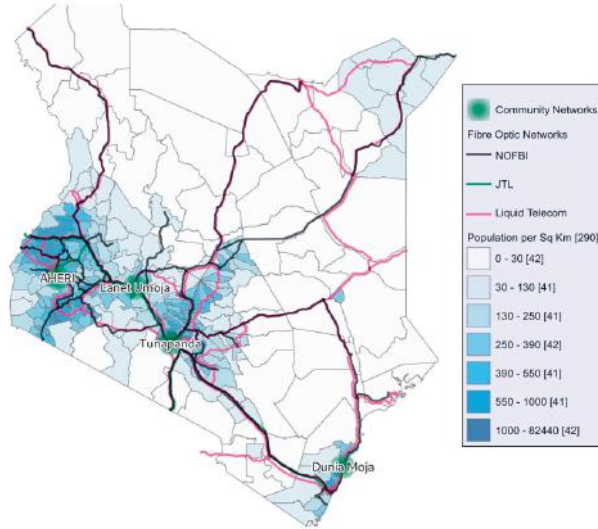
Universal Service Fund initiatives: The Kenya Information and Communications Act (KICA) of 1998 established the Universal Service Fund (USF), managed and administered by CA.^{ix} It seeks to support widespread access to ICT services by building capacity in ICTs and supporting technological innovations. CA will fund this initiative through levies enforced on licensed ICT operators, government appropriations, grants and donations (CA, 2021b). Initiatives that have been undertaken utilizing the USF include the digitization of the National Police Service and the Kenya Education Cloud, an education broadband project that has connected 881 public secondary schools to date.

The Government plans to have the USF extended to support tower-building, base transmission stations and the setting up of micro cells.

Licensing and shared spectrum framework for community networks (box 2): CA, through its 2019–2023 strategic plan, seeks to support underserved areas in the country to access communications services through the use of shared spectrum strategies. Consequently, the Authority is developing a licensing and shared spectrum framework for community networks that will enable communities living in underserved areas, particularly remote and sparsely populated areas, to gain access to enhanced Internet services. The country currently has three community network pilot projects in rural areas – Lanet Umoja in Nakuru, Dunia Moja in Kilifi, and Aheri in Nyanza – and one in Nairobi, TunapandaNET in Kibera (CA, 2021c).



Figure 12: Map of community networks in Kenya



CA's Action Plan to support the sustainable development of community networks

- I. Integrate a new licence category for community networks within the Unified Licensing Framework reform process currently underway called Community Network Service Provider Licence.
- II. Ensure that the financial and administrative requirements for community networks are commensurate with their scope and scale.

Source: CA (2021c).

These community networks are supported by not-for-profit organizations. Community networks face the following challenges that hinder their growth: complex legal requirements for registration, licensing and permitting; steep costs associated with registration, licensing and permitting; inability to shift to a revenue-

based model to sustain the network once grant funding ends; and lack of technical, economic and human capacity (CA, 2021c). CA has created an Action Plan to support the sustainable development of community networks.



Box 2: Kenya's Licensing and Shared Spectrum Framework for Community Networks aimed at minimizing the digital divide

The need to speed up Internet access in underserved areas, and to provide affordable and efficient access to unserved populations, particularly to those living in the rural areas, has led to the adoption at the end of 2021 of a Licensing and Shared Spectrum Framework for community networks in Kenya. This new framework is the result of collaboration between CA, the Association for Progressive Communications, the Kenya ICT Action Network and the University of Strathclyde.

The spectrum-sharing framework differentiates itself from the existing commercial operator licensing model and special spectrum assignments, because it allows communities to supply and provide Internet services through community networks. In Kenya, where communities organize themselves around communal models, adopting such a model is an advantage, because it allows the partitioning of the optical spectrum with community-based networks and small operators who have been operating outside of the overall regulatory framework. The framework not only enables small-scale network operators to obtain a licence to serve in rural unserved or underserved areas, but it also allows them to perform at low cost by minimizing the administrative and financial requisites. In addition, it aims to support the licence-exempt usage of available frequency bands such as 5–6GHz bands. The next steps will likely include the revision of the spectrum fee structure and reduction of fees for small-scale network operators serving in rural unserved or underserved areas.

Currently, there are four community network pilot projects: (a) TunapandaNET in Kibera, Nairobi; (b) Lanet Umoja in Nakuru; (c) Dunia Moja in Kilifi; and (d) Aheri in Nyanza. All networks are run by non profit organizations and operate in rural areas, except for TunapandaNET, which operates in an underserved area of the capital. The main goal of all four projects is to tackle the existing challenges associated with high Internet costs, and lack of digital skills and platforms.

The adoption of the new framework will effectively expand Internet connectivity to underserved areas and minimize the current digital divide between Kenya's rural and urban areas by using the community network models as suppliers and providers of Internet services. It will also provide more security to community-based operations and enable CA to classify regions with low Internet connectivity penetration.

Source: Communications Authority of Kenya.

2.4 ICT-enabled public services

Kenya Vision 2030, the country's development blueprint, identifies public sector reforms as a critical component to its realization. To this extent, the Government has undertaken several reforms to improve public service delivery using ICT. It has also developed the National ICT Policy 2020, which aims for all government services to be easily accessible to all citizens using their mobile devices anywhere and anytime. This policy also calls for the arms of the Government to implement, manage and build systems locally (MoICT, 2020a).

Several public services are obtained through an eCitizen^x portal, which the Government launched in 2014 as a gateway to all government services. It provides access to services such as national identity cards application, passport services, birth certificates, driver's licences, police clearance certificates, marriage registration, university loan applications, business name registration, Kenya Revenue Authority

(KRA) unique taxpayer numbers (PIN), title deed search, environmental permits and building permits from different government agencies. In 2020, 648,553 Kenyans applied for new identity cards. This was a drop from 1.24 million the previous year, and was attributed to the COVID-19 measures (KNBS, 2021). Increases were, however, noted in border counties, as the Government conducted an exercise to verify the identity of citizens.

Kenya's Ministry of Lands and Physical Planning is conducting a digitization exercise of title deeds, and the goal of this exercise is to have all land records digitized by the end of 2022. The National Land Information System, referred to as ArdhiSasa,^{xi} a Kiswahili word meaning "land now", was launched in April 2021. The online platform allows citizens and stakeholders to interact with, update and process land management records by themselves, enabling them to conduct commercial transactions safely.



This development bears positive prospects for e-commerce, since it will eliminate fraudulent land practices such as double registration of titles by giving different registered professionals powers to conduct a limited set of transactions, and providing audit trails of all activities. When interposed with geospatial data, the system will also provide proper legal documents for small land parcels and apartments, a growing

development and ownership type that was not properly captured in previous land registration schemes. The Lands Cabinet Secretary indicated that the Ministry has scanned and digitized 30 million documents in Nairobi. In 2021, the staff at the Ministry underwent training to ensure transparency and accountability in land administration and management, and efficiency in using the new system.



3. TRADE LOGISTICS AND TRADE FACILITATION

Kenya has relatively well-developed transport and logistics infrastructure including four international airports, an extensive road and railway network, and two modern deep seaports, at Mombasa and Lamu, which have been critical enablers for e-commerce development in the country. It also has several national and international couriers serving its domestic market. Nonetheless, the absence of physical addressing systems, heavy road congestion, lack of track and trace among smaller logistics companies, and poor road infrastructure in some parts of the country are critical challenges to e-commerce in the country. Kenya ratified the WTO Trade Facilitation Agreement in 2015, which encompasses a raft of measures aimed at expediting the movement, release and clearance of goods across borders and those in transit in the country.

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

Kenya is strategically located as a gateway to the East and Central African region, with its multi modal transport and logistics infrastructure serving other countries in the region. The port of Mombasa, which is the largest and busiest in East Africa, provides direct connectivity to over 80 ports worldwide. It is also linked by road to several countries in the region – Uganda, Rwanda, Burundi, the Democratic Republic of Congo, the United Republic of Tanzania, South Sudan, Somalia and Ethiopia. In addition to this port, the Government also commissioned a new port at Lamu, the second-largest deep-water port in the country, targeting the international trans shipment business. The new deep port allows larger ships to dock and offload containers, which are then loaded onto smaller ships and delivered to other ports along the Indian Ocean coastline. Following its refurbishment in 2018, the port of Kisumu has also experienced an increase in the volume of cargo.

The Standard Gauge Railway (SGR) linking Mombasa and Nairobi was completed and launched in 2017 to replace the metre-gauge railway, which was a century old. It has been a requirement from the Government that importers and traders transport their containers between the two towns via the new train service to decongest the intercity highway and the port of Mombasa. This has affected the operations of cargo and truck companies, mainly around Mombasa, and there have been complaints that the cost of using the new railway is steep. The SGR now extends to the Naivasha Dry Port, and connects further to the revamped metre-gauge rail heading to the port of Kisumu. This infrastructure is essential to the development of e-commerce in the country, as it has reduced travel times and is relatively more affordable than road transport. It costs about US\$ 800 (K Sh

90,680) to move a 40-foot container on rail from Mombasa to Malaba, compared with upwards of US\$ 2,000 (K Sh 226,700) using road transport. The time has also been reduced to 36 hours, compared with the days that it takes to truck the cargo by road (Kamau, 2022).

The development of the Lamu Port–South Sudan–Ethiopia–Transport (LAPSSET), the country's second transport corridor linking Ethiopia and South Sudan to the port of Lamu, is also on course. In May 2021, the first Lamu Berth Port, part of the seven critical projects in the LAPSSET Corridor Programme, was inaugurated. LAPSSET is expected to boost regional trade and e-commerce when completed. The Mombasa–Uganda transport corridor that passes through Nairobi and much of the Northern Rift (Northern Corridor) is Kenya's other transport corridor.

There has also been a significant improvement of the road network in the country. In 2013, Kenya had 11,230 km of bitumen roads (KNBS, 2014). However, following the Government's ambitious plan to tarmac over 10,000 km of roads before 2022, Kenya had 22,649 km of bitumen roads in June 2021 (KNBS, 2021). It has not only doubled the length of bitumen roads in the country over the last nine years, but also surpassed its target. Nevertheless, poor road infrastructure in some parts continues to hamper last-mile delivery of goods. The continuous improvement of the road system in the country for more efficient transport of goods will likely boost trade in general, and e-commerce in particular, in the country.

Kenya has a national postal service, the Postal Corporation of Kenya (PCK), which is regulated by CA. According to the Kenya Communications Act of 1998, CA is mandated to license and regulate postal and courier services throughout the country. Presently, there are three categories of licences: public postal



operator licence (valid for 25 years), national operator licence (valid for 15 years) and international operator licence (valid for 15 years). PCK is the sole holder of a public postal operator licence, making it a monopoly in the delivery of letter mail.

PCK has a network of 647 offices countrywide. Its mail volumes have been declining, and PCK has been slow to shift to parcel delivery, where it had an early advantage thanks to its national network. Post office boxes are rarely used to send personal letters. The number of official correspondences has also dropped, as government agencies and private companies no longer send utility bills, invoices and reports by mail. These organizations have shifted to sending correspondence or information via email and SMS.

The number of letters posted locally between April and June 2020 recorded a substantial decline of 58.2 per cent, as 3.5 million letters were posted through PCK, compared with the 8.52 million letters sent in the previous quarter, due to COVID-19 (CA, 2020). In the first quarter of 2021, 231,000 letters and 1 million courier packages were sent through PCK.^{xii} This decline can be attributed to e-commerce companies increasingly engaging in parcel delivery and collection.

Going forward, PCK sees itself as an aggregator and an e-commerce enabler that will do last-mile delivery of packages. It has partnered with Taz Technologies, a start-up company behind MPost, a company that has turned mobile phone numbers into virtual addresses whereby clients are notified via their phones whenever they receive mail through their postal addresses. PCK will be integrated into the Taz delivery system, known as Tap-a-Delivery, to provide last-mile delivery services across Kenya. The Tap-a-Delivery will collaborate with logistics and taxi companies to provide last-mile delivery (Jackson, 2021; Nyawira, 2021).

PCK has also partnered with Swift Lab, a licensed cargo drone operator in the country, to roll out last-mile delivery of e-commerce purchases, medical supplies and essential cargo. Swift Lab will manufacture drones that can travel up to 70 km and carry items that weigh up to 4 kg (Matheka, 2021). TradeMark East Africa is also working with PCK to enhance its cross-border e-commerce deliveries. Additionally, the Kenya Association of Manufacturers has partnered with PCK to tap into e-commerce business and intraregional trade for its members. In addition, it has delivery partnerships with e-commerce platforms such

as Jumia, and has enhanced last-mile delivery through partnerships with boda-bodas (motorbikes).

According to a Digital Readiness for E-commerce (DRE) onsite review conducted by the UPU in December 2021, Posta Kenya have undertaken several initiatives on digitalization through using ICT and latest digital solutions to underpin many of their internal processes to make them more reliable and efficient. Systems such as the POST Global have modules for most applications including track and trace, Point of Sale and Customs declarations for example. The main challenges they face to reap the benefits of these systems are to complete the roll out and to ensure they are integrated and interoperable. In fact, systems are currently not interconnected which remove the power of data analysis. Accordingly, the implementation of an ERP and CRM systems are in the planning so that it is possible to consolidate data, customers profiling and performance information. Practical constraints such as unreliable internet connectivity, poor bandwidth, and low speed hamper the effective implementation and wider roll out of useful digital applications in operations.

Kenya had 262 national and international couriers serving its domestic market at the end of 2020. Out of these, 55 were international service providers.^{xiii} Local courier companies have phone-based apps, which consumers and businesses use to track parcel delivery. Nevertheless, several challenges hamper the operations of these companies, such as the increased cost of importing items from other countries and delays in the release of consignments.

The emergence of branded and app-based last-mile platforms in the country – such as Sendy, Lori and Amitruck, that aggregate demand for logistics – has enabled businesses to mitigate some logistics risks and ensure timely deliveries to customers (Qhala and Caribou Digital, 2021). In October 2021, Sendy launched “Fulfilment”, a digital-enabled fulfilment service targeting online retailers. The service enables retailers to outsource their entire logistic operations to focus on their core business. Once a customer orders a good on a retailer’s platform, Sendy picks, packs, stores and ships orders to customers for a fee, ranging between 9 to 13 per cent of the product’s selling price (Sendy, 2021).

Local transport for e-commerce goods is mostly carried out by intercity bus companies, according to



the private sector survey responses (figure 13). These bus companies commute between towns ferrying letters, food and packages. Customers deposit parcels at their offices, and these are transported, usually overnight, to the destination towns. The ubiquitous nature of this service twinned with its affordable rates are the reasons for its preference among these respondents. Nevertheless, these bus companies do not provide track and trace for items. Besides, most of their customers still have to go to the bus company's office to collect parcels, as opposed to the parcels being delivered to their doorstep.

PCK is the second most used delivery method (89 per cent), followed by self-operated delivery services (79 per cent), third-party logistics providers (73 per cent) and couriers' services such as G4S, Fargo Courier, DHL and FedEx (50 per cent). For international deliveries, most of the respondents (50 per cent) indicated that they used courier services. International bus companies (33 per cent) come second, followed by third party logistic providers (27 per cent), self-operated delivery services (21 per cent) and postal services (11 per cent).

According to the Operational Readiness for Ecommerce (ORE) onsite mission conducted by the UPU in 2018, the main delivery options for inbound international small packets, parcels and registered items is over the counter at post offices.^{xiv} The further evaluation and follow-up mission^{xv} on Postal Corporation of Kenya, which was conducted by the UPU in July 2021, revealed that PCK has made significant progress in enhancing the modernization of operational processes and use of all available IT standardized tools and end-to-end systems by implementing operational solutions that meet e-commerce requirements. The focus on improving end-to-end reliable delivery performance and provision of consumers with more visibility through EDI message exchanges, and more customer-oriented solutions (delivery options, data capture at source, Customs Declaration System (CDS) implementation) have contributed to the postal operational readiness of PCK for e-commerce within Kenya and internationally. In order to support the development of e-commerce, the UPU recommended that PCK should introduce home delivery and other alternative delivery methods. EMS reported that it would also start piloting with delivery to parcel lockers and designated pick-up drop-off (PUDO) sites in

Nairobi, and use the results to consider scaling up last mile parcel locker delivery nationwide if viable.

The lack of a National Addressing System (NAS) in the country remains a barrier to the development of e-commerce, mainly because it hampers the safe and efficient delivery of e-commerce parcels. According to the Couriers Industry Association of Kenya (CIAK), identifying delivery or pickup locations and having to connect with customers via mobile phone translates into higher costs and delays.

In response to this challenge, the National Addressing Bill 2021 was submitted to Parliament in June 2021. It suggests a framework that provides inter alia naming and numbering of streets and properties, and coding to facilitate easy identification of locations. It would also require anyone setting up an address to inform the government to help build the NAS Database, enabling couriers to quickly find addresses and locations for pickup and delivery (Alushula, 2021). It will also augment existing efforts such as MPost, which provides for mobile numbers to function as postal addresses. The Government believes that this will reduce incidences of misplaced collection and delivery of packages, a major hindrance in the development of e-commerce. Therefore, the NAS presents a critical opportunity within ongoing government efforts to unlock more e-commerce and digital trade opportunities (Koyoma and others, 2021).

3.2 Cross-border trade facilitation

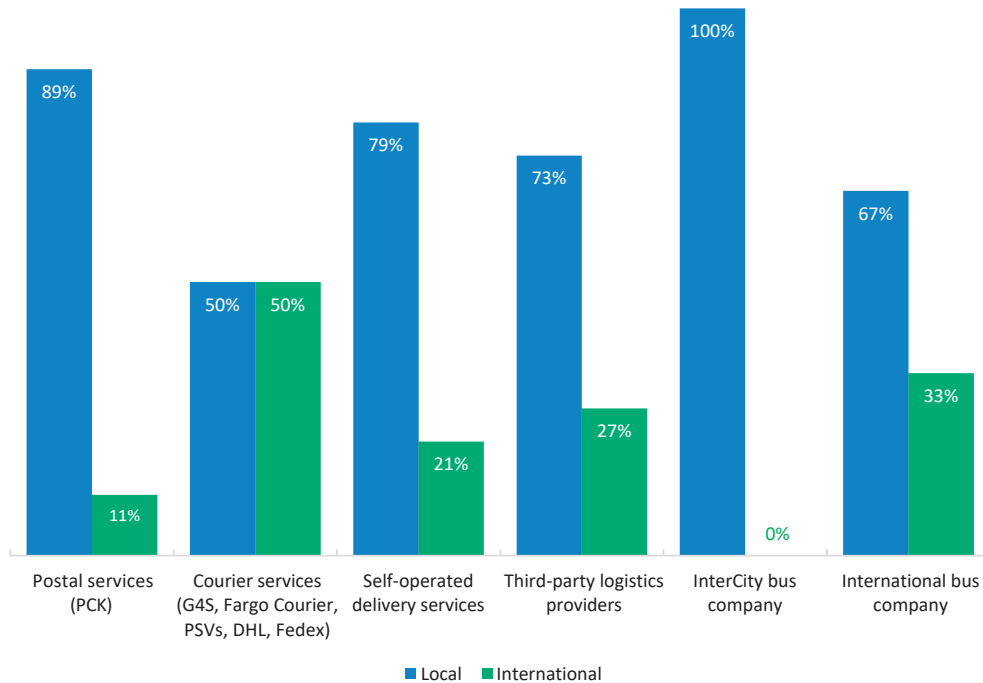
Kenya ratified the WTO TFA in 2015 (MoICT, 2021), ahead of the organization's Tenth Ministerial Conference, held in the country in the same month. This agreement encompasses a raft of measures aimed at expediting the movement, release and clearance of goods across borders and those in transit in the country. It further seeks to enhance cooperation between customs and other appropriate authorities on trade facilitation and customs compliance issues.

Kenya established the National Committee on Trade Facilitation in 2015 to coordinate and oversee the implementation of commitments in the TFA. The Committee consists of public and private representatives from the Government, private sector, academia and civil society. Given the large number of members, four thematic working groups comprising experts from relevant institutions have been established to work on various measures and



Figure 13: Preferred delivery method for local and international deliveries

What delivery method do you use for deliveries (local and international)? (Private sector survey, 38 responses)



Source: UNCTAD.

make recommendations. These working groups are: (a) Customs procedures (chaired by KRA), (b) Transparency and information (chaired by KenTrade), (c) Rules and regulations (chaired by the State Department for Trade), and (d) Port charter and transit trade (chaired by Shippers Council of Eastern Africa).

The TFA commitments' implementation status was 7.6 per cent as of 15 December 2021 (WTO, 2021). Substantial progress has been made towards implementing the articles relating to e-commerce development. Starting with article 1 – which aims to increase transparency in cross-border trade by publishing and making available information on import, export and transit procedures – the Kenya Trade Information Portal (InfoTradeKenya) has been developed to support trade facilitation and logistics in Kenya. It provides information on applicable trade procedures such as permits, licences and clearances. This is instrumental to e-commerce development, since customers respond to transparency and predictability.

Kenya has also partially implemented article 7 on the release and clearance of goods. In compliance with article 7.2, the Kenya Revenue Authority (KRA) introduced the Integrated Customs Management System as a replacement for Simba (2005), the country's primary customs declaration system, in 2017. The Integrated Customs Management System is a modern, robust and efficient system that seamlessly interfaces with other internal and external systems to facilitate sea and air cargo clearance. Furthermore, Kenya also offers national and regional Authorized Economic Operators. This is a preferential customs clearing programme that allows trusted customs clients to enjoy preferential customs facilitation during clearance. Additionally, it publishes the country's average release time of goods periodically through Kenya Trade Portal, in compliance with article 7.6. KRA and other government agencies have also implemented various reforms in compliance with article 7.8 on expedited shipments.

Several measures that will support the streamlining of cross-border formalities and documentation have also



been implemented in line with article 10 of the TFA. This includes the implementation of several Trading Across Borders reforms, namely (a) implementation of a Trading Across Borders facilitative framework for elimination of Head Verification Officer/Verification Officer; (b) elimination of witnessing of stuffing for tea, coffee, spices and herbs; (c) implementation of Green Channel cargo processing; (d) elimination of the presentation of manual folders; and (e) reduction in the rate of verification. These reforms aim to enhance compliance by reducing the time and cost of documentary and border compliance (KRA, 2021).

The National Electronic Single Window System, the country's online cargo clearance platform, also known as Kenya TradeNet System, has been instrumental in moving towards the paperless trade. Launched in 2014, the System interfaces with over 35 permits/licences/certificates from government issuing agencies, financial institutions (such as banks and mobile payment solutions) through the KRA iTax System and the eCitizen platforms, providing an end-to-end electronic cargo documentation platform. Nevertheless, the many and often overlapping licences, permits and clearance processes from various agencies, each of which imposes its own requirements as goods cross borders, are still a constraint to the realization of the objectives of this system. On a separate note, the Maritime Single Window System was also launched in 2021, and integrated with Kenya TradeNet to

automate, standardize and enhance information flow at the port of Mombasa.

Kenya ranked 68th out of 160 countries on the World Bank Logistics Performance Index (2018), measuring countries' trade logistics efficiency. It outperformed its peers in sub-Saharan Africa in customs, tracking and tracing, and logistics competence, with improvements needed in the areas of infrastructure, international shipment and timeliness. The recent inauguration of the Lamu Berth Port, construction of the Mombasa–Nairobi–Naivasha SGR, refurbished metre-gauge track linking SGR to Kisumu port, and the ongoing implementation of the Integrated Customs Management System are likely to boost the country's rankings moving forward.

Despite these improvements, e-commerce firms continue to face challenges in delivering their goods to customers, particularly in the case of cross-border sales, as illustrated by the case of Enda (box 3). Figure 14 shows the issues that stakeholders consider as priorities for creating a conducive e-commerce environment, according to the results of the surveys administered to both the public and private sectors. The top priority is the electronic tracking of shipments. This brings to the fore the need to enforce existing guidelines for postal and courier licensees that require courier operators to put in place either automated or non-automated mechanisms by which a customer can track their package to ascertain its location.



Box 3: Costly and complex trade logistics continue to hinder the expansion of Enda's reach to international markets

"Enda" (which means "Go!" in Swahili) is a Kenyan-founded and female-led e-commerce business specializing in running shoes. The mission and success of the business result from providing high-performance athletic shoes while supporting economic development in Kenya and promoting the country's legacy in running.

