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## FOREWORD

In an era where digital transformation is reshaping economies, societies, and the way we engage in trade, the importance of modernized trade agreements that cater to the digital age cannot be overstated. This report, Trade Agreements Fit for the Digital Age, is a critical endeavor aimed at aligning Kenya's trade policies and practices with the demands and opportunities of a digitally-driven global economy.

The primary goal of this report is to highlight the essential role of cross-border data flows, open digital markets, access to information, and secure global technical infrastructure in fostering economic growth. Additionally, it seeks to explore strategies for promoting emerging technologies and enhancing economic cooperation within and beyond Kenya's borders.

The report is structured to provide a comprehensive understanding of digital trade and its implications. It begins with a thorough literature review, which lays the groundwork for understanding the key aspects of digital trade, its significance in the modern global economy, and the enablers that drive its success. It also covers critical areas such as cybersecurity, digital infrastructures, and economic cooperation, which are indispensable for a thriving digital economy. A detailed methodology underpins this report, employing tools such as SWOT, PESTEL, Porter's Five Forces, 5C analysis, and VRIO analysis. These methodologies were rigorously applied to assess current conditions, identify key trends, and evaluate the potential impact of digital trade agreements on decision-making in the digital economy.

The findings presented in this report are both revealing and instructive. While Kenya has established a strong policy and regulatory framework that fosters trust in the e-commerce environment, significant gaps remain. These include complexities in fee collection, intellectual property management, privacy and data protection, and the rising threat of cybercrime. The report highlights Kenya's ongoing digital infrastructure initiatives but emphasizes the need for further efforts to bridge the digital divide, create more jobs, and boost the uptake of digital trade.

**Moreover, the report underscores Kenya's strategic advantages,** such as its commitment to trade agreements that enhance global market access, its robust transport and logistics infrastructure, the prevalence of mobile payment solutions, and the availability of skilled ICT professionals. However, it also identifies challenges, particularly in financing digital enterprises and the need for harmonized laws and policies at regional and international levels. Such harmonization is crucial for facilitating cross-border data flows, standardizing technical requirements, and ensuring equitable taxation of digital services.

In its conclusion, the report offers actionable recommendations that are vital for advancing digital trade in Kenya. These include the development of robust, integrated, and secure digital infrastructure; the promotion of cross-border data flows; the incentivization of open digital markets; investment in emerging technologies; the enhancement of economic cooperation; and the support of ICT and related industries. As we navigate the complexities and opportunities of the digital age, this report serves as a guiding document for policymakers, industry leaders, and stakeholders committed to driving Kenya's digital economy forward. It is my hope that the insights and recommendations herein will contribute to the creation of a more inclusive, secure, and prosperous digital future for Kenya and the region.

## ACKNOWLEDGMENT

We would like to sincerely appreciate Google for their support in making this study possible. Their commitment to innovation and growth in the technology space has been invaluable. We are also grateful to the Africa Center for Advanced Technology for their expertise and dedication in conducting the study. Their rigorous approach and insightful analysis has been instrumental in ensuring the success of this important initiative.

## LIST OF ACRONYMNS AND ABBREVIATIONS

- AfCFTA African Continental Free Trade Area
- Al Artificial Intelligence
- AR Augmented Reality
- O CDN Content Delivery Networks
- DRM Digital Rights Management
- () E-commerce Electronic Commerce
- EU European Union
- FDI Foreign Direct Investment
- > FTAs Free Trade Agreements
- IDSs Intrusion Detection Systems
- IMF International Monetary Fund
- MSMES Micro, Small and Medium Enterprises
- IoT Internet of Things
- ISPs Internet Service Providers
- IXPs Internet Exchange Points
- SaaS Software as a Service
- SMEs Small and medium-sized enterprises
- SWOT Strengths, Weaknesses, Opportunities, Threats
- WTO World Trade Organization
- VR Virtual Reality

# CONTENTS

	rward				
Acl	knowledgment				
List	_ist of Acronymns and Abbreviations4				
1.	Introduction	6			
	1.1 Background	7			
	1.2 Objective of the study	8			
	1.3 Scope of the Work and Deliverables				
	1.4 Context of the Assignment				
2.	Literature Review				
	2.1 Digital Trade and its importance				
	2.2 Enablers of Digital Trade				
	2.2.1 Digital and Cross Border Data Flow				
	2.2.2 Digital markets				
	2.2.3 Access to Information				
	2.2.4 Digital Infrastructures				
	2.2.5 Emerging Technologies				
	2.2.6 Cybersecurity and digital trade				
	2.2.7 Economic Cooperation				
3.	Methodology				
4.	Findings and Discussions				
5.	Review of Digital trade agreements	40			
6.	Opportunities and Lessons for Digital Trade in Kenya	52			
<b>7</b> .	Conclusion and Recommendations	60			
Ref	ferences	65			



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# INTRODUCTION



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# **1. INTRODUCTION**

### 1.1 BACKGROUND

Digital trade is the exchange of goods and services via digital channels, over the internet. It involves buying, selling or exchange of products, services and information facilitated through electronic means. This includes online retail transactions, digital services such as software subscriptions or streaming services, data transfers, electronic payments, and more.



Figure 1: Digital Trade Challenges

Digital trade has become a cornerstone of the modern economy, driving growth, innovation, and prosperity across borders. It enables businesses to reach customers worldwide and facilitates economic growth and innovation. As technology continues to advance and digital connectivity expands, the importance of digital trade is expected to grow even further in the years to come.

In recent years, Africa's digital economy has experienced remarkable growth and is among the world's fastest-growing economy with the potential to grow to USD 180 billion by 2025. Digital trade is expected to unlock millions of additional employment opportunities. However, digital trade also raises various challenges as shown in Figure 1.

Governments and international organizations often work to develop policies and agreements to address these issues and promote the growth of digital trade while safeguarding consumer rights and interests. By addressing these enablers, policymakers, businesses, and other stakeholders can work together to create an enabling environment for digital trade, driving economic growth, innovation, and inclusive development in the digital age.

### **1.2 OBJECTIVE OF THE STUDY**

The objective of the assignment was to develop a Trade Agreements Fit for the Digital Age report demonstrating the value of cross-border data flows; open digital markets, access to information, open and secure global technical infrastructure, promoting emerging technologies and economic co-operation among nations.



### **1.3 SCOPE OF THE WORK AND DELIVERABLES**

The scope of work for this assignment was expected to develop a report titled Trade Agreements Fit for the Digital Age demonstrating the value of cross-border data flows; open digital markets, access to information, open and secure global technical infrastructure, promoting emerging technologies and economic co-operation among nations.

### **1.4 CONTEXT OF THE ASSIGNMENT**

In understanding the assignment, we took note of the background of AmCham as follows:



**AmCham is a business support organization** comprising American and Kenyan businesses committed to and invested in the U.S.–Kenya commercial relationship.



**AmCham's mission** is to transform lives by creating economic opportunity through Trade & Investment by catalyzing two-way trade and investment between Kenya and the U.S.



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**Member companies** have key interests in healthcare, technology, manufacturing, infrastructure development, professional services, consumer services, banking, and finance sectors.

It is important to infer to the multinational operations of the business organizations while taking cognizance of the trade opportunities, trade agreements and treaties, as well as trade barriers. Some of the considerations in this domain include:

#### COMPARATIVE ADVANTAGE

Countries engage in trade based on their comparative advantage, which is the ability to produce goods and services at a lower opportunity cost than other nations. This principle encourages specialization and efficiency.

#### **ECONOMIC POLICIES**

Government policies, including trade agreements, tariffs, subsidies, and import/ export regulations, significantly impact international trade. Free trade agreements can promote trade, while protectionist measures can restrict it.

#### COMPARATIVE ADVANTAGE

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#### **EXCHANGE RATES**

Currency exchange rates affect the cost of goods and services in international trade. Fluctuations in exchange rates can influence the competitiveness of a country's exports and the affordability of its imports.

#### **GLOBAL ECONOMIC CONDITIONS**

The overall health of the global economy, including economic growth, inflation rates, and unemployment, has a direct impact on international trade. Strong economic conditions often lead to increased trade.

#### POLITICAL STABILITY

Political stability and a predictable regulatory environment are crucial for fostering international trade. Political instability, conflicts, and uncertainty can discourage foreign investment and trade.

#### **TECHNOLOGICAL ADVANCES**

Technological advancements, such as improvements in transportation, communication, and information technology, reduce the costs and barriers associated with international trade, making it more accessible.

#### INFRASTRUCTURE

Well-developed infrastructure, including transportation, communication, and energy networks, facilitates the movement of goods and services across borders, contributing to increased trade efficiency.

#### MARKET ACCESS AND ENTRY BARRIERS

Barriers to market entry, including trade restrictions, licensing requirements, and intellectual property protections, can either facilitate or hinder international trade.

#### NATURAL RESOURCES

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Countries with abundant natural resources may engage in trade to leverage their comparative advantage, exporting raw materials while importing finished goods that require specialized production.

#### LABOR COSTS AND SKILLS

Differences in labor costs and skills influence the production and export capabilities of countries. Some nations may specialize in industries that require skilled labor, while others focus on labor-intensive industries.

#### ENVIRONMENTAL AND REGULATORY STANDARDS

Compliance with international environmental and regulatory standards can affect a country's ability to engage in trade. Non-compliance may lead to trade restrictions or exclusion from certain markets.

#### FINANCIAL INSTITUTIONS AND TRADE FINANCING

The availability of trade financing and the support of financial institutions play a role in facilitating international trade transactions, especially for small and medium-sized enterprises (SMEs).

#### **GEOPOLITICAL FACTORS**

Geopolitical considerations, including diplomatic relations, alliances, and geopolitical conflicts, can impact trade relationships and influence the willingness of countries to engage in economic cooperation.



# LITERATURE REVIEW



# 2. LITERATURE REVIEW

### 2.1 DIGITAL TRADE AND ITS IMPORTANCE

**Digital trade has become increasingly important in the global economy,** enabling businesses to reach customers worldwide and facilitating economic growth and innovation. However, it also raises various challenges, including concerns about privacy, cybersecurity, digital infrastructure, and regulatory frameworks.

