

Member States of the Economic Community of West African States eTrade Readiness Assessment



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United Nations

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ECOWAS COMMISSION
COMMISSION DE LA CEDEAO
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Ministry of Foreign Affairs of the
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NOTE

Within the United Nations Conference on Trade and Development (UNCTAD) Division on Technology and Logistics, the E-Commerce and Digital Economy Branch conducts analytical work on the development implications of information and communication technologies (ICTs), e-commerce and the digital economy. It is responsible for the preparation of *the Digital Economy Report* as well as thematic studies on ICT for Development.

The Branch promotes international dialogue on ICT for development issues. It contributes to strengthening the capacities of developing countries to measure the digital economy and to design and implement relevant policies and legal frameworks. It also monitors the overall state of e-commerce legislation (<https://unctad.org/page/cyberlaw-tracker-country-detail>). Since 2016, the Branch has been coordinating a multi-stakeholder initiative called eTrade for all (<https://etradeforall.org/>), which aims to improve the capacity of developing countries, in particular the least developed countries (LDCs), to harness e-commerce. The initiative is also behind the eTrade Readiness Assessments, which are based on the seven policy areas of the initiative, and of the eTrade for Women programme, launched in 2019, which aims to promote a more inclusive digital economy, in particular through its network of Advocates. These women digital entrepreneurs are active in all developing regions, and contribute to capacity-building, mentoring and awareness-raising activities for more inclusive policies of this kind.

The following typographical signs were used in the tables:

- Two dots (..) mean that data are not available or are not provided separately. In the event that no data were available for all the elements composing a row of an array, they were omitted;
- A dash (-) means that the element under consideration is zero or that its value is negligible.

Unless otherwise stated, the term “dollar” means the dollar of the United States of America.

Due to rounding, the figures and percentages in the tables do not necessarily add up to the totals shown.

The exchange rate used at the time of writing was 0.0017 dollar to 1 CFA franc.



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FOREWORD

The *eTrade for all* initiative, launched at the fourteenth session of the United Nations Conference on Trade and Development (UNCTAD XIV) in July 2016, is a concrete example of how to mobilize the digital economy to support the 2030 Agenda for Sustainable Development, including Sustainable Development Goals 5, 8, 9 and 17. This initiative aims to raise awareness, enhance synergies and increase the scale of the international development community's efforts to strengthen the capacity of developing countries to engage in and benefit from e-commerce, addressing seven relevant policy areas:

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

As part of this initiative, 31 eTrade Readiness Assessments (eT Readies) were conducted to provide an analysis of the current situation of e-commerce in the beneficiary countries, and to identify opportunities and obstacles. The resulting reports are a valuable contribution to the participation of these countries in various discussions on e-commerce and the digital economy, such as the new UNCTAD Intergovernmental Group of Experts on E-Commerce and the Digital Economy. They also help developing countries to identify areas where they could benefit from the assistance of eTrade for all partners through the action matrices contained in the assessments.

In particular, one assessment was conducted in Liberia in 2018. Seven assessments were conducted within the West African Economic and Monetary Union (WAEMU) between 2018 and 2020, for Senegal, Togo, Burkina Faso, Mali, Benin, the Niger and Côte d'Ivoire. A synthesis of these assessments was also carried out in 2020 for WAEMU as a whole.

The present assessment is part of the development of the Economic Community of West African States (ECOWAS) e-commerce strategy, for which UNCTAD was referred by the ECOWAS Commission in 2020. It documents the strengths, weaknesses and challenges that ECOWAS member States face in creating an enabling environment for the emergence of e-commerce and the digital economy, and is the first step in the preparation of the regional strategy. This diagnosis is predominantly based on updates of assessments already published, as well as seven rapid reviews conducted with countries that had not yet benefited from assessments.

I am convinced that this report will help ECOWAS in its efforts to build an ecosystem that fosters the development of inclusive domestic and regional e-commerce, in order to unlock the region's vast potential in this sector, which can be driven by young entrepreneurs through technology and innovation, which have further proven their central role during the coronavirus pandemic.

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



The ECOWAS Vision 2050 recognizes trade as a driver of economic integration, and digitalization as a cross-cutting instrument for development in the ECOWAS community. In alignment with the African Union Agenda 2063: The Africa We Want, and the region's ambition to boost intra-African trade, the ECOWAS Commission has embarked on promoting and developing e-commerce.

The ECOWAS region has witnessed impressive growth in Internet usage over the last decade. More people are using the Internet for commercial purposes, which we see in the increase of online retail within the member States. This increase has partly been influenced by a rise in Internet penetration, the adoption of mobile devices, the development of innovative payment systems and a growing youth population. The ECOWAS community is also home to some of the largest e-commerce platforms and online payment solution providers in Africa.

All these factors create an optimistic forecast for e-commerce in the region, but there are still gaps when the prerequisites for cross-border e-commerce in each of the 15 ECOWAS member States are considered. These challenges relate to barriers that hamper trade facilitation, costly and unequal access to information communications and technology (ICT) infrastructure and services, insufficient online consumer protection and confidence, the low uptake of business and e-commerce skills, as well as the absence of specific data on e-commerce-related activity in the region.

To address some of these challenges, the Commission is in the process of implementing several programmes and initiatives around ICT and digital inclusion. These programmes include the ECOWAS ICT Strategy 2018–2023 (which has already resulted in the adoption of two notable legal documents – the ECOWAS Cybersecurity and Cybercrime Strategy 2020 and the ECOWAS Critical Infrastructure Protection Policy 2020), the ECOWAS ICT Accessibility Policy 2019, the ECOWAS Regional Infrastructure Development Master Plan 2020–2045, and the ECOWAS Customs Code 2018.

The Commission sees the potential of e-commerce as a tool to deepen trade and productivity, boost structural transformation, formalize the informal sector and create jobs for our growing youth population. It was with this in view, and with the financial support of the Netherlands, that the Commission, with technical expertise from UNCTAD the United Nations Conference on Trade and Development (UNCTAD), is developing a regional e-commerce strategy. As a first step towards this goal, the eTrade Readiness Assessment was conducted. The eTrade Readiness Assessment of the member States of ECOWAS serves as a diagnostic tool of the state of e-commerce preparedness within the region.

Moving forward, I hope that the ECOWAS community and its partners use these results to strengthen the promotion and adoption of e-commerce in the region, ensuring synergy in our efforts at reducing social inequality, and creating sustainable and decent jobs, including for women and youth.

Mr. Tei KONZI,
Commissioner of Trade, Customs and Free Movement
ECOWAS Commission



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ABBREVIATIONS

A4AI	Alliance for Affordable Internet / Alliance pour l'Internet Abordable
ACE	Africa Coast to Europe
AfCFTA	African Continental Free Trade Area
TFA	Trade Facilitation Agreement
ARCEP	Autorité de Régulation des Communications Électroniques, des Postes et de la Distribution de la Presse
ASYCUDA	Automated System for Customs Data
BCEAO	Central Bank of West African States
BCRG	Central Bank of the Republic of Guinea
BCV	Bank of Cape Verde
BOG	Bank of Ghana
CDS	Customs Declaration System
DESA	Department of Economic and Social Affairs
DPO	Designated Postal Operator
DTT	Digital Terrestrial Television
ECOWAS	Economic Community of West African States
EGDI	E-Government Development Index
EIF	Enhanced Integrated Framework
eT Ready	eTrade Readiness Assessment
GNI	gross national income
IATA	International Air Transport Association
ICT	information and communications technology
IMF	International Monetary Fund
IPS	International Postal System / Système Postal International
ISP	Internet Service Provider
ITC	International Trade Centre / Centre du Commerce International
ITU	International Telecommunication Union
IXP	Internet exchange point



LDC	least developed country
NBN	National Broadband Network
NGO	non-governmental organization
PAPSS	Pan-African Payment Settlement System
POP	Point of Presence
PPP	Public-Private Partnership
RICI-EPN	Integrated Accounting Computer Network for the Budgetary and Accounting Management of National Public Institutions
RIXP	regional Internet exchange point
SEforALL	Sustainable Energy for All
SMI	small and medium-sized industries
SNDCES	National strategy for the development of electronic commerce in Senegal
TFP	Technical and financial partner
UNCDF	United Nations Capital Development Fund
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UPU	Universal Postal Union
USSD	Unstructured Supplementary Services Data
VAT	Value Added Tax
W3W	what3words
WACS	West Africa Cable System
WAEMU	West African Economic and Monetary Union
WAMZ	West African Monetary Zone
WB	World Bank
WDI	World Development Indicators
WEF	World Economic Forum
WTO	World Trade Organization



INTRODUCTION

Contextual elements and regional e-commerce strategy

Before the coronavirus disease (COVID-19), national and regional institutions in West Africa had demonstrated their interest in defining a regional strategy aimed at the development of e-commerce and the digital economy. Ministers in charge of trade from the member States of the West African Economic and Monetary Union (WAEMU) had thus highlighted, in the Ministerial Declaration of 29 September 2017, “the strategic importance of e-commerce and trade in services in the Union economy and [recommended] the implementation of a workplan at regional level”. Following this recommendation, the WAEMU Commission requested the assistance of UNCTAD in organizing a regional workshop in 2018 to lay the foundations for the development of a regional workplan, and to promote the actions necessary for development within WAEMU. For its part, the Economic Community of West African States (ECOWAS) submitted a request to UNCTAD in May 2020 for support in establishing a regional e-commerce strategy. In December 2020, the ECOWAS Commission organized a first regional workshop on e-commerce in cooperation with UNCTAD. The regional e-commerce strategy development project in ECOWAS started in 2021 thanks to support from the Government of the Netherlands.

An eTrade Readiness Assessment and an e-commerce strategy for ECOWAS

This study is part of UNCTAD support for the preparation of the ECOWAS regional e-commerce strategy. It aims to provide a global diagnosis of the state of play, progress and challenges faced by ECOWAS member States in order to have an overall vision of a subregion that is extremely heterogeneous, both in its geographical characteristics and in its digital developments. This diagnosis will serve as a basis for defining priorities and key points in the development of the ECOWAS regional e-commerce strategy. The analysis and overview of the strengths and weaknesses of ECOWAS member States is the first step towards the development of a regional strategy.