Currently, the company has customers in over 32 countries. Through the official website and social media, the company makes 95 per cent of its sales through B2C. However, the company continues to struggle with the expansion of the business abroad, particularly with the high fees associated with shipping costs, customers having to pay high import duties, and the complex process for returns and exchanges. For its international shipments, Enda uses DHL services. However, the shipping costs are sometimes as high, and for some countries, even more expensive than the actual price of the product. Therefore, due to the high costs of shipping, international purchases are sold as final sale (no returns or exchanges policies applied). In the African market, for instance, according to Enda's co-founder and Chief Executive Officer Navalayo Osembo, the company is not benefiting much from trade opportunities created by AfCFTA, as costs of logistics are still high, processes are done manually, and return/exchange charges are sometimes subject to taxation due to lack of knowledge of the people working in registration offices. For its national sales, the company makes use of the local low-cost "Boda-boda" motorcycle taxis to deliver goods in Nairobi, and the independent courier company Wells Fargo Courier delivers outside of the capital.

On the other hand, sales by Enda to consumers in the United States benefit from the African Growth and Opportunity Act programme, which provides products from eligible African countries duty-free access to the United States market. This allows Enda to ship products in bulk and do fulfilment in-country, which spares the United States customers the high shipping costs or import duties. Therefore, the United States continues to be the biggest sales market for Enda, both in terms of customer base and volume of transactions.

Beyond logistical hurdles, the e-commerce business continues to face some challenges related to (a) high costs of mobile data and lack of broadband access across the country; (b) a weak legal and regulatory framework, and expensive and burdensome tax system for micro-businesses; (c) limited and expensive payment options; (d) scarce funding channels for e-commerce businesses; and (e) lack of digital skills/knowledge professionals who target the needs of small e-commerce businesses.

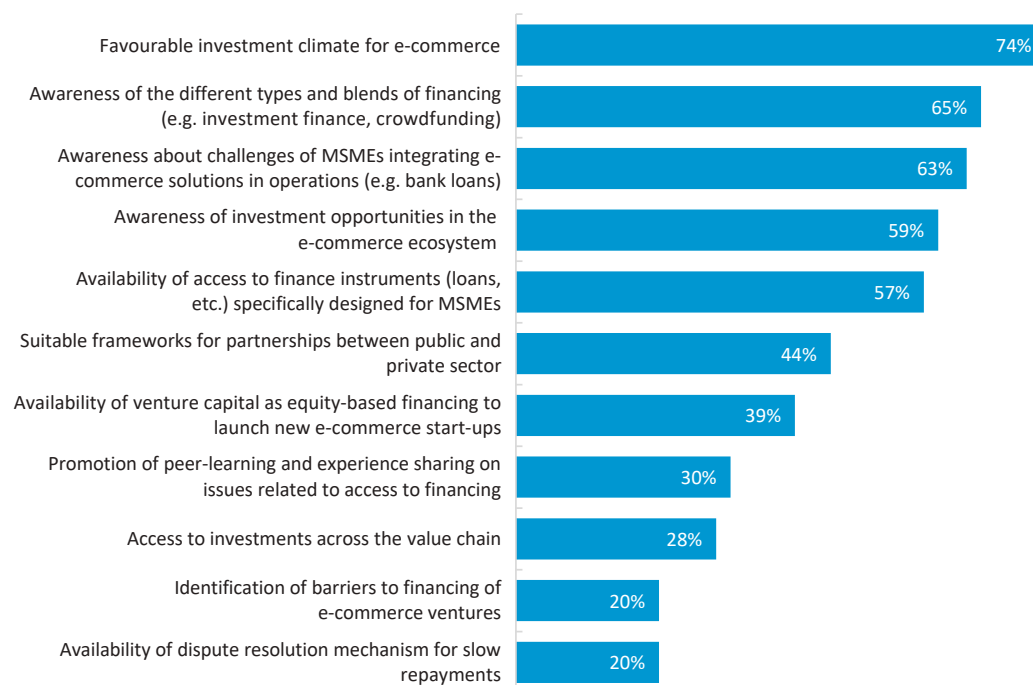
As part of its core mandate, Enda remains committed to the inclusivity of women, youth and persons with disability in the hiring process, as well as giving back to the community (with 2 per cent of the revenues of the company being allocated to projects that target underrepresented groups). Despite the hurdles to operate e-commerce platforms in Kenya, Osembo maintains an optimistic outlook and describes the state of e-commerce in Kenya as promising.

Source: UNCTAD.



Figure 14: Logistics and trade facilitation priorities

In your opinion, what are the five most important issues in terms of logistics and trade facilitation to create an environment conducive to e-commerce in Kenya? (Public and private sector surveys, 59 responses)



Source: UNCTAD.

The overlapping guidelines and restrictions among regional economic blocs have been a great hindrance to cross-border trade facilitation. The consequences of this were more apparent during the lockdowns, when tailbacks were witnessed at the Kenyan–Ugandan border, among other borders in the region. It is against this backdrop that COMESA, EAC and the Southern African Development Community (SADC) agreed to implement the Tripartite Guidelines on Trade and Transport Facilitation for the Movement of Persons, Goods, and Services During Covid-19 Pandemic, which harmonized the separate guidelines of each bloc into one document. This implies harmonized COVID-19 testing charges, in addition to the validity and mutual recognition of the certificates across the partner States. These guidelines are intended to facilitate trade and transport of goods and services

in the region, reduce supply chain disruption and help combat the spread of COVID-19 (COMESA, EAC and SADC, 2020). The role of these tripartite guidelines towards e-commerce development cannot be discounted, even as the virus mutates.

For the longest time, the lack of a common or harmonized de minimis threshold within the region has been a major constraint to cross-border trade for low-value goods. The recent adoption of US\$ 50 as the de minimis value for EAC, and the amendment of section 124 of the EAC Customs Management Act, 2004 to provide for it, is a major step towards improving cross-border trade and a boost to e-commerce in the region. Moving forward, de minimis values should be harmonized across the continent.



4. PAYMENT SOLUTIONS

Kenya is a continental leader in mobile money innovation. It is the home of M-Pesa, the leading mobile money transfer service in Africa, with over 50 million active users. Consequently, mobile money is the most prevalent payment method for e-commerce. In June 2020, there were more than 30 million active registered mobile money subscriptions. The total value of mobile money transactions in the same year was US\$ 50 billion. Additionally, bank transfers, debit and credit cards and cash are widely used for e-commerce. Nonetheless, the high cost of transactions and fraud continues to hamper trust and hinder the use of electronic payments for e-commerce.

4.1 Banking penetration and financial inclusion

Kenya has one of the most advanced payment systems on the continent, with 79 per cent of its adult population using mobile money for payments (CBK, KNBS and FSD Kenya, 2019a). The other common payment methods include cash, debit and credit cards, bank transfers and PayPal. Cryptocurrencies are increasingly also being accepted as a mode of payment in the country. Additionally, the Central Bank of Kenya has opened public discussion on Central Bank Digital Currency, an electronic form of central bank money that can be used by households and businesses to make payments and store value. Unlike privately issued cryptocurrencies and stablecoins, Central Bank Digital Currency is a form of central bank money issued and backed by a central bank.

Moreover, the country is a global leader in mobile money innovation. One of these innovations is M-Pesa, the leading mobile money transfer service in Africa, which has over 50 million active users (Vodafone, 2021). The country also has other digital financial solutions, such as Mula, Pesapal and Pesalink. These mobile money innovations have been essential in driving financial inclusion and facilitating e-commerce in the country.

The M-Pesa payment platform, for instance, offers versatile integration capabilities that enable companies to accept digital payments without creating a payment gateway from scratch. Businesses simply register and connect to the M-Pesa platform through its open Application Programming Interface (API) and payments (customer-to-business and business-to-business) and disburse payments (business-to-customer). Cumulatively, the API is used by more than 45,000 developers and 200,000 businesses across the continent. Moreover, over 500,000 businesses transact more than US\$ 7 billion monthly on M-Pesa (Vodafone, 2021).

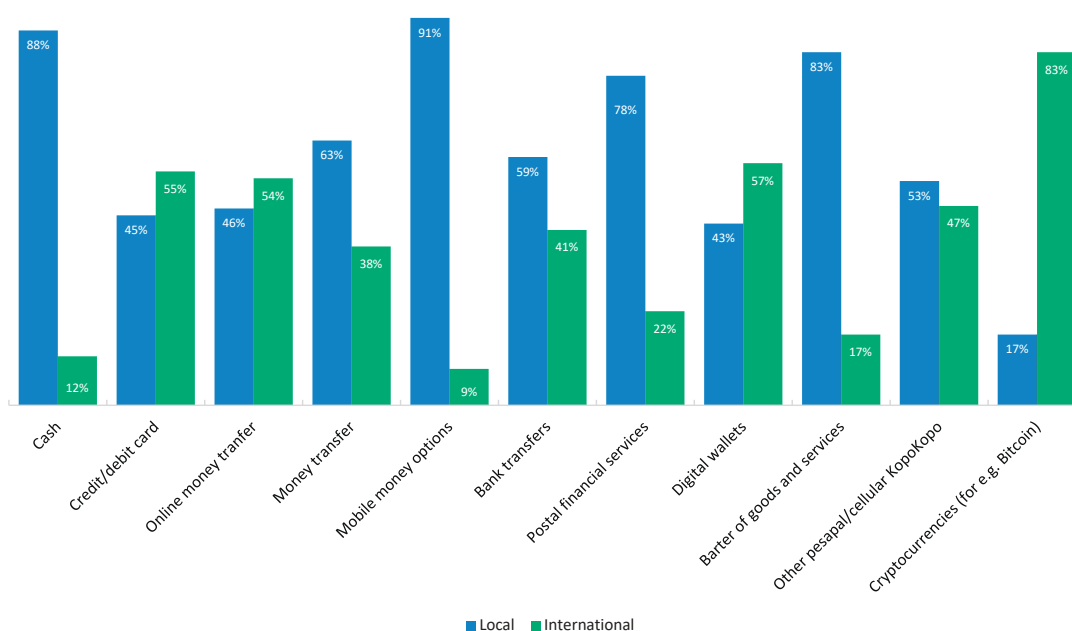
Consequently, mobile money is the leading mode of payment for e-commerce purchases in the country. It accounts for more than 70 per cent of the transactions on Jumia, a leading e-commerce platform in the country (Jumia, 2019). This is in tandem with the findings from the private sector survey that show that most firms (91 per cent) offer mobile money as a form of payment to their local customers (figure 15). Mobile money, particularly M-Pesa, is the preferred payment method for local customers, according to these respondents. On the contrary, few of them (9 per cent) offer it as a form of payment to their international customers (figure 15). This can be attributed to the inability to transfer mobile money seamlessly across networks in the region, and overlapping transaction costs.

Cash on delivery has been prevalent since the early days of e-commerce in the country, mainly because of the trust deficit among customers (Kazeem, 2020). E-commerce platforms would allow customers to receive and examine delivered items before making payments using cash or mobile money. Over time, pay on delivery continued, with e-commerce companies preferring mobile money over cash to stem the loss of revenue. The guidelines effected by the CBK to deter the use of cash in light of the COVID-19 pandemic has contributed to the decline in the use of cash for e-commerce transactions (Kariuki, 2020). CBK led a safety push to promote the use of cashless transactions, by removing charges on mobile money transfers below K Sh 1,000 (US\$ 10) for bank transfers, mobile wallet to bank, bank to mobile wallet and payment of bills. This continued until 2021, when the limits for free cashless transactions were reduced to K Sh 100 (US\$ 1). Bank-to-mobile wallet transactions can still be conducted free of charge.



Figure 15: Forms of payment offered to local and international customers

What are the forms of payment that you currently offer to your local and/or international customers?
(Private sector survey, 39 responses)



Source: UNCTAD.

The emergence of several payment gateway platforms in the country (such as Pesapal, Cellulant and Flutterwave, among others) has led to an increase in the use of cards for online purchases. These platforms enable online stores to accept debit cards, credit cards, mobile money payments and PayPal payments through their APIs. Visa, Mastercard and American Express are the most common network payment processors used in the country. Visa, for instance has signed up small businesses, while MasterCard invested in an e-commerce company, Kasha, in May 2021. Kasha enables women to purchase hygiene products safely and confidentially. According to the results of the survey administered to the private sector, cards are the most preferred payment method for international customers (figure 15).

The banking sector continues to adopt more secure, convenient and safe technologies. In 2013, the industry moved from magnetic strip-based cards to chip-enabled cards. In 2020, more banks started to issue contactless cards to both credit card and debit card owners. As of August 2021, the country had 326,064 credit cards and 10.85 million debit cards in circulation, and 48,803 point-of-sale machines,

compared with 278,210 credit cards and 10.08 million debit cards in August 2019 (CBK, 2022). Even though most Kenyans qualify for credits cards, the uptake remains low for a myriad of reasons, such as high interest rates and inadequate public awareness. Cumulatively, debit and credit cards were used to carry out 6.28 million transactions worth K Sh 63.4 billion in August 2021, compared with a total of 6.11 million transactions valued at K Sh 59.3 billion transactions in August 2019.

Cryptocurrencies are also gaining wide use in the country as a mode of payment. According to the private sector survey responses, 83 per cent of firms in the private sector accept cryptocurrencies (such as bitcoin) as a payment avenue for international customers. This is far higher than the more conventional credit card, money transfer or digital wallet payment options (figure 15). The proportion of firms that offered cryptocurrencies as a form of payment to local customers was 17 per cent. Nevertheless, cryptocurrencies are still not regulated in Kenya, nor are they backed by the Government or the CBK, and therefore they are not recognized (CBK, 2015).



The other forms of payments currently being offered by the private sector to both local and/or international customers include bank transfers, postal financial services, digital wallets, and barter of goods and services. The proportion of firms that offered barter of goods and services as a form of payment to local and international customers was 83 per cent and 17 per cent, respectively. Unlike the other forms of payments, the barter of goods and services is not subject to taxation.

4.2 Financial regulations

Participants in the Kenyan payment ecosystem comprise CBK, the Government, Commercial Banks, Financial Institutions and Payment System Providers (PSPs). In 2020, Kenya had 42 licensed commercial banks (CBK, 2020).

The Central Bank of Kenya Act (2014) established the CBK, which regulates the financial sector. The objectives of the CBK include the establishment, regulation and supervision of efficient and effective payment, clearing and settlement. It also owns and manages the Kenya Electronic Payment and Settlement System, a Real-Time Gross Settlement system (CBK, 2021).

The National Payment System Act 2011 (No. 39 of 2011) and Regulations (NPSR 2014), set out licensing requirements and provide for the regulation and supervision of payment systems and PSPs. For instance, mobile phone transfer operators are authorized as PSPs under the National Payment Systems Act 2011 and the National Payment Systems Regulation 2014. Besides, all phone-based banking products offered by banks are regulated by CBK pursuant to these regulations to ensure that effective, transparent and adequate governance arrangements and anti-money-laundering protections are in place.^{xvi} Nonetheless, these regulations do not address emerging payment regimes such as bit currency, that are gaining prominence as a payment method for e-commerce transactions across the globe and in the country.

The National Payment Systems Strategy (2021–2025) aims to ensure that Kenya's payment systems are safe and secure. It also seeks to identify the country's payment needs. National Payments Systems in Kenya are classified into two categories: Large Value (Wholesale), and Low Value (Retail).

Kenya Information and Communications (Amendment) Act, 2020 recognizes electronic contracts for digital transactions. This Act also provides that e-signatures are legally valid and admissible in a court of law. This enhances the ease of engaging in e-commerce trade, whether locally or internationally, considering that other countries also recognize e-signatures.

In terms of awareness of these regulations, 70 per cent of the respondents indicated that they were aware of laws or regulations related to electronic and mobile payments in Kenya. Slightly more than half of the respondents (53 per cent) were aware of laws or regulations related to electronic and mobile payments in Kenya. There is an initiative at the MoICT to authenticate signature processes.

4.3 Digital payments: Main mobile and cashless payment solutions available

The National ICT Policy Guidelines 2020 aim to promote Kenya as an infrastructure hub for the region, and to create a digital environment where money creates value quickly by moving efficiently through the business transaction cycle.

At the beginning of 2020, 90 per cent of banking transactions were done outside branches, with 55 per cent of these being done on mobile phones. In 2020, as a result of COVID-19, the Government, through the CBK, set out measures to promote non-cash payments for hygiene and safety reasons. This included a waiver of mobile and digital financial transactions smaller than K Sh 1,000 and a doubling of mobile money wallet sizes to K Sh 300,000. As a result, the non branch payments went up to 94 per cent, with those on mobile phones constituting 67 per cent of bank transactions (CBK, 2020).

The total number of active mobile money subscriptions dropped by 6.5 per cent in 2020, compared with growth of 10 per cent in the previous financial year. This decline was due to reduced subscriptions from Airtel and the exclusion of Equitel Money as a mobile service platform, due to a revised definition of mobile money subscribers.^{xvii} The country had 30.5 million mobile money users, with the top providers being Safaricom's M-Pesa with 30.1 million customers, and Airtel Money with 310,359 customers.

CBK, through the Kenya National Payments System Vision and Strategy (2021–2025), set out through its



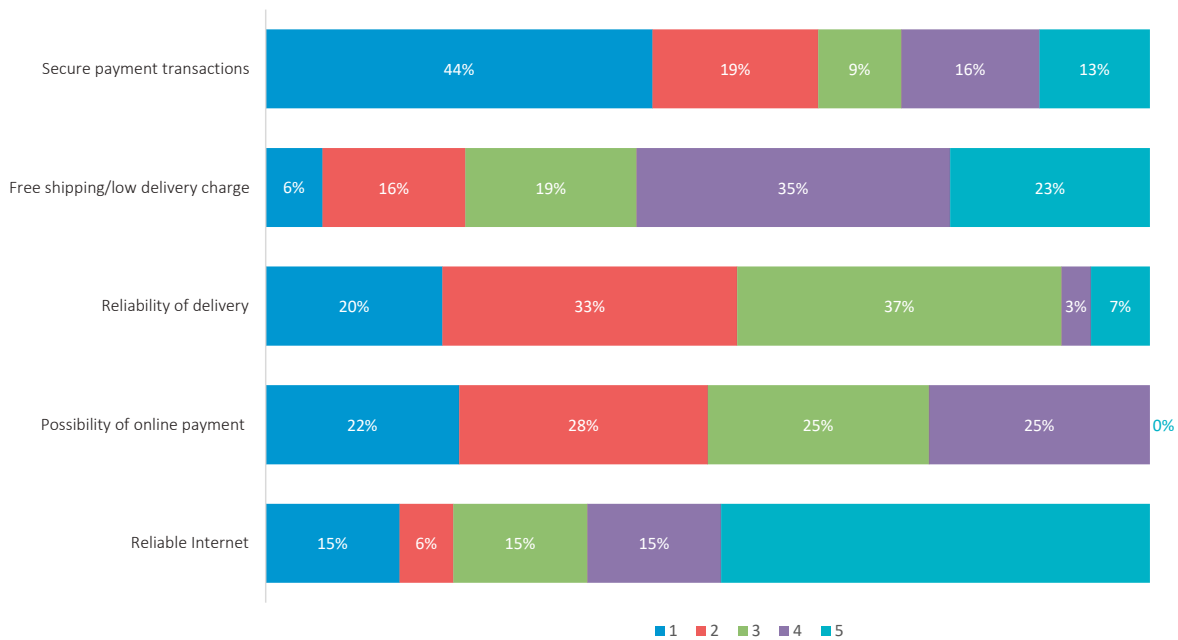
strategic initiatives to increase digital payments based on five principles: trust, security, usefulness, choice and innovation. CBK seeks to support the country’s move to a cash light economy by ensuring that digital systems are secure, resilient and cost-effective, and that they enable collaborative payments.

However, the cost of transactions remains a big hindrance to those in the informal sector seeking to enter the e-commerce space. Many small businesses do not take advantage of mobile money products such as M-Pesa Paybill by Safaricom. Instead, to receive mobile money payments, businesses will ask customers to initiate a “cash withdrawal”^{xviii} or send cash directly to a business owner, which is more costly for both parties and less visible as business revenue. Businesses using this process complain that some customers cancel mobile money transactions after initiating payments, which leads to losses for business owners.

The COVID-19 pandemic accelerated the use of mobile money payments, as these were largely made free by the CBK in a push to encourage cashless transactions to become a way of life for even more Kenyans. In March 2020, when the outbreak was announced in Kenya, the country had 58.7 million mobile money accounts that carried out transactions worth K Sh 364 billion. At the end of the year, when restrictions had been removed, 66 million accounts were carrying out transactions worth K Sh 606 billion. In August 2021, the number of accounts had increased to 68 million and the transactions were valued at K Sh 586 billion (CBK, 2021). Even though processes such as bank-to-mobile wallets and transfer of payments below US\$ 1 were made free, there was a clawback of the gains, as individuals opted not to use mobile money. For instance, despite the risk of handling cash, many public service vehicles in Nairobi informed passengers before a trip that they would only accept cash and not M-Pesa.

Figure 16: Important factors for making an online purchase in Kenya

Rank the following factors that you think are important for making an online purchase (1 being the most important and 5 being the least important. Consumer survey, 35 responses)



Source: UNCTAD.



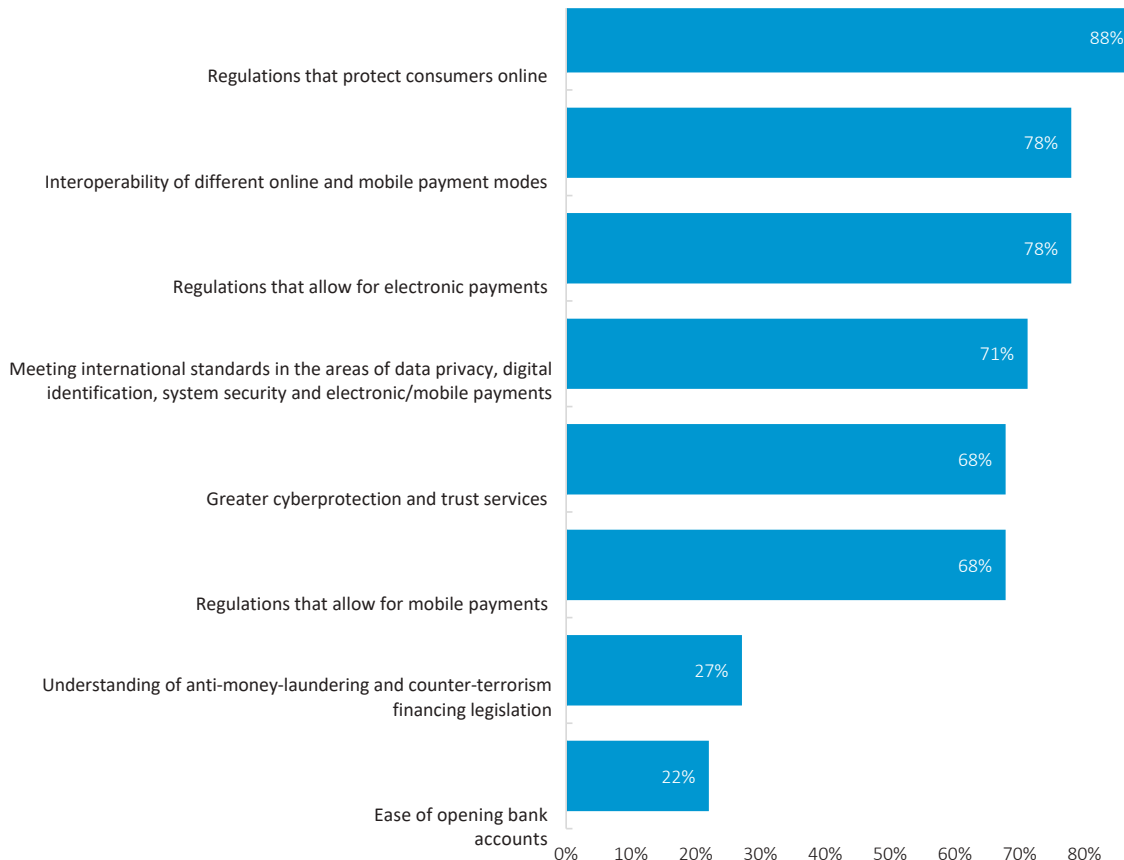
Fraud is another challenge hindering the uptake of electronic payment for e-commerce in the country. Although the adoption of Chip and PIN technology has so far been effective in addressing card skimming fraud, there has been a surge in identity theft cases and mobile fraud (Kenya Bankers Association (KBA), 2017). This has increased mistrust among consumers, making them hesitant to use cards for online purchases. According to the results of the survey administered to the consumers, payment fraud was experienced by 17 per cent of those who had experienced fraud (41 per cent). Koyoma and others

(2021) also found that a growing number of people (90 per cent) were concerned about fraud in e-commerce, while 29 per cent have been victims of online fraud.

Figure 16 shows that secure payment transaction is the most important factor in making an online purchase. Figure 17 also shows that regulations that protect online consumers are the most pressing issues in terms of payment solutions in Kenya. These findings call for increased efforts to stem fraud, so as to improve consumer trust.