Governments and international organizations often work to develop policies and agreements to address these issues and promote the growth of digital trade while safeguarding consumer rights and interests. Digital trade plays a significant role in the modern global economy due to several important factors:



**Global Reach:** Digital trade enables businesses to reach customers worldwide, breaking down geographical barriers and expanding market opportunities. Small and medium-sized enterprises (SMEs) can now access global markets without the need for extensive physical infrastructure or distribution networks.



**Economic Growth:** Digital trade contributes to economic growth by fostering innovation, increasing productivity, and creating new business opportunities. It allows for the efficient exchange of goods, services, and information, driving economic activity and creating jobs in various sectors.



**Cost Efficiency:** Digital trade often reduces transaction costs compared to traditional trade methods. Businesses can streamline processes, automate tasks, and eliminate intermediaries, resulting in lower overheads and increased efficiency. These cost savings can be passed on to consumers through lower prices or reinvested in innovation and expansion.

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Access to Information and Resources: Digital trade facilitates access to a wealth of information, resources, and expertise that may not be readily available domestically. Businesses can tap into global networks of suppliers, partners, and collaborators, enhancing their competitiveness and capacity for innovation.



**Consumer Choice and Convenience:** Digital trade provides consumers with greater choice and convenience by offering a wide range of products and services online. This enables them to compare prices, read reviews, and make purchases from the comfort of their homes, leading to a more efficient and satisfying shopping experience.

**Cross-Border Collaboration:** Digital trade encourages cross-border collaboration and knowledge sharing among businesses, researchers, and innovators. Collaboration platforms, online marketplaces, and open innovation initiatives facilitate cooperation and exchange of ideas, leading to breakthroughs in technology, science, and business practices

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**Inclusivity and Empowerment:** Digital trade has the potential to empower individuals and communities by providing access to markets, resources, and opportunities that were previously inaccessible. It allows marginalized groups, such as women, youth, and rural populations, to participate in the global economy on more equal terms, thereby promoting inclusivity and socioeconomic development.

Overall, digital trade has become a cornerstone of the modern economy, driving growth, innovation, and prosperity across borders. As technology continues to advance and digital connectivity expands, the importance of digital trade is expected to grow even further in the years to come



Overall, digital trade has become a cornerstone of the modern economy, driving growth, innovation, and prosperity across borders.

### 2.2 ENABLERS OF DIGITAL TRADE

Several factors contribute to enabling and facilitating digital trade:



**Digital Infrastructure:** Access to robust digital infrastructure, including high-speed internet connectivity, reliable telecommunications networks, and secure data storage facilities, is essential for supporting digital trade activities. Investments in infrastructure development and technology adoption help to improve digital connectivity and enable businesses to engage in online transactions efficiently.



**E-commerce Platforms and Marketplaces:** E-commerce platforms and online marketplaces provide businesses with digital storefronts to showcase their products and services, reach a broader audience, and facilitate transactions. Platforms like Amazon, Alibaba, eBay, Shopify, and others offer a range of tools and services to support sellers and buyers in conducting digital trade activities.



**Digital Payment Systems:** Secure and efficient digital payment systems are crucial for facilitating online transactions. Electronic payment methods such as credit cards, mobile wallets, digital currencies (e.g., Bitcoin), and online payment gateways enable businesses and consumers to exchange funds electronically, reducing the reliance on cash and enabling seamless digital trade transactions.



**Regulatory Frameworks:** Clear and predictable regulatory frameworks play a vital role in fostering trust and confidence in digital trade. Regulations governing e-commerce, data protection, consumer rights, cybersecurity, intellectual property rights, and cross-border transactions help to mitigate risks and ensure a level playing field for businesses operating in the digital environment.



**Trade Facilitation Measures:** Governments can implement trade facilitation measures to streamline customs procedures, simplify documentation requirements, and reduce bureaucratic barriers to cross-border trade. Electronic customs clearance systems, harmonized trade documentation standards, and mutual recognition agreements contribute to smoother and more efficient digital trade transactions.



**Data Governance and Privacy Protections:** Strong data governance frameworks and privacy protections are essential for safeguarding the integrity, confidentiality, and security of digital trade transactions. Regulations such as the General Data Protection Regulation (GDPR) in the European Union and similar data protection laws in other jurisdictions help to protect consumers' personal information and build trust in online commerce.

**Digital Skills and Literacy:** Building digital skills and literacy among businesses, entrepreneurs, and consumers is crucial for fully harnessing the opportunities presented by digital trade. Training programs, educational initiatives, and capacity-building efforts can help equip individuals with the necessary digital skills to effectively participate in online commerce and leverage digital technologies for business growth and innovation.

**Cross-Border Cooperation and Collaboration:** International cooperation and collaboration among governments, businesses, and other stakeholders are essential for addressing cross-border challenges and promoting the growth of digital trade. Initiatives such as trade agreements, bilateral and multilateral dialogues, and public-private partnerships facilitate collaboration on issues such as data governance, cybersecurity, and regulatory harmonization.



By addressing these enablers, policymakers, businesses, and other stakeholders can work together to create an enabling environment for digital trade, driving economic growth, innovation, and inclusive development in the digital age.



#### 2.2.1 DIGITAL AND CROSS-BORDER DATA FLOW

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Digital and cross-border data flows refer to the movement of electronic information across national borders via digital networks, such as the Internet. This data can include various types of information, such as personal data, commercial data, financial transactions, intellectual property, and more. Digital data flows are a fundamental aspect of modern economies and play a crucial role in enabling digital trade, innovation, and economic growth. Here are some key points about digital and cross-border data flows

**Importance for Business:** Many businesses rely on cross-border data flows to operate efficiently and expand their reach globally. Data flows enable businesses to access international markets, collaborate with partners and customers worldwide, and utilize cloud-based services for data storage, processing, and analysis.

**Innovation and Digital Economy:** Cross-border data flows are essential for driving innovation and fostering the growth of the digital economy. Data sharing and collaboration across borders facilitate the development of new products and services, the adoption of advanced technologies such as artificial intelligence and machine learning, and the creation of digital platforms and ecosystems.

**E-commerce and Digital Trade:** Digital trade relies heavily on cross-border data flows, as e-commerce transactions involve the exchange of digital information between buyers, sellers, and intermediaries across different jurisdictions. Data flows enable online retailers to market products globally, process payments securely, and fulfil orders efficiently, contributing to the growth of international trade in digital goods and services.

**Cloud Computing and Digital Services:** Cloud computing services rely on crossborder data flows to deliver on-demand computing resources, storage, and software applications to users worldwide. By storing and processing data in the cloud, businesses can access scalable and cost-effective IT solutions without the need for significant upfront investments in hardware and infrastructure.

Data Privacy and Security: While cross-border data flows offer numerous benefits, they also raise concerns about data privacy, security, and regulatory compliance. Different countries have varying data protection laws and regulations governing the cross-border transfer of personal data, which can create challenges for businesses operating in multiple jurisdictions. Ensuring the privacy and security of data flows is essential to maintaining trust among users and complying with legal requirements.

**Policy and Regulation:** Governments play a critical role in shaping the framework for cross-border data flows through policies and regulations. Some countries adopt an open approach that promotes the free flow of data across borders, while others impose restrictions on data transfers to protect national security, privacy, or other interests. Harmonizing data protection and privacy laws, promoting interoperability, and fostering international cooperation can help address regulatory challenges and facilitate cross-border data flows.

**Digital Divide and Inclusivity:** Access to cross-border data flows is not evenly distributed globally, contributing to a digital divide between countries and regions with different levels of internet connectivity, infrastructure, and digital literacy. Bridging the digital divide and ensuring inclusivity in the digital economy require efforts to expand internet access, improve digital infrastructure, and promote digital skills and education worldwide.

Overall, cross-border data flows are a fundamental driver of globalization, digitalization, and economic development in the 21st century. Balancing the benefits of data flows with the need to address privacy, security, and regulatory concerns is essential for maximizing the positive impacts of digitalization while mitigating potential risks and challenges.

#### 2.2.2 DIGITAL MARKETS



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**E-commerce Platforms:** E-commerce platforms are online marketplaces where businesses and individuals can buy and sell products and services. Examples include Amazon, eBay, Alibaba, and Etsy. These platforms provide a digital infrastructure for retailers to showcase their offerings, process payments securely, and fulfil orders efficiently, often leveraging features such as user reviews, personalized recommendations, and targeted advertising to enhance the shopping experience.



**Digital Services:** Digital markets encompass a wide range of digital services, including (SaaS), cloud computing, digital media streaming, online advertising, and digital content creation, Software as a Service (SaaS). These services are often delivered over the internet on a subscription basis or through pay-per-use models, enabling businesses and consumers to access software, content, and computing resources remotely without the need for extensive hardware or infrastructure.

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**Platform Economy**: The rise of digital platforms has given rise to the platform economy, where intermediaries connect buyers and sellers, facilitate transactions, and create value through network effects and data-driven insights. Platform-based business models, such as ride-sharing services like Uber and Lyft, accommodation booking platforms like Airbnb, and food delivery apps like Uber Eats and DoorDash, have disrupted traditional industries and transformed consumer behavior.

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**Data-driven Insights:** Digital markets generate vast amounts of data about consumer preferences, behaviors, and interactions, which can be analyzed to gain valuable insights for business decision-making. Data analytics techniques such as machine learning and predictive analytics enable businesses to optimize pricing, personalize marketing efforts, and improve customer engagement, driving competitive advantage and revenue growth.



**Global Reach:** Digital markets offer businesses the opportunity to reach customers worldwide, breaking down geographical barriers and expanding market opportunities. Digital platforms and online marketplaces provide a global storefront for businesses to showcase their offerings and connect with a diverse audience of consumers, regardless of their location.



**Disintermediation and Reintermediation:** Digital markets have led to the disintermediation of traditional intermediaries, such as brick-and-mortar retailers and distributors, by enabling direct interactions between buyers and sellers. However, they have also facilitated the emergence of new types of intermediaries, such as digital platforms and aggregators, that play a central role in facilitating transactions and creating value in the digital ecosystem.



**Regulatory Challenges:** The rapid growth of digital markets has raised various regulatory challenges related to competition, consumer protection, data privacy, and platform governance. Policymakers around the world are grappling with how to regulate digital markets effectively to ensure fair competition, protect consumer rights, and promote innovation while addressing concerns about market dominance, data misuse, and anti-competitive behavior.