This diagnosis is based on updates of the eight e-Trade Readiness Assessments (eT Readies) already carried out in the subregion between 2018 and 2020 – Benin, Burkina Faso, Côte d’Ivoire, Liberia, Mali, the Niger, Senegal and Togo – as well as the regional assessment carried out in the WAEMU region in 2021.¹

In addition, for the seven ECOWAS countries that have not yet benefited from an assessment by UNCTAD, this regional assessment includes data based on a desk review. It also includes the collection of information from national focal points, and exchanges with representatives of the digital ecosystem of these countries, through the organization of national workshops in February 2022, in accordance with the objective of inclusion and interactivity that prevails in the framework of eT Readies.

¹ These diagnoses were made possible thanks to support from Germany, and are available at https://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-eTrade-Readiness-Assessments.aspx.



The commitment of ECOWAS countries towards digitalization strategies

One of the main findings of this regional assessment is that all ECOWAS member States are committed to digitalization processes, through the elaboration of national digital strategy documents or national development plans, with a strong focus on information and communications technology (ICT) infrastructures, with a view to encourage the digitalization of their economies to foster and stimulate economic growth, employment and the export sector, and promote social inclusion and economic diversification.

The double digital divide within the ECOWAS countries

Member States' commitment to the digitalization of their economies, which has been further strengthened in the context of the COVID-19 pandemic, has not been sufficient to bridge a digital divide that persists at two levels: (a) between ECOWAS countries, with some already engaging in the experimental phases of 5G implementation, while others are still struggling to ensure access to broadband; and (b) within ECOWAS countries themselves, as they struggle with inequality in digitalization access and digital services, or even access to electricity for rural populations. This observation refers to the increased need to support populations in situations of digital vulnerability given a lack of ICT infrastructure, knowledge or opportunities. This support is necessary not only from the point of view of achieving social inclusion of the overall population, but also in order to achieve the objectives of e-commerce and digital economy expansion to all actors in the subregion, as well as the strengthening of trade integration and intra-ECOWAS trade.

E-commerce remains largely confined to a technological project and not associated with an industrial project, despite the objectives and visions associated with digital strategies

The analysis of existing strategies and the governance frameworks reflect a predominant focus on the development of ICT infrastructure, with strategies most often carried out by ministries and technical agencies in charge of telecommunications and infrastructure. While this is consistent with the challenges and priorities currently encountered on the road to digitalization by ECOWAS economies, it is imperative that the "business" aspects of e-commerce also be taken into account through accompanying sectoral industrial policies. The isolated development of ICT infrastructure cannot by itself meet the objective of economic diversification, which is first and foremost the result of an industrial project. The strengthening of the business component implies a stronger engagement of the ministries and directorates of commerce alongside the agencies and ministries in charge of infrastructure and technology.

The development of e-commerce is constrained by its environment

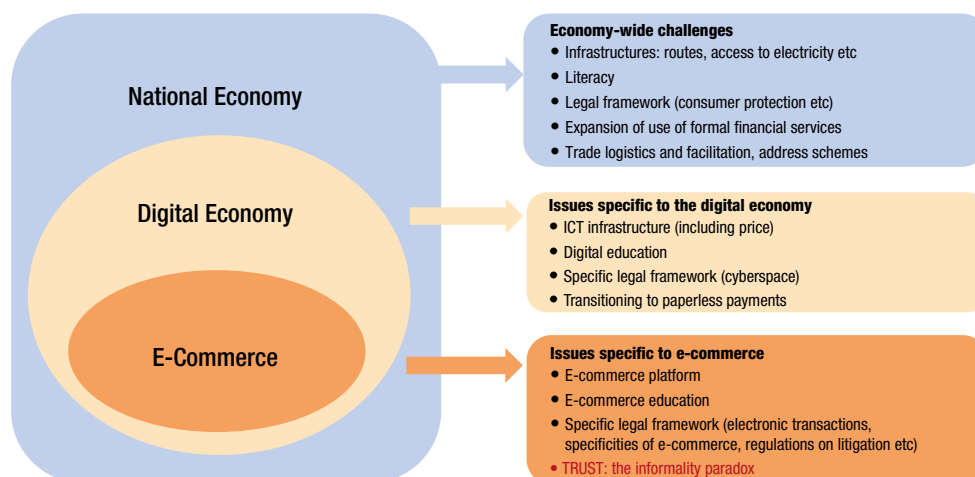
E-commerce naturally suffers from the constraints and difficulties encountered by ECOWAS countries. These issues can be grouped into three levels (see figure 1):

- (a) Economy-wide challenges faced by all ECOWAS national economies, such as difficulties related to a lack of access to electricity or levels of literacy;
- (b) Challenges specific to the digital economy, such as the deployment of ICT infrastructure and Internet access for potential users of e-commerce;
- (c) Challenges specific to electronic commerce.



While the difficulties common to all economies or to the digital economy are beyond the control of e-commerce players, starting with the directorates of commerce, it is nevertheless essential that they be taken into account to anticipate them when possible, and that the directorates in charge of e-commerce engage in a rigorous monitoring of progress in order to have a comprehensive vision of the challenges and needs of e-commerce.

Figure 1 E-commerce in its environment



Source: UNCTAD.

More specifically, the analysis of the seven pillars as prerequisites for the development of the digital economy and e-commerce highlights needs commonly shared by all the countries of the subregion for three fundamental points, beyond the reliability and cost of access to the Internet, in their ability to generate trust, a fundamental element to facilitate the spread of e-commerce:

- Quality delivery services in a context where road infrastructure is sometimes difficult and addressing systems are limited;
- Interoperable dematerialized payment solutions;
- Updating, harmonization and effective implementation of the legal framework.

The identification of both convergence and divergence factors, and the positioning of all ECOWAS countries for each of the seven pillars, will make it possible to establish in the following sections the hierarchy of needs to be addressed in view of the preparation of the regional ECOWAS e-commerce strategy.

This diagnosis will also support ongoing initiatives, including those of the African Union, which in February 2020 adopted “The Digital Transformation Strategy for Africa 2020–2030”, to accelerate this transformation,² and the African Continental Free Trade Area (AfCFTA). Given the growing importance of e-commerce and digitalization in national policies, regional integration processes and trade negotiations, it is also essential to develop the capacity of ECOWAS policymakers and negotiators to understand the development challenges related to these themes, and to make decisions based on solid analyses.

² Available at <https://au.int/en/documents/20200518/digital-transformation-strategy-africa-2020-2030>.



Box 1 Preparing for and opening up to e-commerce: context of the World Trade Organization e-commerce negotiations

At its Eleventh Ministerial Conference, held in December 2017 in Buenos Aires, Argentina, several members of the World Trade Organization (WTO), collectively representing more than 90 per cent of world trade, expressed interest in negotiating e-commerce rules aimed at improving e-commerce opportunities and challenges. These countries felt that the discussions under the 1998 work programme on electronic commerce were not making sufficient progress.

Since then, in the absence of consensus in WTO on the launch of negotiations on e-commerce, a group of 71 WTO members has issued a joint statement on e-commerce aimed at facilitating exploratory discussions, with a view to a future agreement. As a result of these discussions, which continued throughout 2018, negotiations, commonly known as the Joint Declaration Initiative, were initiated in March 2019 between the participating countries. In January 2020, these countries issued a new statement setting out their goal for elaborating a consolidated text of agreement for the Twelfth Ministerial Conference, which was to be held in Nur Sultan, Kazakhstan, from 8 to 11 June 2020. The postponement of the conference due to the COVID-19 pandemic and the lockdown measures put in place in Geneva, where negotiators are meeting, have temporarily halted negotiations after seven rounds of meetings.

As of January 2021, a total of 86 countries had joined the initiative, including four ECOWAS countries – Benin, Burkina Faso, Côte d'Ivoire and Nigeria – with a fifth country, Senegal, participating in the discussions on an informal basis. Countries are discussing the terms of a future agreement on the basis of proposals in focus groups. Topics covered to date include: trade facilitation and logistics, data flows, privacy, telecommunications, a permanent moratorium on electronic transactions tariffs, Internet and data access, non-discrimination and accountability, consumer protection, transparency and cooperation. Despite the progress made in the negotiations, differences remain between the parties. As WTO members have not agreed to negotiate the agreement, its very nature, as well as its relationship with the multilateral trading system, remains unclear.

Several meetings held between April 2020 and January 2022 then reported on progress specifically on the aspects related to the issue of electronic signatures and authentication (20 April); and negotiations on data-related issues, in particular on open public data and online consumer protection (September 2020). The importance of support to developing and least developed countries (LDCs) was underlined in a statement issued on 14 December, including on capacity-building options and implementation support for developing country and LDC members in 2022.

Source: UNCTAD.

eTrade Readiness Assessment within ECOWAS – methodological elements and policy impact of national and regional assessments

eTrade Readiness Assessments (eT Readies) provide Governments and all public or private stakeholders with a framework for exchange and consultation, and help initiate or strengthen the network and discussions necessary for the emergence of a vision focused on the necessary resources and range of improvements that can be undertaken to contribute to the development and promotion of e-commerce (see table 1).

The methodology developed by UNCTAD and used to conduct the eT Ready is based on an inclusive and interactive multi-step process, with the appointment of national focal points facilitating exchanges and information-gathering with and among key stakeholders, as well as the



organization of national workshops to facilitate exchanges between the different actors in the digital ecosystem. The dissemination and sharing of assessments, both national and regional, and the panoramic vision of the e-commerce ecosystem and the digital economy that they provide, also make it possible to (a) achieve a common understanding of the progress, challenges and difficulties encountered by all countries; (b) raise awareness among institutions, national and supranational authorities, and technical and financial partners of the growing importance of e-commerce for national economies and the urgency of preparing for and supporting developments; and (c) link and enable coordination between the various stakeholders, including of course the private sector, in order to initiate or strengthen a constructive dialogue allowing the development of the digital ecosystem and e-commerce within all ECOWAS member States.

