

DIGITAL TRADE FOR AFRICA



Digital Trade for Africa (DTA) WB-WTO Joint Project

Rwanda

Digital Trade Review and Next Steps

The WTO–World Bank joint work on Digital Trade for Africa (DTA) seeks to support greater engagement in digital trade by African countries. The project seeks to help African countries share fully in the benefits that digital trade brings and improve their development prospects. It builds on a joint World Bank and WTO policy note entitled “Turning Digital Trade into a Catalyst for African Development” (2023), which finds that digital trade offers new opportunities to boost trade-based growth for African countries, especially for SMEs, but requires a supportive ecosystem comprising connectivity infrastructure and a conducive policy and regulatory environment, as well as strengthened international assistance.

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EXECUTIVE SUMMARY

Rwanda stands out in the East African Region as a trade leader and innovator in digitally delivered services. The country's strategic initiatives and regulatory reforms are key facilitators to its progress in digital trade. These actions have led Rwandan digital and financial services to quickly expand across the region.

The country has significantly expanded Internet access and continues to push for better digital infrastructure. Rwanda has steadily grown its average amount of Internet users year upon year. These results are due in part to the development of digital infrastructure, notably through an increase in international submarine cables, the outstanding growth in mobile network connectivity per capita, and lower costs to use the Internet.

Despite these improvements in connectivity, the scope for technology adoption remains significant. Performance is still low due to general affordability, limited broadband adoption, skills and literacy gaps, and limited access to reliable power. Strengthening digital infrastructure networks, especially in rural areas, supporting a more competitive telecommunications sector, and improving digital literacy and skills are proposed measures to boost the development of the digital economy.

Rwanda's participation in exports of digitally delivered services has been on an overall upward trajectory, more than doubling in the period 2016-2024. The decomposition of Rwandese digitally delivered service exports reveals that, since 2016, most of the growth has been driven by exports of telecommunications and financial services, which accounted for over 90% of total exports of digitally delivered services in 2024.

Many digitally delivered services are key inputs for overall economic activity. Importing these services provides an avenue for domestic firms to access greater choice, higher-quality and lower-priced inputs, thus strengthening their competitiveness and enhancing their overall digital trade performance. Rwanda's imports of digitally delivered services have more than doubled since 2016.

Rwanda is engaged in various international and regional trade fora relevant to digital trade but has only undertaken very limited digital-trade enabling commitments in the WTO. Rwanda has ratified the WTO's Trade Facilitation Agreement, but it did not eliminate tariffs on information technology goods under the Information Technology Agreement, nor did it undertake GATS commitments in any digital trade-enabling service sectors. The country did not participate in the negotiations that led to the Investment Facilitation for Development Agreement, both of which may help foster digital trade. It has signed various regional trade agreements, notably COMESA and the AfCFTA.

In general, the country exhibits varying levels of readiness in different aspects of digital trade regulation. The country shows strong regulatory frameworks in areas such as data protection but needs significant improvements in others, particularly in cross-border data transfers, e-signatures, and intermediary liability. In all regulatory areas noted, Rwanda's laws contain a foundation that can be strengthened.

Amending existing laws and adopting capacity building initiatives would serve to continue Rwanda's efforts in maximizing digital trade. Current regulations lack measures that limit data localization requirements, create stronger protections for unsolicited communications, and extend intermediary liability protections for users. Critically, any new regulations need the support of awareness campaigns and skills-based trainings. Finally, capacity building is needed regarding electronic signatures and licensing requirements for small and medium-sized businesses.

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1 INTRODUCTION

Digital trade¹ has become a cornerstone of global economic activity. Digital technologies reduce the cost of engaging in international trade, allow for direct connections between producers and consumers around the world, help diffuse ideas and technologies, and facilitate the co-ordination of global value chains. In Africa, the potential for digital trade to spur economic growth and development is particularly significant. While Africa represents a small share of global trade in digitally delivered services (less than 1%), exports of digitally delivered services are the fastest growing segment of African trade, showing fast and continued growth in the last 15 years.² The World Trade Organisation (WTO) estimates show that global exports of digitally delivered services have more than quadrupled in value since 2005, and they have registered an 8.3% yearly growth rate between 2005 and 2024, outpacing exports of goods (4.5%) and other services exports (4.9%).

Nevertheless, challenges abound, ranging from connectivity investment to policies and regulations. Connectivity infrastructure, though it has advanced greatly in the last decade, still has many gaps in Africa - particularly for last-mile connectivity. Estimates obtained using the WTO Trade Cost Index show that improving digital connectivity would reduce the costs of trading both goods and services in Africa, especially for business and professional services.³ However, connectivity is only one (important) piece in a large and complex puzzle, with other challenges to be addressed including gaps in affordability, digital skills, and competition.

Digital trade demands a supportive ecosystem, starting with solid digital connectivity infrastructure. It is critically important that advances in connectivity infrastructure go hand in hand with policy and regulatory reforms to ensure that digital communications are affordable and of good quality, the population has the necessary digital and entrepreneurial skills to either consume or contribute to the supply of new services, and that businesses can leverage those opportunities. Trade policy is an important component of this ecosystem, as it fosters policy predictability and promotes access to global digital markets, while advancing broader public policy goals.

Rwanda presents a useful case study due to its rapidly growing digital economy. Given the size of the country, gaining access to a larger regional and global digital market will also be extremely important in providing Rwandan companies with a springboard to scale but also provide Rwandan consumers with access to more diverse goods and services.⁴ The country's strategic initiatives and regulatory reforms can offer valuable insights into the broader regional context and possible future development. To best understand this, this report draws on a range of sources,⁵ including the World Bank's (WB) Digital Trade Regulatory Readiness (DTRR) database (forthcoming 2025), the World Bank-WTO Services Trade Restrictions Index (STRI), field missions and additional research, to provide a broad view of the digital trade landscape in Rwanda.

This report assesses the policy frameworks relevant for digital trade in Rwanda from two perspectives. First, it examines general policy frameworks that, while not directly targeting digital trade, are key facilitators of this trade. As a point of reference, the analysis looks into enabling services trade regimes, tariffs on Information and Communication Technology (ICT) goods and facilitation of border processes, amongst others. Second, it reviews regulatory domains specifically related to key aspects of digital trade. It is based on existing information and data sources and complemented by the World Bank's gap analysis.

¹ Digital trade is defined in this report as all trade that is digitally ordered and/or digitally delivered, as per the IMF/OECD/UNCTAD/WTO (2023), *Handbook on Measuring Digital Trade*. The terms digital trade and electronic commerce are used interchangeably. See also Box 2.

² WBG/WTO (2023a).

³ WBG/WTO (2023a).

⁴ World Bank, A Single Digital Market for East Africa: Presenting Vision, Strategic Framework, Implementation Roadmap, and Impact Assessment (English), 2019.

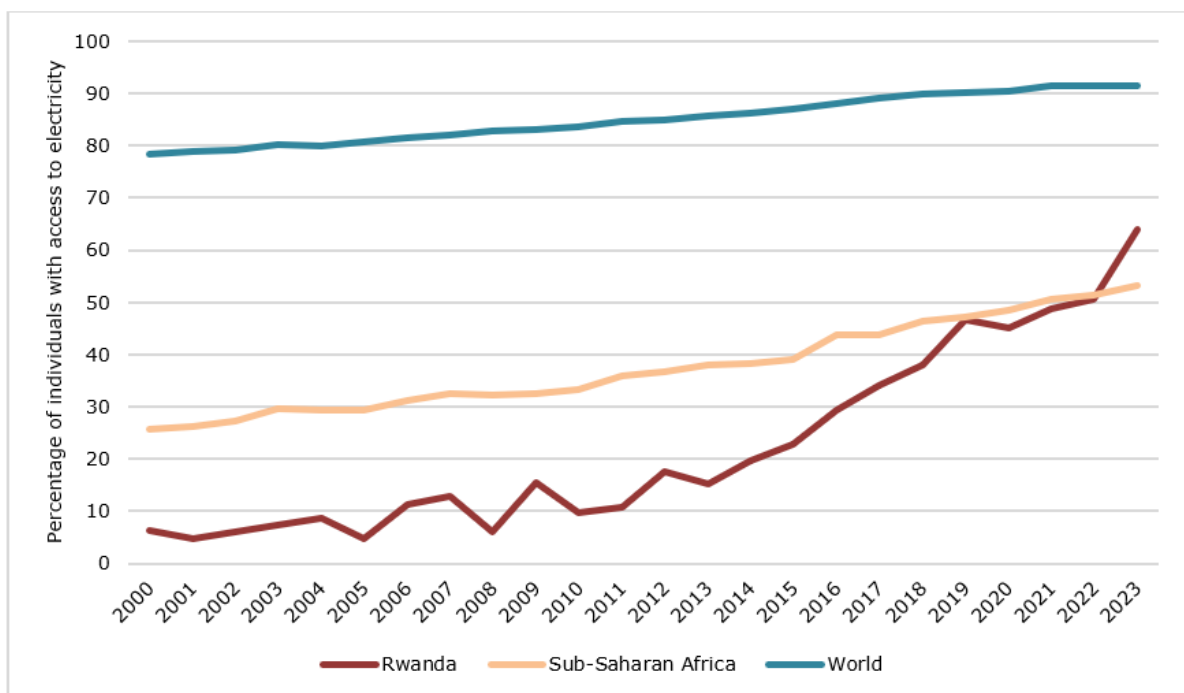
⁵ Table of sources provided in Table A3, Annex 1.

2 BACKGROUND

2.1 Digital connectivity foundations

Access to electricity in Rwanda has improved over time, but there is room for further progress. Although Rwanda has historically lagged behind its continental peers, the country has made significant strides over recent years. By 2022, electricity access in Rwanda had converged to the Sub-Saharan African average, by which time around half of the population had access to power. In 2023, Rwanda (63.9%) had surpassed the Sub-Saharan African average of 53%. Nevertheless, some room for improvement remains, as it remains below the global average of 92% (see Figure 1). Access to the Internet is essential for digital trade, and equally important is access to electricity. The devices, servers, and communication infrastructure necessary to connect Rwandese people to the Internet all require a reliable electricity supply. Without it, these components cannot function, limiting access to the Internet and, in turn, to digital trade.

Figure 1. Electricity access in Rwanda (2000-2023)



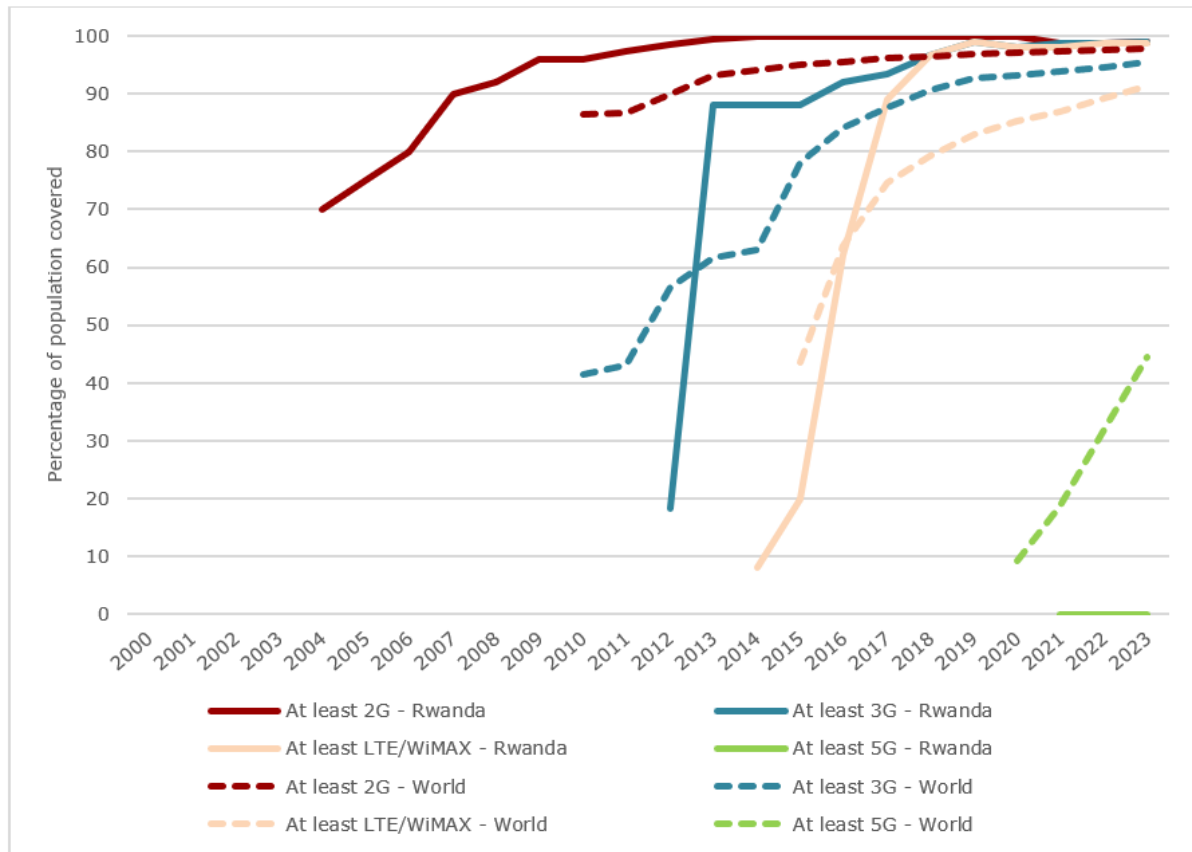
Source: World Bank Development Indicators.

Access to the Internet is a prerequisite for engaging in digital trade. This entails various facets, starting with Internet connectivity. The first problem to solve is that of Internet availability, or “coverage”. Beyond coverage, an immediate issue to address is usage. Internet availability has improved with the spread of broadband mobile networks (3G, 4G and higher) and many countries in the region have now also licensed low-earth-orbit (LEO) satellite networks. However, fixed-line connectivity, though copper or fibre, remains restricted. Beyond availability, the quality of the Internet connection, which includes the speed, latency, and reliability of the connection, is also crucial. High-speed Internet is necessary to engage in activities such as real-time customer service and accessing cloud-based applications, all of which have become increasingly essential for digital trade operations to thrive. Finally, Internet access must be affordable for its effective utilization. High costs can be a significant barrier to usage, particularly for micro, small, and medium-sized enterprises (MSMEs) and to consumers.

Mobile networks are the dominant technology to access the Internet in Rwanda. However, most existing users are still subscribed to 2G, 3G, and 4G services. According to ITU data, 3G network coverage in Rwanda reached 99.1% in 2023, while 4G coverage stood at an impressive 96% nationwide (see Figure 2). Until recently, limited 4G adoption was partly attributed to the 4G monopoly established through the Government’s public private partnership contract with Korea

Telecom (KT). This arrangement discouraged competing operators from investing in 4G, as they opted to use and commercialize their own 3G networks. However, with the recent 4G market liberalization in 2023, operators have begun to invest more heavily in 4G infrastructure. As of 2023, there was no 5G coverage in Rwanda compared to a global average of 44.5% (see Figure 2). It should be noted, however, that 5G technology only became generally available shortly before 2022, and that various efforts to expand 5G coverage have been announced during 2023 and 2024. When more recent figures become available, it would be reasonable to expect higher shares of 5G penetration. Unlike the widespread adoption of mobile broadband, fixed broadband - critical for bandwidth-hungry digital trade applications such as 3D virtual trade shows - remains underutilised in the country.

Figure 2. Population coverage, by mobile network technology (2000-2023)



Source: Compiled with data from ITU DataHub.

Internet usage in Rwanda has significantly improved in recent years with impressive extension of network coverage. Significant public spending has helped to extend network coverage, including via large-scale backbone network investments, which saw the Government supporting the deployment of more than 3,000 kilometres of fibre through a public private partnership (PPP).⁶ Given Rwanda's high population density and compact size, most of the population now lives within closer proximity of the backbone transmission network than those in many other East African nations, which is a distinct advantage.⁷ These investments have also facilitated commercial investment and deployment of access networks that allow end-users to connect, allowing Rwanda to achieve near universal mobile broadband network coverage and yielding improvements to both network speed and price. 4G coverage at 99% in 2023 far outstrips

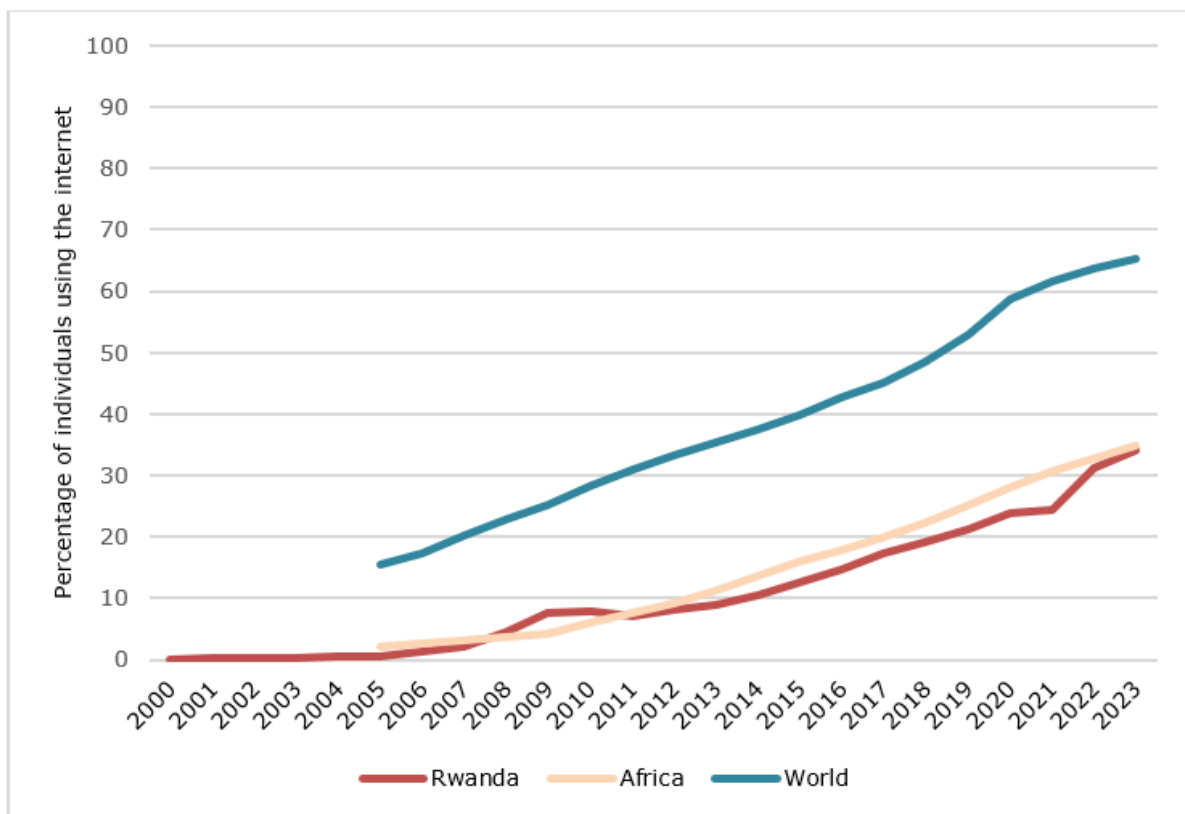
⁶ In 2008, the government signed a deal with Korea Telecom to roll out a national fibre optic backbone at a cost of USD 40 million, financed by the sale of the historical operator Rwandatel for USD 100 million in October 2007. However, as part of the deal, Korea Telecom was granted a monopoly over the use of 4G services.