Overall, digital markets are reshaping the way businesses operate, consumers shop, and value is created and exchanged in the global economy. As digital technologies continue to evolve and digitalization accelerates across industries, understanding and navigating digital markets will be essential for businesses to remain competitive and thrive in the digital age.

#### 2.2.3 ACCESS TO INFORMATION

Access to information refers to the ability of individuals, organizations, and communities to obtain and use information effectively for various purposes, including education, decision-making, empowerment, and participation in society. Access to information is considered a fundamental human right and is essential for promoting transparency, accountability, and democracy. Here are some key aspects of access to information:

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**Freedom of Information:** Access to information is closely linked to the concept of freedom of expression and the right to seek, receive, and impart information. Freedom of information laws and policies aim to ensure that individuals have the right to access government-held information and other public records, subject to certain limitations and exemptions.

**Information Literacy:** Information literacy refers to the ability to find, evaluate, use, and communicate information effectively. Information literacy skills are essential for navigating the vast amount of information available in today's digital age, distinguishing between reliable and unreliable sources, and critically analyzing information to make informed decisions.

**Digital Access:** Digital technologies have revolutionized access to information by providing instant access to a wealth of information resources through the internet, online databases, digital libraries, and other digital platforms. However, disparities in digital access, including variations in internet connectivity, digital literacy, and access to digital devices, can exacerbate inequalities in access to information, particularly among marginalized communities.

**Open Access:** The open access movement seeks to make scholarly research and other knowledge resources freely available to the public, without barriers such as paywalls or subscription fees. Open-access publishing models, such as open-access journals and repositories, enable researchers, students, and the general public to access and use research findings and educational materials more easily, fostering knowledge dissemination and innovation.



**Information Privacy and Security:** While access to information is important, it must be balanced with considerations of information privacy and security. Individuals have the right to control their personal information and to ensure that sensitive information is protected from unauthorized access, misuse, and exploitation. Data protection laws and cybersecurity measures play a crucial role in safeguarding individuals' privacy rights and maintaining trust in information systems and services.

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**Cultural and Linguistic Diversity:** Access to information should be inclusive and reflect the diversity of cultures, languages, and perspectives within society. Efforts to promote multilingualism, cultural heritage preservation, and representation of marginalized voices in information resources are essential for ensuring that everyone has equitable access to information and can participate fully in the exchange of ideas and knowledge.



**Education and Capacity Building:** Education and capacity-building initiatives play a vital role in promoting access to information by equipping individuals with the skills and knowledge needed to access, evaluate, and use information effectively. Educational institutions, libraries, community centers, and online learning platforms provide opportunities for lifelong learning and skill development to empower individuals and promote social and economic development.

Overall, access to information is a cornerstone of democracy, human development, and social progress. By promoting access to information for all, societies can empower individuals, foster informed decision-making, and promote transparency, accountability, and inclusive development.

#### 2.2.4 DIGITAL INFRASTRUCTURES

Digital infrastructure refers to the foundational technological components and systems that enable the operation and functioning of digital networks, services, and applications. These infrastructures support the transmission, processing, storage, and management of digital data, facilitating communication, commerce, and innovation in the digital age. Here are some key components and aspects of digital infrastructure:



**Telecommunications Networks:** Telecommunications networks form the backbone of digital infrastructure, providing the physical and logical infrastructure for transmitting voice, data, and multimedia content over long distances. These networks include wired technologies such as fiber optics, copper cables, and coaxial cables, as well as wireless technologies such as cellular networks, satellite communication systems, and microwave links.



**Internet Backbone:** The internet backbone consists of high-speed, high-capacity networks that interconnect Internet Service Providers (ISPs) and facilitate the routing of data packets between different parts of the internet. Internet backbone networks, often operated by large telecommunications companies and Internet Exchange Points (IXPs), provide the essential infrastructure for global internet connectivity and data exchange.



**Data Centers:** Data centers are facilities equipped with computing hardware, networking equipment, and storage systems for processing and storing digital data. Data centers host the applications, services, and content that power the digital economy, including cloud computing platforms, web hosting services, and Content Delivery Networks (CDNs). Data centers vary in size and complexity, ranging from small server rooms to massive hyper-scale facilities spanning hundreds of thousands of square feet.

**Cloud Computing Infrastructure:** Cloud computing infrastructure refers to the virtualized computing resources (e.g., virtual machines, storage volumes, networking resources) provided by cloud service providers for delivering on-demand computing services over the internet. Cloud infrastructure enables businesses to access scalable, flexible, and costeffective IT resources without the need for upfront investments in physical hardware and infrastructure.

**Edge Computing Infrastructu**re: Edge computing infrastructure extends the capabilities of traditional cloud computing by bringing computing resources closer to the point of data generation and consumption. Edge computing infrastructure, deployed at the network edge (e.g., edge servers, routers, gateways), enables low-latency data processing, realtime analytics, and localized services, making it ideal for applications such as the Internet of Things (IoT), autonomous vehicles, and Augmented Reality (AR) / Virtual Reality (VR).



**Internet of Things (IoT) Infrastructure:** IoT infrastructure consists of interconnected devices, sensors, and actuators embedded in physical objects and environments, along with communication networks and backend systems that enable them to collect, exchange, and analyze data. IoT infrastructure supports a wide range of applications, including smart cities, industrial automation, healthcare monitoring, and environmental sensing.



**Cybersecurity Infrastructure:** Cybersecurity infrastructure comprises technologies, processes, and practices designed to protect digital assets, networks, and systems from cyber threats, attacks, and vulnerabilities. Cybersecurity infrastructure includes firewalls, Intrusion Detection Systems (IDSs), encryption mechanisms, authentication protocols, and security monitoring tools deployed to safeguard data and mitigate risks in digital environments.

Digital infrastructure is essential for supporting the growing demand for digital services, enabling economic growth, and fostering innovation in the digital economy. Investments in digital infrastructure are critical for building resilient, secure, and scalable networks that can support the evolving needs of businesses, governments, and individuals in the digital age.

Digital infrastructure is essential for supporting the growing demand for digital services.

#### 2.2.5 EMERGING TECHNOLOGIES

Emerging technologies refer to innovations that are currently in the early stages of development and have the potential to significantly impact various aspects of society, the economy, and everyday life. These technologies often represent breakthroughs or advancements in areas such as science, engineering, computing, and biotechnology. Here are some examples of emerging technologies:



Artificial Intelligence (AI): Al involves the development of computer systems that can perform tasks that typically require human intelligence, such as learning, problem-solving, and decision-making. Al technologies include machine learning, natural language processing, computer vision, and robotics. Al has applications in various fields, including healthcare, finance, transportation, and manufacturing.



**Blockchain:** Blockchain is a decentralized and distributed ledger technology that enables secure and transparent transactions without the need for intermediaries. It uses cryptographic techniques to record and verify transactions across multiple computers in a network. Blockchain has applications in cryptocurrency, supply chain management, digital identity verification, and smart contracts.



**Internet of Things (IoT):** IoT refers to the network of interconnected devices, sensors, and objects that can communicate and exchange data over the internet. IoT technologies enable the collection, analysis, and utilization of real-time data from physical environments, leading to improvements in efficiency, productivity, and decision-making in various sectors, including smart cities, agriculture, healthcare, and manufacturing.



**Biotechnology:** Biotechnology involves the manipulation of biological systems, organisms, and molecules to develop new products, processes, and therapies. Emerging biotechnologies include gene editing techniques like CRISPR-Cas9, synthetic biology, regenerative medicine, and personalized medicine. Biotechnology has applications in healthcare, agriculture, environmental conservation, and industrial biomanufacturing.



**Quantum Computing:** Quantum computing harnesses the principles of quantum mechanics to perform computations using quantum bits (qubits), which can exist in multiple states simultaneously. Quantum computers have the potential to solve complex problems much faster than classical computers and could revolutionize fields such as cryptography, optimization, material science, and drug discovery.



Augmented Reality (AR) and Virtual Reality (VR): AR and VR technologies create immersive digital experiences by overlaying computer-generated content onto the real world (AR) or creating entirely virtual environments (VR). These technologies have applications in gaming, entertainment, education, training, marketing, and simulation.

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**3D Printing:** Also known as additive manufacturing, 3D printing involves the layer-by-layer fabrication of three-dimensional objects from digital designs. 3D printing technologies enable rapid prototyping, customized manufacturing, and decentralized production of complex parts and products in industries such as aerospace, automotive, healthcare, and consumer goods.



**Renewable Energy Technologies:** Emerging renewable energy technologies, such as solar photovoltaics, wind turbines, and energy storage systems, aim to generate clean and sustainable sources of power. These technologies play a crucial role in mitigating climate change, reducing reliance on fossil fuels, and transitioning to a more sustainable energy future.

These are just a few examples of emerging technologies that have the potential to transform industries, disrupt existing business models, and shape the future of society. As these technologies continue to evolve and mature, their impact on various sectors and aspects of daily life is expected to become more profound

#### 2.2.6 CYBERSECURITY AND DIGITAL TRADE

Cybersecurity plays a critical role in facilitating and safeguarding digital trade. As digital trade relies on the secure exchange of information and transactions over the internet, protecting against cyber threats is essential to maintaining trust, confidence, and integrity in online commerce. Here's how cybersecurity is relevant to digital trade:



**Data Protection**: Digital trade involves the exchange of sensitive data, including personal, financial, and commercial information, between businesses and consumers. Cybersecurity measures such as encryption, access controls, and secure data transmission protocols help to protect this data from unauthorized access, interception, and tampering, ensuring privacy and confidentiality



**Secure Transactions**: Cybersecurity is essential for ensuring the security and integrity of online transactions in digital trade. Secure payment gateways, authentication mechanisms, and fraud detection systems help to prevent unauthorized access to financial transactions, mitigate the risk of payment fraud and identity theft, and build trust among buyers and sellers in online transactions.



**Protection of Intellectual Property:** Digital trade often involves the exchange of digital goods and services, including software, digital media, and intellectual property. Cybersecurity measures such as Digital Rights Management (DRM), copyright protection, and anti-piracy technologies help to protect against unauthorized copying, distribution, and theft of intellectual property, safeguarding the interests of content creators, innovators, and rights holders.