Table 1 Policy impact of national and regional assessments – eT Readies

Panoramic vision of the e-commerce ecosystem and the digital economy allowing a common understanding of the progress, challenges and difficulties encountered by all the countries of the subregion	
Systematic review of the seven fundamental pillars for a better understanding of the interrelated problems related to the prerequisite for the development of the digital economy	<p>Review and evaluation of the seven pillars:</p> <ol style="list-style-type: none"> (1) E-commerce readiness assessment, governance framework and formulation of policies and strategies (2) ICT infrastructure and services (3) Trade logistics and trade facilitation (4) Payment solutions (5) The legal and regulatory frameworks (6) E-commerce skills development (7) Access to financing
Raising awareness among institutions, national and supranational authorities, and technical and financial partners, of the growing importance of electronic commerce for national economies, and the urgency of preparing for it and supporting developments	<ul style="list-style-type: none"> • Identification of focal points for e-commerce and the digital economy • Strong commitment at ministerial levels and support from the authorities • Constructive multi-stakeholder interactions at the level of public administration • Exchange of information, needs and priorities with the private sector
Linking and coordination between the various stakeholders, including of course the private sector, in order to initiate or strengthen a constructive dialogue for the development of the digital and e-commerce ecosystem within all ECOWAS member States	<ul style="list-style-type: none"> • Sharing information and connecting technical and financial partners (TFPs), non-governmental organizations (NGOs) and the many actors of civil society • Search for synergies deployed with TFPs • Identification of needs for technical assistance/project documents/TFPs



1. E-COMMERCE READINESS ASSESSMENT AND STRATEGY FORMULATION

All ECOWAS countries have adopted digitalization strategies, demonstrating the political commitment to the digital economy. Despite the recent adoption of strategies dedicated to e-commerce (Senegal, Togo and Benin are in preparation), policymaking remains largely focused on the development of ICT infrastructure, reflecting the needs and priorities – and more generally the degree of maturity – of the ICT sector in most countries of the subregion. Commitment and support for the business part of electronic commerce would now be timely in support of the commonly agreed objectives of the countries of the subregion.

1.1 Member States' commitment to technology-supported digital strategies

Awareness of the role and strategic importance of the digital economy have led all ECOWAS countries to adopt national strategies for digitalization and promotion of the ICT sector. While the preparation of these strategies was initiated in the majority of cases prior to the COVID-19 pandemic, it has **strengthened** the appetite for the dematerialization of procedures and digitalization, and the importance of taking into account the economic vulnerability of populations with limited access for greater inclusion. These strategies express a long-term vision of the development of the digital economy as a generator of economic growth, employment, inclusion and diversification of the economy (see table 2).

Most of these strategies share a primary focus on the development of ICT and digital infrastructures, characterized by the following elements:

- Most member States have adopted a digitalization strategy with a vision largely focused on digital infrastructure programmes.
- These strategies are carried out mainly by administrations – ministries or agencies – in charge of technological and communication developments, reflecting the ongoing challenges and priorities, and in fact the degree of maturity, of ECOWAS countries in terms of the development of their digital economies and e-commerce ecosystems. Evaluations conducted in all ECOWAS member States reveal the urgent need for strong leadership and a clear vision, particularly from the trade directorates, to support the business component of e-commerce and embody the emergence of an industrial project underpinning e-commerce beyond the deployment of technological support.
- A multitude of agencies in charge of the digital economy have been set up, leading to a form of competition between the different institutions and/or technical ministries, with the risk of operating in silos, each developing its own sectoral axis “digital economy and e-commerce”, without a global vision shared by all actors, the anchor point often being the technological rather than business dimension, with a vision emanating from an industrial strategy and/or the ministries of commerce or micro, small and medium-sized enterprises.



Table 2 Strategic framework of ECOWAS countries: digital economy strategies and e-commerce strategies

	Digital economy strategy	E-commerce strategy
Benin	Benin Revealed (Government Action Programme 1: 2016–2021; Government Action Programme 2: 2021–2026)	In the process of finalization
Burkina Faso	eBurkina Programme and National Policy for the Development of the Digital Economy (2016–2021)	
Cabo Verde	Cabo Verde Digital Strategy (EDCV) and Digital Agenda (2019–2021)	
Côte d'Ivoire	Ambition 2020, Vision Côte d'Ivoire 2030, National Digital Development Strategy to 2025	
Gambia, the	e-Strategy plan 2017–2025 (National Information and Communication infrastructure 2)	
Ghana	"Moving Beyond Aid" (2019)	
Guinea	Digital Strategy 2016–2020	
Guinea-Bissau	Strategic Plan of Guinea-Bissau 2019–2024	
Liberia	National ICT Policy 2019–2024	
Mali	Digital Mali 2020, 2030	
Niger, the ³	Renaissance Program Act 2, Niger 2.0	
Nigeria	National Digital Economy Policy and Strategy 2020–2030	
Senegal	Digital Senegal Strategy 2016–2025	National E-Commerce Development Strategy (2019)
Sierra Leone	National Digital Transformation Policy (2019–2023)	
Togo	Sectoral policy of the Ministry of Digital Economy and Digital Transformation as part of the National Development Plan (2018–2022)	In the process of adoption

Source: UNCTAD.

³ The Niger has approved a budget entry in 2022 for the development of a national e-commerce strategy.



1.2 Digitalization strategies are based on e-government development programmes with very heterogeneous levels of achievement

States play a leading role in most ECOWAS countries in terms of popularization and promotion of access to the digital economy with processes of digitization of some activities, such as the development of digital identity, the payment of salaries of civil servants online, the dematerialization of some services, etc. As such, the development of e-government has a major strategic dimension in most ECOWAS countries.

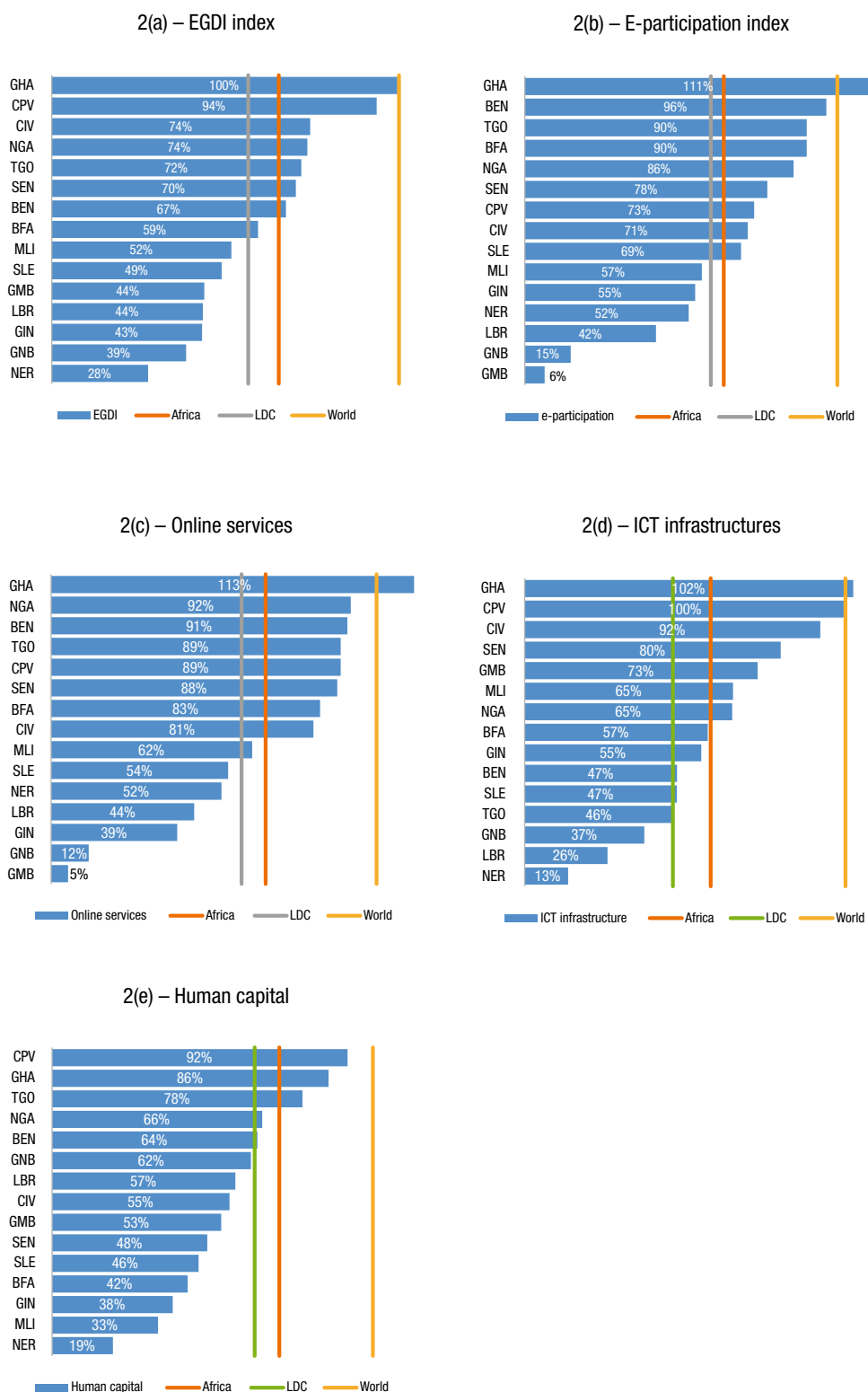
Member States are at heterogeneous levels of implementation in e-government projects.

The United Nations E-Government Development Index (EGDI), which combines the development of online services, digital infrastructure and human capital, helps position ECOWAS countries. This index and its components make it possible to highlight the progress of ECOWAS countries, in particular with regard to the dimensions of online services and e-participation, in contrast to ICT infrastructures and human capital that globally penalize ECOWAS countries (see figure 2).