Figure 17: Most pressing issues to promote e-payment solutions in Kenya

**In your opinion, what are the five most important issues in terms of payment solutions in Kenya?
(Public and private sector surveys, 59 responses)**



Source: UNCTAD.



5. LEGAL AND REGULATORY FRAMEWORKS

The e-commerce legislation necessary to support the development of e-commerce in the country has been adopted. This legislation includes, among others, the Kenya Information and Communication Act, Rev. 2009 (amended in 2013); the Consumer Protection Act, 2012; the Data Protection Act, 2019; and the Computer Misuse and Cybercrimes Act, 2018. Nonetheless, the Consumer Protection Act, 2012 needs to be amended to address several gaps relating to e-commerce. There is also a need for increased public sensitization on these laws and sensitization of the duty bearers for increased compliance. There is also a need for improved enforcement of these regulations to stem the cases of fraud (such as misleading advertisement, payment fraud and non-delivery of goods), cybercrime and other issues hindering the growth of e-commerce.

5.1 Status of main laws relating to e-commerce

Rapid advances in digital technologies require an equally dynamic and flexible regulatory regime. In addition to slowing technological and market advances, obsolete regulatory systems can be detrimental to consumers and other stakeholders. In this regard, the Government has been legislating on the go, and regularly reviews relevant policies to resonate with rapid technological advances, changing public needs and evolving global trends. These efforts

have been instrumental to the growth of e-commerce in Kenya.

Kenya is ranked 3rd in Africa, and 84th out of the 130 economies included in the Network Readiness Index (NRI) 2021. The NRI is one of the leading global indices on the application and impact of ICT in economies around the world. It had an outstanding performance in e-commerce legislation after ranking first on this indicator among all the 130 economies.

Table 1 : Status of four key laws as per UNCTAD Global Cyberlaw Tracker

Cyberlaw indicator	Legislation
E-transaction laws	The Kenya Information and Communication Act, Rev. 2009 (amended in 2013)
Consumer protection laws	The Consumer Protection Act, 2012
Data protection and privacy laws	The Data Protection Act, 2019
Cybercrime Laws	The Computer Misuse and Cybercrimes Act, 2018

Source: UNCTAD.

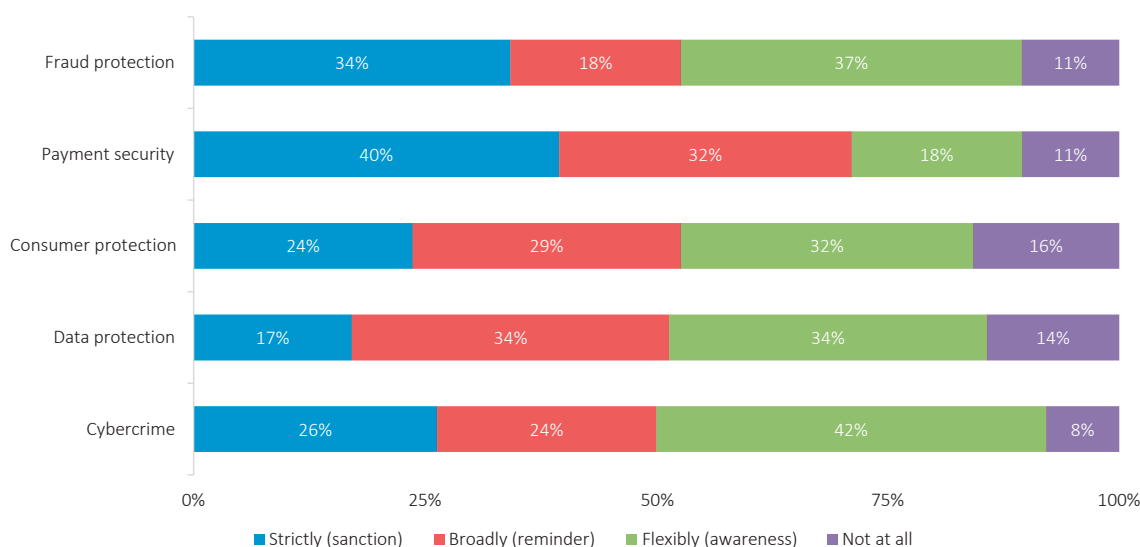
The UNCTAD Global Cyberlaw Tracker maps the state of e-commerce legislation in UNCTAD member States. It tracks the adoption of legislation in the following areas: e-transactions, consumer protection, data protection and privacy, and cybercrime. According to UNCTAD's 2020 data, 82 per cent of its member

States have e-transaction laws, 80 per cent have cybercrime laws, 66 per cent have privacy laws, and 56 per cent have consumer protection laws. Kenya has adopted e-commerce legislation in all four areas, as shown in table 1 (UNCTAD, 2020).



Figure 18: Law enforcement in Kenya

For each of the following, would you say that the law is enforced strictly (with sanctions), broadly (reminder of the rule), flexibly (awareness) or not at all? (Private sector survey, 38 responses)



Source: UNCTAD.

The results of the survey administered to the public sector showed that 53 per cent of the respondents were aware of the laws related to e-commerce in Kenya. Most of the respondents in the private sector (55 per cent) were also aware of laws related to e-commerce in the country. In terms of enforcement, payment security laws topped the list of strictly (sanction) enforced laws. Cybercrime laws topped the list of least enforced laws (figure 18).

Initial efforts to provide legislation for e-commerce in Kenya were in the form of the Electronic Transactions Bill of 2007 and the Information and Communication Bill of 2008. The amendments recognized e-commerce as a legitimate approach to trade transactions, and were captured in the Kenya Information and Communications Act of 2009.^{xix} This Act was followed by the proclamation of the Electronic Transactions Regulations of 2009 that became effective in 2010 (Musau, 2018).

KICA (2009) regulates electronic transactions and provides for the establishment of the Competition Authority of Kenya (CAK), whose mandate is to regulate e-commerce and protect consumers by putting in place measures meant to create and maintain public confidence in online transactions (Musau, 2018).

It permits electronic contracts made by individuals participating in online transactions and recognizes electronic contracts, but limits the recognition of electronic signatures to advanced electronic signatures, which in practice are based on public key infrastructure. The Business Law Amendment Act of 2020 restated the use of an advanced electronic signature for signing a contract into various laws – including the Law of Contracts Act, Cap. 23 – to ease doing business in Kenya; and the Land Registration Act, 2012 (Maema and Anika, 2020; Musau, 2018; Mwathe and Syekei, 2020; Tanui, 2020).

Kenya’s National Public Key Infrastructure seeks to establish a safe digital business environment (CA, 2021a; MoICT, 2020b). It encompasses a Root Certification Authority managed by the Communication Authority of Kenya (CA) and the Government Certification Authority, an Electronic Certification Service Provider managed by the ICT Authority. Currently, the Government Certification Authority is the sole provider of advanced electronic signatures in Kenya. Its existence is critical to realizing the amendments in the Business Law (Amendment) Act. Though two more Electronic Certification Service Providers have been licensed to provide advanced



electronic signatures, none of them is in operation (Maema and Anika, 2020).

Parties may now electronically sign contracts to signify their acceptance and intention to be bound by the terms, since the Law of Contract Act recognizes documents signed with advanced e signatures as valid. The Evidence Act (Section 106) also outlines the legal threshold required by Kenyan courts for the admission of electronic signatures. Where such a signature is used, the court of law presumes that the electronic transactions accompanied by e-signatures are genuine unless litigants prove otherwise (Musau, 2018).

It is important to note that KICA does not regulate e-commerce trading platforms. These do not constitute electronic services as per the Act, and can therefore not be issued licences to operate. The Act only recognizes online payment platforms and thus protects consumers engaging in online payments. Consequently, users engaged in e-commerce are vulnerable to unethical and deceptive market practices (Musau, 2018).

The Consumer Protection Act of 2012 is the fundamental and principal Act that lays down and guarantees rights to consumers. It is the enabling statute of article 46 of the Constitution of Kenya 2010, which focuses on consumer protection. Before the promulgation of the Constitution in 2010, no specific laws existed to protect consumers. Consumer protection was covered in several public law measures – such as the Trade Descriptions Act, Restrictive Trade Practices, Monopolies and Price Control Act (Competition Act) – and private law measures, such as the law of torts and law of contracts. Whereas these regulations have been instrumental in prosecuting offenders for breach of their provisions, they have failed to empower consumers to sue the offenders for redress where the breach affects them negatively (Nzomo, 2018).

The Consumer Protection Act of 2012 was developed to safeguard consumers from fraudulent trade practices, including digital transactions. Although it does not specifically mention online transactions, the interpretation section defines an “Internet agreement” as a consumer agreement created using text-based Internet interactions. Section 31 on disclosure of information about an Internet agreement, section 32 on availing a copy of the agreement to a consumer,

and section 33 on cancellation of an Internet agreement together prescribe the basic requirements for an online transaction in Kenya (Lunani, 2017).

Additionally, it sought to clarify the legal relationship between businesses and consumers engaged in e-commerce transactions, an issue that had not been addressed by the Competition Act of 2010 (Musau, 2018). Additionally, it established the Kenya Consumer Protection Advisory Committee, whose mandate is to track changes in the e-commerce sector and keep the Minister of Trade apprised of emerging risks to consumer protection and measures to mitigate these risks.

Although this Act has sought to clarify the legal relationships between businesses and consumers, it fails to provide adequate protection to consumers in several areas. First, it does not protect buyers who purchase goods from foreign jurisdictions, as an extraterritorial application of laws is rare across the world. These buyers do not have the means to inspect products or establish the quality or quantity before delivery and payment, and cannot obtain reimbursements or compensation where goods delivered fail to match what was marketed online. This is detrimental to consumers involved in cross-border e-commerce.

Second, it is challenging to establish the jurisdiction where aggrieved persons can pursue legal redress, as jurisdictions have different legal approaches to e-commerce. Moreover, it is costly to institute legal procedures in courts in different legal jurisdictions; thus, aggrieved parties are left exposed. Online dispute resolution (ODR) is emerging as an alternative to courts, particularly in the European Union and the United States of America (Gachie, 2016; Kariuki, 2019; Musau, 2018). While the Constitution of Kenya (2010) recognizes the use of the Alternative Dispute Resolution mechanism as an avenue for justice, the ODR model is not yet expressly recognized under any Kenyan law (Kariuki, 2019).

Third, while consumers are required to submit personal information to businesses, the regulation does not oblige sellers to provide pertinent information such as product information, or transaction, delivery and shipping costs. Fourth, customers are exposed to the risk of role repudiation, whereby the sellers can deny having participated in transactions, particularly where fraudulent parties imitate genuine sellers. Fifth,



inconsistent taxation codes expose trading parties to double taxation or arbitrary taxation (Musau, 2018). These demerits are an illustration of the extent to which this act is insufficient and/or lacking in protecting e-commerce.

There are several government institutions through which affected consumers can channel their grievances. There is CAK, whose mandate includes resolving local consumer protection disputes. The organization has a Director of Consumer Protection and receives complaints from consumers and companies. During the year 2020, it finalized 178 consumer cases, a 28 per cent increase from 2019, and these covered sectors such as e-commerce, aviation, retail and cosmetics. Consumers had complained to the Authority about price hoarding, price increases, exclusivity agreements, abuse of buyer power, distribution of products, defective products and items purchased, but never delivered from e-commerce platforms or delivered later than the consumer expected. Nonetheless, Koyoma and others (2021) highlight inadequate complaint management processes as one of the challenges e-commerce consumers face.

CAK has proposed that regulations such as the United Kingdom Consumer Contracts (Information, Cancellation and Additional Charges) Regulations 2013 need to be enacted in Kenya to build consumer confidence in online transactions. The digital business pillar of Kenya's Digital Economy Blueprint aims to address hitherto overlooked elements of digital trading, such as providing a legal framework to enforce contracts, resolve disputes and protect consumers. The National Transport and Safety Authority (Operation of Digital Hailing Operators) Regulations, 2019, which seeks to govern digital taxi businesses, is still in draft form.

Kenya passed the Data Protection Act in 2019, and confirmed the appointment of a Data Protection Commissioner in November 2020. The Act seeks to regulate the processing of personal data and provides for the data rights of citizens. It also includes provisions for rules on data processors, use of data, and data localization requirements, and has been operationalized. However, the Act does not address the following issues: (a) the prosecution of multinational companies that breach the law; (b) lack of clarity on how data controllers and data processors

will gain consumer consent to process personal data; and (c) the vagueness of the Act as to whether or not foreign data processors and data controllers are required to comply with the law (Issaias, 2019; Ojango and others, 2021).

From a business perspective, implementing the Data Protection Act is costly. It requires companies to hire data protection officers, whose mandate is to ensure that companies comply with the Act, conduct regular security audits, and carry out staff training (Limo, 2019). For its part, the Government needs to tackle controversial issues of taxing e-commerce businesses, develop the NAS, and carry out citizen awareness exercises to create awareness on e-commerce and financing of e-commerce start-ups (ibid.).

In terms of implementation of the law, the Government introduced the National Integrated Identity Management System, referred to as Huduma Namba, a system intended to develop a national population register and function as a single source of information about Kenyan citizens and foreign nationals in the country. The Government sought to use Huduma Namba to inform the equitable allocation of resources and improve decision-making (Ministry of Interior and Coordination for National Government, 2021). According to the National ICT Policy Guidelines (MoICT, 2020a), the data originating from the use of this service, among other government services, shall remain in Kenya and shall be stored safely as per the provisions of the Data Protection Act.

According to the 2021 Kenya Digital Economy report, 45 per cent of Kenyans expected that Huduma Namba would make accessing and using digital services easier (Koyoma and others, 2021). However, the roll-out of Huduma Namba was declared illegal in 2021 by the Kenya High Court, because it conflicted with Section 31 of the Data Protection Act, 2019. Section 31 of the Act requires that a data protection impact assessment precede data processing to establish the risks and steps to mitigate these, which the Government had failed to do (Citizen Digital, 2021; Open Society Foundations, 2020; The Standard Newspaper, 2021).

Cybercrime is a significant deterrent to e-commerce in Kenya. CA reported approximately 38.7 million cyberthreat incidents between April and June 2021, and about 143 million cyberthreat incidents between July and September 2021. This 268.8 per cent increase



in cyberthreat cases indicates increased cyberthreats following the increased uptake of e-commerce during the COVID-19 pandemic. These cases comprise attacks aimed at critical systems and services, and unsecured infrastructure; cyberthreat actors acquiring more sophisticated tools; and increased adoption of attack techniques, such as botnet and Distributed Denial of Service (CA, 2021a).

Additionally, due to increased ransomware attacks, some organizations have taken up cyber insurance to mitigate the financial impact of these attacks. CA observed that ransomware gangs are now motivated to intensify their ransomware extortion attacks because of this cyber insurance. It reported 46 million malware threats between October and December 2020, a 44.7 per cent increase, compared with 31.8 million threats between July and September 2020 (CA, 2021).

Phishing attacks grew from 102 incidents in 2019 to 338 incidents in 2020. These attacks targeted unsuspecting online shoppers in the form of special offers, mainly during the holiday shopping season. E-commerce consumers were vulnerable to harvesting user credentials and credit card information, particularly during the holiday shopping season (CA, 2021d; KNBS, 2021). On a positive note, online fraud cases decreased from 97 cases between April and June 2021 to 47 cases between July and September 2021, while cases of impersonation decreased from 302 to 127 in the same period. This decrease has been attributed to CA's efforts to create awareness regarding harmful cyber practices (CA, 2021a).

The results from the survey administered to consumers observed that most of the respondents (67 per cent) felt safe engaging in online shopping. Likewise, 53 per cent of them said they were aware of their consumer rights. Though a majority (59 per cent) had also not been victims of fraud while shopping online, 88 per cent indicated wanting to understand better the risks associated with making purchases via the Internet. Misleading advertisement (product is slightly different from what is advertised) is the most common type of fraud experienced by most of the respondents (50 per cent), followed by payment fraud (31 per cent) and non-delivery of products (19 per cent). Koyoma and others (2021) also found that a majority of advanced digital users, especially those engaging in e-commerce, limit their usage of digital services due to concerns of fraud, harassment and cybercrime. Consequently, government agencies should conduct

research to identify steps that can be taken to address these issues and encourage consumer trust.

In 2018, CAK issued an alert to consumers regarding the rise of e-commerce fraud, noting that fraudsters had developed lookalike e-commerce websites, social media platforms and mobile applications to lure unsuspecting buyers (Kariuki, 2018). Additionally, the fraudulent businesses required buyers to pay a registration fee or provide full payment in advance to purchase goods and services, did not use physical addresses or customer care helplines, and used dubious telephone numbers (*ibid.*). The Directorate of Criminal Investigation and the CBK have provided advice to Kenyan buyers on safety measures to take when engaging in online transactions, such as verifying information about e-commerce stores before making purchases, not sending money to suspicious telephone numbers, not revealing passwords or bank details with third parties and reporting suspicious websites and mobile applications to the CAK or the police (CBK, 2017b; Kariuki, 2018; Maruga, 2018). The National Cybersecurity Strategy (2014) aims to work with higher learning institutions to develop curriculum and training programmes to build the competency of Kenyan cybersecurity professionals as well as develop incentives to attract and retain them in this field. Additionally, it seeks to increase the understanding of the Kenyan public about issues regarding cybersecurity threats and empower them on how to carry out transactions safely online.

The Computer Misuse and Cybercrimes Act enables effective and timely detection, prevention and prohibition of computer and cybercrimes in Kenya. The Act sets out different types of cybercrimes that the law addresses. These include unauthorized interference and interception, illegal devices and access codes, cyberespionage, computer fraud, fraudulent use of electronic data and identity theft. It prescribes substantial consequences for anyone contravening its provisions, including fines, imprisonment, confiscation of assets purchased from proceeds of an offence, and compensation. Additionally, the law also establishes the National Computer and Cybercrimes Coordination Committee, which advises the Government on security-related issues relating to blockchain technology, critical infrastructure and mobile money (CA, 2021d; Indokhomi and Syekei, 2020). This legislation responds to the African Union's Convention on Cybersecurity and Personal Data Protection.



CA is mandated to execute the national framework on cybersecurity management in the country. CA, through the National Kenya Computer Incident Response Centre – Coordination Centre, advises the Government on cybersecurity issues, harmonizes cybersecurity reporting nationally and conducts end-user cybersecurity awareness campaigns (CA, 2021d; Ojango and others, 2021).

The constitutionality and legality of some provisions of the Act have been the subject of litigation. In 2018, the Bloggers Association of Kenya filed a lawsuit contesting the constitutionality of 26 sections of this Act. The contested sections that the High Court suspended pending the hearing of the lawsuit included the composition of the National Computer and Cybercrimes Coordination Committee – that is, that the two-thirds gender rule would not be met – as well as issues regarding the limitation of fundamental rights and freedoms and the lack of public participation (Mulika, 2020; Sugow and Satar, 2020). This suspension was, however, lifted by the High Court in February 2020, when it ruled that the Act did not violate fundamental rights and freedoms, and that the need to safeguard the general public from cyberspace threats overshadowed the granting of the petition (Indokhomi and Syekei, 2020; Sugow and Satar, 2020).

In August 2020, another lawsuit was filed by the Law Society of Kenya at the Court of Appeal, seeking to suspend the enforcement of the 26 sections. This lawsuit was dismissed by the Court, which upheld the ruling by the High Court that these provisions were constitutional (Article 19, 2020). The Computer Misuse and Cybercrimes Act was one of several Acts of Parliament that were declared unconstitutional by the High Court, as these had been passed without the Senate's input. However, the Court suspended the implementation of its decision to give the legislative arm of Government time to regularize its procedures for passing laws, which means that the Act is in force (Ojango and others, 2021).

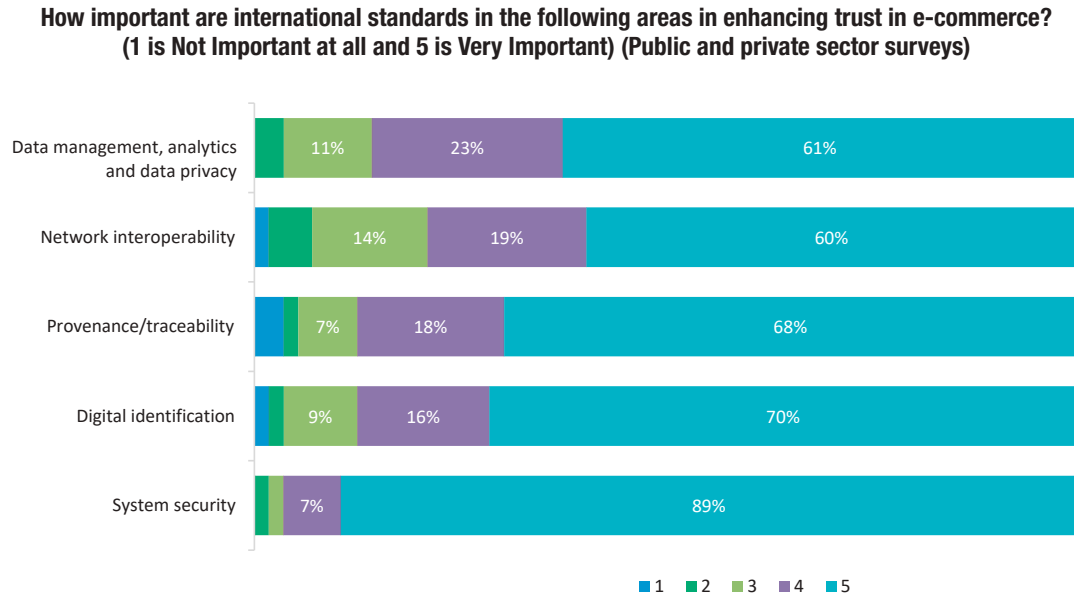
Besides the Consumer Misuse and Cybercrimes Act (2018), KICA also deals with cybersecurity in a limited manner. It provides cybersecurity-related provisions that forbid various actions that could jeopardize cybersecurity; these include improper use of systems, modification and interception of messages. It also stipulates penalties for these actions, which include a fine of K Sh 200,000 to K Sh 10,000,000 and/or a jail term of up to 10 years. For instance, section 31 of the Act penalizes telecommunication providers' unlawful interception and disclosure of communications (Government of Kenya, 2019; Kiunuhe and Otanga, 2021; National Council for Law Reporting, 2011).

Other laws that deal with cybersecurity and impact e-commerce include the CBK Guidelines on Cybersecurity for Payment Service Providers (2019), which set out the minimum cybersecurity standards and risk management frameworks that payment service providers must adopt to mitigate cyber risk. CBK has also issued a Guidance Note on Cybersecurity for the Banking Sector that sets out the minimum standards that banking institutions require to implement effective cybersecurity governance and risk management structures (CBK, 2017).

Section 32 of the Copyright Act deals with "fair use", creating a liability on any person for violating any copyrights, including the distribution, broadcast, and the availing to the public the protected work without licence or consent of the copyright owner. KICA (2009) governs e-commerce transactions in Kenya, allowing and recognizing electronic contracts for digital transactions. The Act creates legal validity for e-signatures. The recent operationalization of the Business Laws (Amendment) Act (2020) resulted in the practical applications of e-signatures and e-documents in the country (Ojango and others, 2021). In 2020, the Government introduced new laws and repealed existing ones to facilitate the ease of doing business in response to the COVID-19 pandemic (see annex II).



Figure 19: Implications of international standards on trust in e-commerce



Source: UNCTAD.

Most of the respondents in both public and private sectors (89 per cent) indicated that international standards on systems security were very important in enhancing trust in e-commerce (figure 19). The other international standards, ranked in order of importance, include digital identification, provenance/traceability, network interoperability, data management, analytics and data privacy.

5.2 Other related laws, acts and regulations

E-commerce is based on the use of resources such as technologies, hardware and software, and relies on the exchange of intellectual property-based electronic goods, which impacts on the protection of intellectual property rights, such as innovative concepts, technological innovations and original expressions. Emerging legal issues facing e-commerce entrepreneurs regarding intellectual property revolve around ensuring that their intellectual property rights are protected and that they do not violate the intellectual property rights of other individuals operating in the digital space (Kinyua, 2021).

Article 11 (2) (c) of the Constitution promotes the protection of intellectual property rights (Nzomo, 2017). Additionally, the Industrial Property Act No. 3 of 2001 (revised in 2012) seeks to protect intellectual

property on technological and design innovations. The Act establishes the Kenya Industrial Property Institute, whose mandate includes granting industrial property rights and screening technology transfer agreements and licences (Musau, 2020; Nzomo, 2017). The Copyright Act of 2001 protects original expressions in literary works, computer programmes, literature, audio and audiovisual content, and establishes the Kenya Copyright Board, which is responsible for the administration and enforcement of copyrights (Kinyua, 2021; Musau, 2020).