**Supply Chain Security:** Digital trade relies on complex supply chains that involve multiple stakeholders, including manufacturers, suppliers, distributors, and logistics providers. Cybersecurity measures such as supply chain risk assessments, vendor due diligence, and secure communication channels help to protect against cyber threats that could disrupt supply chain operations, compromise product quality, or lead to data breaches.



**Regulatory Compliance:** Cybersecurity regulations and standards play a crucial role in governing digital trade and ensuring compliance with legal and regulatory requirements. Businesses engaged in digital trade may be subject to various cybersecurity laws and regulations, such as data protection laws, cybersecurity standards, and industry-specific regulations, depending on their jurisdiction and the nature of their operations.



**Business Continuity and Resilience:** Cybersecurity is essential for maintaining business continuity and resilience in the face of cyber threats and incidents. Robust cybersecurity measures, such as incident response plans, data backups, and disaster recovery strategies, help businesses to detect, mitigate, and recover from cyber-attacks, minimizing the impact on operations and ensuring the uninterrupted flow of digital trade.



**International Cooperation:** Cybersecurity cooperation and information sharing among countries, businesses, and international organizations are essential for addressing cyber threats that transcend national borders and impact global digital trade. Collaboration on cybersecurity best practices, threat intelligence sharing, and capacity-building initiatives help to strengthen cybersecurity capabilities and enhance the resilience of the digital trade ecosystem.

Notably, cybersecurity is a fundamental enabler of digital trade, ensuring the security, reliability, and trustworthiness of online transactions, data exchanges, and digital commerce activities. By implementing robust cybersecurity measures and fostering international cooperation, businesses and governments can promote the growth and sustainability of digital trade while mitigating the risks posed by cyber threats.

#### 2.2.7 ECONOMIC COOPERATION

Economic cooperation refers to collaborative efforts between countries, regions, or organizations to achieve common economic goals, promote mutual prosperity, and address shared challenges. Economic cooperation can take various forms, including trade agreements, investment partnerships, financial assistance programs, and regional economic integration initiatives. Here are some key aspects of economic cooperation:



**Trade Agreements:** Trade agreements are formal agreements between countries or regions that govern the terms of trade, including tariffs, quotas, and regulations. These agreements aim to promote free and fair trade by reducing barriers to trade and investment, facilitating market access, and promoting economic growth and development. Examples of trade agreements include bilateral agreements, such as Free Trade Agreements (FTAs), and multilateral agreements, such as the World Trade Organization (WTO) agreements.

**Regional Economic Integration:** Regional economic integration involves closer economic cooperation and integration between countries within a specific geographical region. This can take various forms, including customs unions, common markets, and economic and monetary unions. Regional integration initiatives aim to promote trade, investment, and economic development among member countries, enhance regional competitiveness, and strengthen political and economic ties. Examples include the European Union (EU), the North American Free Trade Agreement (NAFTA), and the Association of Southeast Asian Nations (ASEAN).

**Investment Partnerships:** Economic cooperation often involves partnerships to promote Foreign Direct Investment (FDI) and attract investment capital to support economic growth and development. Countries may establish Bilateral Investment Treaties (BITs) or multilateral investment agreements to provide legal protections for investors, promote investment flows, and foster a conducive investment climate. Investment Promotion Agencies (IPAs) and investment facilitation mechanisms play a role in promoting investment opportunities and facilitating investment projects.

**Financial Assistance Programs:** Economic cooperation may include financial assistance programs aimed at providing aid, loans, grants, or technical assistance to support economic development, poverty reduction, and infrastructure projects in recipient countries. International financial institutions, such as the World Bank, International Monetary Fund (IMF), and regional development banks, play a key role in providing financial assistance and technical expertise to support economic cooperation and development efforts.

**Trade and Investment Promotion:** Economic cooperation involves efforts to promote trade and investment opportunities, enhance market access, and facilitate business partnerships between countries and regions. This may include trade missions, business delegations, trade fairs, investment forums, and promotional campaigns to showcase products, services, and investment opportunities and facilitate business matchmaking and networking.

**Capacity Building and Technical Assistance:** Economic cooperation often includes capacity-building initiatives and technical assistance programs aimed at strengthening institutions, building human capital, and enhancing regulatory frameworks to support economic development and integration efforts. Capacity-building activities may focus on areas such as trade facilitation, customs administration, competition policy, intellectual property rights, and regulatory reforms.

Economic cooperation plays a crucial role in promoting international trade, investment, and economic development, fostering prosperity, stability, and sustainable development. By working together to overcome common challenges and leverage shared opportunities, countries and regions can achieve greater economic resilience, competitiveness, and prosperity in an increasingly interconnected global economy. Trade agreements that are fit for the digital age should address the unique challenges and opportunities presented by the rapid advancement of technology and the increasing digitalization of the global economy. In this regard, some of the considerations for crafting favorable trade agreements in the digital age for AmCham include:

#### () E-COMMERCE AND DIGITAL TRADE

- Inclusion of provisions that facilitate cross-border e-commerce and digital trade.
- Recognition of electronic signatures and contracts to enable seamless online transactions.

#### () DATA FLOW AND DATA PRIVACY

- Ensuring the free flow of data across borders to support digital trade.
- Establishing common standards for data protection and privacy to build trust among trading partners.

#### () INTELLECTUAL PROPERTY RIGHTS

- Addressing intellectual property rights related to digital products, software, and other intangible assets.
- Balancing the need for protection with the importance of fostering innovation and competition.

#### > CYBERSECURITY

- Collaboration on cybersecurity measures to protect against cyber threats and attacks.
- Establishing guidelines for data breach notifications and information sharing among participating nations.

#### () DIGITAL SERVICES AND MARKET ACCESS

- Encouraging fair and open access to digital services across borders.
- Eliminating discriminatory practices and ensuring a level playing field for digital service providers.

28

#### () DIGITAL SERVICES AND MARKET ACCESS

- Encouraging fair and open access to digital services across borders.
- Eliminating discriminatory practices and ensuring a level playing field for digital service providers.

#### () REGULATORY COOPERATION

- Promoting cooperation on regulatory frameworks related to emerging technologies.
- Avoiding unnecessary regulatory barriers that may hinder the growth of digital industries.

#### SMALL AND MEDIUM-SIZED ENTERPRISES (SMES)

- Developing measures to help SMEs, particularly those in the digital sector, participate in international trade.
- Addressing challenges such as access to finance and navigating complex regulatory environments.

#### (>) BLOCKCHAIN AND DISTRIBUTED LEDGER TECHNOLOGIES

- Recognition and facilitation of the use of blockchain and distributed ledger technologies in international trade.
- Establishing legal frameworks for smart contracts and other blockchain-based applications.

#### () DIGITAL INCLUSION AND CAPACITY BUILDING

- Promoting digital inclusion to ensure that the benefits of digital trade are accessible to all.
- Providing support for capacity building in areas such as digital skills, infrastructure development, and cybersecurity.

#### >) ENVIRONMENTAL AND SOCIAL CONSIDERATIONS

- Integrating environmental and social considerations into digital trade agreements.
- Ensuring that digitalization contributes to sustainable development and social well-being.

Trade agreements that take these factors into account can help nations adapt to the challenges and opportunities of the digital age, fostering economic growth, innovation, and cooperation on a global scale. It's important for policymakers to continually reassess and update these agreements as technology evolves.

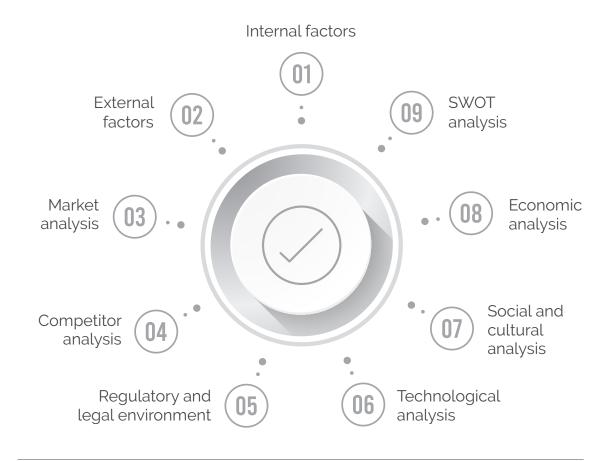


# METHODOLOGY



# 3. METHODOLOGY

For this assignment, a comprehensive study was undertaken to understand and analyze the environment. Situational analysis, also known as environmental scanning or analysis Strengths, Weaknesses, Opportunities, Threats (SWOT), is a process of gathering, analyzing, and interpreting information about the external and internal factors that affect an organization, project, or situation. The goal of situational analysis was to understand the current conditions, identify key trends, and assess the potential impact on decisionmaking with respect to the trade agreements in the digital economy. Some of the components of situational analysis considered include:



#### > INTERNAL FACTORS

- **Strengths:** Identify and analyze the internal strengths of the organization, such as resources, capabilities, and competitive advantages.
- Weaknesses: Assess internal weaknesses, including limitations, deficiencies, and areas where improvements are needed.

#### ) EXTERNAL FACTORS

- **Opportunities:** Examine external factors, such as market trends, technological advancements, or regulatory changes, that could provide positive prospects for the organization.
- **Threats:** Analyze external threats, which may include competition, economic downturns, political instability, or other factors that pose risks to the organization.

#### ) MARKET ANALYSIS

- Understand the market conditions, including the size, growth potential, and dynamics of the industry or sector in which the organization operates.
- Evaluate customer needs, preferences, and behaviors to identify opportunities for growth.

#### () COMPETITOR ANALYSIS

- · Assess the strengths and weaknesses of competitors in the market.
- Identify competitive strategies and market positioning to inform the organization's own strategic decisions.

#### (>) REGULATORY AND LEGAL ENVIRONMENT

- Examine the regulatory and legal factors that may impact the organization's operations.
- Stay informed about changes in laws and regulations that could affect compliance or create new opportunities.

#### ) TECHNOLOGICAL ANALYSIS

- Evaluate the impact of technological advancements on the organization.
- · Identify opportunities to leverage technology for innovation and efficiency.

#### () SOCIAL AND CULTURAL ANALYSIS

- Consider social and cultural trends that may influence customer behavior and preferences.
- Assess the organization's alignment with societal values and expectations.