⁷ See <https://thedocs.worldbank.org/en/doc/08165a76ca0f1ef688d2782dfaab3406-0400072022/related/Rwanda-DE4A-Summary-Report-final-for-feedback.pdf>

the East African regional average of 72% and is above Kenya (98%) and Uganda (40%)⁸. According to data from cable.co.uk, Rwanda ranked first in Africa in 2022 in terms of average broadband download speeds, recording an impressive 52.2 Mbps, ahead of South Africa, which registered 28.6 Mbps.⁹

The proportion of Internet users has more than tripled over the past decade, but overall usage remains low, presenting a key challenge for the development of e-commerce. Unique mobile broadband penetration has increased more than tenfold, from 3.5% in 2016 to 41.6% in 2023 – surpassing the Eastern and Southern Africa regional average of 36%.¹⁰ However, Internet usage still needs to increase significantly to create a more enabling environment for e-commerce. The uptake of broadband has not kept pace with gains on the supply side. According to data from the International Telecommunication Union (ITU), 34.2% of Rwandans were regular Internet users in 2023, a significant increase from just 8.02% in 2012. This marks a substantial improvement in digital connectivity over the past decade, bringing Rwanda close to the African average of 35%, and gradually narrowing the gap with the global average of 65.4% (see Figure 3).

Figure 3. Internet usage in Rwanda (2000-2023)



Source: Compiled with data from ITU DataHub.

A digital divide characterizes existing access and usage. Despite ongoing efforts to expand broadband infrastructure, significant challenges remain in improving access, where market disparities between urban and rural areas remain stark.¹¹ Network quality is considered better in urban areas. Moreover, existing broadband users are also predominantly urban. According to the 2022 Rwandan Census, the city of Kigali accounts for the highest share of the population with access to Internet, roughly equal to the combined total of all other provinces. Access to the Internet also varies significantly by gender and area of residence across all regions.¹² These disparities in access are reflected in usage patterns. According to the 2022 Census, 32.8% of the urban population aged

⁸ International Telecommunication Union, Data Hub, 2024.

⁹ <https://www.cable.co.uk/broadband/speed/worldwide-speed-league/#speed>.

¹⁰ International Telecommunication Union, Data Hub, 2024.

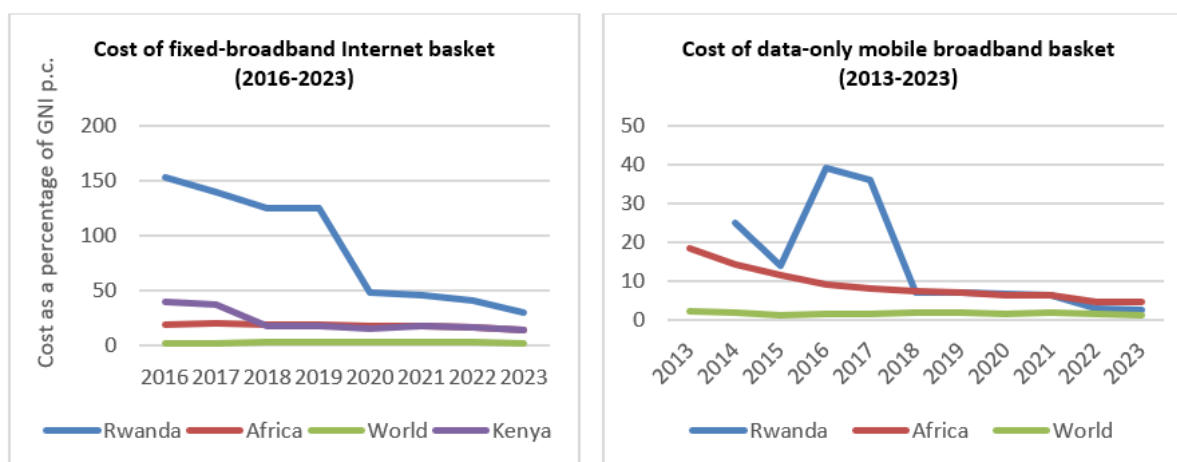
¹¹ See https://www.undp.org/sites/g/files/zskgke326/files/2024-03/undp_digitalisation_full_final.pdf

¹² NISR, 5th Rwanda Population and Housing Census (RPHC-5), 2022.

10 and above uses the Internet, compared with only 6.2% in rural areas, where the vast majority of Rwandan households still reside. Internet usage in Kigali reached 44.4% – a much higher figure than in all other provinces, where usage ranged between 23% and 28%.¹³ Additionally, women, the elderly, and persons with disabilities continue to face starker barriers to using the Internet, with usage rates consistently lower among these groups.¹⁴

The affordability of the Internet has remarkably improved, but the Internet remains costly, which hampers uptake. The cost of fixed broadband experienced a significant drop between 2016 and 2020, where the price of entry-level fixed broadband basket of 5 GB fell from 152.6% of Gross National Income (GNI) per capita to 48.1%. In 2023, the cost stood at 30.8% of per capita GNI, which is still significantly costlier than for Kenya (at 14.8%), for the African average (at 17.7%) and the World average (at 3.0%) (see Figure 4). Moreover, affordability does not just apply to data but extends to the smart devices required for access.¹⁵

Figure 4. Internet access cost trends in Rwanda



Source: Compiled with data from ITU DataHub.

The cost of mobile broadband in Rwanda has also significantly dropped over the last eight years. The most remarkable drop in prices happened in 2017 – from 36.078% to 7.15% of per capita GNI. The cost of the entry-level data-only mobile broadband basket (2 GB per month) has continued to drop progressively and stands at 2.46% in 2023; closer to the United Nations Broadband Commission targets for 2025 (see Figure 4).¹⁶

Large gaps in basic digital literacy and low access to affordable digital devices continue to hamper uptake of broadband. Without access to affordable digital devices, living within an area of broadband coverage yields little in terms of adoption of broadband.¹⁷ The 2022 Rwanda Census found that 74.7% of the population above 16 years of age owned a feature phone – limited to basic functions such as calling and texting – while only a quarter of the population (24.3%) owned a smart phone, which allows users to connect to existing broadband networks and access digital services. The figures are disproportionately higher in the capital city of Kigali and other urban areas than in rural areas.¹⁸ Similarly, digital literacy skills, such as the ability to navigate the web, access e-Government and financial services, and protect personal information, are essential for the adoption and productive use of broadband. Despite a remarkable increase from just 8% in 2017 to 35% in 2023,¹⁹ significant digital literacy gaps remain in Rwanda, with women and rural populations disproportionately affected. In 2019, for example, digital literacy rates stood at 7% for women versus 11% for men; 26% among urban populations versus 4.6% for rural.²⁰

¹³ NISR, 5th Rwanda Population and Housing Census (RPHC-5), 2022.

¹⁴ See https://www.undp.org/sites/g/files/zskgke326/files/2024-03/undp_digitalisation_full_final.pdf

¹⁵ World Bank, Affordable Devices for All: Innovative Financing Solutions and Policy Options to Bridge Global Digital Divides, 2023.

¹⁶ Broadband Commission for Sustainable Development, [Make Broadband Affordable](#), 2024.

¹⁷ World Bank, [Digital Transformation Drives Development in Africa](#), 2024.

¹⁸ NISR, 5th Rwanda Population and Housing Census (RPHC-5), 2022.

¹⁹ SDG Digital, [Digital Skills & Capacity](#), 2023.

²⁰ World Bank, [Increasing Access to Technology for Inclusion](#), February 2023.

The Government is well attuned to these challenges and is spearheading innovative models to address them. These include a national basic digital literacy scheme called “Digital Ambassadors” where young digital savvy Rwandans train users in their local community, and the forthcoming consumer financing facility, “Device Access Fund” with targeted public subsidies to enable upfront purchase and guarantees to help de-risk payments in instalments. The Government has also applied a blanket tax exemption for digital devices, covering import duties and VAT (see [Rwanda Revenue Authority](#)). The World Bank and other key partners continue to actively support these efforts (see, for instance, Box 1).

Box 1. Development Banks' investments in connectivity infrastructure

In 2022, the World Bank alongside the Asian Infrastructure Investment Bank (AIIB) committed USD 200 million towards the Rwanda Digital Acceleration Project (RDAP). Infrastructure investment is an important component of the 5-year project.

The project is helping to expand last-mile connectivity and access by connecting rural local government offices, hospitals, health centres, schools, and higher education institutions. The project also seeks to reduce the costs for mobile devices, with the aim of bridging the penetration gap and boosting access to smart devices. The project is also supporting Rwanda to address the basic digital literacy gap, equipping all Rwandans with the foundational digital literacy needed to confidently “get connected” and to gain access to digitally enabled services. In addition, the project is supporting the regulator to review and strengthen the overall legal, regulatory and policy framework governing the telecommunications sector and emerging technology in favour of increased competition, affordability, access, and service quality.

Increased competition in the telecom sector has achieved significant results, but challenges remain in addressing the digital divide between rural and urban areas. In the “middle-mile” segment, KT no longer holds a monopoly over the national fibre optic backbone infrastructure. The national fibre optic cable is now also operated as an open access network. This has brought about more competition as other Internet Service Providers (ISPs) and telecom operators can now lease capacity and provide services. The fixed broadband market continues to grow with a new entrant, Canal Box, disrupting the corporate and residential markets that were previously dominated by Liquid Telecom and BCS Ltd. The mobile broadband market is dominated by two Mobile Network Operators – MTN and Airtel. Open competition between the two telecom suppliers is partly credited for recent improvements in coverage, enhanced quality, and increased affordability of data packages. However, while competition is dynamic in urban centres, rural areas continue to struggle with limited options for connectivity. This is mainly attributed to a combination of low demand for broadband and higher costs of rolling out infrastructure in more remote areas.

Significant strides have been made in improving key policy frameworks and the regulatory regime that have contributed to positive market developments. Many of these major regulatory reforms were made possible by the new National Broadband Policy and Strategy, adopted in 2022, which also recognizes the lingering challenges detailed above. The regulator, Rwanda Utilities Regulatory Authority (RURA), has achieved the ITU’s “fourth generation regulator” status due to “a comprehensive and integrated approach to digital regulation”.²¹ RURA continues to play a crucial role in the development of a regulatory regime that promotes fair competition, protects consumers, fosters innovation, and promotes universal access. The Government actively encourages foreign direct investment through a robust incentive regime in line with Rwanda’s ambitions to become a regional ICT hub.

2.2 Participation in digital trade

The measurement of digital trade is challenging. Measuring the exact participation of any economy in digital trade is complicated by the lack of internally comparable statistics for digitally

²¹ ITU, [Global ICT Regulatory Tracker](#), 2024.

ordered trade (see Box 2). However, the WTO provides estimates for digitally delivered services trade²², which allow for an assessment of Rwandese participation in this segment of digital trade.

Box 2. Digital trade and electronic commerce – Fundamental concepts and statistical definitions

Over the years, different concepts and definitions relating to e-commerce and digital trade have been developed and used in international fora. The IMF/OECD/UNCTAD/WTO (2023) *Handbook on Measuring Digital Trade* clarifies the linkages between these concepts by providing a statistical definition of digital trade. It defines digital trade as “all international trade that is digitally ordered and/or digitally delivered.”

Digitally ordered trade covers transactions in both goods and services conducted over computer networks by methods “specifically designed for the purpose of receiving or placing orders.” These would include ordering a pair of shoes from abroad through a retailer’s website or booking a hotel room in another country through a digital intermediation platform. Digital delivery, instead, is defined in the Handbook as covering only services, and may take place via email, voice and video calls, apps and intermediation platforms such as online gaming, music and video streaming, and remote learning platforms.

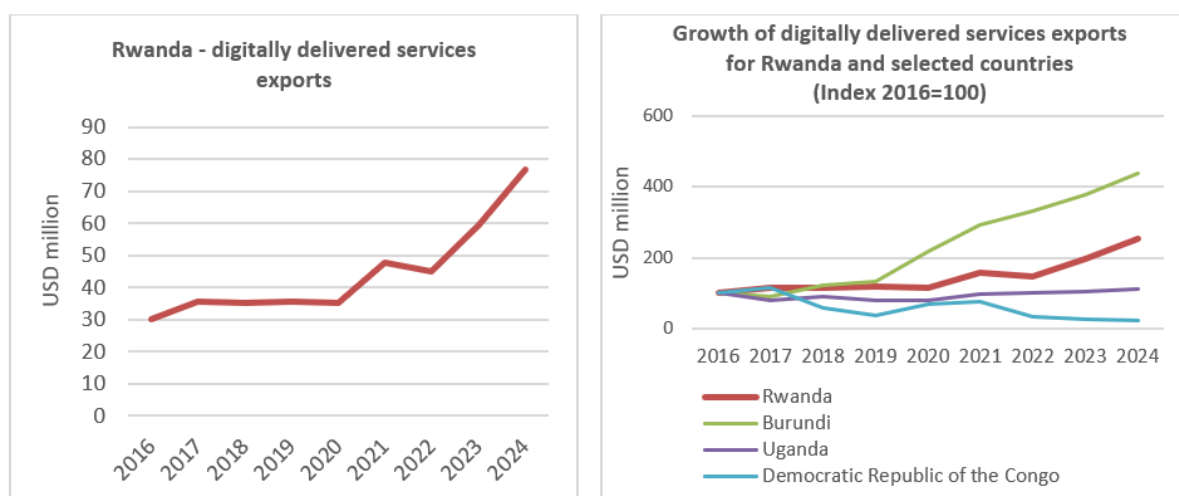
The definition of digital trade in the Handbook is compatible with the WTO definition of electronic commerce agreed under the Work Programme on Electronic Commerce, which refers to “the production, distribution, marketing, sale or delivery of goods and services by electronic means”.

The Rwanda E-Commerce strategy defines e-commerce as “the sale or purchase of goods or services, wholly or partly by means of an electronic network, including the Internet, mobile (m-commerce) and social networks, with or without electronic payment (cash delivery), delivered electronically or physically.”²³

Source: Adapted from box B.1. of IMF/OECD/UNCTAD/World Bank/WTO (2023).

While Rwanda’s participation in exports of digitally delivered services has fluctuated over the years, it has been on an upward trajectory. The country’s exports of these services have more than doubled in the period 2016-2024. Regionally, Rwanda’s export growth compares favourably to that of other comparator economies (see Figure 5a). Moreover, since 2016, the composition of Rwandese digitally delivered service exports reveals that the majority of the growth has been driven by telecommunications and financial services. In 2024, these two sectors accounted for more than 90% of Rwanda’s total exports of digitally delivered services (see Figures 5b and 5c).