- More than half of the ECOWAS countries are above the average level of LDCs concerning the EGDI indicator. Ghana and Cabo Verde are close to the “global” average level, while Côte d’Ivoire, Nigeria, Senegal, Togo and to a lesser extent Benin are above the average level observed in Africa.
- This heterogeneity of situations is reflected in the different components of the EGDI indicator:
- Most ECOWAS countries are penalized here by the infrastructure component;
- In particular, low levels of digital infrastructure and skills represent a barrier to the development of e-governance and e-services (see chapter II for an update on the level of ICT infrastructure).



Figure 2 E-Government Development Index (EGDI) indicators (ECOWAS, 2020)⁴



Source: Department of Economic and Social Affairs (DESA), 2020.

⁴ See annex for the three-letter international standard for country codes (ISO 3166).



1.3 There is generally limited knowledge of e-commerce and a lack of mechanisms for monitoring its development

There are few or no statistics and systematic monitoring or analysis of **e-commerce activities – in terms of jobs, trade flows or potential incomes** – reflecting a relative lack of knowledge and underutilization of the sector's activities. The lack of reliable statistics on e-commerce and the digital economy makes it difficult to monitor and evaluate the policies adopted, and is an obstacle to the implementation of actions aimed, for example, at supporting certain actors.

The statistics produced and disseminated by telecommunications agencies and observatories relate to access to the various means of telecommunication and electronic communications, rather than to electronic transactions, which is natural in view of their missions, and reinforces section 1.1 on the need for commitment and ownership by the directorates of commerce.

The very definition of e-commerce is poorly understood, and is not homogeneous within ECOWAS countries, often involving a conflict between telecommunications, the digital economy and e-commerce, which is sometimes found at the institutional level (see pillar 5 on the review of the regulatory legal framework).

- **E-commerce and the paradox of informal trade:** The lack of visibility of the actors of e-commerce and the lack of knowledge of the definition of e-commerce induce a sometimes ambiguous position visàvis the actors of the informal sector. The various diagnoses and sharing of experiences carried out during the workshops with stakeholders reveal a strong demand from e-commerce players, consumers and online sellers for increased protection of online transactions, which could be strengthened through a more adequate legal and regulatory framework, but remaining within a little or not at all formalized framework, with cash payments on delivery escaping any regulation and direct taxation.

1.4 E-commerce at the heart of an industrial project?

Despite the real awareness of the role to be played by e-commerce in modern economies, only Senegal (2019), and more recently Togo (2021) and Benin (ongoing), have adopted or are in the process of adopting a strategy specifically dedicated to e-commerce, and not a subcomponent of a more comprehensive ICT or digital economy strategy. Burkina Faso also reiterated its interest in developing a national strategy dedicated to e-commerce following the work of the First Inclusive Forum on e-commerce (FICEL), organized in June 2021.

The “emancipation” of e-commerce from the field of ICT infrastructures to the industrial–commercial field is fundamental, and marks a break from a purely technological objective towards a strategic commercial and industrial support of sectors and professions. This natural evolution is in line with the long-term objectives set out through Governments’ ambitions to leverage e-commerce to drive inclusive economic growth that delivers employment; support for micro, small and medium-sized enterprises; and economic diversification. These latter objectives cannot be based solely on the development of digital infrastructure, but are based on an industrial and commercial project, in a context where up to 90 per cent of exports by ECOWAS countries consists of unprocessed raw materials unlikely to be exchanged on e-commerce platforms. It is not for the directorates, agencies and ministries in charge of the business component of e-commerce to appropriate the prerogatives of the agencies in charge of technological developments, but rather to support them in order to build together an industrial project corresponding to the vision expressed by governmental digital strategies.



2. ICT INFRASTRUCTURE AND SERVICES

The state of play of ICT infrastructure reveals a global need for improvement in access to the Internet and ICTs. The development of digital infrastructure is at an uneven pace within ECOWAS, revealing a double digital divide, both between the most advanced and non-advanced countries, and within ECOWAS countries themselves. While the most advanced countries have already embarked on experiments for the implementation of 5G, others are struggling to expand access to the Internet, and all are struggling to generalize access to broadband, especially in rural areas, where half of the ECOWAS countries have an electricity access rate of less than 10.5 per cent.

2.1 ICT infrastructure and Internet access

Potential e-commerce markets rely by definition on widespread connectivity and access to high-speed internet within ECOWAS in order to ensure both access and reliable online transactions and payments to convince and reassure potential users.

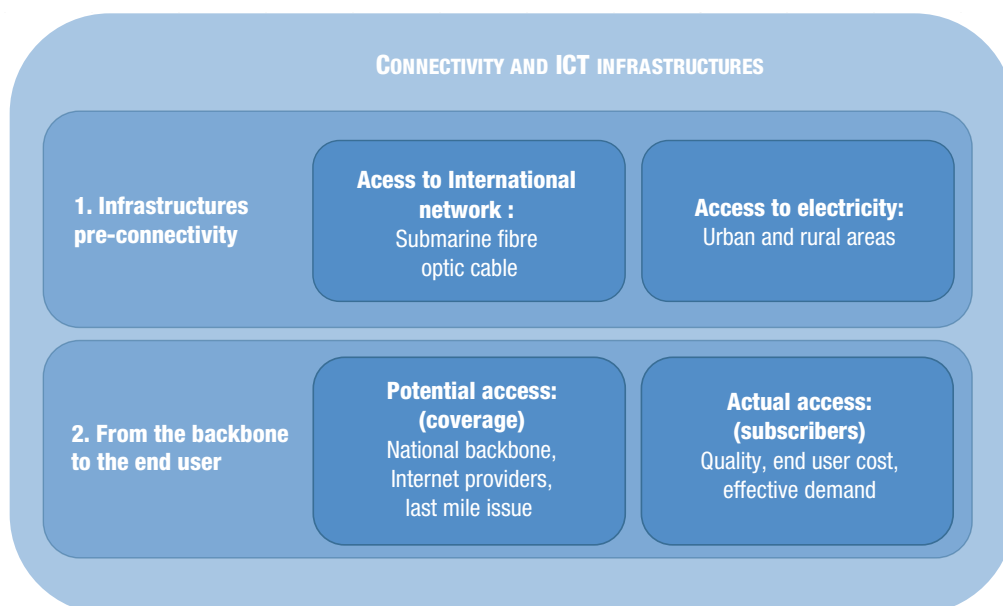
The development inequalities observed between and within ECOWAS countries limit the objectives of ECOWAS: (a) they restrict the potential e-commerce market to only connected populations; and (b) they limit the possibilities of intensifying trade integration in the ECOWAS region, whose intraregional trade remains limited today to about 15 per cent of its total trade (UN COMTRADE database, 2019).

Connectivity is conditioned by the deployment of different types of infrastructure on which Internet access depends (see figure 3):

- Access provided by “upstream” infrastructure:
 - **Access to the global Internet:** These are the infrastructures to connect the country to the “global Internet” through submarine fibre-optic cables.
 - **Access to electricity:** This in essence determines the effective penetration of Internet networks.
- Access provided by infrastructures providing connectivity to end users through ICT infrastructures on the national territory:
 - **Potential access**, i.e. coverage, which corresponds to the theoretical penetration rate achievable if the entire potentially “covered” population acquires an Internet subscription. This potential access reflects the progress made in the deployment of infrastructure (including national backbones).
 - **Actual access**, which corresponds to the actual demand for connectivity, measured by active subscriptions with telecommunications operators, resulting from all access constraints, in particular relating to the quality and cost of access for data infrastructures. These constraints explain the gap between potential and actual access.



Figure 3 ICT infrastructure and Internet access



2.2 Infrastructure prior to connectivity

ECOWAS countries are unevenly endowed with connections to intercontinental fibre-optic submarine cables:

- Ghana and Nigeria are connected to five and six international cables, respectively, and have one and two additional pending connections, respectively, announced for 2023 and 2024 (see table 3 for the description of cables and countries with a connection point).
- Conversely, the Gambia, Guinea, Liberia and Sierra Leone have unique access to the international Internet via an international fibre-optic cable, which poses problems of dependency and leads the authorities of these countries to look for points of redundancy with other cables.
- Among the three countries without a coastline, Mali and the Niger are connected to the Africa Coast to Europe (ACE) cable through land extensions via Senegal and Benin, while Burkina Faso is connected to the SAT3 (South Africa Transit 3) cable via Benin. In 2020, Burkina Faso also adopted a virtual landing point, which is a dry port for submarine fibre-optic cable. It will manage the capacity of international bandwidth for the benefit of local players in the telecommunications sector.
- Moreover, we can mention the 5,465 km trans-African cable crossing the borders of Morocco, Mauritania, Mali, Burkina Faso and the Niger.

Table 3 International submarine fibre-optic cables

Cable	Description	Countries with a connection point
Africa Coast to Europe (ACE)	The ACE cable is managed by a consortium of 20 members: several ECOWAS countries now rely exclusively on this cable for their access to the Internet (the Gambia, Guinea, Liberia and Mali, for example). 17 000 km long.	Benin, Côte d'Ivoire, the Gambia, Ghana, Guinea, Guinea-Bissau (deployed), Liberia, Mali (via Senegal), the Niger (via Benin), Nigeria, Senegal, Sierra Leone
Atlantis2	Transatlantic cable connecting the African and South American continents. 12 000 km long.	Cabo Verde, Senegal
EllaLink	"Europa link to Latin America": cable linking South America and Europe. 6 000 km long.	Cabo Verde
GLO1	Cable owned by Nigerian operator Globacom connecting Nigeria to the United Kingdom. 9 800 km long.	Ghana, Nigeria, Senegal
Main One	First submarine cable to fully belong to a private company along the West African coast. 7 000 km long.	Côte d'Ivoire, Ghana, Nigeria, Senegal
NCSCS	Nigeria–Cameroon–Submarine–Cable System, owned by Cameroonian operator Cameroon Telecommunications (CAMTEL) in partnership with MainOne. 1 100 km long.	Nigeria
SAT3 Cable (South Africa Transit 3)/ WASC (West Africa Submarine Cable)	Also related to the deployment of the SAFE cable (South Africa–Far East). The SAT 3/ WASC and SAFE package is part of a group of 37 operators. 14 000 km long.	Benin, Burkina Faso (via Benin) Côte d'Ivoire, Ghana, the Niger (via Benin), Nigeria, Senegal
SHARE	Senegal Horn of Africa Regional Express, connects the cities of Dakar and Praia (interconnection completed in January 2022, commissioning in progress in 2022). 720 km long.	Cabo Verde, Senegal
WACS (West African Cable System)	Cable connecting South Africa to the United Kingdom, has 14 terminals in Africa and 2 in Europe. 14 530 km long.	Cabo Verde, Côte d'Ivoire, Ghana, Nigeria, Togo

Source: UNCTAD on the basis of various sites and communications.