However, the country's intellectual property system faces a myriad of challenges, which include inadequate execution of existing legislation, unqualified staff, understaffed intellectual property registries, backlogs and delays in issuing decisions on submissions (Njeru, 2019).

The Digital Service Tax (DST), a 1.5 per cent tax payable on income derived or accrued in Kenya from services offered through a digital marketplace, was introduced in January 2021 through the Finance Act 2020. The repercussions of the DST on the growth of e-commerce are still unclear. Financial experts have proposed aligning the DST to the Turn-over-Tax (ToT). Currently, the DST reverses the tax-free benefits derived by individuals below the minimum threshold



under ToT, and also creates a double taxation effect for providers of digital services or marketplaces who are currently under the ToT scheme (Wanjiru, 2021).

The Cabinet Secretary for the National Treasury published the Value Added Tax (Digital Marketplace Supply Regulations) in September 2020 (National Treasury and Planning, 2020). The DST is covered under these regulations. The regulations provide a scope of products and services traded on the digital marketplace that is subject to taxation. These include downloadable digital content, such as e-books and films; subscription-based media, such as news, magazines, distance teaching via pre-recorded media or e-learning; and services that link a supplier to a customer, such as ride-hailing services.

The Government planned to raise K Sh 5 billion from the DST and to register 1,000 businesses within the first six months of 2021. The DST netted K Sh 47.5 million after six months from 58 non-resident companies, and the Treasury Cabinet Secretary was confident that the Government would collect K Sh 14 billion in three years (Amboko, 2021; Munda, 2021b). Companies in the technology sector, which likely included Safaricom, Kenya's largest company by revenue and the Government's largest taxpayer, had contributed K Sh 427 billion in 2020 (Mutua, 2020). Netflix indicated that it would include a value added tax to its prices starting May 2021 (Igadwah, 2021). Similarly, Google announced that from June 2021 it would begin collecting value added tax from Kenyan YouTube digital content creators from their AdSense earnings and remit this to the United States Government (Ndege, 2021). A European web hosting company, SiteGround, indicated that it would stop serving Kenyan companies over the country's tax complexities (Munda, 2021a). It is unclear if these actions were a reaction to the Kenyan Government's tax proposals, but it is noteworthy that the proposals were all done at the same time.

5.3 Trade and other economic agreements

International investment agreements: Kenya has signed 20 bilateral investment treaties. The definition of an "investor" has been drafted broadly in these bilateral investment treaties and may cover e-commerce providers that have assets in Kenya.^{xx}

At a multilateral level, Kenya is a member of WTO. It is also a member of an informal group called "Friends of E-Commerce for Development" and is a participant in the ongoing "Joint Statement Initiative" on e-commerce negotiations which involve a subset of WTO members that have opted to move forward with negotiations on trade-related aspects of e-commerce in the absence of consensus by the entire membership to launch WTO negotiations in this area.

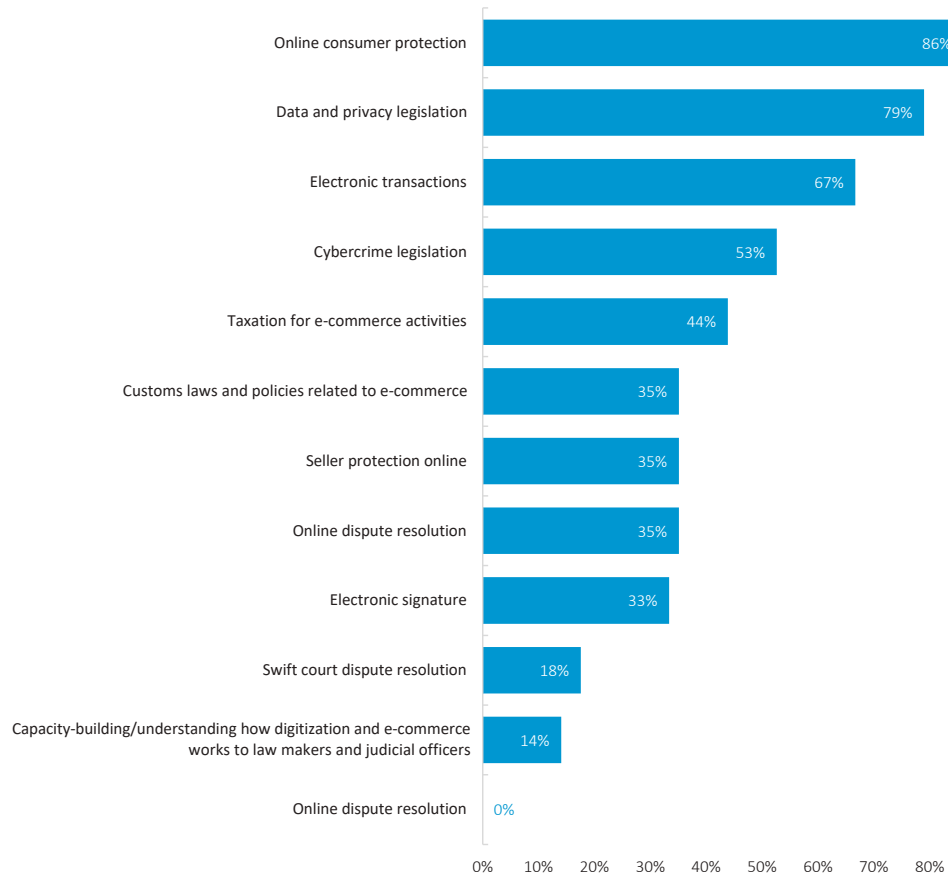
At a regional level, Kenya is a member of several regional agreements. Among these, EAC and COMESA have provisions relating to e-commerce. Article 81 of the EAC-European Union EPA also contains disciplines relating to cooperation in the ICT sector. Kenya is also a member of AfCFTA, and the second phase of AfCFTA negotiations is likely to cover e-commerce.

At a bilateral level, Kenya and the United Kingdom signed an EPA in December 2020 that entered into effect in January 2021. Article 81 of the EPA deals with cooperation in the ICT sector with the objective of inter alia enhancing "the contribution of ICT in facilitating trade through e-services, e-commerce, e-government, e-health, secure transactions and other socio-economic sectors" (United Kingdom Secretary of State for Foreign, Commonwealth and Development Affairs, 2020). Further, Kenya and the United States began negotiating a free trade agreement in July 2020. E-commerce features as an area of interest for both parties and will be a subject of negotiation.



Figure 20: Most pressing issues in terms of legislative and regulatory frameworks

In your opinion, what are the five most important issues in terms of legislative and regulatory frameworks to enhance trust in e-commerce? (Public and private sector surveys, 57 responses)



Source: UNCTAD.

Figure 20 shows that online consumer protection is the most important regulatory issue according to 86 per cent of the respondents from both the public and private sectors. The other regulatory issues in order of their importance are data and privacy legislation, electronic transactions, cybercrime legislation, taxation for e-commerce activities, customs laws and policies related to e-commerce, seller protection

online, online dispute resolution, electronic signature and swift court dispute resolution. A final issue was capacity-building for better understanding on how digitization and e-commerce works to lawmakers and judicial officers. It is important to note that none of the respondents considered online dispute resolution to be an important regulatory issue.



6. E-COMMERCE SKILLS DEVELOPMENT

The Government is aware of the glaring digital skills deficit in the country, and has put in place policy measures to address them. One of these measures entails mainstreaming ICT at all levels of education. Nevertheless, there is still a skills mismatch between curricula in institutions of higher learning and labour market demands. This has resulted in a high unemployment level among youth, particularly graduates. The private sector and other development partners have also initiated several programmes to complement the Government's efforts to upskill the public. In particular, e-commerce marketplaces have been instrumental in equipping entrepreneurs with hands-on e-commerce skills.

6.1 Skills gap identification

E-commerce requires a wide range of skills, which include marketing and branding, platform development, digital marketing, business strategy, graphic design, videography, photography, logistics, understanding applications, cybersecurity, digital advertising, traffic monetization, market identification, managing customs, data analytics, and international standards and quality management (UNCTAD, 2021).

Kenya is experiencing a ballooning deficit in digital skills, and the demand for digital skills outmatches the supply. For instance, the demand for coders between 2007 and 2012 grew by more than 30 per cent, and it is expected to grow by 22 per cent between 2012 and 2022. Even with 58,175 software developers in 2020, Kenya still had a deficit in this critical skill. This gap is likely to have been exacerbated by the COVID-19 pandemic, as most businesses moved online in anticipation of the changing consumer behaviour.

Regarding digital marketing, few SME entrepreneurs have the requisite digital skills to compete on social media platforms, and their business success was due to luck and chance (Qhala and Caribou Digital, 2021). Entrepreneurs experiment by using different online strategies, while others employ digital managers, which can be costly. Additionally, many are not equipped with basic business skill sets, such as understanding profit and loss, hence they are unable to innovate. This calls for an immediate intervention to bridge the gap in digital skills among other skills relating to e-commerce.

The results of the survey administered to the public and private sectors reiterate the need to bridge this

gap (figure 21). Capacity-building on e-commerce for MSMEs tops the list of e-commerce skills and capacity-building needs, followed by both integration of the e-commerce dimension in trade promotion activities, and ICT and e-commerce curriculum in universities, technical and vocational education and training (TVET) institutions, and high schools. Notably, respondents also regarded skills development projects or programmes supported by the private sector or development partners, or capacity-building of national standards bodies in leveraging international standards for e-commerce, as priority areas in e-commerce skills development.

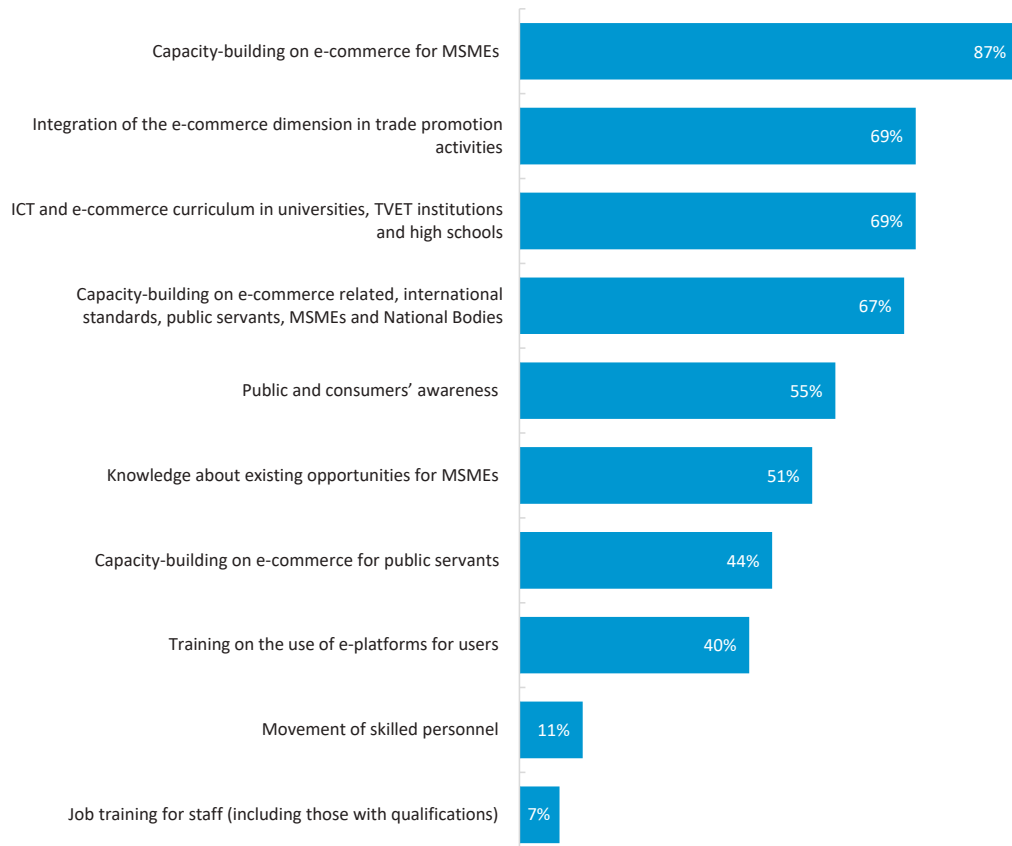
In this light, the Government launched several programmes in partnership with the private sector stakeholders to fulfil the above policy objective. These programmes include (a) the Presidential Digital Talent Programme, an internship programme that develops the ICT talent pool in the country (ICT Authority, 2019); (b) the Ajira Digital Programme; and (c) the Digital Literacy Programme (DLP), which targets primary schools, developing curricula to equip teachers with the skills to teach using digital resources, establishing training programmes that equip the youth with skills needed to enter the labour market.

Nevertheless, a majority of the public sector respondents (67 per cent) indicated that they were not aware of any programmes related to the promotion of youth involvement in e-commerce activities in Kenya. A majority (72 per cent) were also not aware of any programmes related to the inclusion of people with disabilities in e-commerce activities in Kenya. These findings point to a low level of awareness on e-commerce in the public sector.



Figure 21: E-commerce skills and capacity-building needs

**In your opinion, what are the five most important issues in terms of e-commerce skills development in Kenya?
(Public and private sector surveys, 55 responses)**



Source: UNCTAD.



Table 2: Government of Kenya's digital skills pillar

Digital skills level	Competencies
Basic skills	Equip citizens with foundational skills to perform basic tasks: for example, hardware (using the keyboard, operating touch screen equipment), software (word processing, digital file management, navigating privacy settings) and basic online operations (email, completing online forms).
Intermediate skills	Equip citizens with skills needed to perform work-related functions: for example, desktop publishing, digital graphic design, digital marketing and data analysis.
Advanced skills	Build a workforce of ICT experts with skills needed to perform advanced operations: for example, artificial intelligence, machine learning, robotics, big data, coding in relevant tools (such as R and Python), cybersecurity, Internet of Things, and mobile app development.

Source: Source: MoICT Digital Economy Blueprint 2019.

6.2 Availability of tertiary education/curriculum, professional training

Kenya's Vision 2030 establishes a focus on mainstreaming ICT in the national education system. This is also reiterated in the National ICT Strategy for Education and Training, which seeks to develop a competent and ICT-savvy workforce that meets industry needs and increases ICT penetration and usage at all levels of education. In this section, the institutions providing ICT and e-commerce skills in the country shall be examined, including ICT associations supporting advocacy work in the ICT education field.

The Government initiated the DLP in 2016 to offer students and teachers at the primary school level the tools to leverage ICT in teaching and learning. The programme includes the distribution of tablets and laptops preloaded with digital learning content, alongside electricity. This programme was introduced in three phases:

- (a) Phase I introduced digital devices with pre-installed content to lower grade learners.
- (b) Phase II, which was implemented in 2019, seeks to enhance creativity and innovation through the use of technology.
- (c) Phase III will seek to empower learners to use technology for employment creation.

Approximately 80,980 public primary school teachers have been trained to deliver digital training to pupils. As of February 2019, the DLP had achieved a 90 per

cent coverage rate, covering 20,000 out of 22,000 public primary schools (MoICT, 2019b).

The Government has also been offering computer studies as an option subject in high school. The syllabus was first developed in 1996, and has undergone immense revision, owing to the dynamic nature of the subject. Teachers are advised to use contemporary technology, materials and resources in order to expose the learner to the advancements made in the field of computers.

Additionally, the Government has mainstreamed ICT in TVET institutions, as evidenced by the numerous information technology courses available to students at certificate and diploma levels. The number of TVET institutions increased by 10 per cent, to 2,191 in 2019, and the enrolment rose by 19 per cent to 430,598 in 2019, up from 359,852 in 2018 with male students accounting for 57 per cent of all students at TVET institutions (KNBS, 2020b).

Kenya has over 63 universities, both public and private, offering various courses at the bachelor's, master's and doctoral levels. There are also plans to build another public university – Kenya Advanced Institute of Science and Technology – at Konza Technopolis, in partnership with the Government of the Republic of Korea (MoICT, 2019a). Following the mainstreaming of ICT at all education levels in the country, most universities offer it as a common unit for all students.

Nevertheless, there is a glaring skills mismatch, as evidenced by the high youth unemployment in the country. For instance, leaders in the Kenyan ICT industry view ICT graduates as unequipped, “not



only in terms of technical content but also in terms of communications, analytical and critical thinking skills”, according to the National ICT Master Plan (2017). Some employers recruit students only from specific universities and then train them for several months before offering them work positions, while other employers offer work positions and train employees on the job (box 4). This can be attributed to the mismatch between curricula in institutions of higher learning to labour market demands. This weak linkage between education and industry disproportionately affects youths, who account for 75 per cent of the current population of around 50 million.

Additionally, several professional certification programmes are available for graduates, which are

typically vendor or product specific. For example, Cisco certifications are popular with network professionals. Leading enterprise resource planning companies also provide certifications in SAP, Oracle and Microsoft training programmes. In the same light, there are several offline and online coding schools available in the country, such as Moringa School, iLab Africa, eMobilis and Kwetu Hub. Google, in conjunction with various training partners, also offers Digital Skills for Africa, a programme that aims to train young people in digital skills. These initiatives, among others, have been essential in equipping students with the skills needed to build, debug and test web and mobile applications.

Box 4: Improvement in advanced digital skills is important to grow e-commerce in Kenya – the example of Shop Nanjala

Shop Nanjala is an award-winning online shop for home decor, gardening and customized gifts in Kenya. The founder and creative director, Teresa Lubano, started this e-commerce business in 2015, as a cost-efficient alternative to a physical store to sell potted plants that she grew in her backyard. Shop Nanjala serves as a B2C platform for local artisans, providing them with exposure, as Ms. Lubano noted they lacked visibility for their products, as well as an opportunity to sell to a wider market.

However, starting an online store at a time when e-commerce was still at a nascent stage in Kenya was not an easy task. The low e-commerce penetration, and lack of trust for transacting in platform businesses at the beginning of the company’s operations, led the company to settle for selling products mainly offline for a year. After developing a strong in-house team specializing in digital branding and customer service strategy, the company started using social media platforms such as Instagram to expose customers to the Nanjala products, and then direct them to the company’s website to finalize the purchases.

Today, to keep the company’s operations cost-efficient, Ms. Lubano continues most of the digital-related activities in-house, and began to offer on-the-job training. For instance, the back end of the platform is managed by two team members and consultants, and with the support of Ms. Lubano herself, who in 2000 did a course on Management of Information System in the United Kingdom. This also extends to other digital-related activities such as photography, inventory, newsletter designs, content creation for new products and running updates.

The e-commerce entrepreneur also highlighted some initial challenges related to access to funding, the absence of an addressing system in some areas of the country, the high costs of shipping locally and internationally, the lack of coordination of e-commerce issues and the lengthy licensing requirements for exporting certain products sold on the Nanjala platform (such as plants).

Lubano’s success was recognized nationally at the Kenya E-Commerce Awards, when in 2019 she won the “E Commerce Female Entrepreneur of the Year” award and was first runner-up in “Best eCommerce Home Improvement Website”. In 2021, Shop Nanjala scooped up a gold in the same category.

Source: UNCTAD interview with Teresa Nanjala Lubano and from the company’s website (www.shopnanjala.com).

6.3 Start-up and business development support landscape with focus on e-commerce

There are over 50 innovation hubs (innovation spaces, incubation centres, accelerators, tech hubs and maker labs), spread across major towns in Kenya, providing

coaching and mentorship to entrepreneurs seeking to start tech start-ups (GSMA, 2019). It had the second-highest number of innovation hubs according to the 2020 Global Innovation Index (Cornell University, INSEAD and WIPO, 2020). The hubs are spread across major towns in the country, namely Nairobi



(Nailab, iHub, Countrywide Innovation Hubs, iLab.); Mombasa (SwahiliBox); Kisumu (LakeHub); Eldoret (Dlab Hub, Kikao64); Voi (Sote Hub); Machakos (Ubunifu); Lodwar (Start-up Lions); and Nyeri (DeHub and Mt. Kenya Hub). These hubs also support the entrepreneurs to pitch for funding. Several start-ups have benefited from these hubs and secured funding.

In the same light, there are several other institutions offering digital skills courses, such as AkiraChix, a Nairobi-based organization that aims to provide young women and girls from poor social and economic backgrounds with training in technology and entrepreneurship. After one year, the graduates undergo six months of incubation to find and secure employment, as well as receive business mentorship for early-stage start-ups. Thus far, 247 young women have graduated from this programme. There is also Andela, which trains Africa's tech talents on its campuses in Lagos, Nairobi and Kampala, and builds high-performing engineering teams for companies. Tunapanda Institute also provides a three-month training to students in Kibera Slums, Nairobi, with technology, design and business skills, and links its graduates to local employers (MoICT, 2019a).

E-commerce marketplaces have also been instrumental in e-commerce skills development in the country. For instance, Jumia trains its vendors before onboarding them on the platform. The free hands-on training covers everything ranging from the very basics of e-commerce to operations, marketing, finance and sales. In 2016, Jumia, in collaboration with SheCares International, offered e-commerce training to over 3,000 women. The other e-commerce platforms offering e-commerce-specific training include Kilimall, Sky.Garden, Masoko and others.

Additionally, there are several business associations providing training on digital skills in partnership with other stakeholders. KEPSA, through its E-commerce Booster Programme – funded by the European Union and the Foreign, Commonwealth and Development Office – provided support to MSMEs in the wholesale and retail, food services and logistics sectors to transition to e-commerce platforms. The six-month training programme held in 2021 sought to help participating companies diversify and increase their income streams. A total of 2,545 businesses took part in the training, and 1,605 were successfully onboarded onto various e-commerce platforms (KEPSA, 2021).

It has also partnered with the Government through MoICT to increase awareness of online jobs and equip youths with the digital skills to undertake these tasks. The Ajira Digital Programme has sought to position the country as a choice labour destination for international and local companies seeking online workers, by equipping young people with the digital skills necessary to access online work (MoICT, 2021). KNBS estimates that 16.3 per cent of youths in Kenya were not in education, employment or training (NEET), in the first quarter of 2021. As of June 2021, the Ministry reported that it had trained over 60,000 youths through the Ajira platform. The graduates are now earning a living through online work.

It has also launched an Ajira Digital Club at Egerton University, and has over 240 e-commerce firms on its Ajira Network. The National ICT Policy Guidelines 2020 note that over 1 million youths enter the job market every year, and the Government aims to use ICT as an enabler that can provide dignity and financial stability to them. The reach of the skilling programmes will be key to successfully equipping Kenyans with the skills needed to use digital technologies.

The Ministry of Industrialization, Trade and Enterprise Development (MoITED) – in partnership with Stanbic Kenya Foundation; Microsoft Kenya; and the African Center for Women, Information and Communications Technology – launched an online digital and entrepreneurship skills training initiative, dubbed #FutureNiDigital, in June 2021. This programme targets 50,000 MSEs that have been impacted by COVID-19, and upskill them on how to leverage digital skills to grow their businesses and make them employment-ready.

KNCCI has also set up an entrepreneurship centre to fund, train and connect SMEs in the country with local and foreign investors. The centre will enable local entrepreneurs to adapt to a changing business environment by equipping them with digital skills and also connecting them to investors. It will further enable them to tap into cross-border and regional trade, which they can use as a steppingstone to venture into overseas markets.