Figure 5a. Rwanda’s digitally delivered services exports from a comparative perspective, 2016-2024

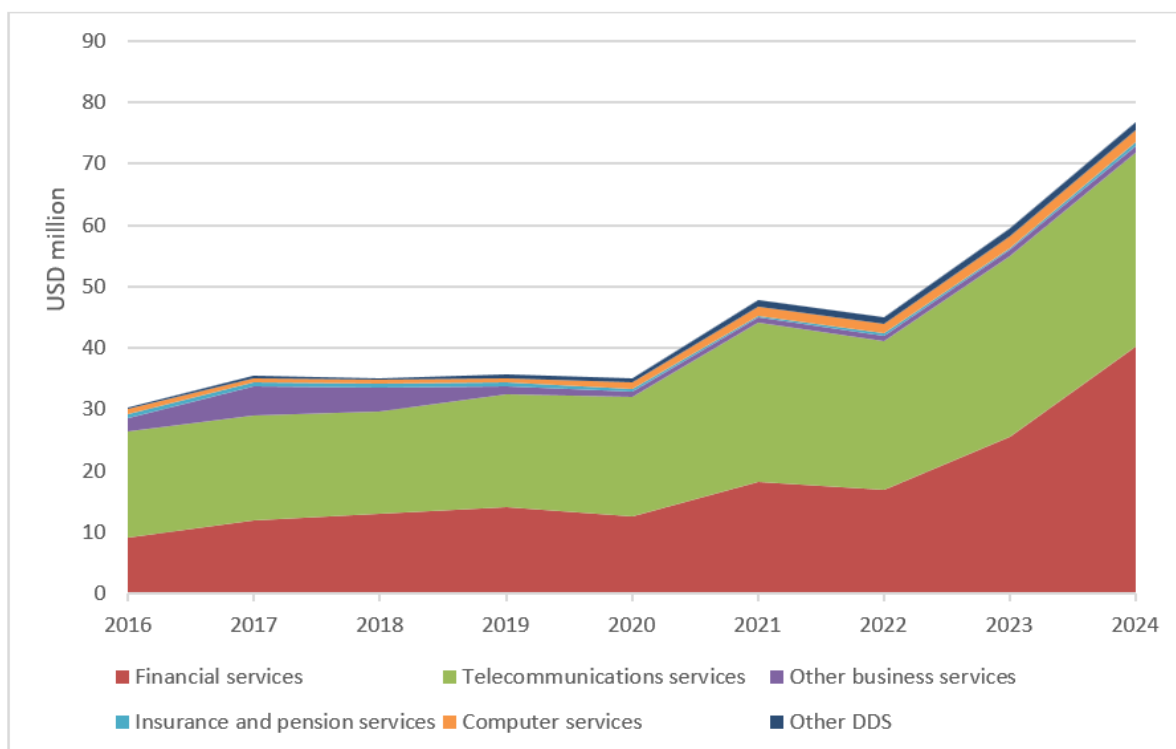


²² Digitally delivered services include other business services, computer services, financial services, charges for the use of intellectual property not included elsewhere, insurance and pension services, telecommunications services, personal, cultural and recreational services, and information services.

²³ United Nations, Towards an E-commerce Strategy for Rwanda, 2023.

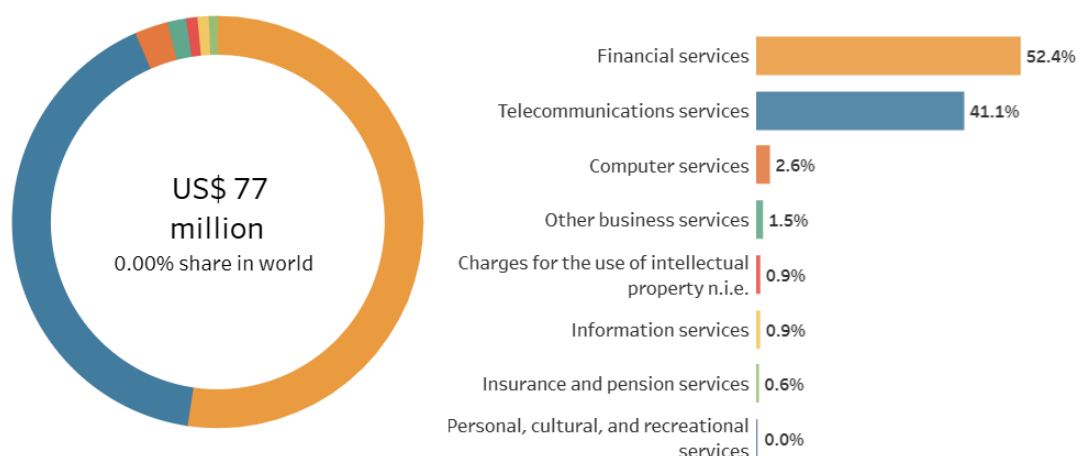
Note: Comparator countries have been selected on the basis of their membership in COMESA and EAC.
Source: [WTO | Statistics - Global Services Trade Data Hub](#)

Figure 5b. Breakdown of Rwanda's digitally delivered services exports, 2016-2024



Source: [WTO | Statistics - Global Services Trade Data Hub](#)

Figure 5c. Breakdown of Rwanda's digitally delivered services exports, 2024

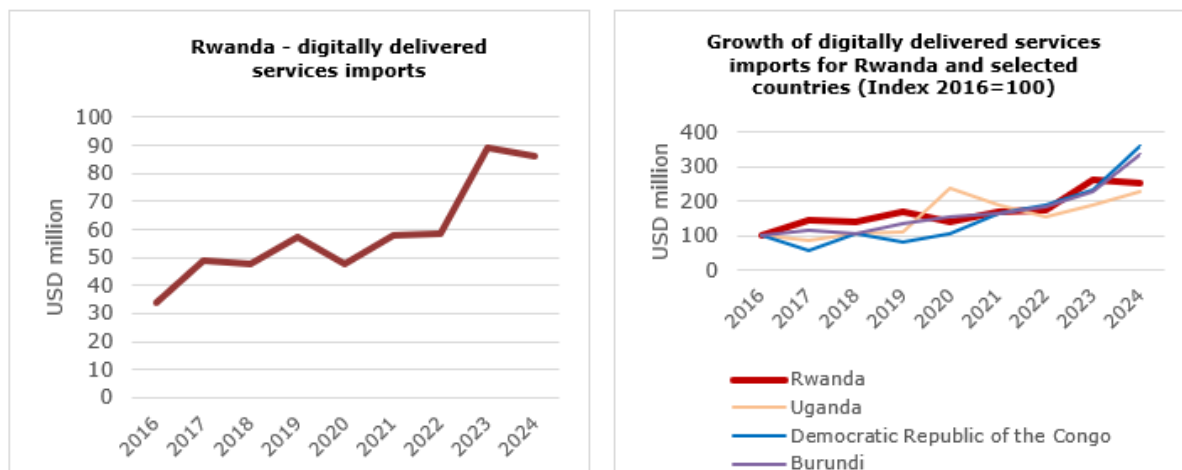


Source: [WTO | Statistics - Global Services Trade Data Hub](#)

Many digitally delivered services are key inputs for overall economic activity. Importing these services provides an avenue for domestic firms to access greater choice, higher-quality and lower-priced inputs, thus strengthening their competitiveness and enhancing their overall digital

trade performance. Rwanda's imports of digitally delivered services have more than doubled since 2016, following a generally upward trajectory largely comparable to that of other peers (see Figure 6a).

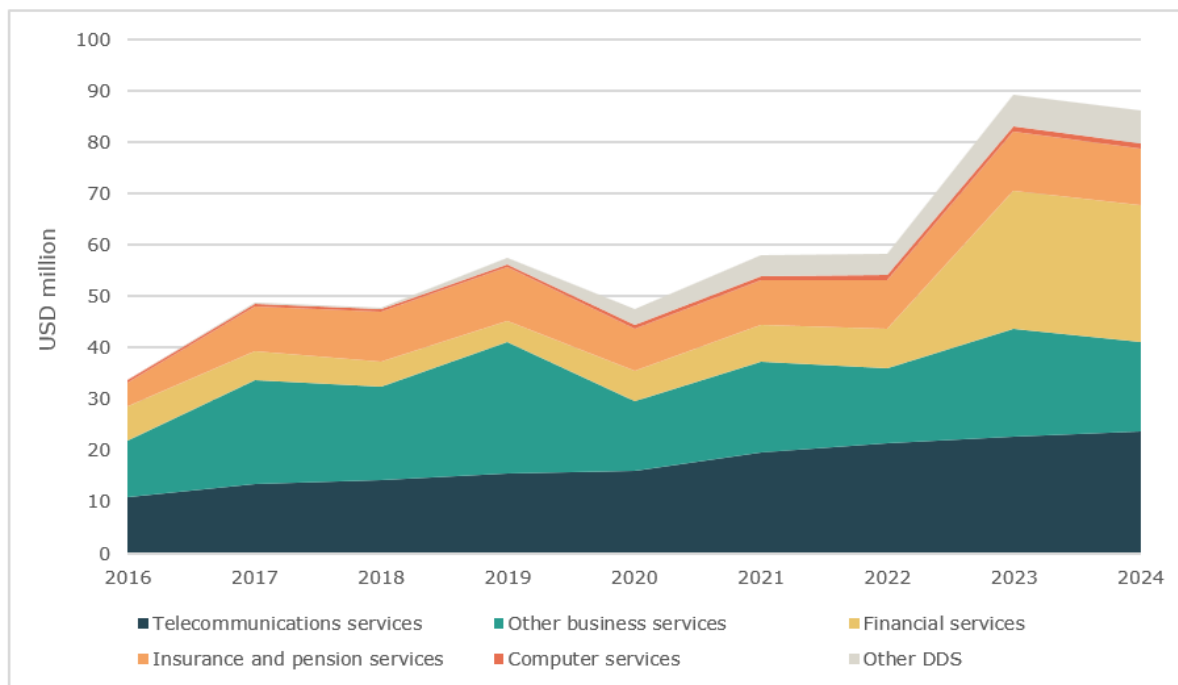
Figure 6a. Rwanda's digitally delivered services imports from a comparative perspective, 2016-2024



Note: Comparator countries have been selected on the basis of their membership in COMESA and EAC.

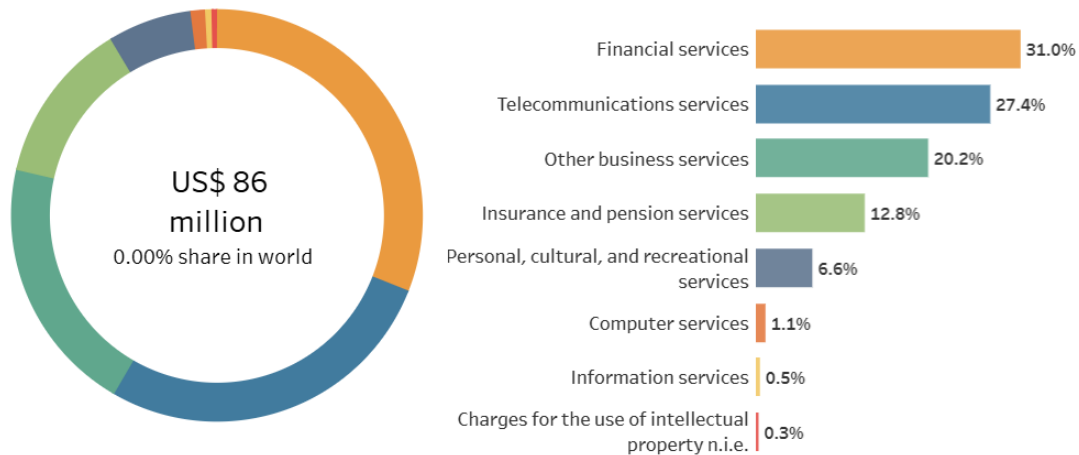
Source: [WTO | Statistics - Global Services Trade Data Hub](https://www.wto.org/trade/development/global_services_trade_data_hub/)

Figure 6b. Breakdown of Rwanda's digitally delivered services imports, 2016-2024



Source: [WTO | Statistics - Global Services Trade Data Hub](https://www.wto.org/trade/development/global_services_trade_data_hub/)

Figure 6c. Structure of Rwanda's digitally delivered services imports, 2024



Source: [WTO | Statistics - Global Services Trade Data Hub](#)

Rwanda's digitally delivered services imports over the past few years were driven by telecommunications, financial and other business services. Most recently, imports of financial services have notably increased. As of 2024, telecommunications, financial, and other business services together accounted for nearly 80% of total digitally delivered services imports (see Figures 6b and 6c).

3 GENERAL POLICY FRAMEWORK RELEVANT FOR DIGITAL TRADE

3.1 Trade agreements

Trade agreements foster predictability by providing an opportunity to anchor enabling policies and guarantee market opening for digital trade. This section presents Rwandan participation in trade agreements and negotiations, both at the WTO and in regional contexts, in terms of the main obligations and commitments of relevance to digital trade.

3.1.1 Rwanda's participation in relevant WTO agreements and negotiations

Existing WTO rules and commitments apply to digital trade and additional ones are being developed by groups of WTO Members. In fact, WTO agreements do not distinguish between the different technological means through which goods or services may be traded. Several of Rwanda's commitments at the WTO, as well as its engagement in relevant discussions, are therefore significant factors in shaping its digital trade ecosystem.

Rwanda has ratified the WTO's Trade Facilitation Agreement (TFA), which expedites the movement, release and clearance of goods across borders. This faster border passage facilitates digitally ordered trade in goods, which involves goods that are marketed, purchased and/or paid for online but then delivered across borders physically. By simplifying and harmonizing international trade procedures, the TFA reduces red tape and improves the speed and efficiency of customs processes, to the specific benefit of digital trade activities that rely on quick delivery.²⁴

However, the country has not chosen to eliminate tariffs on ICT goods that underpin the physical infrastructure of digital trade. The WTO's Information Technology Agreement (ITA)²⁵

²⁴ Rwanda ratified the TFA in February 2017 and has committed to a phased implementation of various trade facilitation measures, aiming for full implementation by 2030. As of 30 June 2025, the country has achieved an implementation rate of 92%, covering most of the TFA's facilitating measures, except for a few, including enquiry points, border agency cooperation and the use of customs brokers. (see [Rwanda | TFAD - Trade Facilitation Agreement Database \(tfadatabase.org\)](#)).

²⁵ Eighty-two economies participate in the ITA, and a further 50 Members have agreed to expand the agreement (see https://www.wto.org/english/tratop_e/inftec_e/inftec_e.htm).

has abolished tariffs on a wide range of goods, including computers, telecommunications equipment and semiconductors, that are critical components of the physical infrastructure which make digital trade possible. By reducing the cost of ICT goods, the ITA has the capacity to promote greater accessibility and adoption of technology worldwide. However, Rwanda is not party to the ITA, and on key ITA products, like computers and smartphones, it has bound tariffs at, respectively, 10 and 5% in its General Agreement on Tariffs and Trade (GATT) schedules.

Services are another critical backbone of digital trade, and the General Agreement on Trade in Services (GATS) disciplines provide guarantees for trade in services.

Telecommunication, computer, postal and courier services, distribution, financial and transport services are some of the key enabling sectors for supporting digital trade. A "typical" digital trade value chain would start with a consumer accessing the Internet (telecommunication service), performing an Internet search (computer services), ordering a product online (distribution and payment services). The product is then delivered either physically (through postal, courier, and freight transport services) or digitally (through telecommunication services), such as in the case of purchase of software or the streaming of a movie.

The GATS provides guarantees for trade in services. The Agreement, which applies to measures affecting trade²⁶ in services, includes a key, generally applicable obligation that WTO Members must not discriminate between foreign services and services suppliers of different origins. Aside from this obligation, however, the main trade liberalizing disciplines of the GATS apply only in the sectors that each Member selects and to the extent set out in individual schedules of commitments.

Liberalizing trade in services has been shown to have a positive impact on digital trade.

For instance, open telecommunications markets have been found²⁷ to result in higher penetration rates for broadband Internet, lower prices and higher-quality services, thus increasing connectivity for a larger section of the population. The WTO and the World Bank estimates that if all of Africa improved its mobile broadband connectivity to the level of South Africa, which has the continent's best mobile broadband access, this would reduce the average cost of trade by 7% in goods and 9% in business and professional services. Moreover, in an open regulatory environment, these trade cost reductions would be even greater, amounting to 17% and 25%, respectively.²⁸

Binding this trade liberalization in GATS commitments has the additional advantage of guaranteeing market openness to foreign services and service suppliers. This provides certainty and predictability of trading conditions and may help attract more investment, including in key enabling services, thus enhancing a country's ability to leverage the opportunities offered by digital trade.

However, Rwanda has not undertaken GATS commitments in any digital trade-enabling service sector.

This is a significant gap when seeking to establish an enabling framework for digital trade. Even if access conditions in telecommunication, distribution and transport sectors are, in practice, fairly open in Rwanda (see Section 3.2), GATS commitments would offer a mechanism to guarantee against potential policy reversals, which is especially valuable to foreign investors. In the absence of commitments for telecom services, Rwanda has also not subscribed to the pro-competitive disciplines contained in the Basic Telecommunications Reference Paper in its GATS commitments.²⁹ The Reference Paper is an optional set of regulatory principles that govern anti-competitive cross-subsidization, the terms of interconnection, the misuse of information, licensing criteria, transparency and other matters relevant to the prevention of abuse of dominant market positions with respect to basic telecommunication services. By promoting competitive conditions in the supply of basic telecommunication services, the Reference Paper contributes to achieving affordable and efficient infrastructure. Around 105 WTO Members have undertaken the obligations of the Reference Paper.

²⁶ GATS defines trade as four ways (or modes) in which a service can be supplied internationally: mode 1 describes "cross-border trade" (e.g. through the Internet); mode 2 describes "consumption abroad" (e.g. through tourism); mode 3 describes "commercial presence" of an enterprise (e.g. through foreign direct investment); and mode 4 describes the "movement of natural persons" (e.g. through temporary labour mobility).

²⁷ WBG/WTO (2023b).

²⁸ WBG/WTO (2023a).

²⁹ See https://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm.

Moreover, the country has not subscribed to the optional set of disciplines on “services domestic regulation” (SDR), developed in 2021 by a group of WTO Members.³⁰ These disciplines are aimed at increasing transparency, predictability and efficiency of procedures for authorization of service suppliers, including those involved in digital trade.

Rwanda is not participating either in any of the agreements reached by different groups of WTO Members that could facilitate digital trade. Rwanda was not part of a negotiation launched in 2019 with the objective of developing provisions on the trade-related aspects of e-commerce that built on existing WTO rules, with the participation of as many WTO Members as possible. The outcome of this negotiation, namely the Agreement on Electronic Commerce (AEC), was circulated to all Members on 26 July 2024.³¹ Relevant disciplines fall under issues such as an enabling environment for digital trade (e.g. e-authentication and e-signatures, electronic contracts, electronic invoicing and paperless trading), openness (e.g. prohibition of customs duties on electronic transmissions and open government data) and trust (e.g. online consumer protection, personal data protection and cybersecurity). The AEC also provides for certain additions to the regulatory obligations of the Reference Paper on telecommunication services and contains provisions on transparency and cooperation, as well as disciplines on development. At present, there is no consensus on the AEC's incorporation in the WTO framework.³² Rwanda did not participate either in the negotiations that produced the Investment Facilitation for Development (IFD) Agreement. The Agreement is presently endorsed by three-quarters of the WTO Membership, but its incorporation in the WTO rulebook requires a consensus which has not been found as yet.³³ The IFD disciplines are aimed at improving investment procedures and facilitating the operations of investors in all economic sectors.³⁴ As such, the IFD Agreement could also help attract more and higher-quality investment in digital connectivity infrastructure and other sectors relevant to digital trade. Rwanda could join as a participant, at any given moment, to both Agreements, if it so decided.