#### () ECONOMIC ANALYSIS

- Analyze economic factors such as inflation rates, unemployment, and overall economic stability.
- Understand how economic conditions may affect the demand for products or services.

#### () SWOT ANALYSIS

- Consolidated the findings from the internal and external analyses into a SWOT matrix.
- Used the SWOT analysis to identify strategic options and develop action plans to capitalize on strengths, address weaknesses, exploit opportunities, and mitigate threats.

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Situational analysis outcome provided the foundation for strategic planning and decisionmaking. This will help AmCham organizations make informed choices by understanding the context in which they operate and by identifying factors that may influence their success or pose challenges.

In addition to the SWOT and PESTEL Analyses, Porter's Five Forces, 5C analysis and VRIO analysis were also used to bring out diverse, convergent and divergent variables of the trade agreements and the digital ecosystem.

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# FINDINGS AND DISCUSSIONS

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# **4. FINDINGS AND DISCUSSIONS**

### **OVERVIEW OF DIGITAL TRADE IN KENYA**

Digital trade is defined as digitally enabled transactions of trade in goods and services that are delivered within economies. Kenya's digital trade is anchored on 6 pillars: Law and regulation; Information, technology, telecommunications and power; Trade facilitation and logistics; Payment solutions; Skills and human capacity Development; and Access to finance. The subsequent sections provide an analytical review of progress made as well as issues encountered in digital trade.

### 4.1 LAW AND REGULATION PILLAR



Kenya has formulated various policies, strategies, laws and regulations to guide the development of digital trade. Some of the key legal frameworks include the Kenya Information and Communications Act of 1998; the Consumer Protection Act of 2012; the Data Protection Act of 2019; the Computer Misuse and Cybercrimes Act of 2018 and the Electronic Transaction Bill of 2007. Other digital-related laws and bills include the Digital Service Tax, the ICT Authority's Bill, and the Technopolis Bill. In addition, other laws include the Industrial Property Act of 2001 and the Copyright Act of 2001.

Key policies and strategies include Vision 2030; the Bottom Up Economic Transformation Agenda; the National E-commerce strategy; the National Digital Masterplan; and the Digital Economy Blueprint. The policy and regulatory framework established provide enablers and safeguards necessary for trust in an e-commerce environment, which is characterized by trading between parties that may never meet. However, there are various policy and legal issues that are not adequately addressed including the digital Service Tax is likely to have negative impacts on the growth of a relatively young digital trade and digital economy sectors. Other challenges include the majority of the local enterprises have not fully automated their processes because of the complexity and challenges in dealing with the collection of fees and royalties. Other issues include managing copyright and intellectual property, privacy and personal data protection, illegal downloads, piracy, counterfeiting as well as rising number of cyber threats.

### 4.2 INFORMATION, TECHNOLOGY, TELECOMMUNICATIONS AND POWER PILLAR

Kenya has implemented various digital infrastructure initiatives to unlock the opportunities for economic growth and development. This has ultimately increased the mobile and Internet penetration in the country. Globally, Kenya is ranked favorably as compared to its peers in the continent. Despite massive investment in digital infrastructure, the 2019 Population Census data indicates that less than 19 per cent of Kenya's population is using the Internet. Access to affordable broadband internet by households remains a challenge due to limited last-mile coverage by service providers and costly internet services. Tapping on the Universal Service Funds to bridge the digital divide gap in the unserved and underserved areas can empower low-income last-mile users and Micro, Small and Medium Enterprises (MSMEs).



Further, the Bottom-Up **Economic Transformation** Agenda has identified the Digital Superhighway as a priority to accelerate the growth of the Digital Economy. Under this priority, the government plans to lay out an additional 100.000 km of the national fiber-optic network to provide internet to all schools, government institutions, offices, metrocities, health facilities, rural businesses, homes and public spaces.

To improve the affordability and availability of Internet services, the National Digital Masterplan has prioritized the establishment of 25,000 internet public hotspots across the country to provide internet services to innovators, youth and entrepreneurs. The provision of internet public hotspots is geared towards enhancing access and affordability of internet services. It is noted that key digital infrastructure projects such as the National Addressing System, National Public Key Infrastructure and Konza Technopolis City are yet to be fully implemented. It is important to fast-track these projects including the Konza Data center and smart city facilities to create more jobs and accelerate the uptake of digital trade in Kenya.

## **4.3 TRADE FACILITATION AND LOGISTICS**

Kenya has signed trade agreements with various countries to access a wider global market. Notably, Kenya has ratified the World Trade Organization (WTO) Trade Facilitation Agreement, which aims at expediting the movement, release and clearance of goods across borders and in transit. Further, Kenya has also implemented a single window system, as well as published the import, export and transit procedures for various products. It is also important to promote international trade in digital products and services.

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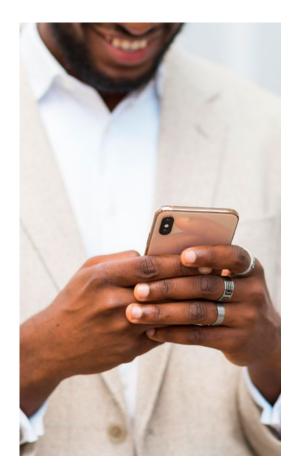
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## 4.4 TRANSPORT AND LOGISTICS INFRASTRUCTURE

Kenya is in a strategic position and thus acts as a gateway to East Africa, with two modern deep-water seaports at Mombasa and Lamu, and four international airports. The country is served by several national and international couriers covering much of the country as well as formal and informal services by companies. The Postal Corporation of Kenya (PCK) provides accessible, affordable and reliable services to all parts of Kenya. It is also observed that Kenya has the potential to leapfrog in E-commerce due to its strategic location, 600 plus postal offices countrywide and high mobile phone and Internet penetration. The wider network of post offices, supported by courier services, is key in providing doorstep delivery to consumers. Currently, Kenya is home to several domestic E-commerce platforms such as Jumia and Masoko. Other leading e-commerce platforms with a presence in Kenya include – Amazon Web Services Development center.

### **4.5 PAYMENT SOLUTIONS**

Kenya is among the top countries in Africa in terms of digital innovations. The country hosts a leading mobile money innovation- M-Pesa that offers a mobile money transfer service, with over 50 million active users. Currently, mobile money is the most prevalent electronic payment method for e-commerce in Kenya and the region. The total value of mobile money transactions in 2023 was \$50 billion. Enterprises use till and bill numbers to send and receive payments. Additionally, bank transfers, debit and credit cards and cash are widely used for e-commerce among many other payment options. Nonetheless, fraud and the high cost of transactions continue to hamper trust and hinder the use of electronic payments for e-commerce.



## **4.6 EDUCATION AND SKILLS**

The development of quality ICT human resources is a prerequisite to the development of a robust digital trade. Investment in digital skills is key to unlocking the numerous opportunities that come with the digital economy. Locally, over 22 public universities and 14 chartered private universities offer ICT-related degree programs. Further, various tertiary training institutions equip students with technical and soft skills to make youth employable. For instance, the Ajira Digital Program is empowering over one million youth to access digital job opportunities. However, female enrolment in ICT-related programs is less than 40 per cent and most of the ICT jobs are dominated by males. There are low and intermediate digital skilled experts with few professionals possessing advanced digital skills. To accelerate the growth in digital trade, Kenya is required to develop high-end ICT skills to design and support complex digital systems and innovations.

## **4.7 ACCESS TO FINANCE**

Access to finance is a key facilitator to a robust digital trade in Kenya. However, access to finance remains a challenge for entrepreneurs, despite the relatively well-developed financing sector in Kenya. The issue is multifaceted, with a lack of knowledge among both entrepreneurs and financing organizations about each other's needs and requirements. There are several forms of formal and informal financing options available to e-commerce companies. The formal sources include banks, Savings and Credit Cooperative Societies

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# REVIEW OF DIGITAL TRADE AGREEMENTS



## 5. REVIEW OF DIGITAL TRADE AGREEMENTS

Kenya is ranked highly by global indices on Digital Trade. The country accounts for 7.7 per cent of the Internet Economy and 9 per cent of software programmers in Africa, based on e-Economy Africa 2020 report. The report projects that Kenya will be accounting for 15.17 per cent of iGDP in Africa by 2050. To accelerate the growth of digital trade, Kenya has signed several trade agreements with various countries and blocks as discussed in the subsequent sections.

### **5.1 DIGITAL TRADE IN AFRICA**

Africa's digital economy is experiencing remarkable growth and is among the world's fastest-growing economy. The continent's internet economy has the potential to grow to USD 180 billion by 2025. Digital economy growth is expected to unlock 18 million additional employment opportunities. Digital trade in Africa is often focused on business-to-consumer (B2C) transactions. It is estimated that about 630 B2C e-commerce marketplaces are operating on the continent (International Trade Centre, 2020).

Africa has huge potential for digital trade as demonstrated by the spike in digital shopping during the COVID-19 pandemic. For instance, Kenya and Ghana registered an increment of 79 per cent in online purchases. Notably, during 2020-2021, over half of the consumers reported to have spent more on food products, household essentials and medical supplies.



Africa's digital transformation journey is guided by Digital Transformation Strategy 2020-2030. The main objectives of the Digital Transformation Strategy are to harness digital technologies and innovation to transform African societies and economies to promote Africa's integration, generate inclusive economic growth, stimulate job creation, break digital divides, and eradicate poverty. The strategy aims to support Africa's ownership of modern tools of digital management as well as seek to leverage the strengths and address the current lack of a common digital coordination framework within Africa. Therefore, the strategy provides a common, coordinated digitalization agenda, enhances synergies and avoids the duplication of efforts.

As digital trade uptake in Africa increases, the continent's digital trade development remains slow because of the continent's weak digital economy which limits crossborder digital trade. Notably, **94 per cent of the digital trade transactions in Africa are accounted for by only 10 countries including Kenya and South Africa** due to marketplace structures that are domesticated and country-focused. Key challenges that affect digital trade in Africa include unfavorable digital service taxation, digital trust issues and inadequate digital infrastructure. In addition, there is a general lack of wellstructured digital trade-related rules and regulations on data protection and privacy, consumer protection mechanisms among other salient digital trade issues.