7. ACCESS TO FINANCING

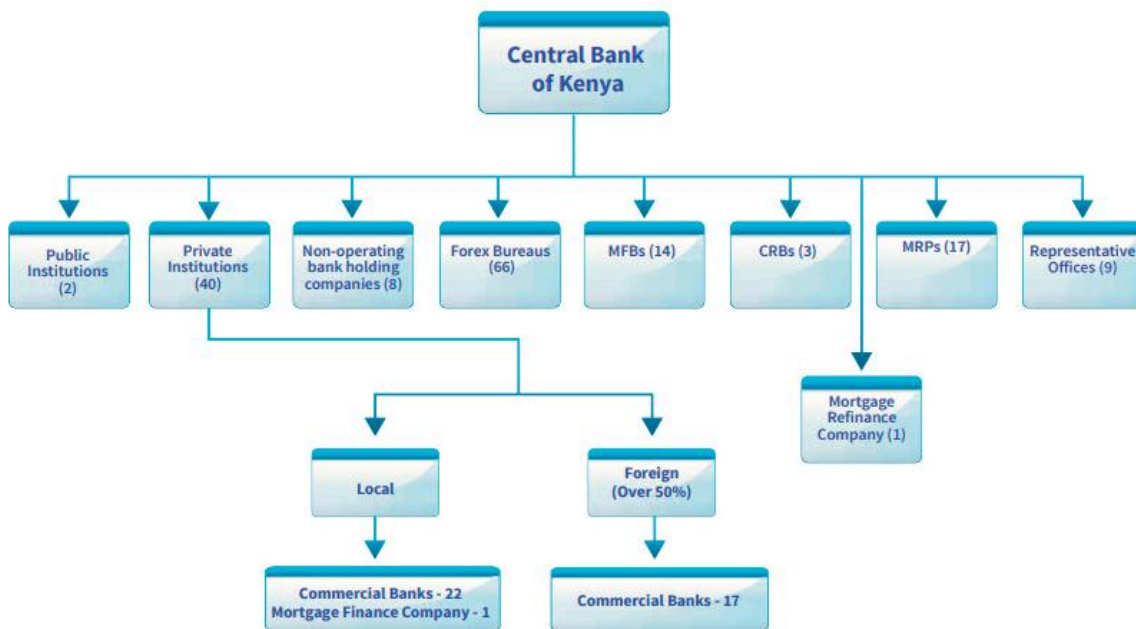
There are several forms of financing, both formal and informal, available to e-commerce companies in the country. The formal sources include banks, deposit-taking savings and credit cooperative societies (SACCOs), mobile loans, government programmes such as the Youth Enterprise Development Fund, the Women Enterprise Fund and the Uwezo Fund; venture capital and private equity firms; and development partners. The informal ones include chama groups, loan sharks and employers. Nonetheless, entrepreneurs still face challenges in accessing financing. These challenges include inadequate fundraising/pitching skills necessary to raise funds, despite having good ideas, lack of collateral, the prohibitive cost of borrowing, the inability to find guarantors, a short repayment period, and the lengthy approval processes for bank business loans. These challenges are exacerbated among women, who face numerous gender-based, cultural and social-based challenges when accessing finances. Financial institutions also face several challenges in lending to these businesses. Though several measures have been in place to address these challenges, much more needs to be done to improve access to financing among e-commerce companies.

7.1 Financing by banks and microfinance institutions

The Kenyan banking sector is regulated by CBK, and has 42 banking institutions: 41 of these are commercial banks and 1 is a mortgage finance

company. Additionally, there are 9 foreign bank representative offices, 14 microfinance banks (MFBs), 3 credit reference bureaux (CRBs), 17 money remittance providers (MRPs), 8 non-operating bank holding companies, 1 mortgage refinance company and 66 foreign exchange bureaux (CBK, 2020).

Figure 22: Kenya’s banking structure as of December 2020



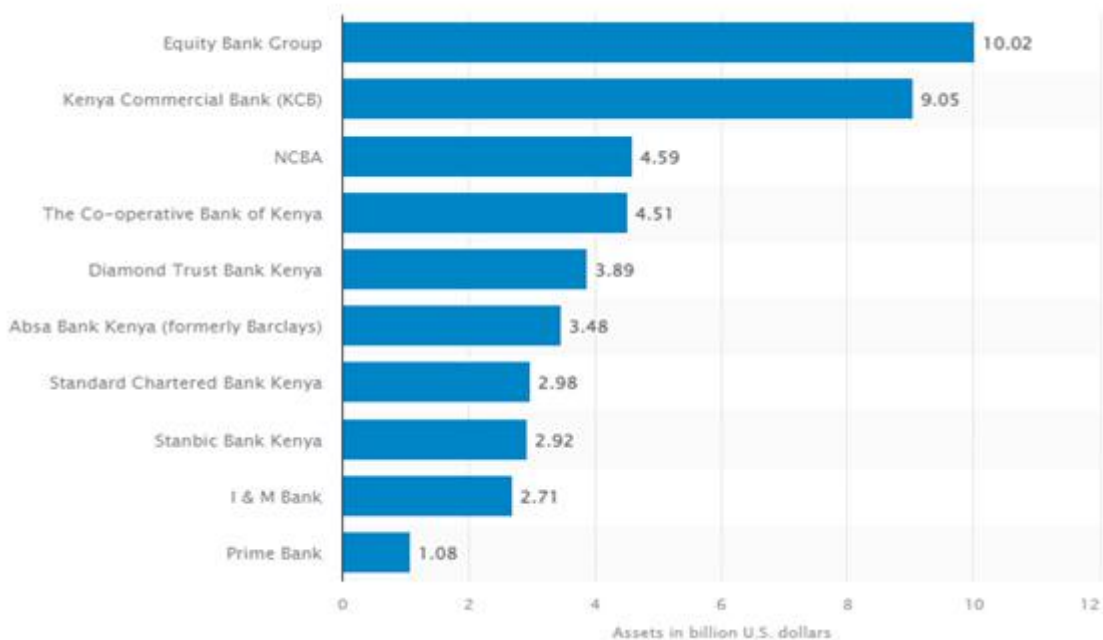
Source: CBK Annual Report 2020



CBK classifies commercial banks based on (a) ownership, local and foreign; (b) nature, such as microfinance banks; and (c) assets. Bank classification based on assets falls into three categories, Tiers I, II and III (International Trade Administration, 2021). Tier I banks consist of large banks with assets worth several billion dollars, such as Kenya Commercial Bank and Cooperative Bank of Kenya Limited, which have assets worth approximately US\$ 9 billion and US\$ 4.5

billion, respectively (Faria, 2021). Tier II banks consist of medium-sized banks, such as Diamond Trust Bank and Prime Bank, with assets worth US\$ 3.89 billion and US\$ 1.08 billion, respectively (Faria, 2021). Tier III banks include small banks, such as Credit Bank and the Consolidated Bank of Kenya, with assets worth approximately US\$ 205 million and US\$ 113 million, respectively (Consolidated Bank of Kenya, 2020; Credit Bank, 2020).

Figure 23: Banks in Kenya by total assets (in billions of United States dollars)



Source: Faria (2021).

Bank branches are primarily urban, but access is extended through bank agents and bank software applications downloaded on mobile phones. Commercial banks have 1,502 branches, and 597 (40 per cent) of these are located in Nairobi, followed by Mombasa with 123 (8 per cent). Each of the country's 47 counties has at least three branches, but most branches are located around larger towns and the peri-urban counties of Kajjado, Nakuru, Kisumu and Uasin Gishu. Even before COVID-19, Kenyan banks were well on a journey towards adapting digital technology. Large banks – such as Equity, Kenya Commercial Bank and Cooperative Bank – had non-

branch channels that processed over 95 per cent of customer transaction volumes.

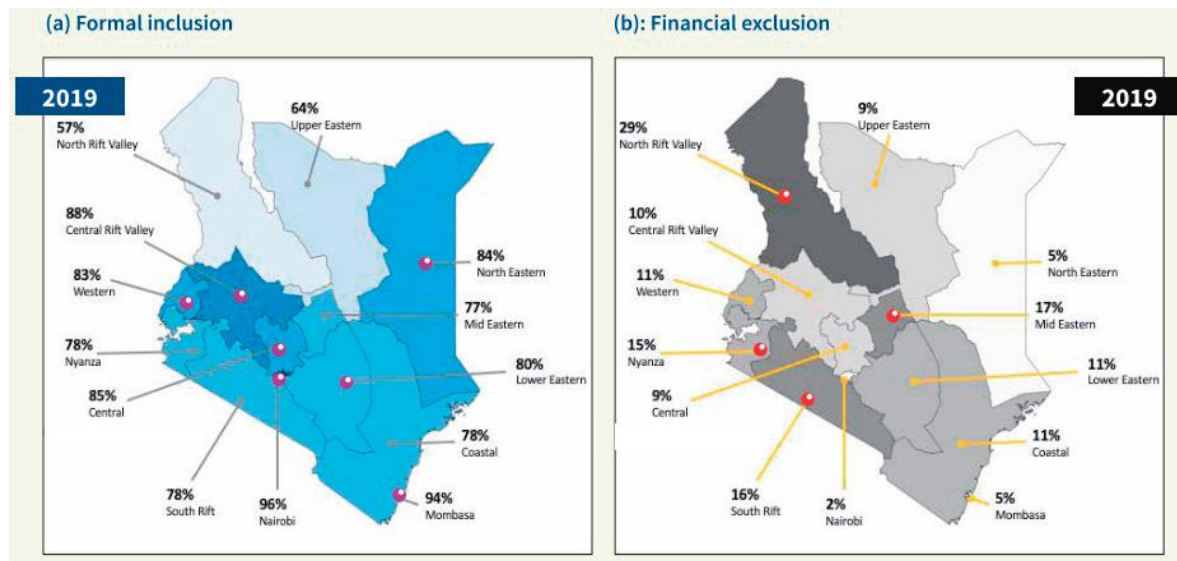
The 2019 FinAccess Household Survey classified access to finance into three categories: formal, informal and excluded. The formal category consists of access to financial services and products from (a) providers such as commercial banks, microfinance banks and deposit-taking SACCOs, which are subject to regulation by an independent statutory government agency; (b) providers such as mobile money, the National Social Security Fund and National Hospital Insurance Fund, which are subject to regulation and supervision by government ministries; (c) providers



such as non-deposit-taking SACCOs, development financial institutions and mobile money apps, operating through direct government interventions. The informal category consists of financial services offered through entities that are not subject to regulation but have a well-defined structure, such as chama groups, informal money lenders and employers. The excluded category consists of individuals who have no access to any form of financial service or only access to finances through family, friends or neighbours (CBK, KNBS and FSD Kenya, 2019).

The FinAccess survey (figure 24) also indicates that formal financial sources increased from 15 per cent in 2006 to 43.9 per cent in 2019. This increase has been credited to the introduction of mobile financial services and innovations such as agency banking, mobile banking, digital finance and mobile apps (CBK, KNBS and FSD Kenya, 2019). Additionally, Nairobi and Mombasa counties, and the Central Rift region, were ranked the highest in terms of access to formal financial services, while Turkana, Samburu and West Pokot in the North Rift region had the highest level of exclusion from financial services (ibid.).

Figure 24: Maps of financial inclusion and exclusion



Source: FinAccess Survey 2019.

Different Kenyan banks have developed products to encourage small businesses to move into e commerce, with several digital loan products targeting MSMEs, such as Merchant Cash Advance by Ecobank and Solv by Standard Chartered Plc (Ecobank, 2022; Mwenda, 2022). A 2020 business survey by FinAccess and CBK found that there were 915,155 MSME loans in the banking industry, and outstanding loans of K Sh 638 billion, or 21 per cent of the total banking loan portfolio of K Sh 3.05 trillion (CBK, 2020).

Technology has enabled banks to develop products that accelerate lending to MSMEs that were previously deemed too risky to lend to and were locked out of the banking system. Banks now have dedicated products for segments such as women suppliers and farmers. The number of MSME borrowers grew at 14 per cent per annum between 2017 and 2020, compared with 11 per cent for the overall sector (CBK, 2020).



Table 3: Loan accounts per sector

Sector	No. of loan accounts	Percentage of total	Gross loans, K Sh million	Percentage of total
Agriculture	119 453	1.05%	108 053	3.59%
Manufacturing	21 778	0.19%	416 845	13.87%
Construction	13 154	0.12%	117 426	3.91%
Trade	280 267	2.45%	517 729	17.23%
Transport	44 028	0.39%	223 884	7.45%
Real Estate	29 873	0.26%	444 705	14.79%
Financial Services	11 725	0.1%	96 608	3.21%
Personal and household	10 892 342	95.34%	843 599	28.06%
Other sectors	11 974	0.04%	357 958	11.90%
Total	11 424 594	100%	3 006 104	100%

Source: Central Bank of Kenya, Bank Supervision Annual Report, 2020.

The Government and private financial institutions have developed initiatives to provide funding to businesses, particularly small businesses owned by women and youth that are unable to obtain funding from traditional banking institutions. These initiatives include the Youth Enterprise Development Fund, the Women Enterprise Fund and the Uwezo Fund.

7.2 Key challenges faced by entrepreneurs

Different Kenyan banks have developed products to encourage small businesses to move into e-commerce. However, borrowers still face challenges accessing credit facilities, such as lack of collateral, the prohibitive cost of borrowing, people being unwilling to act as guarantors, short repayment period and lengthy processes for bank business loans (Anne and others, 2014). Concern regarding the rate of lending led Parliament to pass a bill to introduce interest rate caps in 2016. However, this did not stimulate lending, and the regulation was repealed in 2019 to allow for other interventions that would lead to lower costs of credit.

CBK has sought to work with banks to improve the pricing of loans by fixing the credit reference bureaux mechanism as a tool to enable cheaper borrowing costs, instead of simply being a tool to punish loan defaulters.

Venture capital has become an important source of funding for start-ups. In 2020, 59 start-ups received US\$ 191 million in funding, the highest amount received by a country in the global South (Ngugi and others, 2021).

Kenyan female entrepreneurs face numerous gender-based, cultural and social-based challenges when accessing finances, which has affected the growth of their businesses. Some of the challenges they face include limited access to external funds due to their inability to provide physical collateral, high interest rates, limited access to soft loans and rigorous loan application procedures (Makena and others, 2014). Although women are allowed by law to inherit property and land, customary rules still restrict them from owning and controlling these properties (Makena and others, 2014). The majority of female entrepreneurs (60 per cent) access financing from informal avenues such as merry-go-rounds and microfinance institutions, which either do not require collateral or accept other forms of security, such as household furniture (Makena and others, 2014).

From a supply-side perspective, financial institutions face several challenges in lending to businesses. These include businesses lacking credit history, requisite collateral, and financial management skills



needed to keep quality financial statements and proper books of accounts (Kasole, 2008). Small businesses view the keeping of quality financial statements as unnecessary for the following reasons: (a) business owners, particularly small business owners, do all the analysis and planning, hence do not see the need for financial statements; (b) it is expensive to prepare these statements; and (c) business owners want to avoid paying tax (Miller and Nyauncho, 2014). Further, banks have trouble accessing from SMEs the requisite documents to conduct Know Your Client and Anti-Money-Laundering checks, and registering and enforcing collateral (World Bank, CBK and FSD Kenya, 2015).

Other challenges highlighted by financial institutions are first, the dynamic and flexible nature of SMEs, which makes it a challenge for financial institutions to keep track of business operations, as this can suddenly change. That is, a business owner can introduce a new business line or close his or her current business and start a different one. Second, SMEs are multi-banked and, since there are many institutions offering credit facilities, they can take advantage of this to borrow from multiple institutions. Unfortunately, this can lead to loan defaulting when the repayment of the loan becomes a burden. Third, given that SMEs are spread across different sectors, it makes it difficult for financial institutions to assess them all under a common base or tailor one product that will fit them all. Finally, SME owners lack the technological know-how to keep up with the rapid modernization of the banking sector, and many find it a challenge to fill out online requirements or read materials shared with them online (Kenya Bankers Association, 2016).

Challenges facing entrepreneurs include a lack of fundraising/pitching skills necessary to raise funds, despite having good ideas, and a lack of a local crowdfunding legal framework, to regulate equity and debt-based crowdfunding models. For example, in 2016, the Capital Markets Authority stopped an attempt by a real estate venture to conduct crowdfunding

activities (Gatuyu, 2017). However, the Authority is in the process of developing regulations and in 2020, after undergoing a one-year (July 2019–July 2020) testing phase in the Authority's regulatory sandbox, Pezesha Africa Limited received the green light to run its debt-based crowdfunding (Gitogo, 2020). The Authority has also published the Draft Capital Markets (investment-based crowdfunding) Regulations 2021 (Ong'anya Ombo Advocates, 2021). Other challenges facing entrepreneurs are a lack of a leasing framework that SMEs can use to finance credit, and Kenyan investors' unwillingness to invest in local businesses because they are risk-averse.

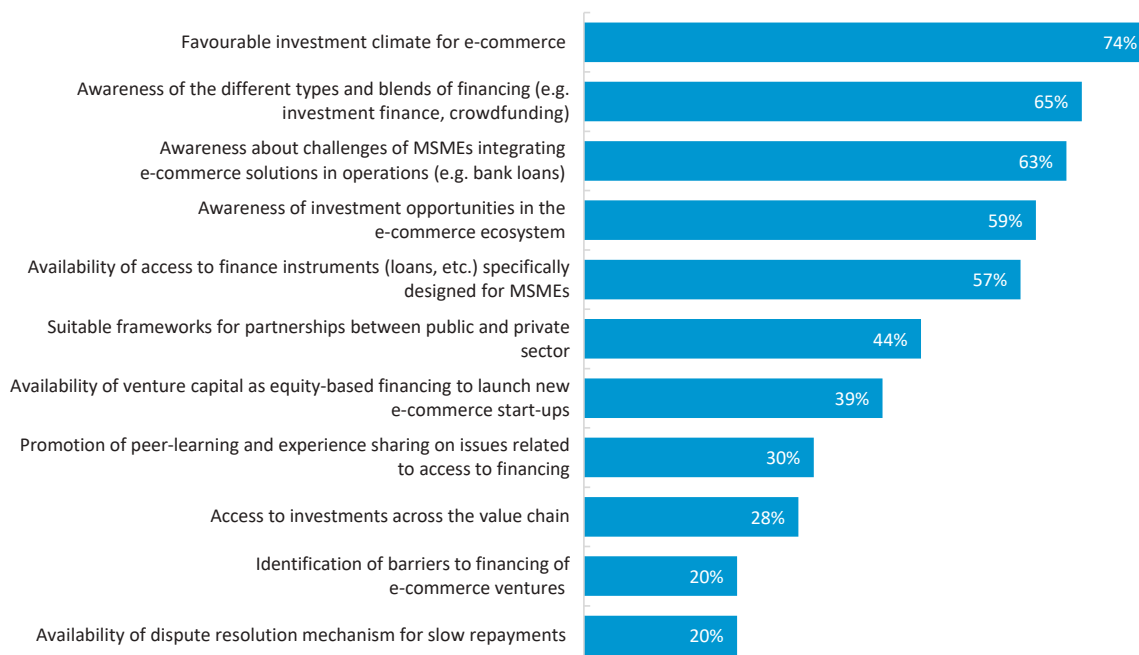
Microloans are accessible from non-bank service providers whose apps are available on the Google app store. Users download these and get a pre-set credit limit that is determined by their identity, credit history and multiple data points on their phones. These loans, which are often used for business and are repaid within hours or days, have usurious interest rates when spread out over a year. The digital lenders also often resort to debt-shaming tactics, such as calling friends and family, to compel their borrowers to repay the loans. A private bill submitted to the Kenyan Parliament in 2021 seeks to bring unregulated digital lenders and credit service providers under the umbrella of CBK. It was assented into law in December 2021, and CBK has thereafter published draft regulations and invited digital credit providers to submit their registration details.

In addition to traditional financial institutions, providers of alternative finance are also active in the country. Organizations such as Umati Capital, GroFin Kenya and Kopo analyse business trading data and use this as a basis for granting loans. While more expensive than traditional loans, these providers have less stringent credit terms, offer flexible payment terms, and the loan ranges are broader – for example, the provision of one-day loans (Lyon, 2021; Widjaja, 2017).



Figure 25: Access to finance: the most pressing issues for e-commerce development in Kenya

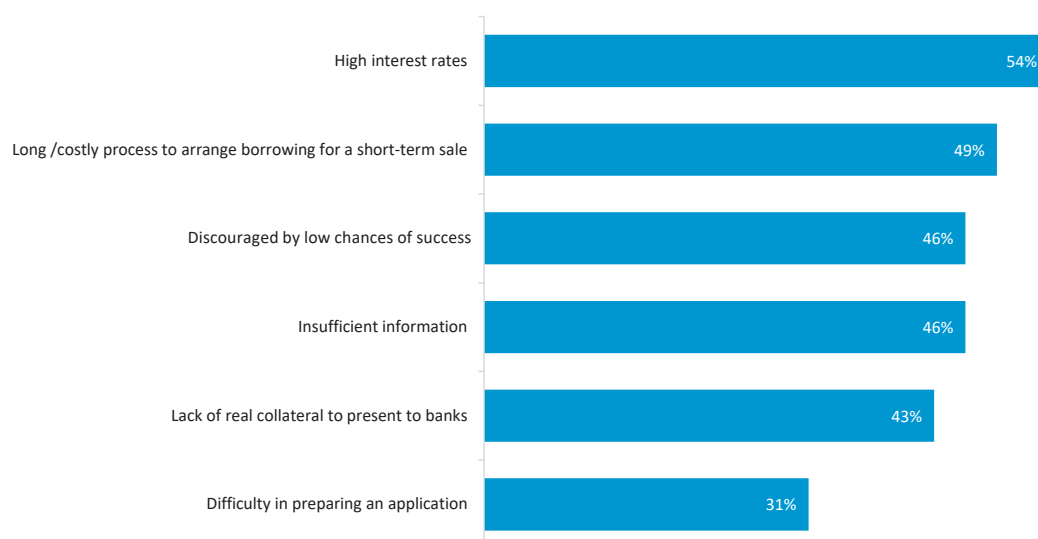
In your opinion, what are the five most important issues in terms of access to financing for e-commerce in Kenya? (Public and private sector surveys, 54 responses)



Source: UNCTAD

Figure 26: Main reasons for not applying for funding

If you have never applied for funding, what are the main reasons for this? (Private sector survey, 35 responses)



Source: UNCTAD



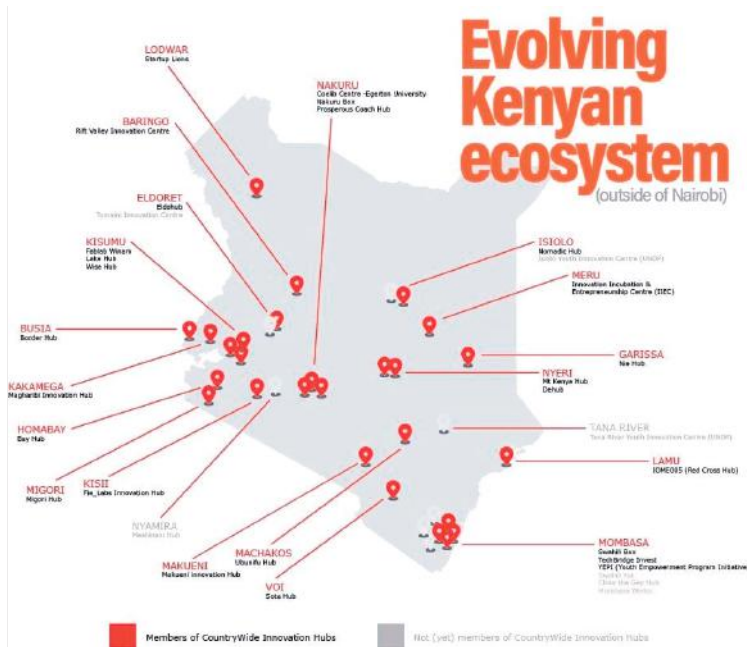
7.3 Business incubators, business accelerators and venture capitalists

The country has several incubators, government policies and start-up support measures available to e-commerce firms. These include C4D Lab, a Research and Development and start-up incubation lab established by the University of Nairobi; iLab Africa, a centre of excellence in ICT innovation and development based at Strathmore University, Nairobi; Nailab, a Nairobi-based start-up incubator that tries to lower the entry barriers for ICT entrepreneurs who want to start and scale their businesses within Kenya.

Entrepreneurs from Kenya have access to various start-up competitions. For instance, the Japan International Cooperation Agency expanded its start-up accelerator programme, Ninja Accelerator, to Kenya, scheduled to take place in April 2021.

The country has approximately 50 incubation hubs, the fourth-highest number of hubs in Africa, after Nigeria (85), South Africa (80) and Egypt (56) (GSMA, 2019). Initially, the incubation hubs had generally been concentrated around Nairobi, Kenya’s capital city. Hubs such as iHub (now CCHub), Metta, Nairobi Garage and iBiz Africa are located in the more affluent suburbs, and provide co-working spaces, pay-as-you-go use for facilities and short-term rental facilities, attracting start-up companies that are not yet ready to take up office leases, which are usually for six years. However, business hubs have now emerged in other urban areas. For example, Swahilipot Hub is located in Mombasa, Lake Hub in Kisumu, Kikao64 in Eldoret and Learning Lions Tech Hub in Lodwar Town.

Figure 27: Location of innovation hubs in Kenya



Source: FinAccess Survey 2019.



Technology hubs in Kenya are driven by the private sector. For example, Safaricom, which is the largest telecommunication company in Eastern Africa by revenue, launched Spark Fund, a venture capital fund that has invested in high-e-commerce start-ups, and helped start-up companies to scale their businesses and even move into global markets. Spark Fund has invested US\$ 6 million in a series of local start-ups: Sendy, a logistics firm; Ajua, a digital experience platform; Eneza, an e-learning platform; Lynk, a jobs platform; and Farmdrive and iProcure, both platforms that provide agricultural inputs to farmers (Safaricom, 2021b). However, angel funds, venture funds and business accelerators mostly benefit expatriates with funding deals of over US\$ 1 million largely going to companies with non-Kenyan founders (Adegoke, 2021).