3.1.2 Rwanda's participation in regional trade agreements

Rwanda is a party to a number of regional trade agreements (RTAs) that have been notified to the WTO. Rwanda is signatory to the Common Market for Eastern and Southern Africa (COMESA), which has been notified to the WTO as a customs union covering goods only, as well as of the East African Community (EAC), which comprises a customs union notified under the GATT as well as an economic integration agreement under the GATS, thus covering both goods and services.

As a Partner State of the EAC, the country has undertaken commitments for digital trade-enabling services sectors which it has not scheduled under the GATS. These include commitments in postal and courier services, some telecommunications services, distribution, payment and money transmission services, and some transport services – none of which Rwanda has bound in the GATS.

Furthermore, Rwanda is also a party to the Agreement Establishing the African Continental Free Trade Area (AfCFTA). The AfCFTA includes the Protocol on Trade in Goods, the Protocol on Trade in Services and the Protocol on Digital Trade. The goods Protocol has the capacity to further open trade in information technology goods on the continent; however, according to the IFC's analysis³⁵, this impact will likely be very modest unless external tariffs on IT goods are significantly reduced, as these remain a key obstacle to increasing digital trade competitiveness across Africa. Similarly, the Protocol on Trade in Services could lead to further opening of services trade in sectors that are of importance for enabling digital trade, including because communication, financial and transport services are amongst the priority sectors the negotiations are focused on. Once it is ratified and enters into force, the Protocol on Digital Trade will also take the continent closer to its goal of ultimately establishing a digital single market.

³⁰ The disciplines have been adopted by more than 70 WTO governments so far (see [WTO | 2024 News items - New disciplines on regulation of services trade enter into force for four more members](#)).

³¹ See WTO document [INF/ECOM/87](#).

³² WTO Members that are party to the AEC requested its incorporation into Annex 4 of the WTO Agreement as a plurilateral agreement in February 2025 (see WTO document [WT/GC/W/963](#)), but consensus on this has not been reached yet.

³³ The IFD Agreement was finalized in February 2024, and its current number of participants stands at 127 WTO Members (see WTO document [WT/GC/W/927/Rev.3](#)). The Agreement had not been formally incorporated into Annex 4 of the WTO Agreement as a plurilateral agreement at the time of writing.

³⁴ See WTO document [INF/IFD/W/55](#).

³⁵ IFC (2022)

3.2 Applied trade policy regime

Actual trading conditions in Rwanda are more liberal than the bindings and commitments undertaken under trade agreements, particularly at the WTO. This section outlines the trade policy conditions prevailing on the ground. Although generally more open, the access conditions provided in some of the sectors are not guaranteed by WTO bindings and therefore, offer no predictability against trade-restrictive policy reversal. This does not provide the stability and positive impact on trade that international commitments mirroring status quo trade regimes have been found to provide.

Rwanda's applied tariff regime for key information technology products is rather open. While the country has not made tariff reduction commitments on ICT goods under the ITA, it does not apply duties on key ITA products, like computers and smartphones.

Rwanda's applied policies in digital trade enabling services offer significantly more open trading conditions than under the GATS. As noted in Section 3.1.1, Rwanda has not undertaken any GATS commitments in digital trade enabling services. In contrast, the applied legal and regulatory framework permits, subject to certain conditions, the cross-border supply of most of these services—excluding commercial banking—as well as their supply through commercial presence. Computer, distribution, and road freight transport sectors are particularly open, with no market access restrictions on foreign capital participation, forms of establishment, or on the number of suppliers that may establish in Rwanda. However, certain limitations of a horizontal nature may impact the mode 3 operations of foreign service suppliers in all enabling sectors, such as restrictions on foreign ownership of land.

The World Bank–WTO STRI provides a synthetic measurement of the restrictiveness of an economy's services trade regime.³⁶ The STRI ranges from 0, for a completely open regime, to 100 for a totally closed one. It covers measures identified as trade barriers under the GATS (i.e. mainly quota-like restrictions and discriminatory measures) as well as other measures that may hinder trade in services (e.g. absence of good regulatory practices or recognition of qualifications, or lack of competition policy).³⁷

Rwanda's STRIs in digital trade enabling services sectors show largely positive results compared to the rest of Africa, save for commercial banking services. In relation to telecommunications services, the applied trade regime in Rwanda is, on average, as open as that of its continental peers. This is true for both mobile and fixed-line telecommunication services.³⁸ The applied trade regimes for road freight transport,³⁹ computer,⁴⁰ and wholesale and retail distribution⁴¹ services are significantly more liberal than the average level of restrictiveness in the continent. However, when it comes to commercial banking services, Rwanda's applied trade regime is appreciably more restrictive than the average African regime.⁴²

4 WORLD BANK'S ASSESSMENT OF THE DIGITAL TRADE-SPECIFIC REGULATORY FRAMEWORK

A comprehensive and modern digital regulatory framework is essential for supporting digital trade. Regulation plays at least three critical roles for digital transactions. It provides the legal tools needed for concluding valid and enforceable electronic contracts, such as rules giving effect to the electronic authentication of documents and e-signatures. Frameworks for personal data protection, online consumer protection, and cybersecurity offer safeguards that enhance trust in digital markets. Finally, regulations on the legal liability of platforms for unlawful or harmful content and rules on the international transfers of data set out basic rules that support a transparent and predictable framework for digital markets.

³⁶ See [WB-WTO | I-TIP Services](#)

³⁷ See <https://itip-services-worldbank.wto.org/docs/WB-WTO%20STRI%20Methodology.pdf>

³⁸ See Figures A1 and A2 in Annex 2.

³⁹ See Figure A7 in Annex 2.

⁴⁰ See Figure A3 in Annex 2.

⁴¹ See Figures A4 and A5 in Annex 2.

⁴² See Figure A6 in Annex 2.

Regulation can also introduce unwarranted limitations to digital trade. For instance, unnecessarily restrictive or overly cumbersome requirements for cross-border data transfers limit access to certain digitally delivered services. Limitations on the types of products offered online may be warranted by public policy goals (e.g. restrictions on guns or controlled substances) or may add costs and inefficiencies by segmenting markets (e.g. requiring the use of domestic cloud services). The central challenge for policy-makers and regulators is hence to adopt balanced frameworks that minimize restrictions to digital trade while offering a comprehensive framework for digital transactions and sound safeguards for users. By requiring that measures taken in pursuit of public policy objectives not be more trade restrictive than necessary, trade agreements provide useful benchmarks on where to draw this frontier.

In the following, the report offers a brief assessment by the World Bank of Rwanda's main policies and regulations specific to digital trade. The report reviews the country's regulations on a series of policies commonly covered in international negotiations and agreements on digital trade, such as the AEC negotiated by a group of WTO Members, the AfCFTA Digital Trade Protocol and other bilateral or regional agreements. The list is indicative. Any one agreement may not include all these policy areas, or may include some additional ones not mentioned here, but they provide a useful

reference of the key topics specifically relevant to digital trade. The analysis evaluates the country's policies and regulations in light of the best regulatory practices in each of these areas.

Despite its forward-looking policies, Rwanda's digital regulatory framework features restrictive regulations and significant gaps. Figure 7 summarizes the Digital Trade Policy Gap Analysis conducted by the World Bank. Based on a review of Rwandan regulations, the Gap Analysis seeks to assess different policy areas and practices against requirements or standards reflected in trade agreements⁴³. Rwanda's gap analysis presents major gaps with regard to some of the most

Figure 7. World Bank's Digital Trade Policy Gap Analysis

	Rwanda
Critical	
Electronic signatures	2
Electronic contracts	4
Cybersecurity	3
Personal information/data protection	3
Cross-border data/information flows	3
Location of computing facilities	1
Intermediary Liability	2
High	
Electronic transactions frameworks	3
Electronic authentication	2
Single Windows	3
Access to and use of the Internet	3
Online consumer protection	2
Telecomm services – Reference Paper	2
Moderate	
Electronic invoicing	1
Paperless trading	2
Open government data	n/d
Indirect effect	
Unsolicited commercial electronic messages (spam)	1
Cooperation and cooperation mechanisms	n/d
Transparency	n/d

1	No regulation or heavy regulatory restrictions in place.
2	Minimal and inadequate regulation or burdensome restrictions in place.
3	Partial regulatory framework in place. Substantial gaps remain.
4	Broad and adequate regulation in place. Meaningful gaps remain.
5	Comprehensive and modern regulatory framework. Minor improvements may be considered

Note: Highlighted sections indicate suggested policy areas for priority action.

⁴³ The Gap analysis roughly classifies policies based on the degree of their likely effect on digital trade ("critical", "high", "moderate", and "indirect effect") taking into account the policies' scope (whether they apply

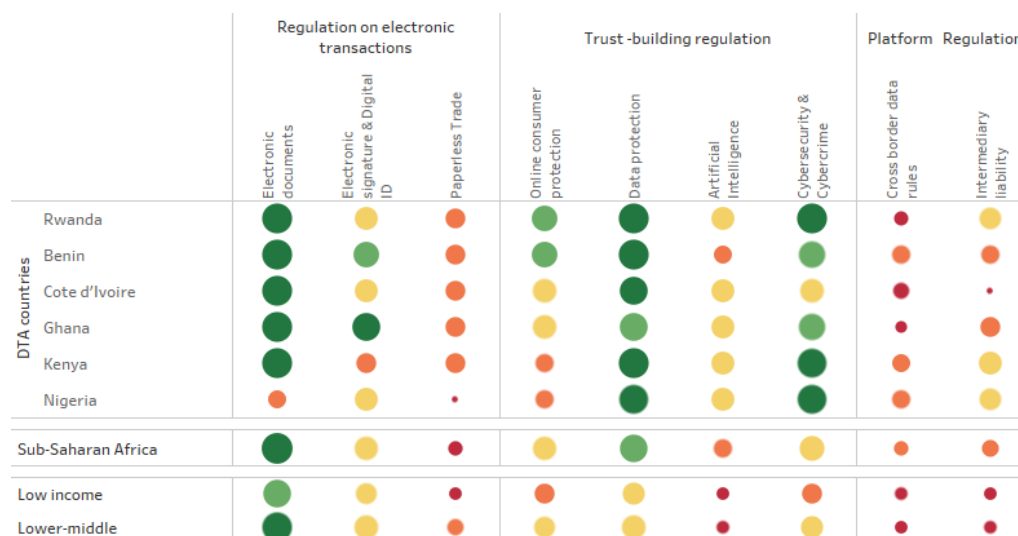
critical policies for digital trade. These challenges include major limitations to cross-border data transfers, the absence of a well-developed framework on intermediary liability, a limited and outdated framework for online consumer protection, and a partial framework for the use of electronic documents and e-signatures, including for customs procedures.

In general, Rwanda exhibits varying levels of readiness in different aspects of digital trade regulation. The country shows a relatively strong regulatory frameworks in areas such as data protection but needs significant improvements in others, particularly in online consumer protection and cross-border data transfer rules. This comparison highlights the areas where Rwanda can focus its efforts to enhance its digital trade ecosystem and align more closely with leading regional examples. Figure 8 further compares the “readiness” of some of these policies in Rwanda with regional partner countries and with relevant averages.

- A modern framework for electronic transactions provides the legal tools for concluding electronic contracts as well as for the digitalization of trade procedures. Rwanda has made some progress in regulating electronic documents, but substantial work remains to be done in the areas of electronic signatures, digital ID, and paperless trade.
- Trust-building regulation is a critical area to foster digital trade. Rwanda has adopted a strong data protection regulation — a welcome recent development across the continent, indicating a widespread recognition of the importance of data protection, also reflected on the signature of the Malabo Convention in 2020. However, the implementation of data safeguards has been partial, focusing on licensing of data firms and paying limited attention to building users’ trust. For online consumer protection, Rwanda and some neighbouring countries show moderate and poor regulatory “readiness”, indicating a need for more robust rules to protect digital market consumers.
- Platform regulation is an area where Rwanda shows notable gaps. For cross-border data rules, Rwanda shows some deficiencies. This challenge is common across the board, with all comparison countries showing limited progress on this area. In terms of intermediary liability, Rwanda has well-developed intermediary liability regulations for unlawful content, in place, albeit lacking coverage of intellectual property rules and other important procedural safeguards.

across the board or to only a form of digital trade) and the nature of the regulation at hand (whether the regulation features a necessary regulatory tool, a restriction to digital trade, or a beneficial-but-not-essential solution). As a result, policies that apply to a broad gamut of trade in goods and services and have a potential to effectively limit or boost it (such as policies on cross-border data flows and measures to facilitate cross-border transactions) are ranked the highest; measures that affect only certain types of digital trade (such as paperless customs procedures that are only relevant to trade in goods), are ranked lower; and policies that don’t necessarily have a direct and attributable impact on trade (such as transparency and cooperation) and/or are likely to affect only a limited subsector of digital trade are given the lowest prioritization.

Figure 8. World Bank's digital trade regulatory "readiness" in Rwanda and the region.



Note: Bubbles' size and color represent the regulatory "readiness" in each category of the country or grouping concerned, based on the share (in quintiles) of positive answers in that category from 0 to 100%.

Source: World Bank DTRR database (forthcoming 2025)

4.1 Data governance

Robust data protection safeguards are essential to build consumer trust and promote the growth of digital domestic and international markets. Consumers are increasingly conscious of the implications of unrestricted access to personal data. A lack of trust in data management discourages users from engaging in electronic transactions, thereby limiting the growth of digital markets.⁴⁴ It is essential to have safeguards on when and how firms may collect, process, and share personal data to create digital markets where users feel secure providing their personal information, knowing that its use and sharing will be limited to necessary purposes.

Strong and consistent data protection regulations are crucial for digital trade, particularly in services. Some studies suggest that robust safeguards for personal data protection are associated with greater trade in digitally delivered services.⁴⁵ This trend is influenced by two factors: consumers feel safer transacting with vendors who are required to offer greater assurances about the use and sharing of their personal information, and countries are increasingly requiring comparable data protection measures to allow data sharing, incentivizing trade with countries that have similar data protection regimes.

Rwanda has established strong data protection regulations. The Data Protection and Privacy Law⁴⁶ lays out the framework on data protection, which, despite lacking some provisions, covers fundamental aspects effectively, such as legal basis for data collection and processing, users' rights to access or rectify their own personal data, and greater safeguards for sensitive data like biometric information (see Figure 9).⁴⁷

Rwanda has also made tremendous progress improving its cybersecurity and cybercrime regulation. The Data Protection and Privacy Law also addresses risks from crime and terrorism that threaten networks, devices, and data. Further, the Rwandan government published its second National Cyber Security Strategic Plan for 2024 through 2029,⁴⁸ which focuses on consolidating the cybersecurity framework, continuing to build the cyber industry, and retaining flexibility to combat

⁴⁴ WDR (2021).

⁴⁵ WDR (2021), van der Marel and Ferracane (2021).

⁴⁶ Data Protection and Privacy Law 2021, No. 58 of October 13, 2021.

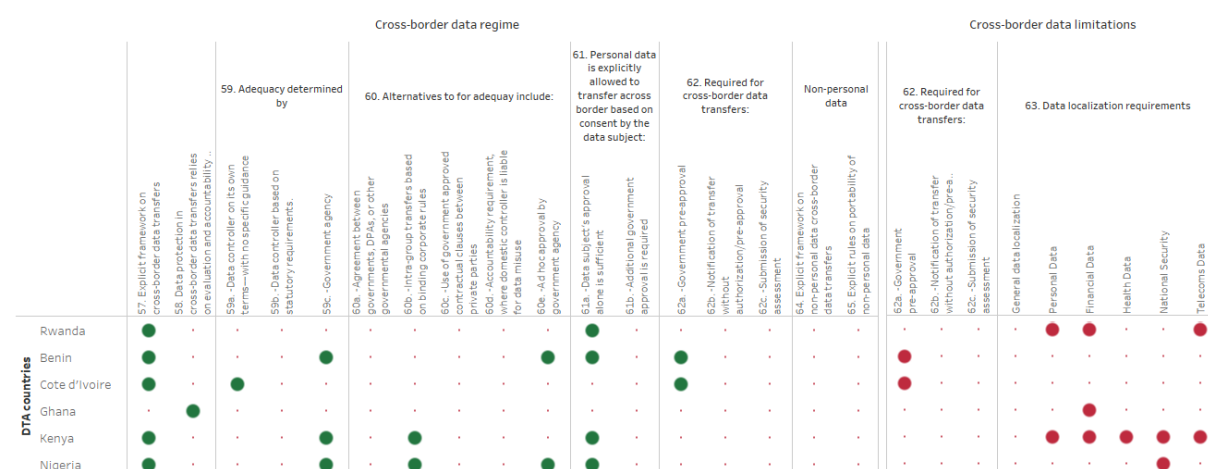
⁴⁷ Id. at Arts. 4, 6, 10, 11, 18.

⁴⁸ National Cybersecurity Strategy of the Republic of Rwanda 2024-2029, <https://cyber.gov.rw/index.php?eID=dumpFile&t=f&f=427&token=6375c4cab9b091a9747cd9f07f8dc616ba825245>.

the upcoming cyber challenges. Overseeing this is the National Cybersecurity Authority, a well-established department that coordinates efforts on its incident response team, and also the Rwanda Investigation Bureau. All of which display a robust sector of government that is set to confront forthcoming cyber issues.