## **5.2 DIGITAL TRADE IN KENYA**

Digital trade in Kenya remains low despite its potential and immense benefits. **Kenya's e-commerce is estimated to be slightly over Ksh 100 Billion** and ranked seventh in Africa and 85th globally (UNACTAD 2019). According to the Kenya Census (2019), only 4 per cent of the Kenyan population above 15 years old searched, ordered or bought items online and the majority are between 15 and 44 years old living in the urban areas. E-commerce in Kenya is largely an urban phenomenon, with its use concentrated in Nairobi, Kiambu, Nakuru, Mombasa and Eldoret. In these towns, major retailers, particularly supermarkets, are complementing their brick-and-mortar business by moving online through e-commerce.

Similarly, Africa only has 1 per cent of sales over the E-commerce platforms while China registers 20 per cent of its sales online. Some of the main reasons why E-commerce has not developed in Kenya include inadequate e-commerce policies, physical addressing challenges to deliver products to the last mile level, trust for digital business, unlicensed couriers, high shipping cost to last mile, high taxes for businesses, registration of businesses, inadequate infrastructure to support affordable internet services provision in many parts in the country as well as high number of counterfeit products. Access to the Internet and ownership of computers by households remain low. About 18 per cent and 8.8 per cent of households have access to Internet services and own computers or tablets respectively which are necessary for E-commerce (Kenya Census, 2019). The ICT Survey on Enterprises (2016) indicates about 39 per cent of surveyed firms have engaged in some E-commerce activities. However, the majority of the local enterprises have not fully automated their processes, complexity of digitizing the supply chain for some products and services and therefore reducing the online interactions between Businesses to Customers (B2C) and Businesses and Businesses (B2B). In addition, cybercrimes targeting online platforms have surged hence threatening e-commerce.

Mobile commerce has continued to drive the uptake of E-commerce in Kenya in the last few years. The Economic Survey (2023) indicates the value of mobile commerce transactions and the number of total transactions have steadily increased since 2017. Kenya was one of the first African countries to effect measures for cashless payments in the month of March to avoid the use of hard currencies deemed to harbor the COVID-19 virus. In efforts to urge Kenyans to shift to cashless transactions, Safaricom waived fees on MPESA for transfers under 1,000 shillings, while Airtel has waived charges on all payments. Further, the providers increased the amounts to transact and to deposit in the mobile wallets. In addition, there are recent initiatives to provide affordable Internet services in the country.

The above measures have impacted positively on mobile payment thus influencing the growth of Ecommerce in the country. **Kenya has initiated efforts to embrace e-commerce** by establishing a digital trade framework, digital economy blueprint and enacted relevant laws such as the Kenya Information Communication Act, Computer Misuse and Cybercrime Act, Data Protection Act, National Payment System Act, National Payments Strategy and Guidelines on Cybersecurity for Payment Service Providers. Efforts to address policy concerns in digital trade appear to be disjointed since digital trade is a multi-sectoral subject that requires effective collaboration of multiple players.

## **5.3 REVIEW OF DIGITAL TRADE AGREEMENTS**

A review of various study reports indicates that the future of trade is digital. Digital trade is expected to present opportunities and challenges for companies and regulators around the world. Digital economy agreements have already pushed the boundaries of traditional trade agreements, and governments around the world are eager to join this new frontier to advance global trade and inclusive economic growth in the digital age . The following section reviews various agreements that Kenya has signed with other countries and blocks.

#### 5.3.1 AFRICAN CONTINENTAL FREE TRADE AREA (AFCFTA) AND AFCFTA PROTOCOL ON DIGITAL TRADE

The African Continental Free Trade Area (AfCFTA) is a game-changer in promoting integration and economic growth among African states. AFCTA is an ambitious initiative aimed at promoting economic integration among African countries. Kenya is among more than 50 African nations that signed AfCFTA in Kigali, Rwanda, on March 21, 2018, marking a historic milestone in the economic integration of the continent. The formation of this free trade area creates a single market of 1.2 billion people with a combined gross domestic product of more than \$2 trillion.

The AfCFTA initiative seeks to create a single market for goods and services across the African continent. One of the key focal areas of AfCFTA is digital transformation in supporting trade. Facilitation of cross-border data flows by use of digital technologies is expected to unlock immense trade opportunities in the continent. Digital technologies enable the seamless exchange of information, services and products across borders, transcending physical limitations. AfCFTA is expected to support digital trade in the continent. Among the key priorities include:

- > Development of emerging technologies such as artificial intelligence, and datadriven solutions thus enhancing the continent's global competitiveness, and transforming industries
- Enable businesses to tap into new markets beyond their national boundaries. With the removal of digital barriers, African companies can explore untapped markets across the continent and reach a wider market
  - ) Promote digital economy and digital trade in the continent to allow consumers access to a diverse range of products and services, and boost online trade

To actualize the digital transformation in Africa, the AfCFTA Protocol on Digital Trade was crafted. The AfCFTA Protocol on Digital Trade is a pivotal instrument to enable the growth of the digital economy across Africa. The overall goal of the Protocol is to establish harmonized rules and common principles to enable and support digital trade across Africa.



The overall goal of the Protocol is to establish harmonized rules and common principles to enable and support digital trade across Africa. The Protocol aims to promote intra-African digital trade, enhance cooperation on digital matters, and create a transparent, secure, and trusted digital trade ecosystem in Africa.

The Protocol covers digital identity, cross-border payments/ cross-border financial technologies, cross-border data transfers, emerging and advanced technologies, and a Pan-African digital trade centre. It is important to note that the AfCFTA protocol on digital trade is still under negotiation and it is not yet clear how the protocol will affect various countries. To ensure the success of this initiative, industry leaders and key stakeholders, supported by the Kenyan government, gathered on 30 May 2023 to assess the current landscape and provide valuable input on regulatory and policy best practices.

The Protocol aims at addressing the regulation of cross-border data flows. The Protocol will facilitate the free movement of data across borders which is crucial for digital trade. The Protocol proposes a reduction of the restrictions on cross-border data flows and fixing problems related to data sovereignty and data localization. Other benefits include:

) The Protocol aims to establish robust data privacy and protection measures. It will set standards for data breach reporting, data handling and consent mechanisms

>) The Protocol will focus on creating an enabling environment for e-commerce by addressing challenges relating to electronic signatures, dispute resolution, consumer protection and online payment systems

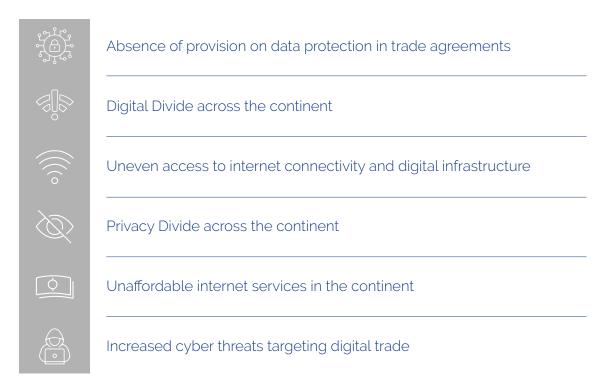
<sup>&</sup>lt;sup>1</sup> https://www.kommerskollegium.se/contentassets/d4c3fa9298384ca1b860169afb1bf732/the-digital-onlytrade-agreements--what-is-new.pdf

<sup>&</sup>lt;sup>2</sup> https://www.weforum.org/agenda/2022/08/digital-economy-agreements-trade/

- > The Protocol will emphasize the need to invest in digital skills development, broadband networks and enhancing internet access. This will provide sufficient digital infrastructure and connectivity which is essential for the digital economy
- >> The Protocol will aim to address the protection and enforcement of intellectual property rights concerning digital services and products

It is expected that the implementation of the Protocol on digital trade will create a larger and more integrated market for goods and services in Africa. To illustrate this, a Kenyan e-commerce company could use data from its Nigerian customers to improve its marketing campaigns and product recommendations including developing new financial products and services.

With effective implementation of the Protocol, member states will be able to facilitate free cross-border data flows. However, there are challenges to achieve this. There are several African countries without data protection and cybersecurity laws to guarantee secure digital trade transactions. Other issues that require to be addressed include:



Despite the bold aspiration and plan to promote digital trade in Africa, the volume of digital trade is very low in the continent compared to other regions of the world. It is noted that little progress has been made towards achieving the digital transformation priorities and in particular digital trade, however, much effort and collaboration with like-minded partners is critical in promoting digital trade in Africa.

Other challenges likely to hinder the effective execution of the AfCFTA include language barrier, multiple currencies, porosity of borders, foreign interference, political instability and insecurity, poor human development, over-lapping of membership of sub-regional organizations, poor state of infrastructure, and state-centric nature of integration initiatives.

#### 5.3.2 OTHER AGREEMENTS

Kenya like most African countries has signed various trade deals in the form of Economic Partnership Agreements and investment agreements (Bilateral Investment Treaties) with many non-African countries (mainly, China, the EU, the UK and the US). These partners are the main trading and investment partners for Kenya. These agreements can help promote investments for enabling digital trade and producing goods and services. Therefore, Kenya is required to improve its infrastructure for digital trade and strengthen cybersecurity capabilities by attracting investments from countries that have a comparative advantage in these areas of investment.

#### a) U.S - Kenya Trade Engagements

The United States and Kenya entered negotiations in July 2020 to establish a highstandard agreement to complement regional integration efforts within the EAC and AfCFTA. The two governments announced the Strategic Trade and Investment Partnership (STIP) in July 2022. Under STIP, the two governments are pursuing enhanced engagements to increase investment; promote sustainable and inclusive economic growth; benefit workers, consumers, and businesses (including micro-, small-, and medium-sized enterprises); and support African regional economic integration.

The two governments agreed on a Strategic Cooperation Framework to provide technical assistance and trade capacity building in Kenya to maximize Kenya's utilization of the AGOA trade benefits till 2025. The Framework also support the development and competitiveness of key agricultural value chains in Kenya.

The two governments also have intensified efforts to bolster commercial cooperation under the bilateral commercial Memorandum of Understanding signed in June 2018, and to work together to identify and prioritize trade and investment opportunities in strategic sectors including energy, health, digital economy, infrastructure, manufacturing, and agriculture.