There is a Growth Enterprises Markets Scheme at the Nairobi Securities Exchange through the Ibuka Acceleration Programme. The Exchange, through this programme, selects companies and helps them to streamline their management, governance and transparency structures to eventually attract funding and list on the securities exchange.

Bankers have indicated that common challenges stifling the growth of SMEs include lack of access to finance, limited credit history, and lack of knowledge

in financial management, which affects SMEs' ability to repay loans. In November 2019, KBA and CBK unveiled Stawi, a credit side platform for SMEs to access unsecured credit. Stawi issues loans for amounts from K Sh 30,000 to 250,000 at an interest rate of 9 per cent per year, which is payable within 1 to 12 months. This was designed to be much cheaper than mobile-based loans. At the time of its launch, 80,000 SMEs had signed up. KBA has also established Inuka SME, a capacity-building seminar series. The uptake of Stawi was slowed by the onset of the COVID-19 pandemic a few months later.

Several banks also offer training in business skills and e-commerce as an added value to their services. These training programmes were available before the COVID-19 pandemic, but have now been accelerated. Banks that provide training programmes include Stanbic, Standard Chartered and Absa Kenya. These banks have programmes targeted at women entrepreneurs to raise their participation in the financial economy. Women lag men in borrowing, despite having an almost equal contribution of banking deposits. Through these programmes, women can obtain unsecured or partially guaranteed loans that do not require traditional forms of collateral, such as land, which is usually in the custody of male relatives from whom women have to seek consent before they can use it as collateral.

Box 5: Accelerating the digital economy through women-owned businesses

The Standard Chartered Women in Technology Incubator Kenya is Africa's leading incubator programme for female-founded businesses, aligning with calls for more diversity in technology and entrepreneurship, and for more opportunities for women to develop entrepreneurial and leadership excellence. The programme is an initiative of Standard Chartered, in partnership with @iBizAfrica Centre, Strathmore University.

The programme combines world-class start-up support with local and international experience, to provide a holistic start-up incubation programme focusing on immersive learning, mentorship and coaching, seed financing and business-to-business linkages for high-potential start-ups tackling the continent's most relevant challenges.

Incubation components: The methodology for the incubator programme will address the following core components of business development:

- (a) Immersive learning: Entrepreneurs undergo an in-depth evaluation of the current state of their company operation. This informs the methodology of curriculum delivery meeting the unique needs of each venture.
- (b) Mentorship and coaching: In-house mentors/coaches walk the incubation journey with entrepreneurs by facilitating customized mentorship and coaching sessions addressing each company's needs.
- (c) Access to seed financing: The programme enables entrepreneurs to undergo rigorous preparation that allows them to effectively acquire and utilize investments in operations. The programme invests US\$ 10,000 each for five high potential companies in each cohort.



(d) Business-to-business matching: Companies are able to access a rich network of enablers and partners within and outside the ecosystem, enabling them to create sustainable partnerships for business growth.

Source: Women in Tech Incubator – Standard Chartered and @iBizAfrica (2020).

Standard Chartered has partnered with the “Women in Tech” incubation programme at the iLab Africa Research and Innovation Centre. The programme trains female small enterprise owners to leverage technology and mould their businesses to international standards, to attract seed funding (Box 5).

The Kenya Start-Up Bill 2020, introduced to the Senate on 14 September 2020, seeks to develop a regulatory framework for start-ups in the country. The Bill aims to promote innovation and entrepreneurship at both the national and county level; link start-ups to public and private financiers, and research and development organizations, at both national and county levels; facilitate the provision of fiscal and non-fiscal support to start-ups; and promote the establishment of a business-friendly environment for start-ups. The Kenya National Innovation Agency, which was established under the Science, Technology and Innovation Act, 2013, will be mandated by the Bill to register start-ups; generate and maintain a database of start-ups; establish incubation programmes and admit certified incubators into these programmes; develop regulations to manage the relationships between incubators and start-ups; provide financial support to technological innovators; encourage the creation of science and innovation parks, institutes or schools in priority sectors; and benchmark national innovation standards based on international best practices.

Start-ups registered under the Kenya National Agency will expect to receive the following benefits: subsidized costs for the formalization of start-ups, protection of intellectual property innovation, support for research and development activities, and receipt of fiscal incentives such as tax incentives. Additionally, a Credit Guarantee Scheme will be established under the Bill to provide accessible financial aid and act as a guarantee for investors (Acharya and Rehal, 2021; Government of Kenya, 2020; Issaias, 2020).

To be eligible to register with the Agency, a start-up must meet the following criteria: be registered in Kenya and be at least one-third Kenyan-owned;

be newly registered or in existence for no more than seven years from the enactment of the Bill; be involved in innovation, development, production and commercialization of innovative products, processes or services; hold a registered patent or software; have its headquarters or a branch in Kenya; and be able to attribute 15 per cent of its expenses to research and development. Companies that have been formed as a result of a split or merger, or are part of a holding company or subsidiary of an existing organization that is not registered as a start-up, do not qualify (Acharya and Rehal, 2021; Government of Kenya, 2020).

Incubators must meet set eligibility criteria: that is, be registered as a public limited company, a non-governmental organization, a private limited company, a limited company, a limited liability partnership or a partnership; support the formation and development of innovative start-ups; have facilities suitable to accommodate innovative start-ups and adequate equipment for start up activities; be administered by persons with competence in business and innovation; and have established relationships with academic and research institutions, public institutions and financial partners that support entrepreneurial activities (Government of Kenya, 2020).

Acharya and Rehal (2021), Issaias (2020) and Kabaya (2021) have highlighted the following gaps in the Bill: first, it requires a firm to register as a company, partnership, limited liability partnership or non-governmental organization before it can be eligible for registration as a start-up. This process of double registration not only complicates the registration process, but is also costly to start-ups. Second, the requirement to have start-ups register patents or trademarks before they can be eligible for registration is costly to start-ups that may not have the requisite capital to register these, thus locking out some businesses from registration.

The Finance Act 2020 provides regulations for private equity and venture capital companies in Kenya. This Act mandates the Capital Markets Authority to



“license, approve and regulate private equity and venture capital companies that have access to public funds”. Nonetheless, it fails to introduce elaborate provisions detailing the requirements and procedure for obtaining licences by private equity and venture capital companies.

Apart from businesses operating in specified regulated sectors – such as telecommunications, insurance, private security and retirement benefit schemes – there are no restrictions barring foreign investors from taking a majority or minority stake in, or 100 per cent ownership of, a local company. For instance, the National ICT Policy requires foreigners setting up ICT companies to issue a minimum of 30 per cent to local shareholders to obtain a licence to provide ICT services. Inasmuch as this directive is essential in encouraging locals to participate in the ICT sector, it might discourage foreign investment.

Furthermore, the Foreign Investment Protection Act guarantees no restrictions on the repatriation of dividends and profits out of the country. Nevertheless, amounts of USD 10,000 and above, or the equivalent in any currency, must be transferred through a licensed bank to guard against money laundering and financial crime. This is an incentive to venture capital and private equity firms seeking to invest in local businesses.

7.4 Financing by development partners

Several development partners have continued to provide funding to Kenyan commercial banks to on-lend to Kenyan SMEs, women entrepreneurs and value-creating agri-businesses. Some of these financiers include Proparco (Agence Française de Développement Group), the European Investment Bank, DEG of Germany, CDC Group of the United Kingdom, FMO of the Netherlands, the African Guaranty Fund and the African Development Bank.

Proparco, which seeks to distribute € 2.5 billion to African start-ups and SMEs by 2022, has partnered

with Equity Bank Kenya to provide funding to Kenyan MSMEs. Proparco granted the bank a loan of US\$ 22.8 million in 2019, and an additional US\$ 100 million in 2020 to support approximately 240 local MSMEs. The loans support companies that contribute to the country’s Big 4 development agenda – manufacturing, affordable housing, health and food security (Proparco Group AFD, 2020). In 2021, the European Union and the European Investment Bank granted € 120 million to Equity Bank to provide financial access to companies affected by the COVID-19 pandemic to ensure their survival and growth. In 2017, African Development Bank (AfDB) provided a grant of US\$ 90 million to the Commercial Bank of Africa to boost funding of SMEs engaged in value addition in trading, manufacturing, agriculture, infrastructure, transport and construction (AfDB, 2017). Additionally, AfDB partnered with Kenya’s Credit Bank in 2019 to provide grant money to lend exclusively to SMEs operating in the construction, agriculture, renewable energy and manufacturing sectors (AfDB, 2019).

In 2020, the Mastercard Foundation committed US\$ 15 million to provide both financial and technical support for women- and youth-led MSMEs to recover from the economic effects of the pandemic. This will be accomplished through partnerships with various organizations, such as KEPSA, WomenWork Network, KNCCI, TechnoServe, Grassroots Business and 4G Capital (Mastercard Foundation, 2020).

In regard to e-commerce, the United States Development Finance Corporation (DFC) invested US\$ 6 million in e-commerce firms Copia Global and Kasha (Jackson, 2020). SkyGarden raised US\$ 4 million from SANAD Fund for MSMEs, an initiative of Germany’s KfW Development Bank, backed with funding from the German Federal Ministry for Economic Cooperation and Development (BMZ), and diverse public and private investors (SANAD, 2021).



CONCLUSION

Kenya has one of the most advanced digital infrastructures in East Africa and the continent as a whole. This has been attributed to the early liberalization of the telecom sector and improvements to its national connectivity backbone. Kenya's National ICT Policy 2020 seeks to create the infrastructure conditions for use of always-on, high-speed, wireless Internet across the country. The strategies for accomplishing this objective are outlined in the National Broadband Strategy 2023, which aims to transform Kenya into a globally competitive knowledge-based society that is enabled by affordable, secure and fast broadband connectivity. Tremendous progress has been made towards achieving this objective, but much remains undone.

Kenya's Vision 2030, the country's development blueprint, identifies public sector reforms as a critical component to its realization. To this extent, the Government has undertaken several reforms to improve public service delivery using ICT. It has also developed the National ICT Policy 2020, which aims for all government services to be easily accessible to all citizens using their mobile devices anywhere and anytime. This policy also calls for the arms of government to implement, manage and build systems locally.

Kenya has a relatively well-developed transport and logistics infrastructure, including four international airports, an extensive road and railway network, and two modern deep seaports at Mombasa and Lamu, which have been critical enablers of e-commerce development in the country. It also has several national and international couriers serving its domestic market. Nonetheless, the absence of physical addressing systems, heavy road congestion, lack of track and trace among smaller logistics companies, and poor road infrastructure in some parts of the country are critical challenges to e-commerce in the country. Kenya is also among the countries in the region that has ratified the TFA, which encompasses a raft of measures aimed at expediting the movement, release and clearance of goods across borders and those in transit in the country.

The lack of a National Addressing System (NAS) in the country remains a barrier to the development of e-commerce, mainly because it hampers the safe and efficient delivery of e-commerce parcels. The lack of a unified addressing system translates to higher costs and delays when tracing locations and connecting with customers via mobile phone. In response to this challenge, the National Addressing Bill 2021 was submitted to Parliament in June 2021.

Kenya is a continental leader in mobile money innovation. It is the home of M-Pesa, the leading mobile money transfer service in Africa, with over 50 million active users. Consequently, mobile money is the most prevalent payment method for e-commerce. In June 2020, there were more than 30 million active registered mobile money subscriptions. The total value of mobile money transactions in the same year was US\$ 50 billion. Additionally, bank transfers, debit and credit cards and cash are widely used for e-commerce. Nonetheless, the high cost of transactions and fraud continues to hamper trust and hinder the use of electronic payments for e-commerce.

Kenya has adopted legal frameworks that have a bearing on e-commerce. These include the Kenya Information and Communication Act, Rev. 2009 (amended in 2013), the Consumer Protection Act of 2012, the Data Protection Act of 2019, the Computer Misuse and Cybercrimes Act of 2018, the Electronic Transaction Bill of 2007, and the Information and Communication Bill of 2008. The country has also put in place laws that promote the protection of intellectual property rights; these are the Constitution, the Industrial Property Act of 2001 and the Copyright Act of 2001.

However, the existing legal and regulatory framework needs to be enforced and strengthened to improve the e-commerce ecosystem. Furthermore, there is a need to increase campaigns to create public awareness of laws related to e-commerce to enhance trust and encourage more people to participate in the digital economy.

In terms of e-commerce skills development, the Government is aware of the glaring digital skills deficit in the country, and has put in place policy measures to address them. One of these entails mainstreaming ICT at all levels of education. Nevertheless, there is still a skills mismatch between curricula in institutions



of higher learning and labour market demands. This has resulted in a high level of unemployment among youth, particularly graduates. The private sector and other development partners have also initiated several programmes to complement the Government's efforts to upskill the public. Particularly, e-commerce marketplaces have been instrumental in equipping entrepreneurs with hands-on e-commerce skills.

ICT in the national education system has been a priority for the Government since 2006, when the National ICT Strategy for Education and Training articulated the need to develop a competent and ICT-savvy workforce that meets industry needs, and increases ICT penetration and usage at all levels of education. Consequently, the Government has sought to build the digital skills capacity of its citizens by equipping them with various competencies. In addition to targeting schoolchildren and youth, both public and private sector agencies have developed digital literacy skills programmes that target women and persons living with disabilities.

Even though the banking and non-banking systems are relatively well developed in-country, access to finance remains a challenge for entrepreneurs. Financial institutions also face some challenges in lending to businesses. This is a bottleneck to the development of e-commerce.

In 2020, the Kenya Start-Up Bill 2020 was introduced to the Senate. The Bill seeks to develop a regulatory framework for start-ups in the country; promote innovation and entrepreneurship at both the national and county level; link start-ups to public and private financiers, and research and development organizations at both national and county levels; facilitate the provision of fiscal and non-fiscal support to start-ups; and promote the establishment of a business-friendly environment for start-ups. However, the Bill still needs to be improved to address several challenges that have been highlighted by stakeholders.

THE WAY FORWARD: ACTION MATRIX

E-COMMERCE READINESS AND STRATEGY FORMULATION			
Indicative action	Expected results	Priority level	Potential support by
Develop an e-commerce strategy to propel the growth of e-commerce in the country.	National e-commerce strategy developed.	High	MoITED, MoICT, UNCTAD
Develop an eTrade strategy.	eTrade policy developed, as envisioned in Vision 2030.	High	MoITED, MoICT
Set up a national task force on e-commerce to coordinate engagements on e-commerce.	National task force on e-commerce set up.	High	MoITED, MoICT
Improve statistics and data collection efforts across all the concerned agencies of the Government.	E-commerce-specific data available for policy formulation.	Medium	KNBS, MoITED, MoICT, UNCTAD
Organize national awareness-raising campaigns on e-commerce and its benefits to the general public.	Increased uptake of e-commerce among consumers across the country.	Medium	MoITED, MoICT
Increase the number of government services on the eCitizen platform.	Number of government services on the eCitizen platform to be increased, especially on the delivery and logistics side, to extend their reach to citizens.	Medium	MoICT, Ministry of Interior and Coordination of National Government



ICT INFRASTRUCTURE AND SERVICES			
Indicative action	Expected results	Priority level	Potential support by
Fast-track implementation of key infrastructure projects such as National Optic Fibre Backbone Infrastructure (NOFBI).	Improved last-mile Internet connectivity in the country.	High	MoICT, CA
Amend the Finance Act of 2021 to reduce Excise duty on airtime and telephone services.	Reduced cost of Internet connectivity.	High	National Assembly, MoICT
Reduce the tax burden on digital devices (smartphones, tablets, laptops and desktop computers) in the form of import duties and sales taxes.	Increased uptake of digital devices in Kenya.	High	MoICT
Formulate and/or enhance infrastructure-sharing policies and regulations to minimize the costs of developing ICT infrastructure, hence boosting connectivity and enhancing affordability.	Reduced cost of essential infrastructure hardware.	High	MoICT
Develop a Critical Infrastructure Bill and an ICT Authority Act.	A Critical Infrastructure Bill and ICT Authority Act developed and implemented.	High	MoICT
Lower the costs of electricity and promote the use of alternative energy sources.	The general public has access to affordable electricity.	Medium	MoEP

TRADE LOGISTICS AND TRADE FACILITATION			
Indicative action	Expected results	Priority level	Potential support by
Fast-track the National Addressing Bill 2021.	National Addressing Bill 2021 enacted.	High	MoICT
Enhance surface transportation infrastructure to enable efficient and timely delivery of e-commerce packages.	Improved last-mile delivery in the country.	High	Ministry of Transport and Infrastructure, UPU
Enforce existing guidelines for postal and courier licensees that require courier operators to put in place either automated or non automated mechanisms by which customers can track their packages to ascertain their location.	Track and trace for items provided among smaller logistics companies – currently, track and trace is not mandatory in Kenya.	Medium	CA
Streamline the many and often overlapping licences, permits and clearance processes from various agencies, which each impose their own requirements.	Reduction in the average number of processes and documents involved in processing clients' applications.	High	MoITED, KenTrade



PAYMENT SOLUTIONS			
Indicative action	Expected results	Priority level	Potential support by
Improve stakeholder collaboration to mitigate card fraud.	Increased consumer confidence in digital payment systems.	High	CBK, KBA
Increase public sensitization on the importance of safeguarding bank account details.	Increased consumer confidence in digital payment systems.	High	CBK, KBA
Repeal section 357 of the Penal Code to allow for stringent punishment to those involved in card fraud.	Deterrence to those who may be tempted to commit similar offences.	Medium	National Assembly
Promote competition to bring down the cost of transactions through interconnected payment platforms.	Lower costs of transactions through interconnected payment platforms.	High	CBK, MoICT
Review the taxation structure and interconnection fees.	Lower costs of mobile and e-commerce payments	Medium	Treasury, MoICT
Develop regional and international payment processes.	Cross-border traders can access or make payments seamlessly, at an affordable cost.	Medium	Ministry of East African Community and Regional Development

LEGAL AND REGULATORY FRAMEWORK			
Indicative action	Expected results	Priority level	Potential support by
Enforce existing laws and regulations on e-commerce for desired outcomes.	Increased trust and uptake of e-commerce across the country.	High	CA, CAK, UNCITRAL
Increase private sector sensitization on the need to comply with existing consumer protection laws.	Increased compliance with e-commerce regulations among e-commerce firms.	High	CA, CAK
Collaborate with the private sector to ensure the requirements in the Data Protection Act are practical and provide technical support to ensure compliance.	Increased compliance to Data Protection Act among e-commerce firms.	High	CA, CAK
Increase public sensitization on existing e-commerce legislation.	Increased trust and uptake of e-commerce across the country.	High	Office of Data Protection Commissioner, civil society groups, UNCITRAL
Amend the Consumer Protection Act of 2012 to address the gaps relating to e-commerce.	Increased trust and uptake of e-commerce across the country.	High	CAK
Review and simplify tax framework for e-commerce firms.	Increased compliance with DST.	High	KRA, Parliament, National Treasury
Establish a legal framework to settle e-commerce disputes.	Fast resolution of e-commerce disputes.	High	Judiciary, UNCITRAL



Indicative action	Expected results	Priority level	Potential support by
Develop legal standards for ODR.	Legal standards for ODR and developed.	Medium	Judiciary, MoICT, UNCITRAL
Designate a regulatory body to handle e-commerce.	The body will increase consumer trust and confidence that they can engage in e-commerce, with policies and are mechanisms that provide redress.	High	MoITED, MoICT, in coordination with all relevant regulators

E-COMMERCE SKILLS DEVELOPMENT

Indicative action	Expected results	Priority level	Potential support by
Increase digital literacy skills training to the general public.	Traders can upload and sell products and buyers can make online purchases.	High	MoICT, telcos
Revise the curriculum to address digital skills gaps, monitor and evaluate the implementation of the Competency-Based Curriculum to ensure desired outcomes.	Digital skills curriculum is implemented at different levels of academia.	Low	Ministry of Education, business hubs, Commission for Higher Education
Conduct a digital skills gap assessment and capacity-building for small businesses.	More MSMEs transition from offline to online trade.	High	MoICT, business hubs, ITC
Provide training and capacity building on the role and use of standards to promote e-commerce development.	Trust is enhanced among e-commerce sellers and buyers.	Medium	MoICT, CA, KEBS, BSI

ACCESS TO FINANCING

Indicative action	Expected results	Priority level	Potential support by
Sensitize banks to provide financial products for e-commerce firms.	More banks provide a variety of financial products to e-commerce firms.	High	KBA, CBK, KEPSA, FSD Kenya
Use e-commerce data to improve creditworthiness.	More entrepreneurs have the know-how to develop a credit history that can be used to access financing.	High	KBA, CBK, CRB
Improve linkages between businesses and commercial banks.	Increased networking events between businesses and commercial banks.	High	KBA, CBK, global e-commerce firms, FSD Kenya
Develop investment incentives packages for women-founded e-commerce start-ups and businesses.	Increased financing available to women.	Medium	MoITED, KEPSA



ANNEX I: KENYA COUNTRY PROFILE ON ETRADEFORALL.ORG



COUNTRY PROFILE: KENYA

Contact: info@etradeforall.org

GENERAL INFORMATION - 2019

<p>Population 52.6 Millions</p>	<p>GDP 97 050 Millions current US\$</p>	<p>Merchandise trade 23 493 Millions current US\$</p>
<p>Internet users 11.9 Millions</p>	<p>GDP growth 5.7 %</p>	<p>Land area 569 140 km²</p>

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

E-COMMERCE ASSESSMENT - 2017-20

Rank in UNCTAD B2C E-commerce Index	Rank in ITU ICT Development Index	Rank in WEF Networked Readiness Index
88/152	138/176	82/134

Source: UNCTAD, ITU and WEF (complete URL address in the General Notes) Note: 1 = Best

ICT INFRASTRUCTURE AND SERVICES - 2019

Per 100 inhabitants

- Internet users, 22.6
- Fixed broadband subscriptions, 0.9
- Active mobile broadband subscriptions, 41.1