However, the Data Protection and Privacy Law introduces major restrictions to digital trade by requiring data to be stored within Rwandan borders. Article 50 requires that all personal data be stored within Rwanda, permitting storage outside of Rwanda only when the data processor or controller obtains a valid certificate from the government. The process of certification can create delays for organizations without prior approval and introduces costs for digital businesses that rely on cross-border data transfers. Moreover, it allows for broad discretion by the authorities in approving certification, potentially increasing bureaucratic red tape. A more transparent mechanism would allow for greater efficiency in the digital market while ensuring the safety of the data.

Figure 9. Rules on cross-border data flow



Note: For individual countries, bubbles' size and color indicate the existence of such regulatory measure. Green represents positive regulatory measures. Red indicates regulatory restrictions to digital trade.

Source: World Bank DTRR database (forthcoming 2025)

Further, Rwanda's provisions on cross-border data transfers create an opening that is incongruous to its policy on data safety. Article 48 of the Data Protection and Privacy Law requires that all personal data be transferred only when the government is given proof of appropriate safeguards, a necessity (that includes the performance of a contract), or data subject consent. However, the allowance of data transfer based on more stringent requirements of safeguards and necessity is in direct contrast with the allowance of transfer solely upon data subject consent. Whereas appropriate safeguards and necessity requirements involve guidelines and government oversight, consent by the data subject can be acquired without the data subject's full knowledge or understanding, making it a significantly weaker basis for transfer. This disparity between very restrictive and very open conditions creates a legal uncertainty for both the data subject on the level of data protection as well as for organizations seeking to transfer data. Such legal constraints can lead to a situation where organizations only transfer by consent because the alternative is too costly, thus inhibiting all policy points to protect data and encourage digital trade.

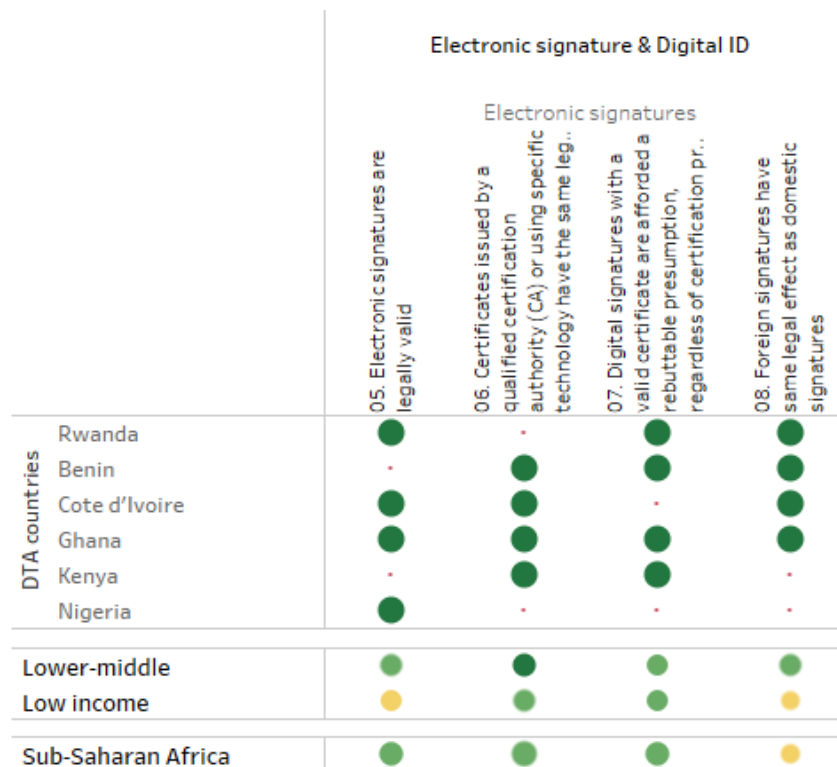
4.2 Regulation of electronic transactions

With the surge in electronic transactions, the need for electronic authentication methods and substitutes to handwritten signatures has become increasingly important. E-document and e-signature laws are essential as they provide legal recognition for electronic transactions, thereby removing obstacles and facilitating their broader adoption and use. The primary global legal framework for electronic transactions is the United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Commerce, established in 1996, and incorporated into the

legislation of over 170 jurisdictions, including Rwanda.⁴⁹ The UNCITRAL Model Law aims to harmonize international commercial law, thereby reducing trade costs and improving interoperability. The Model Law offers guidelines for states and jurisdictions to adopt domestic legislation that facilitates electronic commerce, allowing them to tailor the content to fit their specific legal contexts.

Ensuring legal equivalence for electronic tools like e-contracts, e-evidence, e-signatures and e-communications is crucial for treating digital transactions the same as traditional paper-based ones. Transactions with final consumers, such as those on e-commerce platforms like Amazon.com, or Jumia.com, and app-based services like Airbnb, do not typically entail major documentation exchanges and can be concluded even without a specific regulatory framework for electronic transactions. However, for business-to-business transactions that entail customization of products and services provided over time — such as those that allow suppliers to connect to global value chains or that require peripatetic deliveries over extended periods — the ability to conclude or amend contracts across borders in a secure and reliable way is essential to reduce costs and expedite businesses. The legal recognition of e-documents and e-signature and their equivalence with paper documents helps reduce legal uncertainties and risks related to international transactions, facilitating cross-border contracts.

Figure 10: Electronic signature and digital identification



Note For individual countries, bubbles' size and color indicate the existence of such regulatory measure. Green represents positive regulatory measures. Red indicates regulatory restrictions to digital trade. For regional and income groups, bubbles represent the regulatory "readiness" in each category, based on the share (in quintiles) of positive answers in that category from 0 to 100.

Source: World Bank DTRR database (forthcoming 2025)

The Rwandan legal framework for e-signatures is well-regulated but not well-implemented (see Figure 10). Rwanda legally recognizes all types of electronic signatures,

⁴⁹ See

<https://uncitral.un.org/en/texts/ecommerce#:~:text=The%20most%20widely%20enacted%20text,principles%20of%20non%20discrimination%20against.>

including foreign electronic signatures.⁵⁰ However, the adoption of these laws has not yet translated to its use within the business community. In equal measure, both foreign businesses and Rwandan citizens are wary to trust the e-signature systems. Although many organizations exist to help businesses in Rwanda, like the Private Sector Federation (PSF), institutions have not created systems to help businesses challenge the validity of an e-signature or defend against questions on validity of one's e-signature.

4.3 Online consumer protection safeguards

Consumer protection regulation is key to fostering trust and strengthening digital markets, which are still developing. The main reason people avoid online purchases, especially internationally, is the lack of trust in remote electronic transactions.⁵¹ Without face-to-face interaction, consumers may not be able to assess the properties of the goods and miss visual cues such as location and facilities that help assess a vendor's professionalism. In the digital environment, consumers must share sensitive information, such as home addresses or banking details, with retailers, online intermediaries or digital platforms. This lack of trust in the security of cross-border online transactions and the availability of remedies when problems occur is a major limiting factor in both developed and developing economies.⁵²

Rules on online consumer protection are essential to address information asymmetries between vendors and consumers in online transactions. Distance shopping poses challenges, such as the inability to physically inspect products before purchase. Online consumer protection laws aim to provide protection comparable to that in offline commerce.⁵³ These laws build on traditional consumer protection principles and adapt them to digital markets, mitigating the challenges of online transactions.⁵⁴

Consumer protection rules also play an important role in international digital trade, especially for developing countries. As digital markets are still in their infancy, lack of trust in remote electronic transactions remains the top reason for not engaging in online purchases (CIGI-Ipsos Global Survey on the Internet, 2017 and 2019). While often designed for domestic markets, consumer protections are particularly important for digital trade, especially for digitally ordered goods, as trust in international orders of goods is typically lower. Online consumer protection regulations can help bridge these trust gaps by ensuring that cancellations and returns — including internationally — are adequately set up and rules are clearly set out. In addition, requiring the establishment of online dispute resolution mechanisms also offer an important channel for boosting consumer confidence, especially when it allows the consumer to bring a claim directly to its national consumer protection agencies (Chung and Yu, 2021).

Rwanda has developed a consumer protection legal framework, but implementation remains weak. Between the Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions and the Law on Competition and Consumer Protection, Rwanda regulates informational requirements before the contract, acknowledgement to pay before the transaction is contracted, the consumer right to withdrawal, and rights of redress for goods of improper quality. However, these legal provisions have not been effectively enforced, creating a gap between the law on paper and actual consumer protection (see Figure 11).

Rwanda has only partially implemented measures to prevent deceptive commercial activities. Although Article 53 of the Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions establishes the ability to opt out of spam messages, the law is absent on discussing details of the requirements on the procedures of opting out. Creating stronger measures to protect the right to opt-out can create higher levels of trust. Further, prohibiting the use of 'dark patterns' that misrepresent users' intent in online purchases would add to the strengthening of online consumer protection for Rwandan citizens and international organizations.

⁵⁰ Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions of 2010, Art. 20,21, 26.

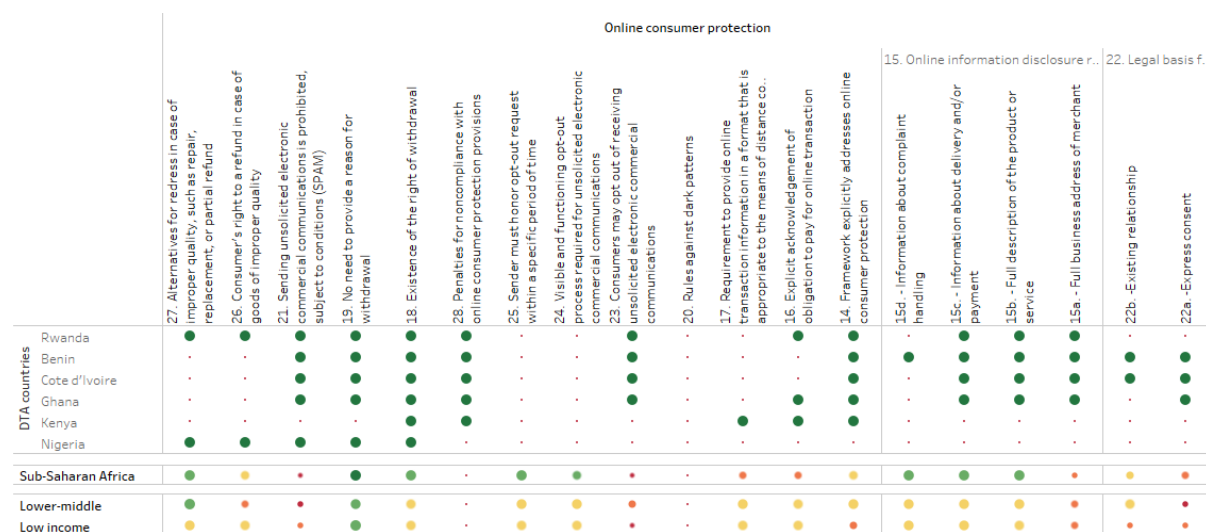
⁵¹ See <https://www.ipsos.com/en/2019-cigi-ipsos-global-survey-internet-security-and-trust>.

⁵² World Economic Forum (2019).

⁵³ UNCTAD (2017).

⁵⁴ OECD (2000).

Figure 11. Rules on online consumer protection



Note For individual countries, bubbles' size and color indicate the existence of such regulatory measure. Green represents positive regulatory measures. Red indicates regulatory restrictions to digital trade. For regional and income groups, bubbles represent the regulatory "readiness" in each category, based on the share (in quintiles) of positive answers in that category from 0 to 100.

Source: World Bank DTRR database (forthcoming 2025)

The Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA) faces significant capacity constraints that limit its effectiveness in implementing consumer protection laws.⁵⁵ RICA's consumer protection department consists of only one staff member in a department of four people in total, with the department head overseeing both consumer protection and competition functions. While RICA offers some help with training and compliance from the supplier's side, the online help for the buyer's side is limited. For example, buyers lack the ability to report online consumer infringements to RICA via the RICA website. Contacting or reporting issues can involve longer processes. From the seller's side, references could be enhanced to allow easier access to information.

Overall, a significant gap exists between Rwanda's legal framework designed to foster consumer trust and the actual implementation and enforcement of those laws. The Rwandan government acknowledged a problem with both domestic and international consumers experiencing a lack of trust over online transactions by implementing online trust seals.⁵⁶ However, although the program has been implemented and well received, a lack of trust still exists within Rwanda and - especially - for customers shopping for products outside of Rwanda. The current consumer protection law remains weak on basic foundational aspects, even compared to regional and income peers, and reforms to strengthen online consumer protection provisions have not yet been passed. The competition legal framework, a complementary instrument to safeguard consumer welfare, presents important gaps and its implementation has been very limited, both in digital and non-digital markets.

4.4 Intermediary liability

The Internet's ability to connect individuals worldwide has boosted business models based on intermediation between vendors and consumers. Distribution platforms like Jumia and Anka offer goods to consumers from thousands of different providers rather than their own stock. "Gig economy" apps offer services such as taxi rides, lodging, or delivery of food or groceries from firms and individuals. Other services rely on content such as video (YouTube, Vimeo), opinions and reviews of products or services (Yelp, Google), or information (blogs) developed by thousands

⁵⁵ RICA, <http://rica.gov.rw>.

⁵⁶ <https://dbi.rw/certification-2/#:~:text=The%20DBI%20E%2DCommerce%20Trust,well%20as%20promoting%20customer%20satisfaction.>

of users, most of whom remain relatively unknown to the final consumer. The relationship between the intermediary (websites and apps) and the firms or individuals offering their own products or services is hence essential to the functioning of those digital transactions.

Given the central role of digital platforms, clear rules on intermediary liability are essential to digital trade. Social media and e-commerce platforms are the trademark of digital markets, inherently providing a natural environment for connecting suppliers and consumers around the world. Further, the network effects involved in digital platforms incentivize the growth of a limited number of massive global providers. These providers, however, can face significant challenges in the absence of adequate, modern rules on intermediary liability. This can result in severe consequences due to user activities, even when the platforms themselves are not directly responsible. These consequences could include substantial fines, operational restrictions, or even forced shutdowns. Further, those risks disproportionately affect domestic start-ups, who may face potentially prohibitive costs in case of improper conduct by their users. By establishing balanced and transparent rules on intermediary liability, governments can foster a safer online environment for consumers while also ensuring that both dominant platforms and emerging domestic players can operate with legal certainty and fair accountability.

Rules on intermediary liability need to strike a balance between protecting consumer rights and supporting the expansion of digital markets. Intermediary liability rules set out the responsibility that falls upon online intermediaries, such as e-commerce marketplaces, social networks and other platforms for third-party content featured in, or goods and services offered through, their website or apps. Digital intermediaries manage the relationship with the consumer, and they are often the larger, more sophisticated party involved in the transaction. As such, regulations can impose on intermediaries (jointly with the third party) liability for fake or faulty goods or services, or for offensive or illegal content, transacted through or featured in their services. On the other hand, intermediaries often do not have full knowledge of everything that is being offered by producers and content developers, who have greater control over it. In this context, well-defined and balanced rules provide assurances to consumers and users that digital platforms have procedures in place to minimize offensive or unlawful content, while they also allow platforms, especially in their start-up stage, to engage in these business models by limiting the legal compliance risk and costs faced by such platforms.

Rwanda has a well-developed intermediary liability framework for unlawful content, but lacks coverage of intellectual property rules and other safeguards.. Unlike its regional peers, Rwanda is well-developed on its regulations regarding intermediary liability (see Figure 12). The Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions covers general intermediary liability rules to protect e-commerce marketplaces and social media platforms. The provisions include notice-and-takedown procedures requiring platforms to act upon receiving credible notifications of infringement. However, the law lacks protections to allow either the content provider or the platform to argue against the decision. This absence of an appeal mechanism can have the effect of chilling growth and innovation.

Figure 12. Rules on intermediary liability

		Intermediary liability												69a. Safe harbor for	
		67. Framework explicitly addresses online intermediary liability	68. Online intermediaries are not required to routinely monitor content...	70. Notice and take down procedures required for: Unlawful activity genera...	71. Notice and take down procedures required for: Infringements related to...	72. Content providers' right to counter notice	73. Online platforms' / Hosting providers' right to counter notice/appeal	74. Online platforms / Hosting providers are not liable for wrong deletion...	75. Claimants are liable for wrong deletion following a takedown no...	76. Online platforms / Hosting providers are required to disclose the l...	77. If online platforms / hosting providers are required to disclose the l...	78. Online platforms / Hosting providers may not disclose their users' l...	79. An order from a judicial court or competent authority is r...	69a. -Unlawful activity generally	69b. -infringements related to intellectual property
DTA countries	Rwanda	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Benin	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Cote d'Ivoire	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Ghana	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Kenya	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Nigeria	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Sub-Saharan Afr..		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Lower-middle		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Low income		●	●	●	●	●	●	●	●	●	●	●	●	●	●

Note: For individual countries, bubbles indicate the existence of such regulatory measure. Green represents positive regulatory measures. Red indicates regulatory restrictions to digital trade.