Several projects are underway for the deployment of new cables (see table 4).

Among the discussions and plans to deploy new cables, several have already been initiated with implementation dates planned for 2023 or 2024. The *Amilcar Cabral* project led by ECOWAS explicitly aims to support countries with a single connection in their objective of redundancy.



Table 4 Initiated projects for international fibre-optic submarine cable deployments

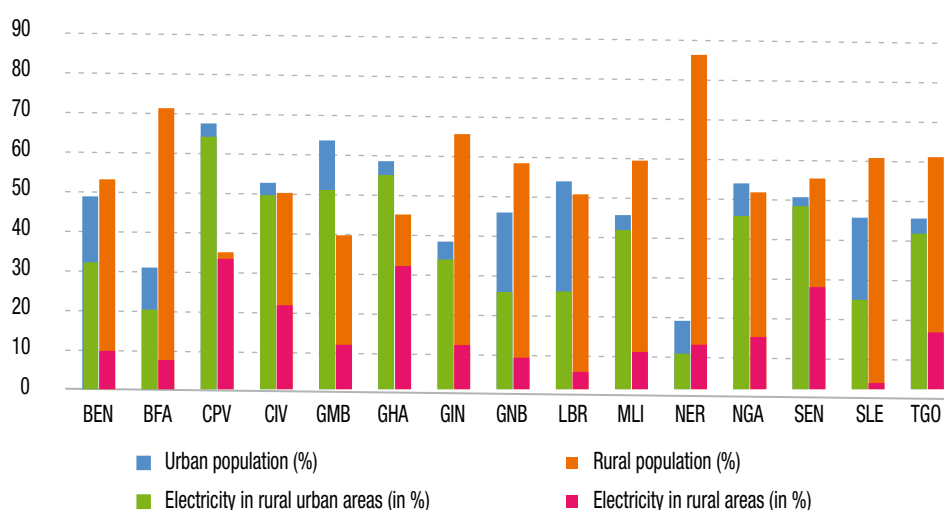
Cable	Description	Countries with a connection point
Amilcar Cabral	ECOWAS project to connect Cabo Verde to its closest neighbours on the continent and provide renewed international connectivity (feasibility study ongoing).	Cabo Verde, the Gambia, Guinea, Guinea-Bissau, Sierra Leone, Liberia
2Africa	37 000 km submarine cable named “2Africa” by a consortium of multinationals (including Facebook) that will circumnavigate Africa and should be operational in 2024. 37 000 km long.	Côte d’Ivoire, Ghana, Nigeria, Senegal
Equiano	Cable for high-speed Internet between Portugal and South Africa. Commissioning scheduled for 2023.	Nigeria
MTWA	Maroc Telecom West Africa, will connect Morocco to Côte d’Ivoire, Togo and Benin (currently being deployed). 8 200 km long.	Benin, Côte d’Ivoire, Togo

Source: UNCTAD on the basis of various websites and communications.

Access to electricity is still a major structural challenge excluding part of the population from connectivity.

Access to electricity is a major structural challenge for ICT development in ECOWAS countries. The median level of access to electricity within ECOWAS is 48 per cent, with only 10.5 per cent in rural areas.

The problem of access to electricity and the fragility of electricity networks is naturally beyond e-commerce alone, but weighs heavily on its development prospects. On the one hand, this effectively excludes a significant part of the population, and on the other hand, the reliability problems of the electricity network directly impact the quality and access to the Internet, in particular broadband (3G and 4G).

Figure 4 Access to electricity, urban and rural areas (ECOWAS, 2020)⁵

Source: UNCTAD on the basis of data from the World Bank, Sustainable Energy for All (SE4ALL) database (2021).

⁵ See annex for the three-letter international standard for country codes (ISO 3166).



2.3 The central role of Internet exchange points

Expected benefits and advantages of Internet exchange points (IXPs):

- IXPs have a central role because they allow the local exchange of traffic, both between access providers and between access providers and content providers. They benefit individuals as well as administrations, companies and organizations. As an IXP grows, it can become a hub for exchange and access to cross-border traffic within the subregion.
- Internet exchange points can provide cost savings because:
 - They avoid expensive overseas transit for any traffic exchange, saving Internet Service Providers (ISPs).
 - They reduce traffic exchange latency, which increases content usage and generates more revenue for access networks, and thus sells more data plans to users.

Internet exchange points in ECOWAS:

- Within ECOWAS, 12 countries have IXPs, including Burkina Faso and Guinea, which have two points of presence, and Nigeria, which has eight and since 2019 is the regional Internet exchange point (RIXP) for West Africa (see table 5 for details of IXPs in ECOWAS countries).
- Among the countries without an IXP currently operational, Cabo Verde has included the establishment of a national IXP in its digital strategy, and Guinea-Bissau has initiated a feasibility study. Sierra Leone had set up an IXP in 2010 (SLIX), but plans to set up a new one, which is no longer active.

Regional project for IXP in ECOWAS:

- The establishment of an RIXP, in addition to that of Nigeria, is one of the objectives of the Africa Infrastructure Development Programme (PIDA-PAP 2), the second priority action plan in the service of the African Union vision for the period 2021–2030.
- The African Internet Exchange System (AXIS) is an integral part of Agenda 2063: The Africa We Want, of the African Union, and aims to facilitate the establishment of a network of 33 national and regional Internet exchange points.



Table 5 Internet exchange points in ECOWAS countries

Country	Internet exchange point	Number of connected members (networks)
Benin	BENIN-IX, Cotonou 2013	6 connected members http://www.benin-ix.org.bj/
Burkina Faso	BFIX, Ouagadougou 2015 Bobo-Doulasso 2020	13 members connected to the Ouagadougou exchange point, 5 members connected to the Bobo-Dioulasso exchange point (2020) https://www.bfix.bf/
Cabo Verde	The implementation of a national IXP is part of the country's digital strategy (establishment of the non-profit association Cabo Verde Internet Exchange Point (CV-IXP) in 2020)	
Côte d'Ivoire	CIVIX-Abidjan-2013	12 https://www.civix.ci/
The Gambia	SIXP–Serekunda Internet Exchange Point–2014	11 www.internetsociety.org
Ghana	GIX, Accra–2005	23 http://www.gixa.org.gh/members/
Guinea	CON-IX, Conakry, 2020	11 https://ixp-guinee.org.gn/membres/
Guinea-Bissau	None, feasibility study initiated (2019)	
Liberia	LIXP, Monrovia, 2015	4 Lixpa.org.lr
Mali	MLIX, Bamako, 2018	3 www.mlix.ml/membres/
Niger, the	NigerIXP, a process started in 2011, with the support of the African Union Commission and the Internet Society	
Nigeria	Abuja IX, Abuja 2011 IXPN, Lagos 2007 (4 POP à Lagos) Port Harcourt IX, Port Harcourt 2012 Kano IX, 2012 Enugu, 2021	22 99 (https://ixp.net.ng) 5 6 0
Senegal	SENIX, Dakar, 2017	6 https://senix.sn/
Sierra Leone	SLIX, 2010 but now inactive	0
Togo	TGIX, Lomé 2017	4 www.tgix.tg

Sources: UNCTAD on the basis of data from the African IXP association, Internet Society and national sites.

2.4 ICT penetration within ECOWAS: connectivity, coverage and access to the Internet

Significant investments have been made throughout the region, leading to a substantial improvement in access to ICTs. However, development is uneven among ECOWAS countries, and reveals a double digital divide within ECOWAS:

- **Significant investments have been made in most ECOWAS countries**, specifically to expand and strengthen the Internet backbone. Eleven ECOWAS countries have thus achieved a mobile phone penetration rate above the average rates of the African continent, nine of which also have a mobile Internet penetration rate above the average rate in Africa, and Senegal has a mobile Internet penetration rate above the global average rates (see figure 5 for details of mobile penetration rates, mobile Internet access by type of technology and fixed broadband access). However, the mesh and the “last mile”, a reference to the segment that separates the network from the connection of users, companies and individuals, remains problematic.
- **ECOWAS suffers from structural difficulties** linked to the isolation of several of its countries, inducing dependence on the deployment of land infrastructure, which is more



expensive, more complex and with greater risks of cable breakage. The telecommunications operators met at the national workshops organized in February 2022. Certain countries in the region also referred in particular to the low attractiveness of investments, in connection with the narrow size of the markets and the uneven quality of the Internet backbone.

- **The first digital divide is between ECOWAS countries.** While mobile Internet coverage, i.e. the share of the population potentially covered by the Internet, is relatively homogeneous, from 85 per cent for Sierra Leone to 100 per cent for Mali, the penetration rate, i.e. effective access, is much more heterogeneous. The percentage of the population with a mobile Internet subscription (any technology) ranges from 12 per cent to 20 per cent for Liberia or Sierra Leone, to 76 per cent for Cabo Verde, Côte d'Ivoire or Ghana, for a median subscriber rate of 63 per cent. The gap is naturally even greater with broadband, although it is difficult to make exactly the same comparisons in 3G and 4G accessibility, because not all countries communicate the breakdown of Internet subscriptions by type of connection. At the same time, some countries – such as Côte d'Ivoire, Ghana and Nigeria – are in the experimental phase for the implementation of 5G.⁶
- **The second divide is internal to ECOWAS countries.** Despite programmes aimed at the development of digital infrastructure and the inclusion of rural populations, there is a large gap between a fraction of the population that benefits from advances in technologies and access to broadband, 4G or soon 5G, and a fraction of the population of the same countries that is still not connected with limited access to electricity.
 - While the challenges posed by these digital divides raise issues that go beyond e-commerce alone, it should be noted that they limit the prospects for the development of e-commerce and the joint objective of strengthening the cross-border e-commerce integration of ECOWAS by maintaining the narrowness of this market and its potential actors, both on the side of producers and on the side of potential consumers.
 - **Internet access is almost exclusively via mobile Internet in all ECOWAS countries; fixed broadband subscriptions remain underdeveloped (figure 5C).** Cabo Verde has the highest fixed broadband penetration rate in ECOWAS (4.5 per cent), with Côte d'Ivoire (1.2 per cent), Senegal (1.2 per cent) and Mali (1.1 per cent) being the only other three ECOWAS countries with fixed broadband penetration rates above 1 per cent.