Fixed broadband Internet tariffs, PPP \$/month

Highest tariff: 549.2

Median tariff: 40.3 **KENYA, 49.7**

Lowest tariff: 5.4

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

PAYMENTS - 2017

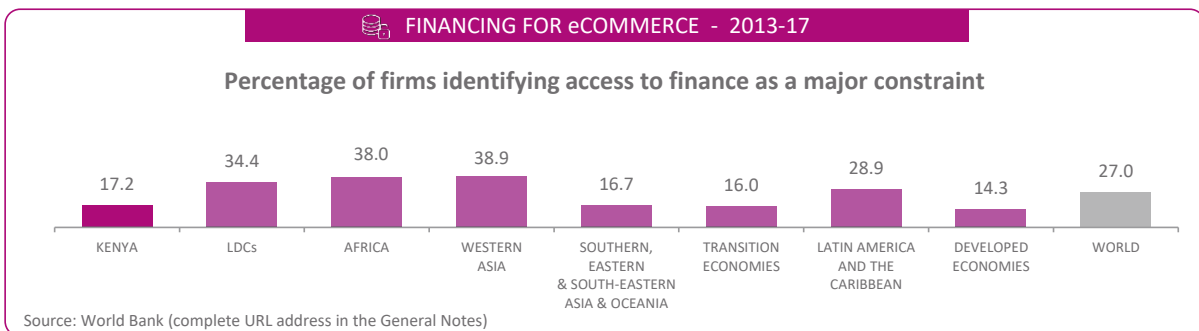
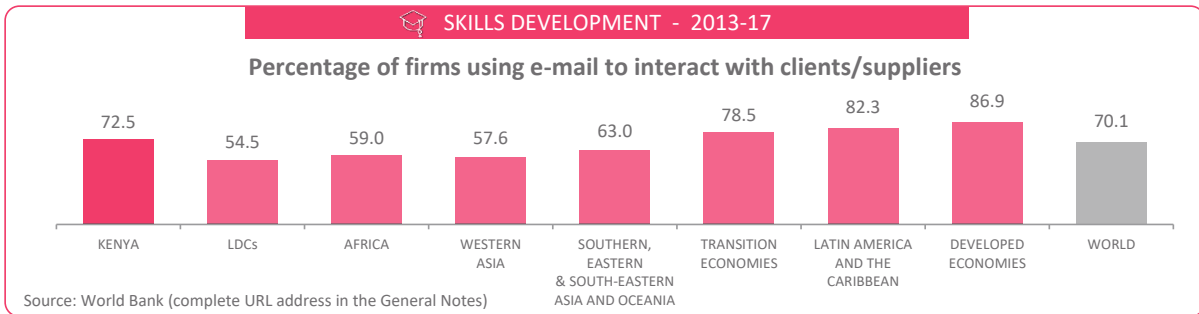
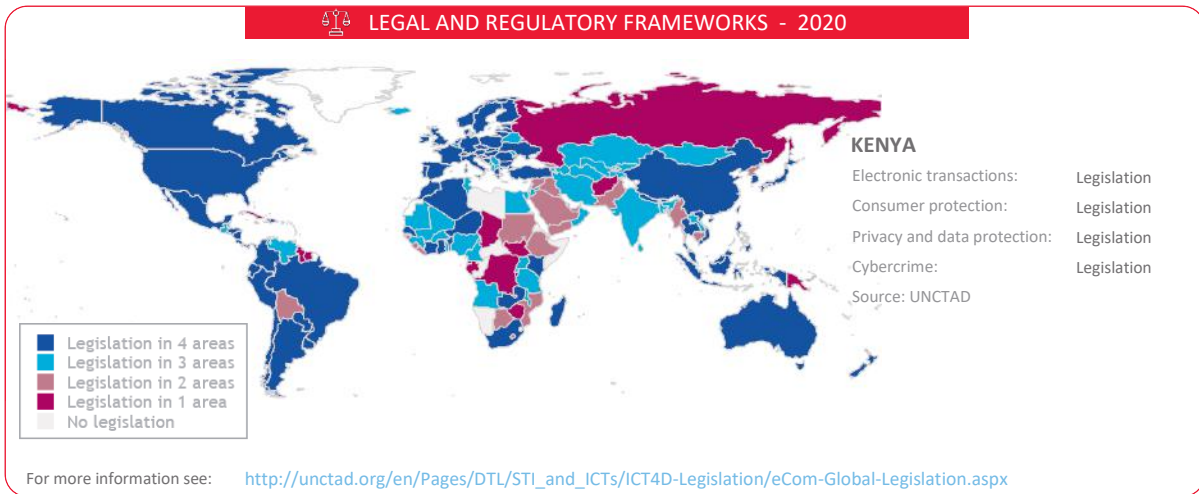
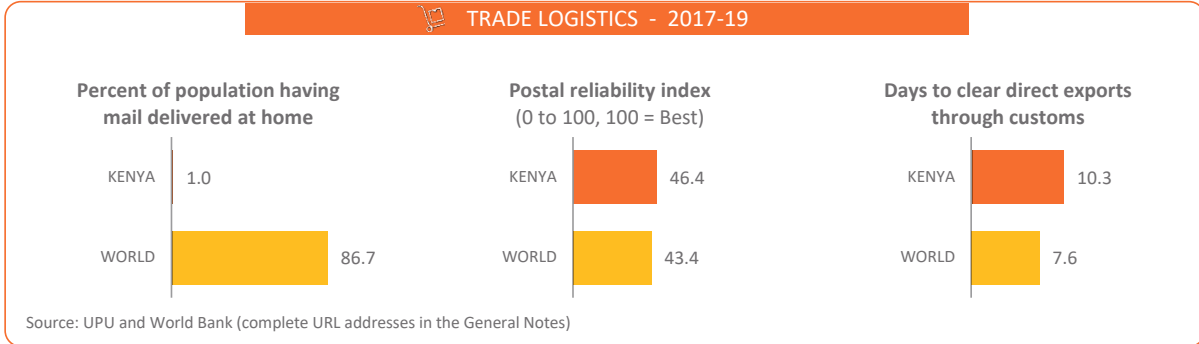
Debit card used in the past year	KENYA, 11.0	AFRICA, 7.8	WORLD, 32.6
Credit card used in the past year	KENYA, #N/A	AFRICA, 7.5	WORLD, 29.3
Mobile phone or the internet used to access a financial institution account in the past year	KENYA, 31.8	AFRICA, 7.0	WORLD, 23.2

Per 100 inhabitants

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



COUNTRY PROFILE: KENYA



ANNEX II: LIST OF KENYAN LAWS INTRODUCED OR REPEALED IN RESPONSE TO COVID-19

Legislation/regulation/order introduced	Acts amended/brief explanation
<p>1) Business Laws Amendment Act, 2021</p>	<p>Companies Act, 2015</p> <p>Amended sections 3, 283 and 285 of the Companies Act to provide that companies may have their general meetings as physical meetings, virtual meetings or hybrid meetings – i.e. both physical and virtual – without the need to pass resolutions. The provision on the issuance of notices of the general meeting was also amended to include means of joining or participating in hybrid or virtual meetings as one of the contents of a notice.</p>
<p>2) Business Laws Amendment Act, 2020</p>	<p>a) Law of Contract Act, Cap. 23</p> <p>Section 3(6) of the LCA was amended to provide that “sign” in relation to a contract includes making one’s mark or writing one’s name or initials physically or electronically on the instrument as an indication that one intends to bind himself to the contents of the instrument.</p> <p>b) Registration of Documents Act, Cap. 285</p> <ul style="list-style-type: none"> • Section 2 of the Act was amended to introduce the definition of “advanced electronic signature” and “electronic signature”. • Section 3(2) of the Act was amended to provide that the Registrar may establish and maintain the Principal and Cost registries in electronic form. • Section 3(2) of the Act was also amended to provide that one may register a document by filing it in physical or electronic form. <p>c) Stamp Duty Act, Cap. 480</p> <p>Section 2 of the Stamp Duty Act was amended to read:</p> <p>“Stamp” means a mark embossed or impressed by electronic means or by means of a dye, franking machine or adhesive stamp.</p> <p>d) Land Registration Act, 2012</p> <ul style="list-style-type: none"> • Section 2 of the Act was amended to provide for the use of electronic signatures in the execution of documents. • Section 44 of the Act was amended to provide that, where practicable, an instrument processed and executed electronically by persons consenting to it by way of an advanced electronic signature shall be deemed to be a validly executed document.



Legislation/regulation/order introduced	Acts amended/brief explanation
3) Civil Procedure (Amendment) Rules, 2020	<p>Amended the Civil Procedure Rules, 2010 as follows:</p> <ul style="list-style-type: none"> • Introduced rule 22B under Order 5 to provide that service of summons may be effected by Electronic Mail Service to the defendant's last confirmed and used email address. • Introduced rule 22C under Order 5 to provide for service by Mobile-enabled Messaging Applications such as WhatsApp.
4) Tax Laws (Amendment) Act 2020	<p>Income Tax Act (ITA)</p> <p>The Tax Laws (Amendment) Act 2020 amended the ITA as follows:</p> <ul style="list-style-type: none"> • Reduced corporate tax rate from 30 per cent to 25 per cent. • Reduced the top tax rate for individuals from 30 per cent to 25 per cent. • Raised the lower tax threshold to K Sh 24,000 per month. • Increased the annual personal relief from K Sh 16,896 to K Sh 28,800. • Reduced the turnover tax rate from 3 per cent to 1 per cent. • Reduced the penalty for late filing of a turnover tax return from K Sh 5,000 to K Sh 1,000. <p>The Value Added Tax 2013</p> <p>The Tax Laws (Amendment) Act 2020 amended the VAT Act to provide for:</p> <ul style="list-style-type: none"> • VAT exemption for personal protective equipment for use by medical personnel and members of the public in the case of a pandemic such as COVID-19. • Change of the VAT status of the following items from zero-rated to exempt: <ul style="list-style-type: none"> a) Vaccines for human and veterinary medicine; and b) Medicaments previously listed in Part C of the Second Schedule of the VAT Act.
5) Court of Appeal Practice Note Administrative Measures to Mitigate COVID-19 (24 March 2020)	It provided for the closure of the Court of Appeal Registry at Nairobi.
6) Practice Directions on Electronic Case Management (Gazette Notice 2357 of 2020)	Provides for various rules on electronic case management, such as the electronic filing of cases and the use of technology in judicial proceedings.
7) Practice Directions for the Protection of Judges, Judicial Officers, Judiciary Staff, Other Court Users and the General Public from Risks Associated with the Global Corona Virus Pandemic (Gazette Notice 3137 of 2020)	Stipulates various measures to guarantee continued access to justice and expeditious disposal of cases in light of the pandemic – for instance, the electronic service of court documents.
8) Executive Order No. 2 of 2020	Provided for the establishment of the National Emergency Response Committee on Coronavirus.



Legislation/regulation/order introduced	Acts amended/brief explanation
9) Supplementary Appropriation Act 4 of 2020	An Act of Parliament to authorize the issue of certain sums of money out of the Consolidated Fund. In particular, it provided that certain sums of money were to be earmarked for COVID-19 pandemic interventions.
10) The Value Added Tax (Amendment of the Rate of Tax) Order, 2020 (LN 35 of 2020)	Amended the Value Added Tax Act by reducing VAT from 16 per cent to 14 per cent.
11) The Public Health (COVID-19 Restriction of Movement of Persons and Related Measures) (Kwale County) Order, 2020 (LN 54 of 2020)	Provided for the restriction of movement of persons in and out of Kwale County for 21 days with effect from 7 p.m. on Wednesday 8 April 2020 until 11.59 pm. on Wednesday 29 April 2020.
12) Public Health (COVID-19 Operation of Restaurants) Rules, 2020 (LN 136 of 2020)	Provides for measures to be adopted by restaurants to prevent the spread of COVID-19 – for instance, medical examination and screening of all employees.
13) Public Health (COVID-19 Religious Gatherings) Rules, 2020 (LN 137 of 2020)	Provides for measures to be adopted by places of worship to prevent the spread of the virus – for instance, ensuring worshippers do not engage in processions during worship.
14) Public Health (COVID-19 Operation of Public Service Vehicles) Rules, 2020 (LN 138 of 2020)	Provides for measures to be adopted by public service vehicles to prevent the spread of the virus – for instance, provision of hand sanitizers for use by passengers.
15) Public Health (COVID-19 Sale of Alcoholic Drinks) Rules, 2020 (LN 163 of 2020)	Banned the sale of alcoholic drinks at any restaurant, hotel, eatery, bar, food court or entertainment establishment. It stipulated that alcoholic drinks were to be sold in wine and spirits shops or a supermarket between 9 a.m. and 7.30 p.m.
16) The Public Order (State Curfew) Order, 2020 (LN 36 of 2020)	Put in place a 7 p.m.–5:00 a.m. State curfew for a period of 30 days with effect from 27 March 2020.
17) The Public Health (Declaration of Formidable Disease) Order, 2020 (LN 37 of 2020)	Declared the coronavirus disease to be a formidable epidemic disease.
18) The Public Order (State Curfew) Variation Order, 2020 (LN 43 of 2020)	Varied the Public Order (State Curfew) Order to provide that all employers were to ensure that their staff who were not designated as critical or essential services providers left the workplace no later than 4 p.m.
19) The Public Health (Prevention, Control and Suppression of COVID 19) Regulations, 2020 (LN 49 of 2020)	Provides, among others, for the responsibility of every owner, person in charge of, or occupier of premises, to notify a medical officer of any suspected case of COVID-19, the power of a public health officer to enter any premises and search for any case of COVID-19, and the measures to be adopted in relation to the removal and disposal of bodies of persons who die from COVID-19.
20) The Public Health (COVID-19 Restriction of Movement of Persons and Related Measures) Rules, 2020 (LN 50 of 2020)	Provides, among others, for the power of the Cabinet Secretary for Health to restrict the movement of persons in or out of an infected area, and the wearing of a proper face mask and maintaining a physical distance of no less than one metre from the next person when in a public place.
21) The Public Health (COVID-19 Restriction of Movement of Persons and Related Measures) (Nairobi Metropolitan Area) Order, 2020 (LN 51 of 2020)	Restricted the movement of persons in and out of the Nairobi Metropolitan Area for 21 days with effect from 7 p.m. on Monday 6 April 2020 until 11.59 p.m. on Monday 27 April 2020.
22) The Public Health (COVID-19 Restriction of Movement of Persons and Related Measures) (Mombasa County) Order, 2020 (LN 52 of 2020)	Restricted movement in and out of Mombasa County for 21 days with effect from 7 p.m. on Wednesday 8 April 2020 until 11.59 p.m. on Wednesday 29 April 2020.



Legislation/regulation/order introduced	Acts amended/brief explanation
23) The Public Health (COVID-19 Restriction of Movement of Persons and Related Measures) (Kilifi County) Order, 2020 (LN 53 of 2020)	Restricted movement in and out of Kilifi County for 21 days with effect from 7 p.m. on Wednesday 8 April 2020 until 11.59 p.m. on Wednesday 29 April 2020.
24) The Public Health (COVID-19 Restriction of Movement of Persons and Related Measures) Variation Rules, 2020 (LN 56 of 2020)	Varied the Public Health (COVID-19 Restriction of Movement of Persons and Related Measures) Rules, 2020 to provide for the closure of various places, such as nightclubs, beauty salons and gyms.
25) The Public Order (State Curfew) Variation Order, 2020 (LN 57 of 2020)	Varied the Public Order (State Curfew) Order, 2020 to include Kenya Ferry Services, its employees and officers engaged in the transportation of food supplies and other cargo only in the list of essential service providers.
26) The Public Health (COVID-19 Restriction of Movement of Persons and Related Measures) Variation Rules, No. 2 Of 2020 (LN 58 of 2020)	Varied the Public Health (COVID-19 Restriction of Movement of Persons and Related Measures) Rules, 2020 to provide that the transportation of passengers by ferries will only take place between 5.30 a.m. and 6.30 p.m.
27) The Public Finance Management Act Waiver (LN 59 of 2020)	Provided for a two-year waiver of court fees in respect of commercial disputes where the value of the suit does not exceed K Sh 1 million.
28) The Public Finance Management (State Officers and Public Officers Motor Car Loan Scheme Fund) (Amendment) Regulations, 2020 (LN 60 of 2020)	Amended the Public Finance Management (State Officers and Public Officers Motor Car Loan Scheme Fund) Regulations to provide for payments out of the Funds for purposes other than for the objects and purpose of the Funds, on a temporary basis, where such deviation is necessitated by a major natural disaster or other significant unforeseen events.
29) Public Health (COVID-19 Prohibition of Sale of Alcoholic Drinks) Rules, 2020 (LN 135 of 2020)	Provided for the closure of bars, nightclubs, wines and spirits shops and entertainment joints engaged in the sale of alcoholic drinks, effective 27 July 2020.
30) Court of Appeal Practice Notes for the Conduct of Court Business during the Global Coronavirus Pandemic.	Provides various directions on appeals and applications made to the court during the coronavirus pandemic. For instance, it provides for the electronic filing of documents and electronic payment of court fees.
31) Insurance Act Exemption (LN 167 of 2020)	Through this legal notice, the Cabinet Secretary for the National Treasury and Planning exempted all registered insurers from the provisions of section 41 of the Insurance Act for the period commencing on 1 July 2020 and ending on 31 December 2020. Section 41 of the Act provides for capital adequacy requirements for insurance companies.
32) Central Bank of Kenya Press Release (Dated 18 March 2020)	Stated that banks were to provide relief to borrowers on their loans based on their circumstances arising from the pandemic. Additionally, to provide relief on personal loans, banks were to review requests from borrowers for extension of their loans for a period of up to one year. It also provided for the elimination of all charges for transfers between mobile money wallets and bank accounts.
33) Gazette Notice No. 3096 of 8 April 2020	Provided for the suspension, for a period of six months, the listing of negative credit information for borrowers whose loans were performing previously but had become non-performing from 1 April 2020. Consequently, loans that fell in arrears from 1 April to 30 September 2020 did not lead to the "blacklisting" of the borrower by credit reference bureaus.



ANNEX III: KENYA'S UNIFIED LICENSING FRAMEWORK

Licence	Description
1) International Gateway Systems and Services Licence	Permits the provision of international gateway services using satellite communication services across the globe, or terrestrial systems across contiguous countries.
2) Submarine Cable Landing Rights Licence	Permits the provision of international connectivity services across the sea.
3) Network Facilities Provider (NFP)	<p>Permits a licensee to establish and operate communication infrastructure using any form of technology (fibre, copper, satellite or microwave systems) for purposes of leasing for use by application service providers.</p> <p>It has three subcategories:</p> <ul style="list-style-type: none"> a) NFP Tier 1 – Spectrum allocation is national; b) NFP Tier 2 – Spectrum allocation is regional and not national; c) NFP Tier 3 – Spectrum allocation is regional.
4) Application Service Provider	Permits licensees to provide any form of services to end-users using infrastructure leased from any NFP licensee. (The services are all communication services, e.g. voice, data, Internet, vehicle tracking, except services that are content-based in nature.)
5) Content Service Provider	Permits licensees to provide content related services to end users who are customers of application service providers – e.g. entertainment, education and health.
6) Dot KE (.ke) Domain Name Registry Services Provider	Permits licensees to be the administrative and technical contact for the dot KE domain name registry.
7) Dot KE Subdomain Name Registrars	Permits the provision of registration services for the Dot KE subdomain registrar services.
8) Telecommunications Contractor Licence	Permits the supply, installation and maintenance of communication infrastructure for third party infrastructure providers, such as NFPs or private network operators.
9) Telecommunication Technical Personnel Licence	Issued to individuals deemed to be technically qualified to carry out installation and maintenance of communication infrastructure.
10) Ordinary Communication Vendor Licence	Permits the supply and maintenance of low-power communication devices such as mobile phones, set-top boxes and remote devices.

Source: Communications Authority of Kenya (2021c).



ANNEX IV: LIST OF UNCTAD ETRADE READINESS ASSESSMENTS

- Member States of the Economic Community of West African States: eTrade Readiness Assessment (forthcoming).
- Tunisie: Évaluation de l'état de préparation au commerce électronique (February 2022).
- Jordan: eTrade Readiness Assessment (December 2021).
- Côte d'Ivoire: Évaluation de l'état de préparation au commerce électronique (February 2021).
- Iraq: eTrade Readiness Assessment (November 2020).
- Member States of the West African Economic and Monetary Union: eTrade Readiness Assessment (November 2020).
- Niger: Évaluation rapide de l'état de préparation au commerce électronique (July 2020).
- Bénin: Évaluation rapide de l'état de préparation au commerce électronique (June 2020).
- Malawi: Rapid eTrade Readiness Assessment (May 2020).
- United Republic of Tanzania: Rapid eTrade Readiness Assessment (May 2020).
- Mali: Évaluation rapide de l'état de préparation au commerce électronique (February 2020).
- Kiribati: Rapid eTrade Readiness Assessment (December 2020).
- Tuvalu: Rapid eTrade Readiness Assessment (November 2019).
- Lesotho: Rapid eTrade Readiness Assessment (June 2019).
- Bangladesh: Rapid eTrade Readiness Assessment (March 2019).
- Islamic Republic of Afghanistan: Rapid eTrade Readiness Assessment (March 2019).
- Madagascar: Évaluation rapide de l'état de préparation au commerce électronique (December 2018).
- Zambia: Rapid eTrade Readiness Assessment (December 2018).
- Uganda: Rapid eTrade Readiness Assessment (December 2018).
- Burkina Faso: Évaluation rapide de l'état de préparation au commerce électronique (October 2018).
- République du Togo: Évaluation 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: Évaluation rapide de l'état de préparation au commerce électronique (July 2018).
- Liberia: Rapid eTrade Readiness Assessment (April 2018).
- Lao People's Democratic Republic: 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).

All reports are available on the website: <https://etradeforall.org/dev-solution/unctad-et-readies/>



REFERENCES

- Acharya, M. and P. Rehal (2021). Kenya's new Start-up Bill will foster entrepreneurship, but there are still some stumbling blocks. 17 August. Available at www.ensafrica.com/news/detail/4649/kenyas-new-startup-bill-will-foster-entrepren.
- Adegoke, Y. (2021). Kenya hasn't figured out how to put its local founders first. Rest of World. 22 July. Available at <https://restofworld.org/2021/kenya-hasnt-figured-out-how-to-put-its-local-founders-first/>.
- African Development Bank (AfDB) (2017). AfDB approves US\$ 90 million financial package to boost Commercial Bank of Africa's funding of SMEs in Kenya and grow trade finance in Africa. 25 January. Available at www.afdb.org/ar/news-and-events/afdb-approves-us-90-million-financial-package-to-boost-commercial-bank-of-africas-funding-of-smes-in-kenya-and-grow-trade-finance-in-africa-16675.
- (2019). Kenya: African Development Bank Group approves \$8 million to Credit Bank for SMEs. 18 July Available at www.afdb.org/en/news-and-events/press-releases/kenya-african-development-bank-group-approves-8-million-credit-bank-smes-25784.
- Alliance for Affordable Internet (2020). Affordability Report 2020. Available at <https://1e8q3q16vyc81g8l3h3md6q5f5e-wpengine.netdna-ssl.com/wp-content/uploads/2020/12/Affordability-Report-2020.pdf>.
- Alushula, P. (2021). Mucheru gets final say on street naming in proposed legislation. Available at www.businessdailyafrica.com/bd/economy/mucheru-gets-final-say-on-street-naming-in-proposed-legislation-3429410.
- Amboko, J. (2021). 58 non-resident companies have registered for the digital services tax. Available at <https://twitter.com/ambokojh/status/1444941760023642116>.
- Andae, G. (2021). Bloc gives Kenya nod to enter into EU trade pact. Business Daily Africa. 2 March. Available at <https://www.businessdailyafrica.com/bd/markets/market-news/bloc-gives-kenya-enter-into-eu-trade-pact-3308520>.
- Anne, J., W. Gichuki, A. Njeru and O.I. Tirimba (2014). Challenges Facing Micro and Small Enterprises in Accessing Credit Facilities in Kangemi Harambee Market in Nairobi City County, Kenya. International Journal of Scientific and Research Publications, 4(1), pp. 2250–3153.
- Article 19 (2020). Kenya: Court of Appeal's ruling strikes further blow to free expression and privacy. 14 August. Available at www.article19.org/resources/kenya-court-of-appeals-ruling/.
- British High Commission Nairobi (2021). UK-Kenya Economic Partnership Agreement enters into force. 24 March. Available at <https://www.gov.uk/government/news/uk-kenya-economic-partnership-agreement-enters-into-force>.
- Central Bank of Kenya (CBK) (2015). Public Notice: Caution to The Public on Virtual Currencies Such as Bitcoin. Central Bank of Kenya. Available at www.centralbank.go.ke/images/docs/media/Public_Notice_on_virtual_currencies_such_as_Bitcoin.pdf.
- (2017a). CBK Guidance Note on Cybersecurity. Available at www.centralbank.go.ke/2017/08/18/cbk-guidance-note-cybersecurity/.
- (2017b). Protect Yourself against Fraud. 2017. Available at www.centralbank.go.ke/fraud-safety/.
- (2020). Central Bank of Kenya: Bank Supervision Annual Report 2020. Nairobi.
- (2021). Mobile Payments. Available at www.centralbank.go.ke/national-payments-system/mobile-payments/.
- (2022). Mobile Payments. Number of ATMs, ATM Cards, & POS Machines. Available at <https://www.centralbank.go.ke/national-payments-system/payment-cards/number-of-atms-atm-cards-pos-machines/>.
- Central Bank of Kenya, KNBS and FSD Kenya (2019). 2019 FinAccess Household Survey. Nairobi.
- Citizen Digital (2021). High Court declares Huduma Namba roll out illegal. 14 October. Available at <https://citizentv.co.ke/news/high-court-declares-huduma-namba-roll-out-illegal-13103006/>.
- COMESA, EAC and SADC (2020). Tripartite guidelines on trade and transport facilitation for the movement of persons, goods and services across the tripartite region during COVID-19 pandemic. SADC. Available at www.sadc.int/files/7015/9609/4461/Tripartite_Guidelines_for_Trade_and_Transport_Facilitation_during_COVID-19-_English.pdf.
- Communications Authority of Kenya (CA) (2015). White Paper on Facilitation and Adoption of E Commerce Via the Postal/Courier Networks, pp. 1–29. Available at <https://ca.go.ke/wp-content/uploads/2018/02/White-Paper-on-E-Commerce-Adoption-in-Kenya-April-2015.pdf>.
- (2020). Fourth Quarter Sector Statistics Report for the Financial Year 2019/20 (APRIL-JUNE 2020). Available at <https://www.ca.go.ke/wp-content/uploads/2020/10/Sector-Statistics-Report-Q4-2019-2020.pdf>.