Source: World Bank DTRR database (forthcoming 2025)

4.5 Other regulatory and policy challenges.

Quick administrative policy changes can create confusion, an inability to enforce changes adeptly, and a frustration among businesses.⁵⁷ Rwanda is one of the most advanced countries in digital regulations in Africa and the world. The government accomplishes this feat by passing laws efficiently upon learning of the legal gaps. However, the implementation has a wide gap between the law passing and its enforcement. Businesses have access to great resources with the Rwanda Development Board, but stakeholders report that the rollout of laws is often too fast for small businesses to understand without compliance officers. The necessity of hiring employees to understand the legal changes is often too expensive for small companies, and frustrating for larger companies to implement quickly. Further, even when a significant grace period is permitted, companies find that the laws do not create enough allowances for the practical application of following the law when still learning about compliance. This issue causes penalties that detrimentally affect small and large businesses alike. Agencies' response times to questions and inquiries can cause compliance issues. The Rwandan government has prioritized helping new businesses comply with new regulations, which has resulted in lagged response times to inquiries from established businesses. Stakeholders reported slow response times on compliance questions causing infringements because the delayed answers resulted in stakeholders missing deadlines.

5 MAIN FINDINGS AND NEXT STEPS

5.1 General observations and main findings

Rwanda has made notable progress with digital connectivity. Electricity access, Internet access, and affordability have increased significantly over the last two decades. The country has also generally outperformed its regional peers in these metrics. However, challenges include rural-urban disparities, limited fixed broadband uptake, low access to affordable digital devices, and persistent gaps in digital literacy—particularly among women and rural populations.

The country's digitally delivered services trade has more than doubled since 2016. This is driven largely by telecommunications and financial services, with export growth outpacing that of regional peers and imports strengthening domestic competitiveness.

Rwanda has undertaken some WTO and regional commitments facilitating digital trade, but significant gaps remain in some key areas at the WTO. The country has ratified the WTO's TFA. However, it has not joined the WTO ITA, has not undertaken GATS commitments in any digital

⁵⁷ World Bank, [Achieving Privacy: Costs of Compliance and Enforcement of Data Protection Regulation](#), 2021.

trade-enabling service sector and did not participate in the negotiations of the AEC and IFD Agreement. While its trade regime is generally more open than its WTO commitments, the absence of bindings in certain areas limits the stability that international agreements offer and the protection against policy reversals. Rwanda is also participating in regional frameworks such as the EAC and AfCFTA, which can also promote digital trade.

5.2 Maximizing the benefits of trade agreements

Trade agreements offer the opportunity to build, and legally guarantee, policy regimes that are conducive to greater digital trade. Rwanda may consider using existing and emerging trade agreements to anchor its own efforts to increase its participation in digital trade. It can do so at the WTO or in regional contexts. For example, it can bring its commitments closer to its currently applied regimes for services and ICT goods trade, or even commit to the future opening of its trade policy regimes in a manner that increases competition and encourages greater investment in digital trade-enabling sectors. Making these commitments in the context of trade negotiations would have the potential added benefit of helping overcome resistance to domestic reforms by securing market openings in other sectors of domestic economic interest.⁵⁸

5.3 Policy and regulations

Rwanda has adopted meaningful steps in the regulation of digital trade, especially in the areas of data protection, cybersecurity, and legal frameworks for basic online consumer protection and intermediary liability. These efforts are particularly valuable given the nascent nature of the digital sector in the country, especially e-commerce marketplaces, which suggest a vision to leverage digital technologies and digital businesses as a pillar of economic growth.

The current World Bank's Digital Trade Policy Gap Analysis points to a number of regulatory and institutional initiatives that would further help foster digital trade by increasing trust in digital transactions (see Table 1). Some specific recommendations⁵⁹ resulting from the analysis include:

- **Reducing barriers to cross-border data flows.** Requirements for government approval for cross-border data transfers, in particular, introduce a cumbersome and uncertain procedure to share data from Rwanda, increasing trade costs. While these measures may be adopted in response to legitimate policy concerns like protection of national security data, sweeping requirements reach beyond those goals and introduce hefty costs in the Rwandan economy and particularly its digital sector as a whole. Further, such goals are greatly diminished and made uncertain by introducing a right to transfer via data subject consent. Rather, having a balance between government authorization and consent would create a more efficient and structured system that follows the original policy goals. Rwanda may consider limiting the requirement to retain all personal data within the country and only store outside of the country with explicit government authorization. Such policies create costly burdens to growing firms and can have a cooling effect on foreign suppliers operating in the Rwandan market.
- **Encouraging trust in e-signatures.** Although the government passed robust laws concerning e-signatures, the population still lacks a general sense of trust. Continued outreach and training courses for digital transactions should be encouraged. Further, Rwanda could instruct business learners on the complexity of digital signatures versus simple electronic signatures in order to better establish understanding in the difficulty in making fraudulent e-signatures, and the legal rights to challenge or defend a challenge of a fraudulent e-signature.
- **Improving the regime for consumer protection.** Despite the recent growth of digital transactions, lack of general trust in digital markets remains a major challenge for the development of digital trade around the world. While Rwanda has already adopted some valuable rules for online consumer protection, the framework remains patchy regarding

⁵⁸ See WTO (2019)

⁵⁹ The recommendations contained in sections 5.3 and 5.4 are from the World Bank only. The WTO Secretariat does not offer trade policy advice or recommendations.

unsolicited communications and deceptive practices. In addition, progress on the institutional framework for consumer protection would further support trust by introducing procedures for online dispute settlement and to boost policies for enhancing trust in digital markets. These advances should be complemented with adequate resources and technical capacity in the government bodies to ensure their effectiveness and boost trust by Rwandan consumers.

- **Adopt a balanced framework for intermediary liability.** A modern and balanced regulation to address the rights and obligations of intermediary platforms would support good practices and trust in the digital environment, while reducing legal risks faced by start-up platforms.
- **Continue to establish resources for compliance.** Established companies find that, although new regulations have an overall positive effect, the rapid implementation over the past three years has caused difficulties in understanding and complying. A policy of continued education and strong grace periods can dampen the jarring effect of complying with new regulations. Rwanda may create more educational campaigns to reach small and large businesses alike, including directing all businesses to a dedicated government website that displays business compliance checklists that aid with compliance comprehension.

Table 1. Detailed summary of WB policy and regulatory recommendations

	Challenges	Possible Actions	
		Short term	Medium/Long term
Data protection and cross-border data flow	• Data localization requirements • Permissions for data transfers are either restrictive or wholly open	• Amend the data localization requirements in Art. 50 to create more efficiency and structure to guide data localization requirements • Amend Art. 48 to restrict open consent and replace with either informed consent or government-driven informed consent	• Adoption of EAC mechanism for cross-border data rules • Region-wide capacity building on data protection regimes
Digital authentication and e-signature regulations	• Lack of adopted use of e-signatures among businesses and citizens	• Implemented effective awareness raising campaigns and educational programs	• Region-wide capacity building on e-signatures laws and legal methods of recourse
Consumer protection	• Stronger laws on consumer protection and deceptive practices	• Approve the Competition and Consumer Protection Law amendments • Amend regulations on spam laws in the Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions	• Pass competition and consumer protection regulations and guidelines to implement the updated law • Pass regulations on dark patterns
	• Implement consumer protection institutions	• Strengthen capacity and developed necessary by-laws and operation manuals in consumer protection agency	• Adopt online dispute resolution mechanism • Expand initiatives for creating trust in digital markets.
	• Lack of trust for domestic and foreign online retailers	• Continue capacity building efforts	• Adoption of consumer.gov online dispute resolution mechanism
Intermediary liability	• Limited protections for users	• Amend intermediary liability regulations to include users' right to recourse	
Regulatory understandings	• Complicated licensing with laws passing rapidly	• Continue capacity building efforts	• Focus more capacity building on established businesses • Establish online mechanism for licensing requirements

5.4 Digital infrastructure

As noted in Section 2, digital infrastructure in Rwanda has advanced substantially, but overall adoption of digital technologies remains low. Additional efforts are needed to bridge the urban/rural and digital gender gaps. Specific measures that can serve to that end include:

- **Continued investment in network upgrades and densification will be needed to keep pace with next generation technology development, including fixed broadband, 5G and above technologies.** To enhance access the Government is looking

to develop a new 5G strategy. In 2023, the Government, in collaboration with licensed telecom operators, also successfully launched pilot projects to test 5G networks. The target is to operationalize 5G networks at around 60 sites by 2025. To overcome the challenges of expanding and enhancing network coverage in rural areas, Rwanda is also looking to the latest cutting-edge technologies. In June 2023, the Rwanda government collaborated with SoftBank to test 5G connectivity using stratospheric technologies targeting rural and underserved areas. Once successful, 5G connectivity will be delivered from a solar-powered High Altitude Platform Station (HAPS) unmanned aerial vehicle (UAV) to rural communities.⁶⁰

- **While most investment for network roll-out will need to be commercial, targeted public spending may be required in remote rural last-mile areas that are less commercially viable.** Rwanda's hilly terrain and hard-to-reach rural communities, along with weak demand, make investing in high-quality access networks an unattractive commercial prospect, prompting the need for proactive usage of tools such as the Universal Access Fund (UAF), and interventions that help reduce service costs, such as infrastructure sharing. By effectively leveraging the private sector, the sustainability of infrastructure investments can be enhanced over the long term. However, some public spending will continue to be needed to support the bulk purchase of capacity for select remote public installations such as hospitals, schools, and government offices in remote areas, complementing the private sector as needed and leveraging private sector-managed models as much as possible.
- **Increasing digital literacy rates and affordability of devices are key to increasing uptake of broadband, particularly among the underserved.** The Government will need to sustain efforts aimed at increasing device affordability and digital literacy to keep pace with gains on the supply side, *inter alia* by expanding and learning from the implementation of current initiatives, including enhancing and providing more targeted support for not just the average consumer but for MSMEs to support both a growing consumer base that is "online" and supply of e-commerce services by the private sector.
- **There is a need to continue to refine and develop the regulatory regime for digital networks, services and trade,** particularly as it pertains to new and emerging technology. As Rwanda prepares for deployment of 5G technologies, it must intensify ongoing efforts to align its regulatory regime to ensure full compliance with the ITU's International Mobile Telecommunications-2020 (IMT-2020 Standard), which governs 5G technologies. Additionally, the regulatory regime needs to be refined to boost further competition, ensure service quality, promote more inclusion, and ensure environmental standards. Stronger interinstitutional collaboration in line with the Competition and Consumer Protection Policy⁶¹ can support a more competitive environment.

5.5 Potential future work

The WTO and the World Bank are ready to undertake a joint action programme, tailored to Rwanda's needs. The two institutions can complement each other's assistance initiatives and offerings in a manner that strengthens Rwanda's ability to leverage the promise of digital trade.

The World Bank is engaged with Rwanda both through lending operations and advisory and analytical services, and WTO technical assistance (TA) can complement these efforts. Implementing the World Bank's recommended policy and regulatory reforms would involve adding to the current World Bank's engagements both on digital economy and on trade policies more broadly. This would include supporting concrete regulatory changes through normative draft texts, facilitating extensive consultations with stakeholders and supporting the adoption of reforms. The WTO offers training and technical assistance (TA) activities that could reinforce policymakers'

⁶⁰ SoftBank, [Government of Rwanda in Partnership with SoftBank Corp. Successfully Delivers World's First 5G Connectivity from the Stratosphere](#), 2023.

⁶¹ Available at <https://www.minicom.gov.rw/news-detail/cabinet-approves-the-revised-competition-and-consumer-protection-policy>

awareness and understanding of the trade disciplines applicable to digital trade. This is indeed an area which WTO TA recipients have indicated as a priority in a recent survey.⁶²

Technical assistance would be tailored to Rwanda's needs. The World Bank is engaged with Rwanda both through lending operations and advisory and analytical services. These instruments provide robust mechanisms for implementing the recommended policy and regulatory reforms. Implementation would involve initiating technical assistance activities aimed at refining diagnostics for each reform area. This would include hiring consultants to conduct in-depth analyses, proposing concrete regulatory changes through normative draft texts, facilitating extensive consultations with stakeholders and supporting the adoption of reforms. Depending on the nature of the reforms — whether requiring legislative amendments or infra-legal regulations like decrees — technical assistance could be structured as standalone initiatives, initiated upon government request to the World Bank, or integrated into existing or future lending operations with a dedicated technical assistance component. WTO technical assistance activities can, for their part, provide a catalyst to engage a diverse range of domestic stakeholders in a dialogue centred on digital trade. They can also help foster greater domestic inter-agency coordination and may contribute to the development of a more encompassing and coherent approach to digital trade policymaking.

The WTO and the World Bank could also engage other international organizations, academics and donors to further focus technical assistance on the regulatory framework for digital trade. This would offer Rwanda the opportunity to benchmark its regulatory framework against regional and global economic peers with a view to charting a possible course to strengthen it. If so requested, the WTO stands ready to provide tailored technical assistance targeted at existing WTO rules, emerging disciplines, and their relation to the digital policy regime in Rwanda.

Digital connectivity is also an established theme of the WTO-led Aid for Trade initiative and, together with digital trade, an area where financing is flourishing, including in the form of public-private partnerships. The WTO and the World Bank can play an important role in promoting coherence in the deployment of the resources mobilised to address the trade-related constraints identified by developing and least-developed countries. Under Aid for Trade, donors have already announced financing commitments of nearly USD 500 million over the 2023 to 2025 period to support Internet connectivity and the digital economy in various African countries, including Rwanda.

⁶² WBG/WTO (2023a). The most recent survey, which was conducted in the context of planning for WTO training activities in 2026-27, confirmed e-commerce as a priority TA area for African WTO Members.

ANNEXES

ANNEX 1 – WORLD BANK'S DIGITAL TRADE POLICY GAP ANALYSIS

The World Bank's Digital Trade Policy Gap Analysis provides an assessment of Rwanda's digital trade regulations. It is structured into several sections, each focusing on a specific aspect of digital trade regulation such as electronic transactions frameworks, electronic authentication, electronic signatures and electronic contracts, consumer protection, data protection and others (see Table A1).

Table A1. Data sources for desktop review of Gap Analysis

	STRI (WTO-WB)	DTRR	ECIPE DTRI	STRI (OECD)	UNCTAD Cyberlaw tracker	Data Guidance	UN Global Survey Digital & Sust. Trade	OECD Open Gov. Data	Global Open Data Index	Global Trade Alert	DEAA	E-Trade Readiness
Positive or facilitative obligations												
Electronic transactions frameworks	✓	✓		✓	✓						✓	✓
Electronic authentication		✓		✓	✓						✓	✓
Electronic signatures	✓	✓		✓	✓						✓	✓
Electronic contracts	✓	✓		✓	✓						✓	✓
Electronic invoicing	✓	✓									✓	✓
Paperless trading	✓	✓					✓				✓	✓
Single Windows							✓				✓	✓
Open government data								✓	✓	✓	✓	✓
Access to and Use of the Internet				✓								
Online consumer protection	✓	✓			✓						✓	✓
Unsolicited commercial electronic messages	✓	✓			✓	✓					✓	✓
Cybersecurity		✓			✓	✓					✓	✓
Personal information/data protection	✓	✓		✓	✓	✓						
Telecomm services-Reference paper	✓			✓								
Transparency											✓	
Cooperation and cooperation mechanisms											✓	
Cross-border data/information flows	✓	✓	✓	✓		✓					✓	✓
Location of computing facilities		✓		✓		✓						
Intermediary Liability	✓	✓		✓								

The Gap Analysis includes the following steps:

- 1) **Review and classification of relevant provisions:** The Gap Analysis addresses policies and regulations that are generally covered in trade negotiations, such as the plurilateral WTO Agreement on E-Commerce. The choice of such an instrument is based on its broad (potential) geographical coverage, and the fact that it generally reflects policies and rules on digital trade present in other RTAs already in force. For completeness, however, additional key regulations that were not included in the agreement are also addressed in the Gap Analysis, namely provisions on cross-border data transfers and intermediary liability. Individual provisions of each policy category are separated for individual review, resulting in a total of 66 individual provisions stemming from 19 policy categories.
- 2) **Assessment of policies with regard to individual provisions:** The analysis then focuses on the regulatory framework of the country concerned, and assesses whether relevant regulations exist and align with the requirements or expected practices outlined in the trade agreement, such as enabling cross-border data flows or providing legal certainty for electronic transactions. The desktop review of the regulatory framework draws upon various standard databases and reports, such as the World Bank's DTRR database (forthcoming 2025), WB-WTO's Services Trade Policy Database, STRIs from OECD and from WB-WTO, and DTRI from the European Centre for International Political Economy (ECIPE), in addition to other available literature and country specific sources of information. For each category, the document lists provisions and assigns a rating ('Implemented', 'Not Implemented', 'Partially Implemented') based on the current state of the country's regulations.

- 3) **Assessment of gaps between current regulatory frameworks and best practices at the policy level:** Based on the assessment at the level of each provision, the analysis turns into aggregating such assessment at the policy level, for each of 19 categories in the analysis. This expert assessment is not free from subjective considerations; however, the granular review of each provision provides a solid factual base that limits subjectivity.
- 4) **Based on such assessment, identification of recommendations at the provision and policy level** that would support the development of an enabling regulatory framework for digital trade, in particular on the policy categories under review. This systematic approach aims to provide a comprehensive understanding of the country's regulatory "readiness" and eventual compliance with rules on digital trade featured in trade agreements.

Table A2 provides the assessment at the individual provision level, including the sources of information used in each case and the information taken therefrom.

Table A2. Digital Trade Policy Gap Analysis. Assessment of individual provisions/elements for Rwanda

The following provisions/elements are based on several of the disciplines contained in the text of the plurilateral WTO Agreement on Electronic Commerce, as well as other agreements, such as the AfCFTA Digital Trade Protocol.