Kenya like most African countries has signed various trade deals in the form of Economic Partnership Agreements and investment agreements (Bilateral Investment Treaties) with many non-African countries (mainly, China, the EU, the UK and the US). Key considerations covered in the US-Kenya Free Trade Agreement include the following:

#### Digital Trade in Goods and Services and Cross-Border Data Flows

- S Gradual regulations for the facilitation of Digital trade in goods and services and cross-border data flow in line with the country's development agenda in particular contribution of this trade to economic development.
- >>> US to support Kenya in strengthening E-Commerce and digital platforms for Trade in goods and services.
- > A framework to strengthen the Kenyan Innovation and Entrepreneurship ecosystem and upgrading of innovation startups.
- Support in strengthening the infant incubation, acceleration and innovation hubs for innovative start-ups in Kenya.
- Creating a liberal, facilitative, and competitive investment environment. Negotiations for investment shall cover the four pillars of promotion, protection, facilitation and liberalization.
- In all these, the FTA provides a mechanism for dispute settlement mechanism that would provide an effective, efficient, and transparent process for consultations and dispute resolution on trade issues.

#### Digital Innovation and Intellectual Property Rights under FTA

Trading and Investing in the digital space involve innovation. This requires a well-defined intellectual property rights protection clause under the FTA. Under the FTA framework, the worked intellectual property will aim to encourage innovation and open trade and investment in the digital space by:

Reducing Intellectual Property-related barriers to trade and investment by promoting economic integration and cooperation in the utilization, protection and enforcement of intellectual property rights.

Covering other intellectual property areas covered by the Convention on Biodiversity, including genetic resources, folklore, traditional knowledge, and benefit sharing.

Under the FTA framework, capacity building and technical assistance will be provided to Kenya to fully implement the agreed provisions on Intellectual Property Rights

## In terms of trade facilitation under the FTA agreement, the two governments agreed to:

- Progressively eliminate tariff and non-tariff barriers on substantially all trade in goods to establish a free trade area among the parties. In this regard, tariff negotiations will be conducted on a comprehensive basis.
- Openly conduct negations while considering each nation's capabilities to hold in trade as this will help in achieving high-level tariff liberalization, through building upon the existing liberalization levels between the two countries and through tariff elimination on a high percentage of both tariff lines and trade value.

Key concerns addressed by this agreement include: the removal of Kenya's Digital Service Tax (DST), as the measure discriminates against United States companies and undermines ongoing multilateral efforts in the OECD/G20 Inclusive Framework to address tax challenges of the digitalizing global economy. Kenya's 2019 Data Protection Act has also raised concerns regarding cross-border data flows, and there is a need to negotiate measures that can be implemented to create more certainty around such areas for future investments.

#### b) U.S. - EAC Trade and Investment Framework Agreement (TIFA)

The United States signed Trade and Investment Framework Agreements (TIFA) with the EAC in 2008, and with COMESA in 2001. Kenya is a member of both regional organizations. The Office of the U.S. Trade Representative's (USTR) Africa Office is also leading U.S. efforts to forge a new trade and investment partnership with the East African Community.

#### c) World Trade Organization (WTO)

WTO is the primary international organization dealing with the global rules of trade between nations. Kenya has been a member of the WTO since its inception in January 1995. The WTO's 10th Ministerial Conference was held in Nairobi, Kenya in December 2015. The Conference culminated in the adoption of the "Nairobi Package", a series of six ministerial decisions on agriculture, cotton, and issues related to Least-Developed Countries (LDCs).

#### d) East African Community (EAC)

Kenya is a member of the EAC with a population of approximately 177 million across the countries of Burundi, Kenya, Rwanda, South Sudan and Tanzania. EAC Member States have signed a Protocol to establish a common Customs Union.

#### e) Common Market for Eastern and Southern Africa (COMESA)

Kenya is a member of COMESA with a population of approximately 540 million. Exports and imports within member countries enjoy preferential tariff rates.

#### f) African Growth and Opportunity Act (AGOA)

Kenya qualifies for duty-free access until 2025 to the U.S. market under the African Growth and Opportunity Act. Some of Kenya's major products that qualify for export under AGOA include textiles, apparel, and handicrafts

#### g) Bilateral Trade Agreements

Kenya has signed several bilateral trade agreements with many countries including Argentina, Bangladesh, Bulgaria, China, Comoros, Congo (DRC), Djibouti, Egypt, Hungary, India, Iraq, Lesotho, Liberia, Netherlands, Nigeria, Pakistan, Poland, Romania, Russia, Rwanda, Somalia, South Korea, Swaziland, Tanzania, Thailand, Zambia, and Zimbabwe.

#### h) Generalized System of Preferences (GSP)

A wide range of Kenya's manufactured products are entitled to preferential duty treatment in Australia, Austria, Canada, Finland, Japan, New Zealand, Norway, Sweden, Switzerland, other European countries, and the United States. Under GPS, there are no quantitative restrictions applicable to Kenyan exports on any of the 3,000-plus items currently eligible for GSP treatment.

#### i) Organization of African, Caribbean and Pacific States (OACPS)

Exports from Kenya entering the European Union are entitled to duty reductions and freedom from all quota restrictions. Trade preferences include duty-free entry of all industrial products as well as a wide range of agricultural products including beef, fish, dairy products, cereals, fresh and processed fruits, and vegetables.

Trading and Investing in the digital space involve innovation. This requires a well-defined intellectual property rights protection clause under the FTA.



# OPPORTUNITIES AND LESSONS FOR DIGITAL TRADE IN KENYA

## 6. OPPORTUNITIES AND LESSONS FOR DIGITAL TRADE IN KENYA

Countries that invest in digital trade eventually have greater growth. Kenya stands to gain from digital economy agreements with its partners who represent a diverse group of economies with divergent levels of digital readiness.

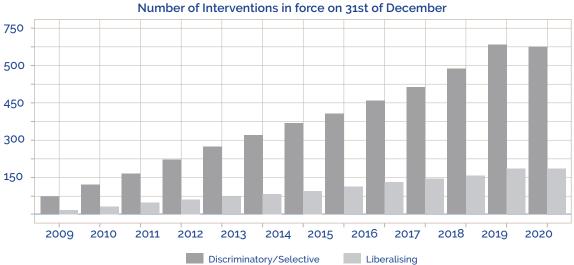
The growth of digital trade is dependent upon greater interconnectivity across borders. Several countries strive to achieve such interconnectivity and integration in digital trade through international trade agreements<sup>4</sup>.

Kenya like other countries is prioritizing cross-border collaboration in the digital environment. National laws and policies must often be harmonized on a regional or international basis to ensure citizens and businesses can access global markets to fully realize the benefits of a digital economy. Three key areas of harmonization include cross-border data flows, technical standards for equipment and devices, and taxation of digital services.



This will help the Kenyan government address a host of cross-border issues, including data privacy and consumer protection, as well as public safety and national security, among others. Digital trade integration is a complex, multidimensional process that integrates regulatory structures/policy designs, digital technologies and business processes along the entire global/regional digital value chain. One of the policy issues that negatively affect digital trade is data localization measures. Data localization usually increases the cost of doing business for businesses.

It is noted that in the recent past, cases of digital trade barriers or discrimination have increased as demonstrated by this figure:



Number of Interventions in force on 21st of December

Source: https://www.weforum.org/agenda/2022/08/digital-economyagreements-trade/#:~:text=Unlike%20traditional%20trade%20agreements%2C%20 which,innovation%2C%20digital%20identities%2C%20cybersecurity%2C

With a digitally connected economy, Kenya and its partners will put digital trade issues such as cross-border data flows and privacy protection front and centre. It will be critical to take both digital "hardware" (ICT infrastructure, 5G deployment) and "software" (laws and regulations, digital skills) considerations into account for digital integration to support trade. It is noted that the digital economy agreements encourage domestic regulatory reforms and "soft" cross-border collaboration on issues as wide-ranging as ;



Digital economy agreements are particularly beneficial for businesses including SMEs, who stand to gain the most from consistent, interoperable digital regulations.

https://www.unescap.org/resources/digital-trade-integration-preferential-trade-agreements

Among the key benefits derived from cross-border collaboration include:



Investment in digital enablers in Kenya has the potential to accelerate the growth of digital trade. For instance, under the National Electronic Single Window System initiative which aims to address challenges related to processing of import and export cargo documentation in Kenya. This online cargo clearance platform, launched in 2014, interfaces with and integrates automated export and import information from business and government agencies, issuing documents such as export and import permits, licenses, and certificates, among others.

The system is also linked to financial institutions, including banks and mobile payment options, through the Kenya Revenue Authority's online taxation system and the government's e-Citizen platform, hence providing a complete electronic cargo documentation platform. Thus, the system has facilitated trade by increasing transparency in export and import processes, reducing the number of processes and documents required for processing, providing a paperless (electronic) application by traders on a 24/7 basis and allowing for multiple payment channels.

This improvement in services has reduced the costs and time required to complete trade transactions. In addition, the platform accelerates communication, thus facilitating both payments and cross-border trade.

https://digitalregulation.org/cross-border-collaboration-in-the-digital-environment-

Kenya is hosting several US-based tech giants that have opened up regional offices in Nairobi. Like other countries with digital trade agreements with the United States such as the US-Mexico-Canada free trade area (USMCA FTA), Kenya gets support to develop digital trade infrastructure. Kenya will benefit from investment in digital infrastructure such as local data centers made by US-based tech giants. Other considerations for the two countries include:



Reduce regulatory burden on technology services

Harmonize policies and laws on the digital economy, cybersecurity and data privacy

Collaboration use of digital tools by the two governments to improve government performance

Cooperation and information-sharing between governmental agencies and regulators

Support data initiatives such as 'open government data' to grant citizens access to government data in the areas of economic and social development, competitiveness and innovation.

> There is a need discriminatory treatment in the digital trade agreement of digital products between the United States and Kenya. It is noted that only 8 per cent of South-South digital trade agreements

Additionally, there is 'weak' protection for intellectual property rights (IPRs) (as relating to digital products) and software source code and therefore this could be addressed in the digital trade agreement. Therefore, digital trade agreements should prioritize the prevention of data localization; Non-discriminatory treatment of digital products (including disallowing customs duties on digital products); and the Protection of digital IP and software code.