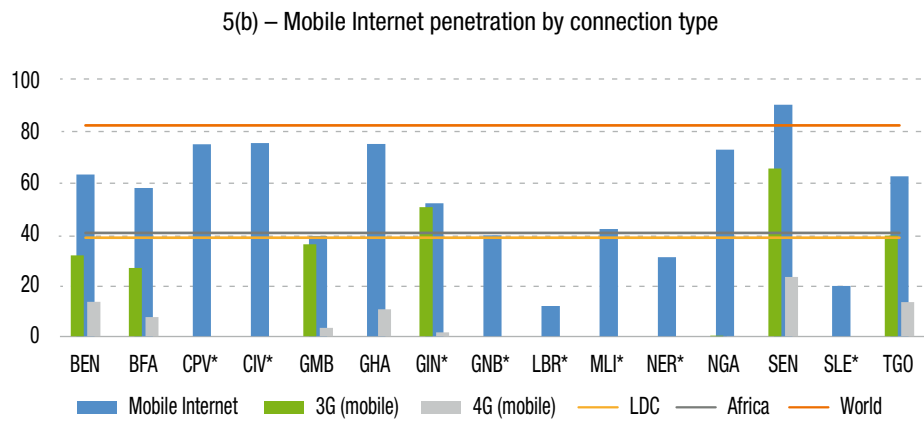
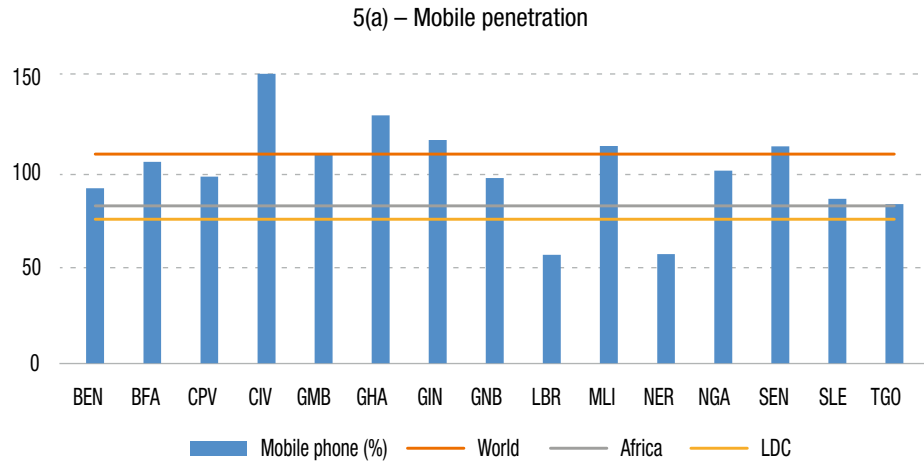
Statistical coverage of ICTs is uneven across countries:

- The analysis and perspective of the ICT statistics of the populations of ECOWAS countries are based on the data of telecommunications operators when they are centralized and disseminated by regulatory agencies, or in charge of disseminating telecommunications data, such as ARCEP (*Autorité de Régulation des Communications Électroniques, des Postes et de la Distribution de la Presse*) Benin or Burkina Faso (see Bibliography for the list of sources) or on data published by the International Telecommunication Union (ITU). It should be noted that there is an uneven supply of statistics made available between countries, making intra-ECOWAS comparisons difficult.
- The breakdown of mobile Internet access data by connection type is not systematically published, which would be useful for assessing the contribution of connectivity in the context of e-commerce, as 2G connections limited to messaging services are of little relevance to e-commerce activities.

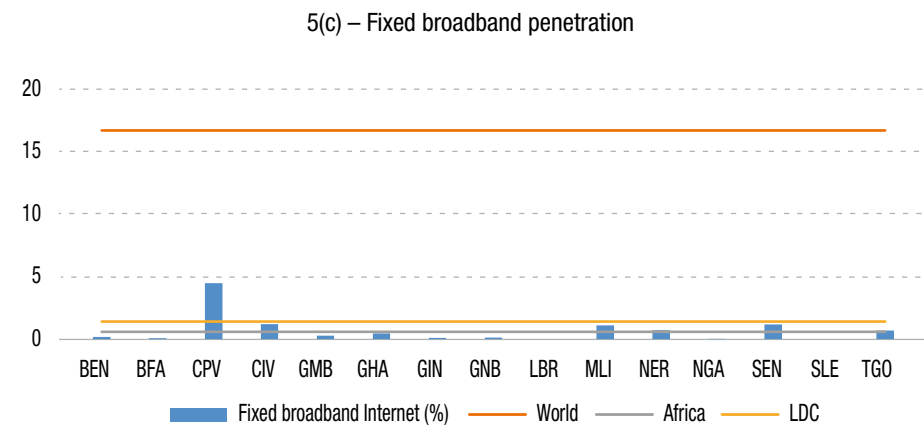
⁶ These rates may overestimate the situation insofar as they are actually the number of subscriptions in relation to the population, and not the number of subscribers, since the same person may have several subscriptions. This also explains why penetration rates can be above 100 per cent.



Figure 5 Mobile and Internet penetration (ECOWAS, 2020)⁷



* Countries without breakdown in operator data between 2G (messaging services) and 3G/4G



Source: UNCTAD on the basis of data from ITU and various national sites and regulatory agencies reporting data from telecommunications operators.

⁷ See annex for the three-letter international standard for country codes (ISO 3166).



Potential connectivity and effective connectivity:

- **A distinction should be made between potential and actual connectivity.** Such an analysis makes it possible to understand the misunderstandings between the agencies in charge of infrastructure deployment that typically focus on coverage versus analyses based on the end and effective use of infrastructure, which are based on effective connectivity.
- **Potential connectivity, represented by Internet coverage,** is measured by the percentage of the population in an area covered by the Internet, whether it is 2G, 3G or 4G. This potential reflects advances in infrastructure (backbone and mesh).
- **Actual connectivity or Internet penetration** is measured by the percentage of the population actually subscribed to an Internet service, and may reflect other aspects such as the cost of access, the perception of the opportunities generated by connectivity and the quality of the connection⁸ (see figure 6 for a perspective of these statistics).

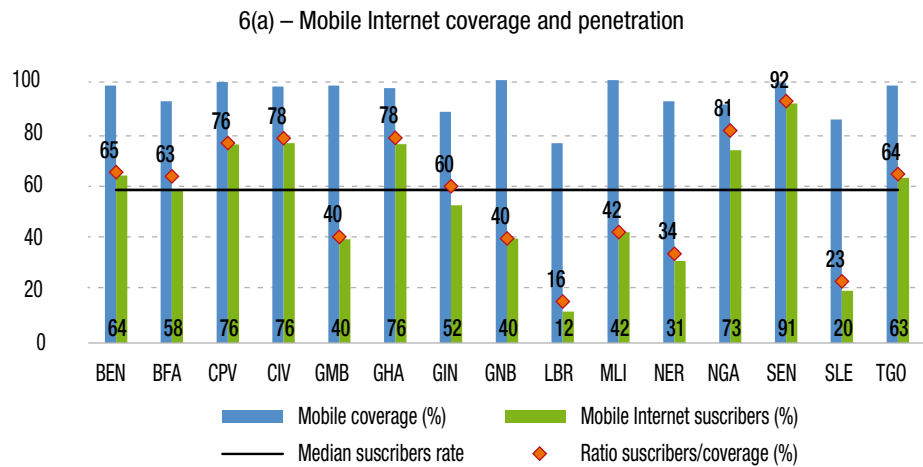
Analysis of the gaps between potential access (coverage) and actual access (penetration) reveals untapped potential for improvement in Internet penetration:

- Only Nigeria (81 per cent) and Senegal (92 per cent) have a number of subscribers representing more than 80 per cent of the population covered.
- Conversely, the Gambia, Guinea-Bissau, Liberia, Mali, the Niger and Sierra Leone have a ratio of less than 50 per cent between subscriber population and covered population, reflecting significant potential for improved connectivity. It should be noted that coverage rates are not weighted by the quality of connectivity, which was regularly noted during discussions with users and representatives of the private sector at national workshops.

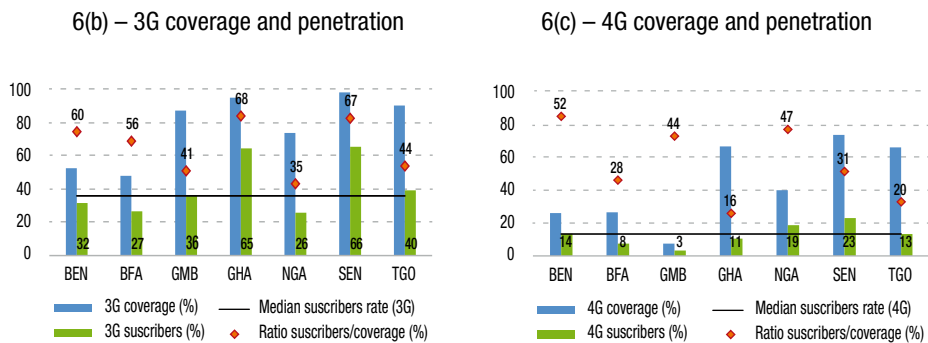
⁸ It should be noted that a low quality of connectivity may imply a variation in the subscription rate in the two opposite directions. On the one hand, lower quality could reduce the subscription rate of people who do not wish to subscribe to a low-quality service. But it can also lead to an increase in the number of subscriptions, with some users subscribing to several providers to maximize the chances of access. This explains in particular penetration rates that can exceed 100 per cent or subscription rates sometimes higher than potential coverage.