Provisions/elements	Rating	Source: World Bank Digital Trade Regulatory Readiness (DTRR, forthcoming 2025)	Source: STRI (OECD)	Source: UNCTAD Cyberlaw tracker
Electronic transactions frameworks				
Adoption or maintenance of a legal framework governing e-transactions (in line with the principles of the UNCITRAL Model Law on Electronic Commerce 1996).	Implemented	Law on Electronic Messages, Electronic Signatures, and Electronic Transactions of 2010		Law Governing Information and Communications Technologies, No. 24/2016
Avoidance of undue regulatory burden on e-transactions.	Implemented		No discriminatory conditions on licenses to engage in e-commerce.	
Facilitating inputs into the development of the legal framework for e-transactions				
Adoption or maintenance of a legal framework for the use of electronic transferable records (taking into account the UNCITRAL Model Law on Electronic Transferable Records 2017).	Not implemented	No provision was identified		
Adoption of a national policy that either unduly restricts electronic commerce or treats it more restrictively than traditional forms of commerce.	Not implemented	No provision was identified		

Provisions/elements	Rating	Source: DTRR
Electronic authentication		
No denying the legal effect/validity/admissibility for e-seals, e-time stamps and e-registered delivery services, if any.	Not implemented	Law on Electronic Messages, Electronic Signatures, and Electronic Transactions Art. 3 Law on Electronic Messages, Electronic Signatures, and Electronic Transactions Art. 6 Law on Electronic Messages, Electronic Signatures, and Electronic Transactions Art. 20
No prohibiting parties to an e-transaction from determining appropriate e-authentication/e-signature methods (with some exceptions) and from having the opportunity to demonstrate compliance with relevant legal requirements before judicial or administrative authorities.	Implemented	Law on Electronic Messages, Electronic Signatures, and Electronic Transactions Art. 3 Law on Electronic Messages, Electronic Signatures, and Electronic Transactions Art. 6
Encouragement of use of interoperable e-authentication.		

Provisions/elements	Rating	Source: DTRR	Source: STRI (OECD)
Electronic signatures			
No denying the legal effect/validity/admissibility as evidence in legal proceedings of an e-signature solely because electronic (except as provided for under domestic laws).	Implemented	Law on Electronic Messages, Electronic Signatures, and Electronic Transactions Art. 20	Electronic signatures are legally equivalent to handwritten signatures.

Provisions/elements	Rating	Source: DTRR	Source: STRI (OECD)
Electronic contracts			
No denying the legal effect, legal validity, or enforceability of an electronic contract solely on the basis that the contract has been made by electronic means (except as provided for under domestic laws).	Implemented	Law on Electronic Messages, Electronic Signatures, and Electronic Transactions Art. 72	

Provisions/elements	Rating	Source: DTRR
Electronic invoicing		
No denying the legal effect/validity/admissibility of an e-invoices solely because electronic (except as provided for under domestic laws).	Not implemented	No provision was identified
Implementation of measures related to e-invoicing in its jurisdiction designed to support cross-border interoperability. For that purpose, each [Party/Member] shall base its measures related to e-invoicing on international standards, guidelines or recommendations, where they exist.	Not implemented	No provision was identified.

Provisions/elements	Rating	Source: UN Global Survey Digital & Sust. Trade
Paperless trading		
Encouragement to eliminate paper forms and documents and facilitate, as appropriate, the transition toward using forms and documents in data-based formats.	Partially implemented	Automated Customs System established, however electronic forms and declarations are not fully implemented.
Adoption of any form issued or controlled by customs for import, export, or transit of goods through its territory available to the public in an electronic format	Partially implemented	Although many customs documents are accepted in electronic format, many documents are not accepted.
Acceptance for processing electronically any form issued or controlled by customs and supporting documentation (such as invoices bills of lading packing lists, and money transfers) required by customs for import, export or transit of goods through its territory as the legal equivalent of the paper version of those documents.	Partially implemented	Many forms are accepted, but a significant gap exists for supporting documentation.
Encouragement to cooperate, where appropriate, in international fora to promote the use of electronic forms and documents required for import, export and transit of goods.	Implemented	A structured framework exists to cooperate with the international community, especially the regional community.

Provisions/elements	Rating	Source: UN Global Survey Digital & Sust. Trade
Adoption of the standards of, and/or methods agreed by relevant international organizations recognize in particular: Electronic phytosanitary certificate (e-Phyto), as defined in the International Standard for Phytosanitary Measures 12 of the Food and Agriculture Organization of the United Nations; Electronic CITES permit (eCITES), for the implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora; International Air Transport Association (IATA) Electronic Air Waybill (e-AWB) and Cargo XML; United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) Data Interchange for Administration, Commerce and Transport (UN/EDIFACT), Electronic SPS Certificate (eCERT).]	Not implemented	Electronic exchange of Sanitary & Phyto-Sanitary Certificate has not been implemented yet. Rwanda reports it is in the planning stage.
Single Window		
Establishment of arrangements by which authorized private entities, such as port community systems, logistic service providers and e-commerce platforms, may exchange data with the single window system in lieu of traders and other trade stakeholders under an agreement to use this private solution.	Partially implemented	Electronic Single Window System has been established and is fully functioning, but the SWS does not fully accept all electronic forms and declarations.

Provisions/elements	Rating	Source: Digital Economy Initiative for Africa (DE4A)
Open government data		
Making "government data" digitally available for public access and use	Implemented	Parliament and agencies utilize online platforms to communication with citizens and share information.
- Digitally accessible public data, have to be with the following characteristics: (a) made available in a machine-readable and open format; (b) searchable and retrievable; (c) updated, as applicable, in a timely manner; and (d) accompanied by metadata that is, to the extent possible, based on commonly used formats that allow the user to understand and utilize the data; and (e) made generally available at no or reasonable cost to the user.	Partially implemented	Although open data's opportunity to be utilized is recognized, the actual practice is underutilized. User accessibility, maintaining data updates, keeping updates in a machine-readable format, and expanding public registries are all needed.

Provisions/elements	Rating	Source: Digital Economy Initiative for Africa (DE4A)
To the extent a Party chooses to make government data available for public access and use, avoiding imposing conditions that unduly prevent or restrict the user of such data from: (a) reproducing, redistributing, or republishing the data; (b) regrouping the data; or (c) using the data for commercial and non-commercial purposes, including in the process of production of a new product or service.	No data	
Access to and use of the Internet for Electronic Commerce "Access to Internet" shall not cover the services provided through network infrastructure by natural or juridical persons within their premises, which are used exclusively for individual or organisational needs without any commercial intention to provide any Internet access to third parties or to public	No data	
Ensuring that end-users in their territory are able to: access/distribute/provide and use services and applications of their choice available on the Internet, subject to: -reasonable network management that does not discriminate between traffic of the same category; and does not block or slow down traffic based on commercial reasons	Partially implemented	Although Rwanda has made great strides towards achieving internet access across the country, limited internet access still exists because of affordability and knowledge gaps. Further, Rwanda's fiber optic network is extensive and continues to grow, but the last mile connectivity still faces significant challenges. Other than these physical and knowledge barriers, the report does not discuss anti-discrimination policies.
Recognising that an Internet access service supplier that offers its end-user certain content on an exclusive basis would not be acting contrary to this principle. (b) connect the end-user devices of their choice to the Internet, provided that such devices do not harm the network; and (c) access [transparent and clear] information on the network management [practices / policies] of their Internet access service supplier.	No data	

Provisions/elements	Rating	Source: DTRR	Source: STRI (OECD)	Source: UNCTAD Cyberlaw tracker
Online consumer protection Adoption of measures to proscribe misleading, fraudulent and deceptive commercial activities that cause harm, or potential harm, to consumers engaged in electronic commerce.	Partially implemented	Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions Art. 53 sets the foundation for banning spam, but other deceptive practices protections are missing to further strengthen consumer protections.	Restrictions on online advertising exist.	Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions Law Relating to Competition and Consumer Protection

Provisions/elements	Rating	Source: DTRR	Source: STRI (OECD)	Source: UNCTAD Cyberlaw tracker
Adoption of measures that aim to ensure: (a) that suppliers of goods and services deal fairly and honestly with consumers; (b) that suppliers provide complete, accurate, and transparent information on goods and services including any terms and conditions of purchase; and (c) the safety of goods and, where applicable, services during normal or reasonably foreseeable use.	Partially implemented	Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions Art. 53 Law on Competition and Consumer Protection Art. 42	Restrictions on online advertising exist.	
Promote access to, and awareness of, consumer redress or recourse mechanisms, including for consumers transacting cross-border.	Partially implemented	Law on Competition and Consumer Protection Art. 42		
(10) Unsolicited commercial electronic messages (spam)				
Adoption of measures that: (a) require suppliers of commercial electronic messages to facilitate the ability of recipients to prevent ongoing reception of those messages; (b) require the consent, as specified in the laws or regulations, of recipients to receive commercial electronic messages; or (c) otherwise provide for the minimisation of unsolicited commercial electronic messages.	Implemented	Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions Art. 53		Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions Law Relating to Competition and Consumer Protection
Provision to access to either redress or recourse against suppliers of unsolicited commercial electronic messages that do not comply with the previous provision.	Partially implemented	No provision was identified, but a lack of protections to prevent recourse — like minimum timeframes to comply with an opt-out request — are absent.		

Provisions/elements	Rating	Source: DTRR	Source: UNCTAD Cyberlaw tracker	Source: DE4A
Cybersecurity				
Adoption of provisions for (a) building the capabilities of their respective national entities responsible for cybersecurity incident response; (b) strengthening existing collaboration mechanisms to identify and mitigate malicious intrusions or dissemination of malicious code that affect electronic networks and use those mechanisms to swiftly address cybersecurity incidents, as well as for the sharing of information for awareness and best practices.	Implemented	Law Related to the Protection of Personal Data and Privacy Art. 47 RW-CSIRT is the institution that oversees cybersecurity issues within the country.	Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions	The National Cybersecurity Authority was established in 2017 and works with the Computer Security Incident Response Centre to address cyber issues.

Provisions/elements	Rating	Source: DTRR	Source: UNCTAD Cyberlaw tracker	Source: DE4A
Provisions to build capabilities to prevent and respond to cybersecurity incidents by adopting, <i>inter alia</i>, risk-based approaches to mitigating threats that avoid trade restrictive and trade distortive outcomes.	Implemented	Regulation No. 50/2022 of 02/06/2022 on Cyber Security in Regulated Institutions		Rwanda placed initiatives to enhance information security and promote trust. The 2018 Law on Prevention and Punishment of Cyber Crimes, the Computer Security Incident Response Centre, and the National Cybersecurity Authority work together to create the legal basis and enforcement capabilities necessary to mitigate threats.

Provisions/elements	Rating	Source: DTRR	Source: Data Guidance
Personal data protection			
Adoption of measures that provide for the protection of the personal data of users of electronic commerce.	Implemented	Law on the Protection of Personal Data and Privacy	Law No. 058/2021 of 13 October 2021 Relating to the Protection of Personal Data and Privacy
Adoption of safeguards appropriate to ensure the protection of personal data and privacy, including through the adoption and application of rules for the cross-border transfer of personal data.	Partially implemented	Law on the Protection of Personal Data and Privacy Art. 48	
Adoption of measures that ensure the protection of personal data, including the cross-border transfer and processing of personal data and the conditions and requirements relating to it to promote the fundamental values of respect for privacy and protection of personal data	Partially implemented	Law on the Protection of Personal Data and Privacy Art. 48	Law on the Protection of Personal Data and Privacy Art. 48
Applying principles and guidelines/international standards of relevant international organisations [such as the OECD Recommendation of the Council concerning Guidelines Governing the Protection of Privacy and Transborder Flows of Personal Data (2013)]	Implemented	Law on the Protection of Personal Data and Privacy	
Adoption of non-discriminatory practices in protecting users of electronic commerce from personal data protection violations occurring within its jurisdiction.	Implemented	Law on the Protection of Personal Data and Privacy Art. 56 Law n°24/2016 of 18/06/2016 Governing Information and Communication Technologies Arts. 197-203	Data subjects' rights are robust, covering aspects such as the purpose principle.
Adoption of non-discriminatory practices in protecting users of electronic commerce from personal information protection violations occurring within its jurisdiction.	Implemented	Law on the Protection of Personal Data and Privacy Art. 3	Health data is not specifically defined but it is covered under sensitive data. Beyond this, sensitive data has significant protections.
Obtaining the directly expressed individual's consent for cross-border transfer and processing of his personal data.	Implemented	Law on the Protection of Personal Data and Privacy Art. 48(2)	Consent must be freely given, specific, informed, and unambiguous to agree to process personal data in Art. 3(18) of the Law on the Protection of Personal Data and Privacy.

Provisions/elements	Rating	Source: DTRR	Source: Data Guidance
Publishing information on the personal data protection it provides to users of electronic commerce, including how: (a) a natural person can pursue remedies; and (b) an enterprise can comply with [any] legal requirements.	No data		
Development of mechanisms to promote compatibility between different regimes.	Implemented	Law on the Protection of Personal Data and Privacy Art. 20	Art. 20 of the Law on the Protection of Personal Data and Privacy provides a right to data portability.
Prohibition using the personal information of natural persons obtained from enterprises operating within their jurisdiction in a manner which constitutes targeted discrimination on manifestly wrongful grounds such as race, colour, sex, sexual orientation, gender, language, religion, political or other opinion, national or social origin, property, medical, birth, or other status, genetic identity, age, ethnicity, or disability.	Implemented	Law on the Protection of Personal Data and Privacy Art. 10 & 11	Law on the Protection of Personal Data and Privacy Art. 10(2)
Any personal information disclosed to a government authority by an enterprise is protected against loss or theft, as well as unauthorized access, disclosure, copying, use or modification	No data		
Any personal information disclosed to a government authority by an enterprise is not accessed, disclosed, used or modified by a government authority in a manner that can reasonably be expected to cause significant harm to a natural person.	No data		
Cross-border data / information flows			
Not restricting the cross-border transfer of information, including personal information, by electronic means.	Partially implemented	Under Art. 48 of the Law on the Protection of Personal Data and Privacy, the ways to transfer are by showing the government proof of safeguards, necessity, or data subject consent. Showing the government proof does limits the ability to transfer. However, the other ways to transfer ensure that the provision is not entirely restrictive.	The data controller or processor can only transfer if: authorization from the NCSA after providing appropriate safeguards, data subject's consent obtained, or the transfer is necessary, which includes the performance of a contract and compelling legitimate interests.
Cross-border data flows shall not be restricted by: (a) requiring the use of computing facilities or network elements in the country's territory for processing, including by imposing the use of computing facilities or network elements that are certified or approved in the territory of the Party; (b) requiring the localisation of data in the country's territory for storage or processing; (c) prohibiting storage or processing in the territory of other country; (d) making the cross-border transfer of data contingent upon use of computing facilities or network elements in the country's territory or upon localisation requirements in the country's territory.	Not implemented	Law on the Protection of Personal Data and Privacy Art. 50	The Law on the Protection of Personal Data and Privacy Art. 50 requires all personal data be stored in Rwanda unless the authorization for transfer or storage has been received from the NCSA.

Note:

 Green – Implemented

The provision is fully addressed in the country’s legal or regulatory framework.

 Yellow – Partially Implemented

The provision is addressed in part, but gaps remain in coverage, enforcement, or implementation.

 Red – Not Implemented

No relevant legal or regulatory measure has been identified for this provision.

 Grey – No Data

The provision could not be assessed due to a lack of available information.

Table A3. Reference of sources for Rwanda Gap Analysis

Source name:	Link:
Law Relating to Electronic Messages, Electronic Signatures, and Electronic Transactions, No. 18/2010	https://www.wipo.int/wipolex/en/legislation/details/10873
Law Governing Information and Communications Technologies, No. 24 of 2016	https://www.minict.gov.rw/index.php?eID=dumpFile&t=f&f=1103&token=62e5552ee854db65fda22c4e75e7460f8b57fea4
Law Relating to Competition and Consumer Protection, No. 36/2012	https://www.amategeko.gov.rw/view/toc/doc/4823/4993
Law Related to the Protection of Personal Data and Privacy, No 58/2021	https://www.amategeko.gov.rw/view/toc/doc/3947/4116
Law on Cyber Security in Regulated Institutions, No. 50/2022	https://www.amategeko.gov.rw/view/toc/doc/4799/4968
Law on Prevention and Punishment of Cyber Crimes, No. 60/2018	https://www.amategeko.gov.rw/view/toc/doc/3910/4079
National Cyber Security Authority (NCSA)	https://cyber.gov.rw/home/
Computer Security Incident Response Centre (Rw-CERT)	https://cert.gov.rw/about
World Bank DTRR Database	File available upon request.
UNCTAD Cyberlaw tracker	https://unctad.org/page/cyberlaw-tracker-country-detail?country=rw
Digital Economy Assessment Country Report: Rwanda – DE4A	https://thedocs.worldbank.org/en/doc/08165a76ca0f1ef688d2782dfaab3406-0400072022/related/Rwanda-DE4A-Summary-Report-final-for-feedback.pdf?_gl=1*16k2lxv*_gcl_au*MTE5NDAwNTk1Ni4xNzIzODM0OTc2
Data Guidance	https://www.dataguidance.com/notes/rwanda-data-transfers
	https://www.dataguidance.com/notes/rwanda-data-protection-overview
UN Global Survey Digital & Sust. Trade	https://www.untfsurvey.org/economy?id=RWA
OECD's Services Trade Restrictiveness Index (STRI)	https://sim.oecd.org/Simulator.ashx?lang=En&ds=DGSTRI&d1c=af&d2c=rwa

ANNEX 2 - WORLD BANK-WTO STRI, SELECTED SECTORS⁶³

Figure A1. STRI – Mobile Telecommunication Services (Rwanda and other African countries)