Kenya like many African countries is experiencing a relatively young digital trade sector characterized by about 5 per cent of households accessing E-commerce platforms. This is attributed to a lack of comprehensive legal and policy framework for e-commerce, inadequate data to support planning, unreliable and costly delivery services to the last mile level, low trust for digital businesses and lack of affordable broadband internet services. Developing and implementing a comprehensive e-commerce policy and legal framework through a multi-sectoral approach will promote the growth and development of e-commerce. It is noted that a huge number of mobile phone users own 2nd generation-based devices with limited Internet speed to support e-commerce activities.

There is a wide digital divide between the rural and urban areas and across counties in ICT devices ownership and usage. The average ownership of household Desktop computers/Laptops/Tablets in Kenya stands at 8.8 per cent which is considerably low. With e-commerce, Kenya has the opportunity to diversify its export markets and move into higher value-added production segments, rather than concentrating on traditional exports (e.g. coffee, tea, fruits and vegetables). Export opportunities provided by e-commerce may help to ensure longer-term firm survival in Kenya.



Many innovations fail to scale up due to financial and market limitations. Creating an enabling ecosystem to support local innovations across the country will unlock the potential of many innovators.

Digital skills are paramount to successful digital trade. Kenya has put in place various skill development initiatives such as the Digital Literacy Programme (DLP) and Jitume program. However, there are inadequate specialized digital skills including in emerging technologies to meet the needs of the job market. It is important to develop specialized digital skills including emerging technologies and rolling out of skills for future education.

Kenyan Micro, small and medium enterprises (MSMEs) can access a wider market for their goods and services. However, MSMEs experience poor internet connectivity, high transaction costs and information asymmetries. Integrating Africa into a single digital market will create economies of scale and opportunities to grow both local and regional economies. Compared to many other African countries, Kenya is in a good position to benefit from the AfCFTA.

Digital technology creates opportunities for innovation. New technologies give access to markets that were previously closed and remove distortions in demand by giving customers direct access to products that were previously controlled. Rapid technological developments have created new markets that now connect consumers. There is a need to offer incentives to encourage MSMEs to access and utilize technologies and Internet services.



**Digitization of productio**n presents important opportunities for Kenyan manufacturing firms in terms of growth and employment creation. The use of digital technologies and robotics by Kenyan manufacturing firms would improve efficiency boost their output and exports, and create job opportunities.

The digitization of the agricultural sector offers new opportunities through innovations that can upscale the agricultural value chain, e.g. precision agriculture by computerguided aerial mapping, data collection on soil and weather, and the use of global positioning systems (GPS).

The Communications Authority's statistics indicate a significant increase in the number of cybersecurity threats detected in the last five years. For instance, over 79 million threats were detected in January-March 2022 as compared to 3.4 million detected in January-March 2018. The demand for remote working tools has increased cyberattacks that exploit the vulnerable remote working tools. Strengthening collaborations by all actors in response to intrusions and creating more public awareness of cybersecurity will significantly stem cyber threats.

**Strengthening transport infrastructure** (such as railway systems, roads, airports and harbors) as well as supporting the implementation of the national addressing systems and reforming the postal system would be paramount for enhancing trade logistics. Kenya is a technology leader in Africa and would be in a better position to support the content in driving the African Union's Digital Transformation Strategy. The strategy commits member countries to promote open standards and interoperability to enhance trust in cross-border transactions, personal data protection and privacy. Improvements in digital infrastructure, which is one of the pillars in the Digital Economy Blueprint, would increase Kenya's ability to meet these challenges.

There are success stories of digital trade agreements that have yielded to progressive digital trade among the United States and other countries which could further inform the digital trade between the United States and Kenya. For example, the United States-Mexico-Canada Agreement (USMCA) is lauded as having some of the most comprehensive and high-standard digital trade provisions ever negotiated. The three parties to the USMCA have agreed not to impose customs duties, fees or charges on the importation or exportation of digital products. The parties agree to not accord less favourable treatment to a digital product of another country.

Further, the parties commit to not restricting the cross-border transfer of information including personal information if the transfer is for the conduct of the business of a covered person. This provision recognizes that parties may erect restrictions to achieve public policy objectives. **The agreement also mandates parties to maintain legal framework protections for personal information.** Similarly, the United States-Japan Digital Trade Agreement is directed to liberalize data and allow for cross-border data flows, prohibit data localization requirements, and remove taxes and or customs duties on electronic transmissions.



# CONCLUSION AND RECOMMENDATIONS



## 7. CONCLUSION AND RECOMMENDATIONS

## 7.1 CONCLUSION

**Digital trade integration is a complex, multidimensional process** that integrates regulatory structures/policy designs, digital technologies and business processes along the entire global/regional digital value chain.

**Empowering Kenya's and Africa's digital trade in general** is a collective effort by individual countries. It is expected that the digital trade agreements will drive innovation, energise businesses, and create novel opportunities for economic growth across the continent. The introduction of the AfCFTA Protocol on Digital Trade and other related agreements are expected to shape the future of digital trade in Africa particularly in Kenya.

It is noted that multilateral companies with a digital presence in Africa are wellpositioned to benefit from the increased policy attention towards embracing digital trade. Multilateral companies have the resources and expertise to scale their operations to meet the needs of a larger market. They also have the experience of operating in multiple countries and lessons learnt in progressing the digital trade could apply in Kenya and the region as a whole. Under the AfCFTA on digital trade, companies such as Microsoft and Google could expand their operations to new African markets more easily and develop new digital products and services tailored to the African market.

> Under the AfCFTA on digital trade, companies such as Microsoft and Google could expand their operations to new African markets more easily and develop new digital products and services tailored to the African market.



## 7.2 RECOMMENDATIONS

Key considerations include:

## 1. TO BUILD A ROBUST, INTEGRATED AND SECURE INFRASTRUCTURE FOR DIGITAL TRADE

- a) Support public-private partnerships to build digital infrastructure.
- b) Support government in providing infrastructure services to the unserved and underserved population through various means including partnering with service providers and universal service programmes.
- c) Service providers to consider lowering prices for products and services to the disadvantaged communities while universal service fund programs could be repurposed to provide connectivity as well as digital tools such as smartphones to the vulnerable groups.
- d) Invest in cybersecurity solutions to secure digital trade.
- e) Training on data security, protection and privacy.

#### 2. TO PROMOTE CROSS-BORDER DATA FLOWS

- a) Support the government in harmonizing regulations on data security, protection and privacy across Africa to make it easier for businesses to transfer data across borders.
- b) Establish mechanisms for cross-border data flows.
- c) Promote non-discrimination obligations (Non-discriminatory treatment of digital products).
- d) Advocate for reduction of tariffs on electronic transactions.
- e) Train data security, protection and privacy.

#### 3. TO ENCOURAGE OPEN DIGITAL MARKETS

- a) Support the government in investing in digital tools and systems for the growth of digital trade.
- b) Support the government in building a comprehensive policy and legal framework for e-commerce necessary for a sound regulatory environment to foster digital transactions. There is a need to develop and implement a more comprehensive digital trade policy and legal framework through a multi-sectoral approach to promote the growth and development of e-commerce. The frameworks should address the following policy concerns- E-commerce regulation and facilitation, registration of digital businesses, e-payment, taxation structure of digital businesses, ICT Infrastructure, Logistics, MSE support, Consumer protection (counterfeits goods, fake digital adverts, false information/ claims, guality, health and safety issues and fair prices), consumer awareness, Data protection (online consumer protection, and data privacy), Cross Border and Global participation on E-commerce. Consider developing a tax framework accounting for the existence of different actors in the digital economy, including marketplaces that offer intermediation services and sellers of goods and services with an online presence, offering a transparent and administratively simple approach for the e-commerce sector to comply with tax obligations
- c) Support development and implementation of policy and legal framework for online delivery of professional services, including medical services Telecommuting, Telemedicine, eLearning, Call centres, BPOs.
- d) Partners with the government to build and maintain the functioning of the logistics system, including the national postal service. According to the World Bank report on E-commerce (2020), the national postal service is a vital public infrastructure service which is often the main (and cheapest) means of delivery to clients for E-commerce. There is a need to fast-track the development of a national addressing system framework as well as robust courier frameworks to nurture and encourage the growth of e-commerce – offer secure, cheaper and convenient courier/ shipping services - use "zone skipping" to improve customer service and decrease transportation costs- integration between a multi-carrier shipping system and other supply chain systems.

There is a need to develop and implement a more comprehensive digital trade policy and legal framework through a multi-sectoral approach to promote the growth and development of e-commerce.

Some shipping scenarios to be considered are:

- Buy online, pick-up in-store (BOPIS) cheaper, increases store traffic, creates an opportunity for additional purchases, and allows customers to return the item while in-store. Click-and-collect and curbside pickup are expected to persist and experience a long-term trajectory of e-commerce growth post-pandemic.
- Buy online, drop ship
- In-store purchase, home delivery
- Ship from store
- Drop ship
- Buy online, return in store
- Same-day/on-demand delivery
- e) Promote nondiscrimination obligations to facilitate the free flow of digital services and technologies and enable more companies to trade across borders.

#### 4. TO INVEST IN EMERGING TECHNOLOGIES

- a) Support development and implementation of policy and legal framework for emerging technologies in Kenya
- b) Support development and implementation of a comprehensive policy and legal framework for identification, nurturing and scaling up as well as Intellectual Property Protection of digital innovations in Kenya
- c) Train innovators and professionals on emerging technologies

#### 5. TO STRENGTHEN ECONOMIC COOPERATION

- a) Build more partnerships with private technology companies, and social entrepreneurs to make use of existing resources and technologies necessary for the growth of digital trade
- b) Support the government in putting in place programs to improve digital literacy, skills training and promote inclusivity

#### 6. TO PROMOTE INVESTMENT IN ICT INDUSTRIES

- a) Build Research and Development facilities for emerging technologies.
- b) Establish software and hardware firms.
- c) Build local data centers.

#### 7. UNDERTAKE REGULAR POLICY STUDIES

- a) Carryout regular feasibility and impact assessment studies on digital trade.
- b) Package policy recommendations and share them with the right stakeholders including the government.

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Digital trade integration is a complex, multidimensional process that integrates regulatory structures/policy designs, digital technologies and business processes along the entire global/regional digital value chain.