- (2021a). First Quarter Cybersecurity Sector Statistics Report for the Financial Year 2021/2022 (July-September 2021). Nairobi.
- (2021b). Kenya's National Public Key Infrastructure (NPKI). Available at <https://ke-cirt.go.ke/nпки>.
- (2021c). Licensing and Shared Spectrum Framework for Community Networks. Nairobi.
- (2021d). The Universal Service Fund – Purpose of the Fund. Available at www.ca.go.ke/industry/universal-access/purpose-of-the-fund/.
- (2021e). FAQs on Consumer Protection. Available at <https://cak.go.ke/mandate/Consumer-Complaints/faqs>.
- Consolidated Bank of Kenya (2020). Annual Report and Financial Statements – Consolidated Bank of Kenya Ltd and its Subsidiaries – for the Year ended 31 December 2020. Nairobi.
- Cornell University, World Intellectual Property Organization (WIPO) and Institut Européen d'Administration des Affaires INSEAD (2020). Global Innovation Index 2020 - Who Will Finance Innovation? In Economy Reports and Analysis. Ithaca, Fontainebleau, and Geneva.
- Credit Bank (2020). Annual Report 2020. Nairobi.
- Disrupt Africa (2021). The African Tech Startups Funding Report 2021.
- Dubey, S., E. Adovor, D. Rysankova, and B. Koo (2020). Kenya - Beyond Connections: Energy Access Diagnostic Report Based on the Multi-Tier Framework. World Bank, Washington, DC. World Bank. Available at <https://openknowledge.worldbank.org/handle/10986/35268>.
- East African Community (EAC). (2022). Ongoing Projects. Available at www.eac.int/infrastructure/communications-sector/ongoing-projects (accessed 24 May 2022).
- Ecobank (2022). Commercial Banking: Here to Help You Sell Online. Available at www.ecobank.com/ke/commercial-banking/ecommerce.
- Economic Commission for Africa (ECA) (2021). Covid-19 Impact on E-Commerce: Africa. Economic Commission for Africa. Available at <https://repository.uneca.org/bitstream/handle/10855/43939/b11990296.pdf>.
- Faria, J. (2021). Largest banks in Kenya as of 2021, by total assets (in billion U.S. dollars). Available at www.statista.com/statistics/1230490/largest-banks-in-kenya-by-total-assets/.
- Gachie, A. J. (2016). An Evaluation of the Need for Regulation of Online Dispute Resolution (ODR) In Kenya. University of Nairobi.
- Gatuyu, J. (2017). Kenya needs reforms to open crowdfunding tap. 22 August. Business Daily. Available at <https://www.businessdailyafrica.com/bd/opinion-analysis/ideas-debate/kenya-needs-reforms-to-open-crowdfunding-tap-2165962>.
- Gitogo, W. (2020). CMA Gives Nod to Pezesh's Crowdfunding Platform. 12 October. The Kenyan Wall Street. Available at <https://kenyanwallstreet.com/cma-gives-nod-to-pezeshas-crowdfunding-platform/>.
- Google and International Finance Corporation (2020). e-Conomy Africa 2020 – Africa's \$180 billion Internet Economy Future. Washington D.C.
- Government of Kenya (2019). The Kenya Information and Communication (Amendment) Bill, 2019. Nairobi: Government Printers.
- (2020). The Startup Bill, 2020. Nairobi: Government Printers.
- GSMA. (2019). 618 active tech hubs: The backbone of Africa's tech ecosystem. 10 July. Available at www.gsma.com/mobilefordevelopment/blog/618-active-tech-hubs-the-backbone-of-africas-tech-ecosystem/.
- (2022). Network Coverage Maps - Kenya. Available at <https://www.gsma.com/coverage/#409>.
- ICT Authority (2019). Presidential Digital Talent Programme: Who We Are. Available at www.digitalent.go.ke/.
- (2021). County Connectivity Project (CCP). Available at <https://icta.go.ke/county-connectivity-project-ccp/>.
- Igadwah, L. (2021). Netflix rates up on inclusion of VAT tax charge. Business Daily Africa. 7 May. Available at <https://www.businessdailyafrica.com/bd/corporate/companies/netflix-rates-inclusion-of-vat-tax-charge-3390698>.
- inABLE (2021). National ICT Accessibility Standard will Bridge the Digital Divide in Kenya. Available at <https://inable.org/index.php/2021/10/27/national-ict-accessibility-standard-will-bridge-the-digital-divide-in-kenya/>.
- Indokhomi, D. and J. Syekei (2020). The Computer Misuse and Cybercrimes Act. 6 March. Available at www.bowmanslaw.com/insights/finance/the-computer-misuse-and-cybercrimes-act/.
- International Telecommunication Union (ITU) (2019). ICT centric Innovation Ecosystem Kenya: Country Review. Geneva.



- (2021). Digital trends in Africa 2021: Information and Communication Technology Trends and Developments in the Africa Region 2017-2020. Addis Ababa: ITU Publications Africa.
- International Trade Administration (2021). Kenya – Banking Systems. Available at www.privacyshield.gov/article?id=Kenya-banking-systems.
- Issaias, A. (2019). Snapshot: Analysis of the Data Protection Act 2019. Available at www.bowmanslaw.com/insights/intellectual-property/snapshot-analysis-of-the-data-protection-act-2019/.
- (2020). Kenya's Senate Introduces the Startup Bill 2020. Available at www.bowmanslaw.com/insights/intellectual-property/kenyas-senate-introduces-the-startup-bill-2020/.
- Jackson, T. (2020). Kenya's Copia, Rwanda's Kasha secure combined \$6m from US development bank. Disrupt Africa. 16 September. Available at <https://disrupt-africa.com/2020/09/16/kenyas-copia-rwandas-kasha-secure-combined-6m-from-us-development-bank/>.
- (2021). Kenyan Startup Partners with Postal Service for Speedy Last-mile Delivery. Disrupt Africa. 4 May. Available at <https://disrupt-africa.com/2021/05/04/kenyan-startup-partners-postal-service-for-speedy-last-mile-delivery/>.
- Jumia (2019). Jumia Mobile Report 2019 in Kenya. Available at <https://www.jumia.co.ke/sp-mobile-report/>.
- Kabaya, L. (2021). Review of the Start Up Bill, 2020. 11 March. Available at www.seslaw.co.ke/publications/blog-post-title-two-akn4a.
- Kamau, M. (2022). Importers welcome SGR-MGR line, say more should be done. The Standard. 13 January. Available at www.standardmedia.co.ke/business/shipping-logistics/article/2001434250/importers-welcome-sgr-mgr-line-say-more-should-be-done.
- Kariuki, J. (2018). CA Warns Kenyans over Rise of Online Shopping Fraud. Business Daily. 26 September. Available at www.businessdailyafrica.com/bd/news/ca-warns-kenyans-over-rise-of-online-shopping-fraud-2220824.
- (2019). Embracing Online Dispute Resolution in Kenya: Feasibility of an Online Dispute Resolution Portal for E-commerce Disputes in Kenya. CMSD, 3(2), pp. 63–79.
- Kariuki, M. (2020). Redefining Development in Kenya-Reflections and Lessons from the Coronavirus disease (COVID-19) Pandemic. Available at <http://kmco.co.ke/wp-content/uploads/2020/05/Redefining-Development-in-Kenya-Reflections-and-Lessons-from-the-Coronavirus-disease-COVID-19-Pandemic-Kariuki-Muigua-25-May-2020.pdf>.
- Kasole, W.J. (2008). Challenges in financing small and medium enterprises (SMEs) in Kenya: The experience of Fina Bank Kenya Limited. University of Nairobi.
- Kazeem Y. (2020). The “Amazon of Africa” is trying to enable third-party e-commerce rather than sell more stuff. 26 November. Available at <https://qz.com/africa/1938532/jumia-can-be-africas-amazon-by-enabling-third-party-e-commerce/>.
- Kenya Bankers Association (2016). Financing Small and Medium Enterprise: The Reconciliation of Borrower-lender Expectations. Nairobi.
- (2017). Banks Partner with Card Stakeholders to Grow E-Commerce While Protecting Against Fraud. 3 May. Available at <https://www.kba.co.ke/news50.php>.
- Kenya National Bureau of Statistics (KNBS) (2014). Economic Survey 2014.
- (2020a). Economic Survey 2020.
- (2020b). Quarterly Labour Force Report, Quarter 1: January – March 2020. Nairobi.
- (2021). Economic Survey 2021. Nairobi.
- Kenya News Agency (2021). KEBS, InABLE Partner to Provide ICT Accessibility Standards. Available at www.kenyanews.go.ke/kebs-inable-partner-to-provide-ict-accessibility-standards/.
- Kenya Private Sector Alliance (KEPSA) (2021). KEPSA E-commerce Booster Programme. Available at <https://kepsa.or.ke/kepsa-e-commerce-booster-program/>.
- Kinyua, G. (2021). No Title. Available at www.lexgroupafrica.com/index.php/notices-publications/13-protecting-intellectual-property-rights-in-the-digital-space-part-i.
- Kiunuhe, A. and S. Otanga (2021). Legal Alert | Cyber Security: Is Kenyan Legislation Equipped to Handle the Growing Threat?
- Koyoma, N., S. Totapally, S. Goyal, P. Sonderegger, P. Rao and J. Gosselt (2021). Kenya's Digital Economy: A People's Perspective Report 2021.



- KRA. (2021). Elimination of Processes carried out by Verification Officer and Head Verification Officer for Direct Tea Exports - KRA. Available at <https://www.kra.go.ke/news-center/public-notice/1228-elimination-of-verification-officer-and-head-verification-officer-processes-for-direct-tea-exports>.
- Limo, A. (2019). Data protection law may not unlock e-commerce. Business Daily. 14 November. Available at www.businessdailyafrica.com/bd/opinion-analysis/ideas-debate/data-protection-law-may-not-unlock-e-commerce-2270718.
- Lunani, S. (2017). E-commerce and Consumer Rights: Applicability of Consumer Protection Laws in Online Transactions in East Africa. *International Journal of Scientific Research and Innovative Technology*, 5(1).
- Lyon, B. (2021). Mind the gap: Empowering Kenya's SMEs through alternative lending. SME Finance Forum. Available at www.smefinanceforum.org/post/mind-the-gap-empowering-kenya-s-smes-through-alternative-lending.
- Maema, W. and I. Anika (2020). What it means to use electronic signatures. 21 October. Available at www.dlapiperafrica.com/en/kenya/insights/2020/what-it-means-to-use-electronic-signatures.html.
- Makena, P., S.T. Kubaison, and I. Njati (2014). Challenges facing women entrepreneurs in accessing business finance in Kenya: Case of Ruiru Township, Kiambu County. *January 2014 IOSR Journal of Business and Management* 16(4):83-91.
- Mastercard Foundation (2020). Mastercard Foundation announces key partnerships to drive COVID-19 Recovery and Resilience Efforts for MSMEs in Kenya. 6 August. Available at <https://mastercardfdn.org/mastercard-foundation-announces-key-partnerships-to-drive-covid-19-recovery-and-resilience-efforts-for-msmes-in-kenya/>.
- Matheka, G. (2021). Swift Lab a Kenyan startup is building and operating drones. 1 April. Available at <https://hapakenya.com/2021/04/01/swift-lab-a-kenyan-startup-is-building-and-operating-drones/>.
- Matinde, V. (2020). Kenya's Controversial ICT Practitioners Bill Makes a Comeback. 3 December. Available at <https://itweb.africa/content/02rQGqAnbzJvd1ea>.
- Miller, M.M. and E. Nyauncho (2014). State of Practice of SME banking (pp. 1–11). Nairobi: FSD Kenya.
- Ministry of ICT, Innovation and Youth Affairs (MoICT) (2013). The Kenya National ICT Masterplan 2014–2017. Nairobi.
- (2019a). Digital Economy Blueprint: Powering Kenya's Transformation. Available at www.parliament.go.th/library.
- (2019b). Digital Literacy Program: Our Results.
- (2020a). National ICT Policy Guidelines 2020. Nairobi: Government Printers.
- (2020b). The Establishment of Kenya's National Public Key Infrastructure.
- (2021). About Ajira Program.
- Ministry of Industrialization, Trade and Enterprise Development (MoITED) (2017). National Trade Policy: Transforming Kenya into a Competitive Export-Led and Efficient Domestic Economy (2017). Available at www.trade.go.ke.
- Ministry of Interior and Coordination for National Government. (2021). Huduma Namba. Available at www.hudumanamba.go.ke/background/.
- Mukora, A., R. Njeru and J. Syekei (2020). Publication of the National Information Communication and Technology Policy Guidelines, 2020. Available at www.bowmanslaw.com/insights/technology-media-and-telecommunications/publication-of-the-national-information-communication-and-technology-policy-guidelines-2020.
- Mulika, C. K. (2020). Legal Alert: Fully Effective – The Computer Misuse and Cybercrimes Act, 2018. 3 March. Available at <https://tripleoklaw.com/legal-alert-fully-effective-the-computer-misuse-and-cybercrimes-act-2018/>.
- Munda, C. (2021a). Web-hosting firm dumps Kenya on punitive taxes. Business Daily Africa. 4 May. Available at www.businessdailyafrica.com/bd/economy/web-hosting-dumps-kenya-on-punitive-taxes-3387988.
- (2021b). KRA eyes Sh14bn digital services tax from foreign firms in three years. Business Daily Africa. 20 July. Available at www.businessdailyafrica.com/bd/economy/kra-eyes-sh14bn-digital-services-tax-from-foreign-firms-3479620.
- Mureithi, C. Kenya becomes the second African country to roll out 5G (2021). Available at <https://qz.com/africa/1990724/kenya-becomes-the-second-african-country-to-launch-5g>.
- Musau, B. (2018). Electronic Commerce Law with a Special Emphasis on the Kenya Legal Tax and Regulatory Challenges. 18 July. Available at www.bmmusau.com/electronic-commerce-law-with-a-special-emphasis-on-the-kenya-legal-tax-and-regulatory-challenges/.



- (2020). Kenya Copyright. 29 January. Available at www.bmmusau.com/kenya-copyright/.
- Mutua, J. (2020). Taxman eyes Sh5bn from digital businesses in six months. *Business Daily Africa*. 5 November. Available at www.businessdailyafrica.com/bd/corporate/companies/taxman-eyes-sh5bn-digital-businesses-in-six-months-2731126.
- Mwathie, D. and J. Syekei (2020). E-signature Essentials. 21 April. Available at www.bowmanslaw.com/insights/intellectual-property/e-signature-essentials/.
- Mwenda, E. (2022). StanChart Eyes a Share of Kenya's Rising e-Commerce. *Business Daily*. 1 March. Available at www.businessdailyafrica.com/bd/corporate/companies/stanchart-eyes-a-share-of-kenyas-rising-e-commerce-3732478.
- Naoko, K., T. Swetha, G. Shruti, S. Petra, R. Priti and G. Jasper (2021). *Kenya's Digital Economy: A Perspective Report*. Nairobi.
- National Council for Law Reporting (2011). *The Kenya Information and Communications Act, Chapter 411A*. Nairobi: National Council for Law Reporting.
- National Treasury and Planning. (2020). *The Value Added Tax Act, Legal Notice No. 190*. Kenya Subsidiary Legislation, 2020. Available at <https://doi.org/10.1021/ac00151a733>.
- Ndege, A. (2021). YouTube to remit 24pc tax to US from content creators starting June. *Business Daily Africa*. 10 March. Available at www.businessdailyafrica.com/bd/corporate/technology/youtube-to-remit-24pc-tax-to-us-from-content-creators-3318480.
- Ngugi, Caroline Njango, Monica Kerretts-Makau, Abas Ben Muhindi and Frida Wathome (2021). "Understanding and Improving Women's Work on Digital Labour Platforms".
- Njeru, R. (2019). Intellectual Property and Consumer Protection in Kenya. 1 November. Available at www.bowmanslaw.com/insights/intellectual-property/intellectual-property-and-consumer-protection-in-kenya/.
- Njoki, Rachael, Joyce Muthoni Gakobo and Joyce Muthoni (2020). Effects of Financial Accessibility Challenges on the Growth of Women Group Owned Enterprises in Limuru Market. *Journal of Finance and Accounting* 4 (2): pp. 1–13.
- Njoroge, J. (2021). The role of M-pesa in enabling E-commerce in Kenya. Available at https://www.theseus.fi/bitstream/handle/10024/502696/Njoroge_James.pdf;jsessionid=3849BA69DC599C6E74E6A4342252DE80?sequence=2.
- Nyawira, S. (2021). Posta Partners with TAZ Technologies for Speedy last-mile Delivery. Available at www.the-star.co.ke/business/kenya/2021-05-01-posta-partners-with-taz-technologies-for-speedy-last-mile-delivery/.
- Nzomo, V. (2017). *E-Commerce and the Law in Kenya: Copyright Implications*. Strathmore University. 1 December. Available at <https://cipit.strathmore.edu/e-commerce-and-the-law-in-kenya-copyright-implications/>.
- (2018). *E-Commerce and the Law in Kenya: Consumer Protection*. Strathmore University. 15 February. Available at <https://cipit.strathmore.edu/e-commerce-and-the-law-in-kenya-consumer-protection/>.
- Ojango, S.M., A.K. Akama, E.O. Ouma and M.N. Kamau (2021). *Cybersecurity 2021: Trends and Developments*.
- Ong'anya Ombo Advocates (2021). *Draft Capital Markets (Investment-Based Crowdfunding) Regulations, 2021*. Summary through Q&A. Available at <https://onganyaombo.com/wp-content/uploads/2021/08/Capital-Markets-Investment-Based-Crowdfunding-Reg.-2021-Summary-through-QA-Onganya-Ombo-Advocates-LLP.pdf>.
- Ookla. (2021). *Kenya's Mobile and Broadband Internet Speeds: Kenya Median Speeds April 2022*. June 3, 2022. Available at <https://www.speedtest.net/global-index/kenya>.
- Open Society Foundations (2020). *Kenya's National Integrated Identity Management System*. March. Available at www.justiceinitiative.org/uploads/477c2588-00eb-4edd-b457-bf0d138fd197/briefing-kenya-niims-03232020.pdf.
- Proparco Group AFD (2020). *AFD Group grants a US\$100 million loan to Equity Bank to support Kenyan SMEs*. 2 October. Available at www.proparco.fr/en/actualites/afd-group-grants-us100-million-loan-equity-bank-support-kenyan-smes.
- Qhala and Caribou Digital (2021). *Platform Livelihoods: The Quality of Kenyan Youth's Digital Experiences in Logistics, E-commerce, Farming, and the Creative Sector*. Surrey.
- Rigby, D. (2014). *E-commerce is not eating retail*. Bain. Available at <https://www.bain.com/insights/ecommerce-is-not-eating-retail-hbr/>.
- Safaricom (2021a). *Annual Report and Financial Statements 2021*, Nairobi.
- (2021b). *Safaricom 2021 Annual Report*. Retrieved from Available at www.safaricom.co.ke/investor-relations/financials/reports/annual-reports.



SANAD (2021). About SANAD. Available at <https://sanad.lu/>.

Schneidman, W. and B. Dawson (2020). United States–Kenya Free Trade Agreement (Schneidman and Dawson. 29 July. Available at <https://www.brookings.edu/blog/africa-in-focus/2020/07/29/the-us-and-kenya-launch-negotiations-on-a-free-trade-agreement-will-they-succeed/>.

Sendy (2021). FULFILLMENT: We Fulfill. You sell more. Available at www.sendyit.com/fulfillment.

Sugow, A. and J. Satar (2020). The Computer Misuse and Cybercrimes Act Judgement: A Digest. 26 March. Available at <https://cipit.strathmore.edu/the-computer-misuse-and-cybercrimes-act-judgment-a-digest/>.

Tanui, C. (2020). The Requirements and Implications of Electronic Signatures. Available at <https://cipit.strathmore.edu/the-requirements-and-implications-of-electronic-signatures/>.

The Standard Newspaper (2021). Roll out of Huduma card is unlawful, judge rules. 15 October. Available at www.standardmedia.co.ke/national/article/2001426231/roll-out-of-huduma-card-is-unlawful-judge-rules.

United Kingdom Secretary of State for Foreign, Commonwealth and Development Affairs (2020). Economic Partnership Agreement Between the UK and Kenya. London: APS Group.

United Nations Conference on Trade and Development (UNCTAD) (2020). Summary of Adoption of E-Commerce Legislation Worldwide. Available at [Summary of Adoption of E-Commerce Legislation Worldwide | UNCTAD](https://unctad.org/en/PublicationsLibrary/summary-of-adoption-of-e-commerce-legislation-worldwide.aspx)

(2021). Kenya eTrade Readiness Assessment Consultations. Nairobi.

Visa Analytics and Consulting (2021). eCommerce developments across Sub Saharan Africa (SSA). Available at [https://navigate.visa.com/\\$/v/5/cemea/m/x/SSA%20eCommerce%20TL%20Paper%20CEMEA%20FINAL.pdf](https://navigate.visa.com/$/v/5/cemea/m/x/SSA%20eCommerce%20TL%20Paper%20CEMEA%20FINAL.pdf).

Vodafone (2021). M-Pesa celebrates reaching 50 million customers. 7 September. Available at <https://www.vodafone.com/news/services/m-pesa-celebrates-reaching-50-million-customers>.

Wamuyu, P.K. The Kenyan Social Media Landscape: Emerging Narratives 2020. (2020). Available at www.usiu.ac.ke/assets/image/Kenya_Social_Media_Landscape_Report_2020.pdf.

Wanjiru, A. (2021). Prudent adoption of international tax policies good for Kenya's growth. Available at <https://www2.deloitte.com/content/dam/Deloitte/ke/Documents/tax/Prudent%20Adoption%20International%20Tax%20-%20Andrew%20Wanjiru.pdf>

Widjaja, N. (2017). Kenyan startups creatively bring capital to MSMEs. Available at www.accion.org/kenyan-startups-bring-capital-msmes.

World Bank, CBK and FSD Kenya (2015). FinAccess Business – Supply Bank Financing of SMEs in Kenya. Nairobi.

(2020). Kenya Economic Update, Navigating the Pandemic. World Bank, Nairobi. World Bank. Available at <https://openknowledge.worldbank.org/handle/10986/34819>.

World Trade Organization (2019), Kenya – Trade Policy Monitoring Report, WT/TPR/S/384 and WT/TPR/S/384/Rev.1.

(2021). WTO members note further progress on Trade Facilitation Agreement implementation. 23 April. Available at https://www.wto.org/english/news_e/news21_e/fac_23apr21_e.htm.



ENDNOTES

- i This ranking is based on aggregate e-commerce transaction volumes across countries in sub-Saharan Africa between September 2019 and September 2020, based on analytics from the payment network.
- ii Since 2013, the Huduma Programme has rolled out some 52 one-stop-shop Huduma Centres countrywide. In 2018, these service centres, which give citizens access to about 86 services provided by 34 different government agencies, have served about 21 million customers in five years. (See also, Doyle, K. (2018), Huduma means service: Transforming Kenya's public service delivery.)
- iii Communications Authority of Kenya Annual Report for the Year ended 30 June 2020.
- iv Communications Authority of Kenya Annual Report for the Year ended 30 June 2020.
- v Kenya E-commerce Awards 2021, available at https://www.goplacesdigital.com/kenya-ecommerce-awards-2021-sharing-moments/?utm_source=rss&utm_medium=rss&utm_campaign=kenya-ecommerce-awards-2021-sharing-moments.
- vi Economic Survey 2021, available at <https://www.knbs.or.ke/wp-content/uploads/2021/09/Economic-Survey-2021.pdf>.
- vii WTO, Kenya – Trade Policy Monitoring Report, WT/TPR/S/384 and WT/TPR/S/384/Rev.1 (5 June 2019), p. 112.
- viii See Data Centre Map, available at <https://www.datacentermap.com/>.
- ix Communications Authority of Kenya Annual Report for the Year ended 30 June 2020.
- x eCitizen portal, available at www.ecitizen.go.ke.
- xi Available at <https://ardhisasa.lands.go.ke>.
- xii Communications Authority of Kenya, Quarter Sector reports.
- xiii Ibid.
- xiv Site review and assessment of Kenya Post (Postal Corporation of Kenya) operational readiness for ecommerce report, 2019, UPU.
- xv Evaluation and follow-up of Postal Corporation of Kenya's operational readiness for e-commerce report, July 2021, UPU.
- xvi Kenya Eurobond prospectus 2021.
- xvii Communications Authority of Kenya Annual Report for the Year ended 30 June 2020.
- xviii Businesses also prefer cash withdrawal because it generates them commission from the Mobile Network Operator (MNO).
- xix Sections 83G to 83M of this Act are based on the UNCITRAL Model Law on Electronic Commerce.
- xx See, UNCTAD, Investment Policy Hub, International Investment Agreement Navigator, Kenya, available at <https://investmentpolicy.unctad.org/international-investment-agreements/countries/108/kenya>. Note that a standard e-commerce activity without presence in Kenya would not be considered an investment, but an e-commerce provider that has presence or a substantial business activity in Kenya would be covered by the treaty and granted protection, with access to international arbitration.





ISBN 978-92-1-113058-4



9 789211 130584