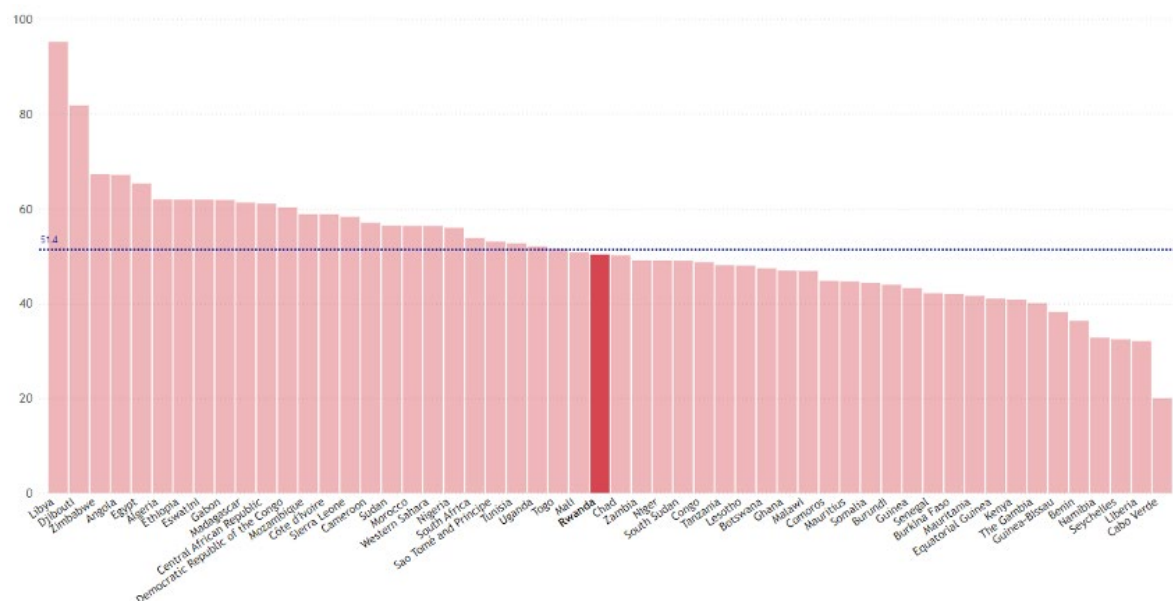
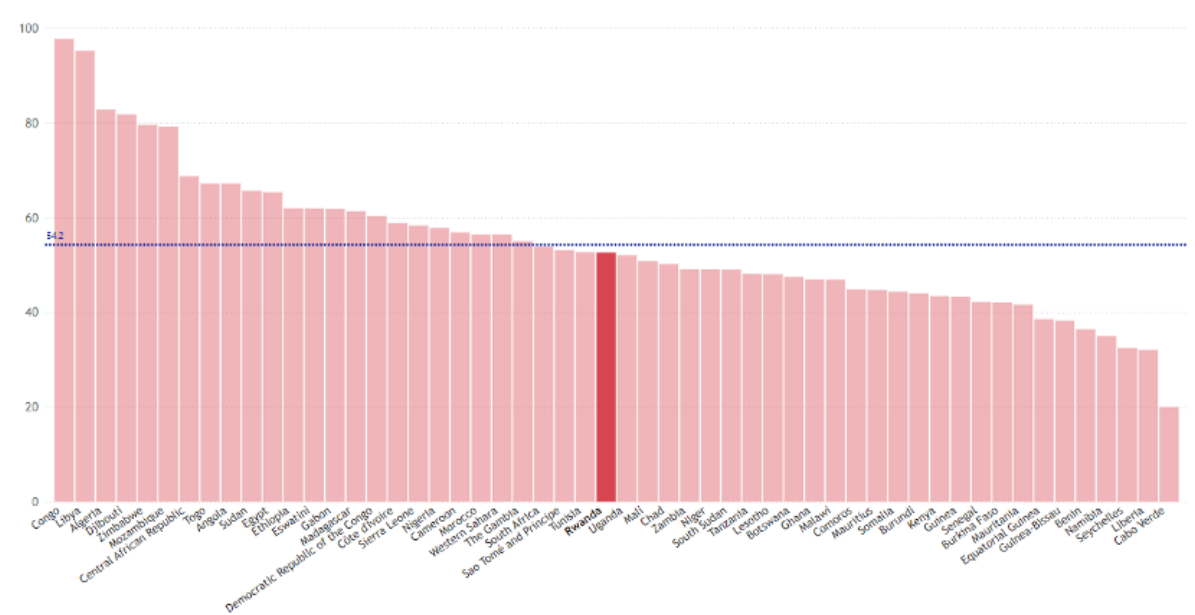


Figure A2. STRI – Fixed-Line Telecommunication Services (Côte d'Ivoire and other African countries)



⁶³ The dotted line in each graph represents the average STRI for the selected economies and subsector.

Figure A3. STRI - Computer services (Rwanda and other African countries)

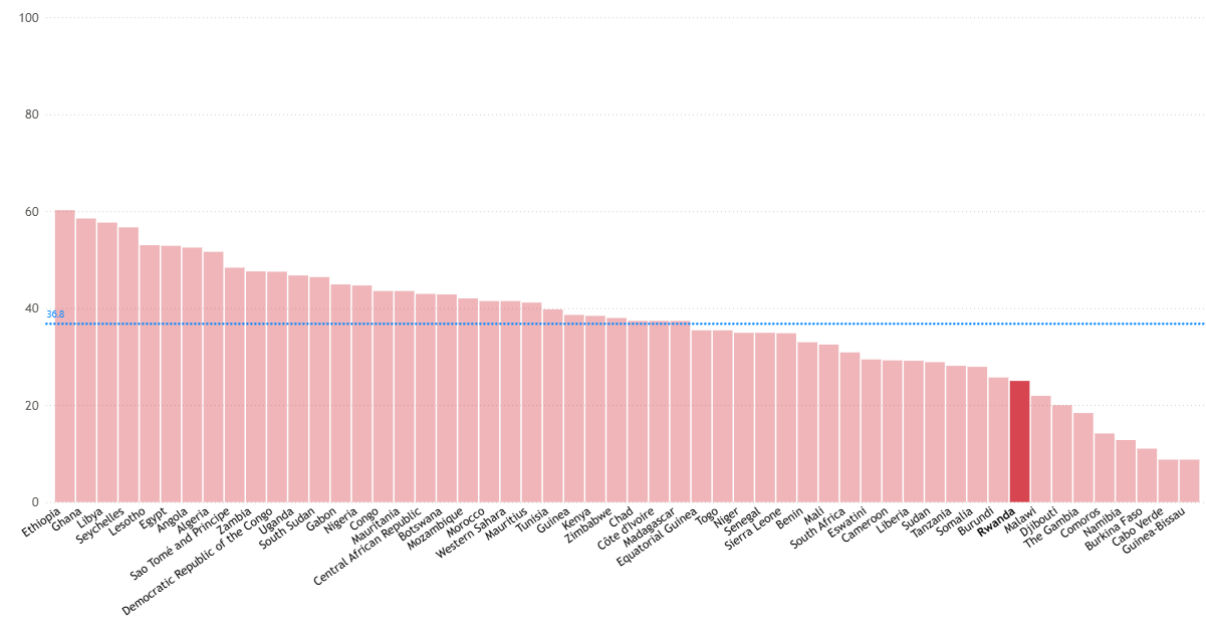


Figure A4. STRI – Wholesale distribution services (Rwanda and other African countries)

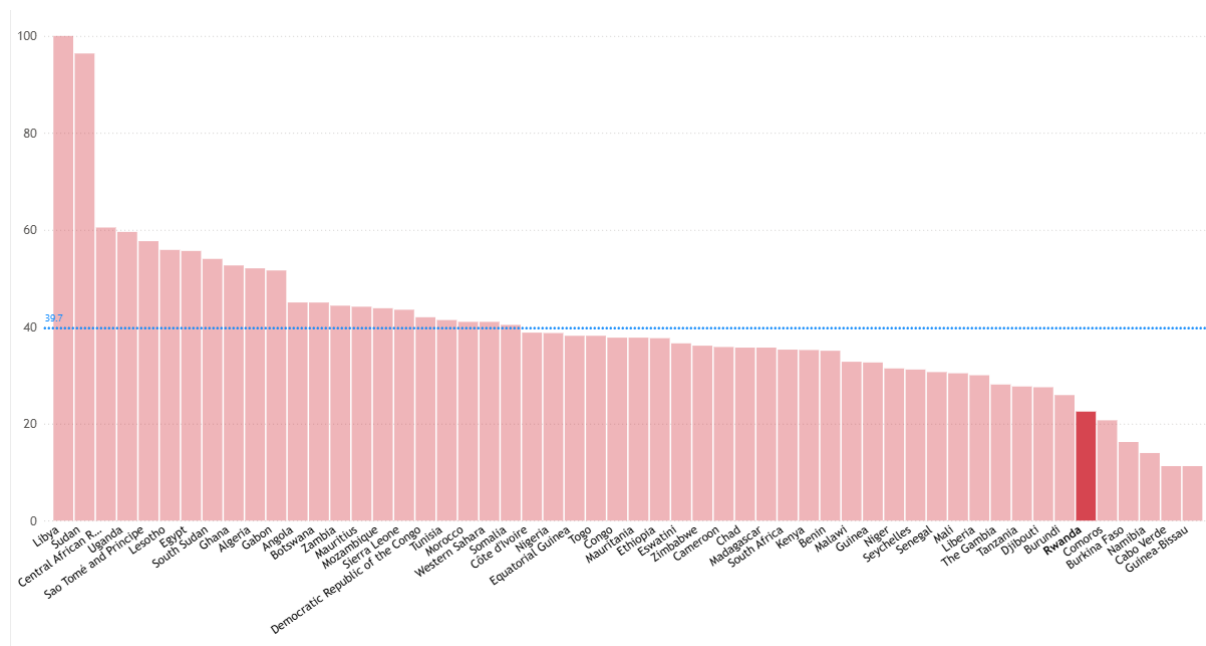


Figure A5. STRI – Retail distribution services (Rwanda and other African countries)

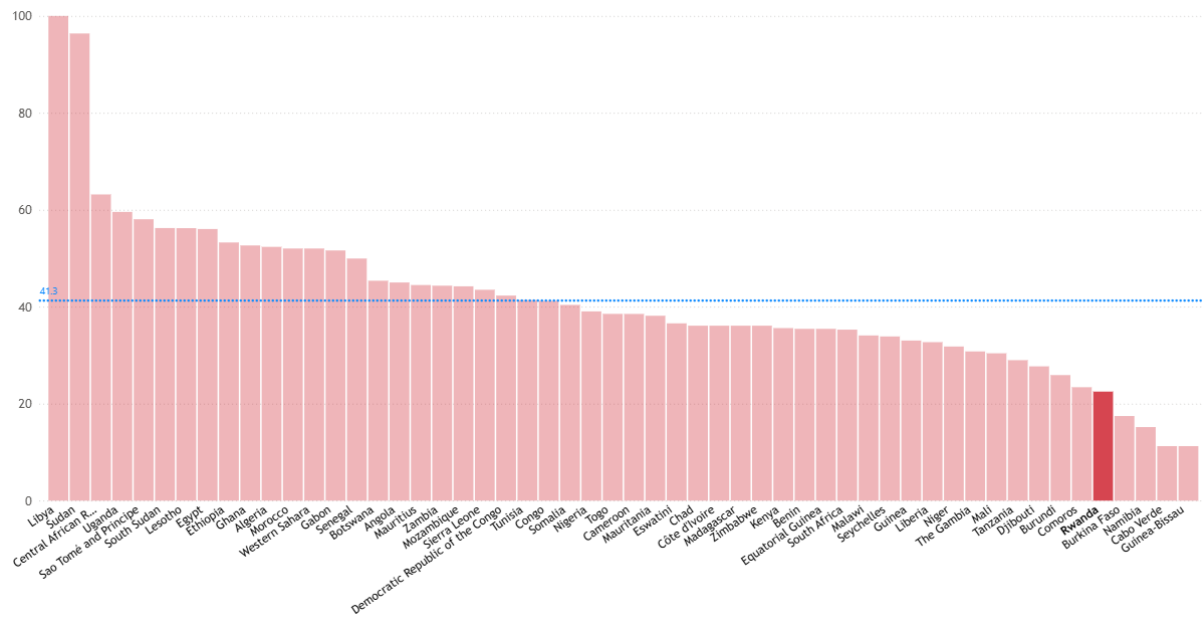


Figure A6. STRI – Commercial banking services (Rwanda and other African countries)

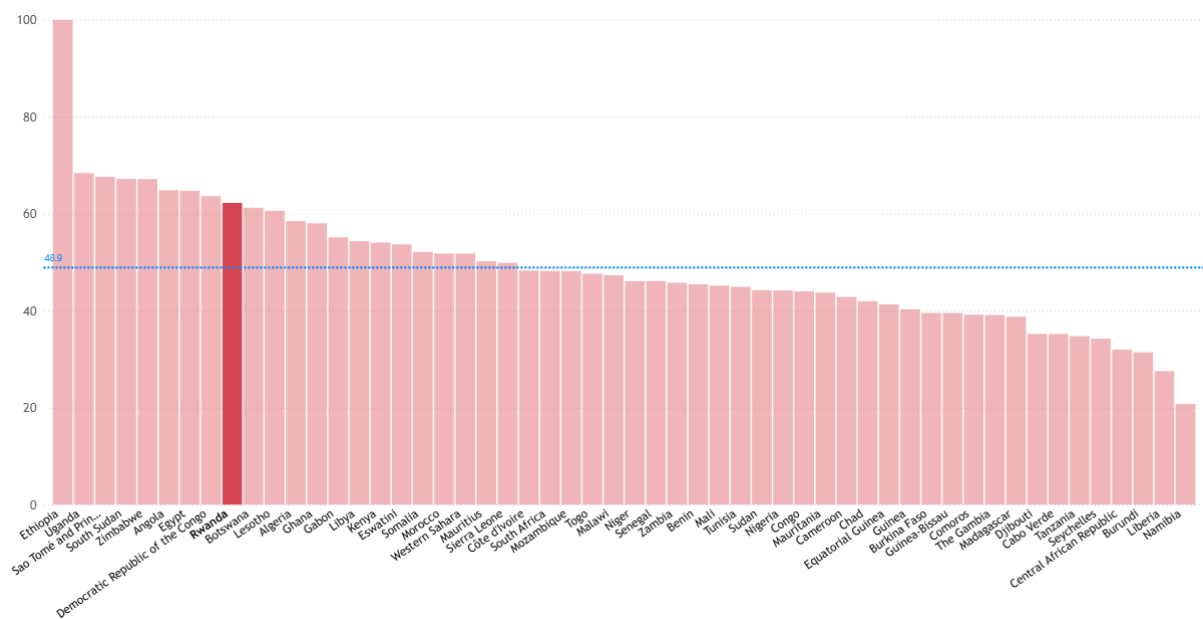
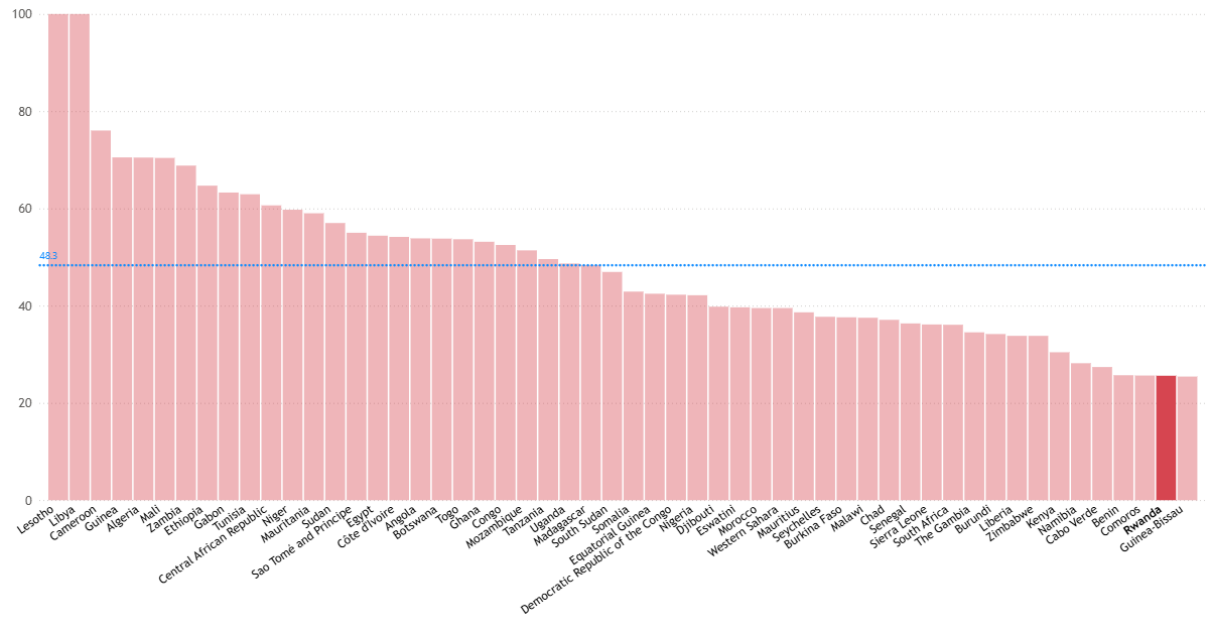


Figure A7. STRI – Road freight transport services (Rwanda and other African countries)



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ABBREVIATIONS

AfCFTA	Agreement Establishing the African Continental Free Trade Area
AEC	Agreement on Electronic Commerce
DE4A	Digital Economy Initiative for Africa
DTA	Digital Trade for Africa
DTRR	Digital Trade Regulatory Readiness
EAC	East African Community
GATS	General Agreement on Trade in Services
ICT	information and communication technology
IFD	Investment Facilitation for Development
IMF	International Monetary Fund
ITA	Information Technology Agreement
ITU	International Telecommunication Union
OECD	Organisation for Economic Co-operation and Development
RTA	regional trade agreement
STRI	Services Trade Restrictions Index
TFA	Trade Facilitation Agreement
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
WB-WBG	World Bank – World Bank Group
WTO	World Trade Organization