Figure 6 Global mobile Internet coverage, penetration and connection type (ECOWAS, 2020–2021)⁹



Note: The rate carried over at the base of each vertical bar represents the country's percentage share of subscribers.



Source: UNCTAD on the basis of data from ITU and websites of regulatory agencies of ECOWAS countries.

⁹ See annex for the three-letter international standard for country codes (ISO 3166).

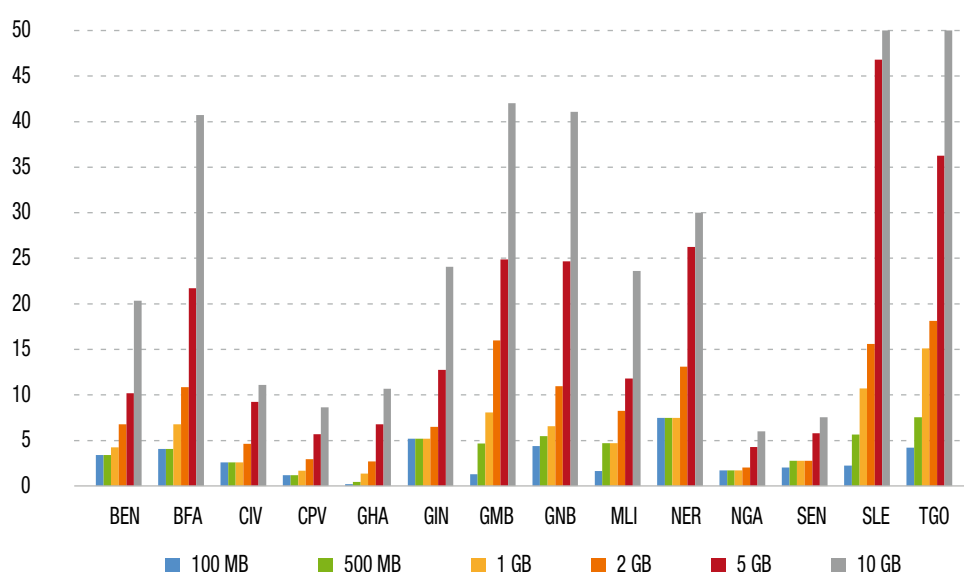


2.5 The cost of access for end users is very heterogeneous and remains on average high within ECOWAS

Relative cost of Internet access:

- The cost of Internet access in ECOWAS countries does not facilitate its development, given the low purchasing power of a significant part of the subregion. Internet plans are often a significant cost relative to average incomes (see figures 7 and 8).
- This relatively high cost of access is naturally not independent of the difficulties mentioned above concerning the low attractiveness of investment in particular in connection with the narrowness of the markets and the geographical characteristics linked to the isolation of certain countries.

Figure 7 Cost of Internet access as a percentage of national income (ECOWAS, 2021)¹⁰



Source: UNCTAD on the basis of data from the Alliance For Affordable Internet (2021).

Relative cost of Internet access and accessibility objectives by Alliance for Affordable Internet (A4AI):¹¹

- **The “2 for 1” objective:** The objective initially formulated by A4AI was that the cost of an Internet plan with a monthly volume of data greater than 1 GB should not represent more than 2 per cent of gross national income (GNI) per capita, an objective that had been taken up by ECOWAS in particular. Only Côte d’Ivoire, Ghana and Nigeria have now achieved this goal, while the cost of 1 GB of data still accounts for more than 5 per cent of average monthly income in half of the ECOWAS countries, and more than 10 per cent in Sierra Leone and Togo (see figure 8(a)).
- **From “2 for 1” to “2 for 5”.** This objective has just been revised to no longer achieve access to 1 GB of data for 2 per cent of monthly income, but 5 GB of data for 2 per cent of income by 2026, in order to take into account the evolution of needs in terms of connectivity in view of developments in the digital economy. The ECOWAS countries

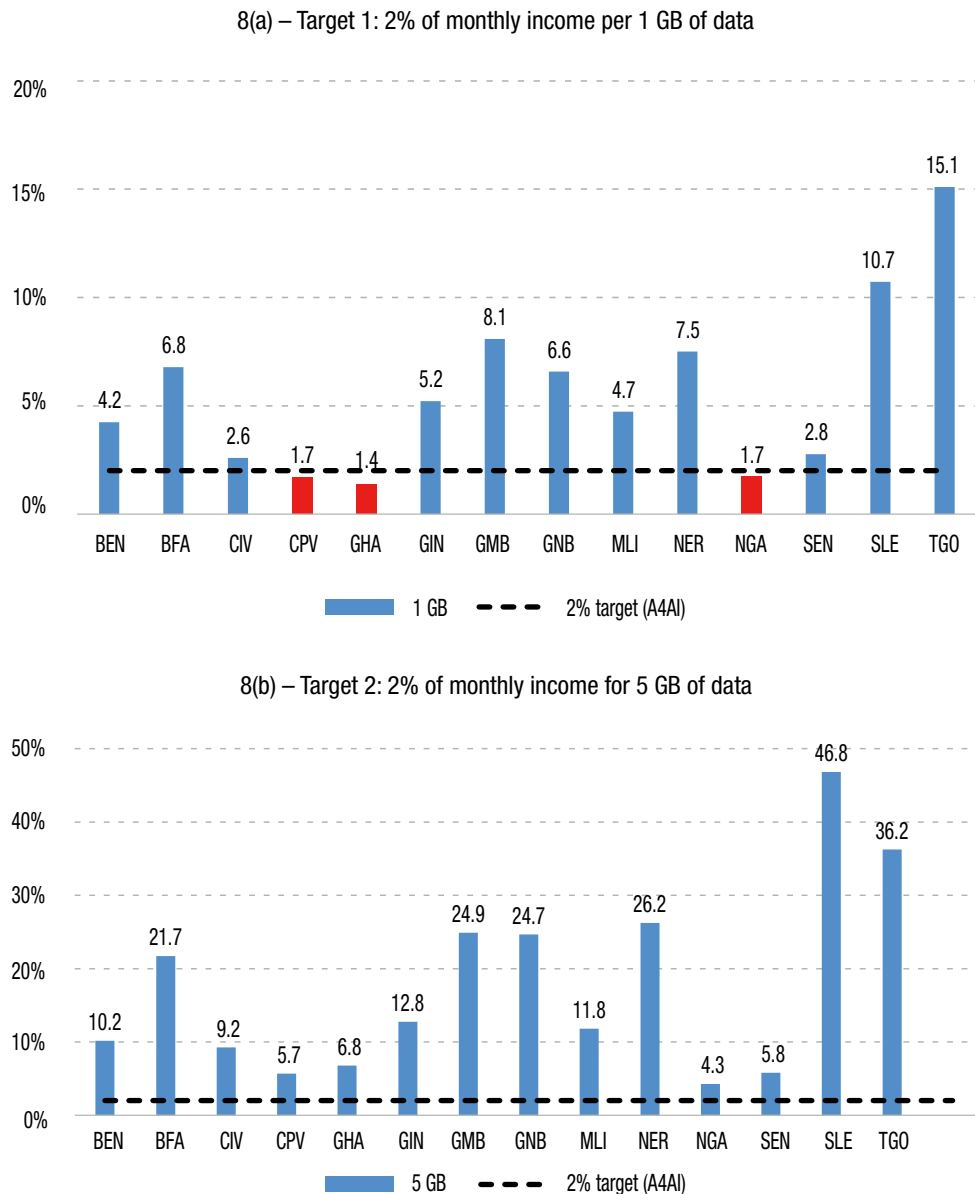
¹⁰ See annex for the three-letter international standard for country codes (ISO 3166).

¹¹ A4AI was initiated in 2013 in Abuja with the aim of pushing people to lower the cost of Internet access. Its members include a mix of digital giants such as Google, Facebook, Cisco, Intel and Microsoft, alongside representatives of the public sector such as the United States Agency for International Development and UN Women.



closest to this target today have a cost of access twice as high as the target as a percentage of monthly income (Nigeria, 4.3 per cent). The cost of accessing 5 GB of data represents nearly 25 per cent and more of the monthly income of the five most “expensive” ECOWAS countries, with respectively 24.7 per cent, 24.9 per cent, 26.2 per cent, 36.2 per cent and 46.8 per cent of the average monthly income of the Gambia, Guinea-Bissau, the Niger, Sierra Leone and Togo (see figure 8(b)).

Figure 8 Relative cost of Internet access and accessibility objectives (ECOWAS, 2021)¹²



Source: UNCTAD on the basis of data from the A4AI (2021).

¹² See annex for the three-letter international standard for country codes (ISO 3166).



Community roaming: the free roaming initiative in the WAEMU area:

- *Free roaming* is a regulated roaming service that is characterized by the elimination of any surcharge on voice and messaging (Short Message Service (SMS)) services of any subscriber traveling in the signatory countries of the Abidjan Protocol. In practice, it allows a roaming subscriber in one of the countries concerned to benefit from cheaper communications, using the smart card of his home operator. In practice, free roaming offers the possibility of nationals of the nine signatory countries to benefit not only from the free first 300 minutes of communication, but also from the local rate of the country visited, all over a period of 30 calendar days.
- The initiative, initially led by WAEMU, now has ECOWAS countries signatories to the Abidjan Protocol, two of which are outside WAEMU: Côte d'Ivoire, Guinea, Senegal, Mali, Togo, Burkina Faso and Benin were joined by Sierra Leone in November 2019 and Liberia in February 2020. The adoption of free roaming should eventually be extended to the whole of ECOWAS.

2.6 Taxation of telecommunications in ECOWAS

Taxation on telecommunications is gradually being extended to telecommunications and electronic transactions, which represent opportunities for ECOWAS countries to collect additional revenues. Detailed access to accurate and exhaustive information on these levies, however, is sometimes not very obvious, and the uncertainty posed by the emergence of such additional taxes or fees is not conducive to encouraging investments in contexts that are sometimes already difficult for ISPs:

- **In recent years, we have seen the emergence and development of a specific taxation system for the telecommunications sector**, beyond the ordinary taxation to which these companies are already subject, such as corporation tax, payroll tax, value added tax and customs duties levied on imported goods. Table 6 provides an overview of the levies specific to access to and use of telecommunications networks through the various duties, taxes, contributions and charges based specifically on access to and use of telecommunications, in a form similar to excise duties.
- **The uncertainty posed by the emergence of these additional levies may weigh on a sector that is struggling to attract investment from Internet service providers.** Several studies have shown the negative impact of the uncertainty of the tax context on potential investments (see IMF and OECD, 2019; or Abeler and Jäger, 2015), an element to be taken into account all the more as the context already contributes little to the attractiveness of investments, as mentioned in section II.D in connection with the overall narrowness of the market and the uneven reliability of national backbones.
- **This specific taxation of access to telecommunications sometimes lacks legibility.** There may thus be confusion in the names and definitions of the different types of levies, taking into account:
 - The multiplicity of levies;
 - Unequal access to information from one country to another, which sometimes makes it difficult to read the taxation of the field, some levies waiting to be put in place, others no longer relevant, etc.;
 - The difference in the names of levies from one country to another, some of which are described as “rights” in one country, “royalties” in another;
 - The redundancy of certain taxes when a scheme is deferred – for example, a “tax on the turnover of telecommunications undertakings” – whereas, for example, the tax on access to telecommunications networks is already specifically subject to a turnover tax;
 - The diversity of the methods of sampling for the same purpose; access to telecommunications networks may, for example, be taxed in the form of a turnover tax, access rights or other.



Table 6 Specific levies on access to and use of telecommunications networks

	Spectrum licensing and use fees	Incoming international traffic tax	National traffic Tax	Access tax to telecom networks	Fee for the allocation of numbering capacity	Contribution to the universal service fund	Contribution to training and R&D	Annual regulatory fee	Levy on electronic comms.	Direct debit on electronic transactions
Benin	X	X		X	X	X	X	X	X ^a	
Burkina Faso	X			X	X	X	X	X		X ^b
Cabo Verde	X					X ^c				
Côte d'Ivoire	X			X	X	X	X	X		
The Gambia	X	X	X							X ^d
Ghana	X	X	X		X	X	X		X ^e	X ^e
Guinea	X	X	X	X	X	X	X			
Guinea-Bissau	X		X	X	X	X			X ^f	
Liberia	X	X	X		X	X	X	X	X ^g	
Mali	X		X	X ^h	X	X				
The Niger	X	X		X ^h	X	X	X	X		
Nigeria	X			X ⁱ	X	X	X			X
Senegal	X			X	X	X ^k				
Sierra Leone	X			X	X					
Togo	X	X		X ⁱ	X	X	X	X		

Notes:

- ^a Contributions to the sale of electronic communication, set up in 2022.
- ^b The turnover tax of telecommunications companies raised from 5% to 7% in 2020 has since included money transfers by mobile phone in the taxable base.
- ^c Establishment of the universal access fund in 2022.
- ^d Charge on telephone credit top-ups, based on mobile telecommunications.
- ^e Tax on electronic communications (SMS data exchanges, etc.) in 2018, levy on electronic transactions introduced in 2022.
- ^f Taxes on voice calls and mobile data exchanges introduced in 2021.
- ^g Rights on voice calls and mobile data exchanges (2019).
- ^h Including SIM card fees.
- ⁱ Including siting rights on imports of mobile phones.
- ^j Contribution to the national cybersecurity fund based on the turnover of electronic transactions carried out.
- ^k Contribution shared with the Energy Sector Support Fund.
- ^l Including turnover tax specific to the telecommunications sector.

Sources: UNCTAD on the basis of data from the national legislation of countries including the General Tax Code, Rota-Graziosi (2022).

3. TRADE LOGISTICS AND TRADE FACILITATION

3.1 E-commerce logistics services and delivery services

In terms of logistics, e-commerce suffers from the difficulties of delivery services due to a lack of road infrastructure and lack of physical addressing:

- **Road infrastructure, of an uneven level, represents a first challenge** with regard to logistics involving transport costs, and delivery times may be problematic for the development of e-commerce, especially for the three landlocked ECOWAS countries, Burkina Faso, Mali and the Niger.
- **ECOWAS e-commerce businesses tend to develop their own delivery service** given the difficulties faced by postal services and the relatively weak performance of ECOWAS countries, according to the World Bank Logistics Performance Index and the Universal Postal Union (UPU) Integrated Postal Development Index (see figures 9 and 10(a) to 10(g)). This generates high costs that can translate into a market entry barrier for small new start-ups.
- **There is little or no physical addressing in most ECOWAS countries.** Most postal operators use their own addressing systems that do not obey pre-established standards, implying losses of parcels and revenues, an extension of delivery times that is unlikely to reassure potential e-commerce users.
- **Initiatives to develop digital addressing solutions exist or are under development,** but they remain subject to technical constraints (GPS) and it is difficult to get feedback or track the progress of these initiatives. These include:
 - Abidjan physical addressing programme as part of the Greater Abidjan Competitiveness Support Project (PACOGA) programme financed by the World Bank;
 - Partnership what3words in Côte d'Ivoire;
 - Development of a QR code in Ghana to record 7.5 million digital addresses – an initiative of the Land Use and Spatial Planning Authority, a QR code associated with each property contains the house number, street name and numeric address;
 - Implementation of a map of the City of Bamako called “Base Map” (Mali);
 - Pilot experience with OpenStreetMap in the Niger;
 - Implementation of the digital addressing project in Senegal among the components of the “Smart Senegal” programme – the objective is to have within two years a complete digital addressing in Dakar, with a single database and geolocation tools.
- **Alternatives to addressing are gradually being considered, such as the development of delivery points or relay points** as set up in developed countries (Japan, European Union, United States of America) in order to be more flexible in terms of delivery, and to facilitate possible returns of goods by customers. In addition, there is the development of “parcel lockers”, automatic lockers available and accessible at any time deliveries are being made. These solutions have been introduced to facilitate delivery services and thus relax logistical constraints, but they could compensate for the addressing deficit in ECOWAS countries. Ali-Baba in China and Amazon in India have also set up rural centres, respectively, called “Taobao” and “Amazon easy”. These are “physical” service centres in rural areas created to help people access online services and simplify deliveries (see box 2 for the JEJE initiative in Senegal on the development of relay points).



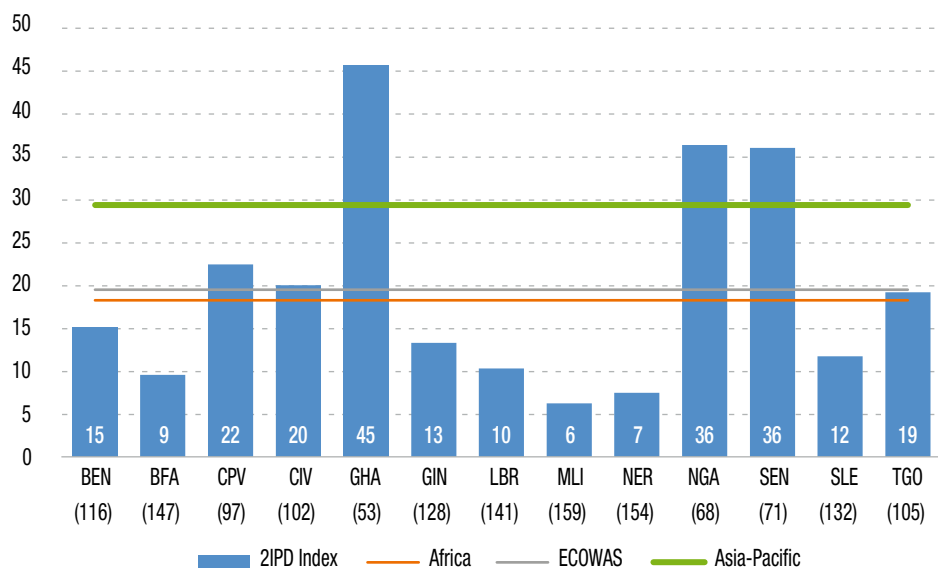
Box 2 The development of relay points in Senegal – JEJE initiative (2020)

The relay points, associated with the *JEJE* initiative (“near” in Wolof) are service poles labelled and standardized to receive e-commerce orders safely. These points also aim to generate knock-on effects of economic activity in the surrounding neighbourhoods and villages by providing a diverse range of services to the population, both urban and rural:

- (a) Parcel delivery and collection services;
- (b) Intermediation services (punctual legal advice, assistance with administrative procedures, assistance in finding housing);
- (c) Services related to the mechanization of agriculture: the rental of agricultural equipment and conductors (ploughing and harvesting);
- (d) Administrative procedures services: identity card, visa, passport, criminal record, complaint entry;
- (e) Services associated with health promotion at home or in the workplace: home care, medical support, making appointments.

Source: UNCTAD.

Figure 9 Integrated postal development indices (ECOWAS, 2021)¹³



Note: The Gambia and Guinea-Bissau are not included in this ranking.

The 100 index represents the best performing country (Switzerland).

Sources: UNCTAD on the basis of data from the Universal Postal Union (2021).

¹³ See annex for the three-letter international standard for country codes (ISO 3166).



3.2 Customs and cross-border trade: the cost and delays remain high, despite the processes of modernization and reform of customs initiated in ECOWAS countries

A patch of reforms and modernization of customs administrations is underway in most ECOWAS countries, but customs clearance procedures related to cross-border trade often remain costly and time-consuming (see figures 10(a) to 10(g) on the World Bank's Logistics Performance Index and Customs Performance Index).

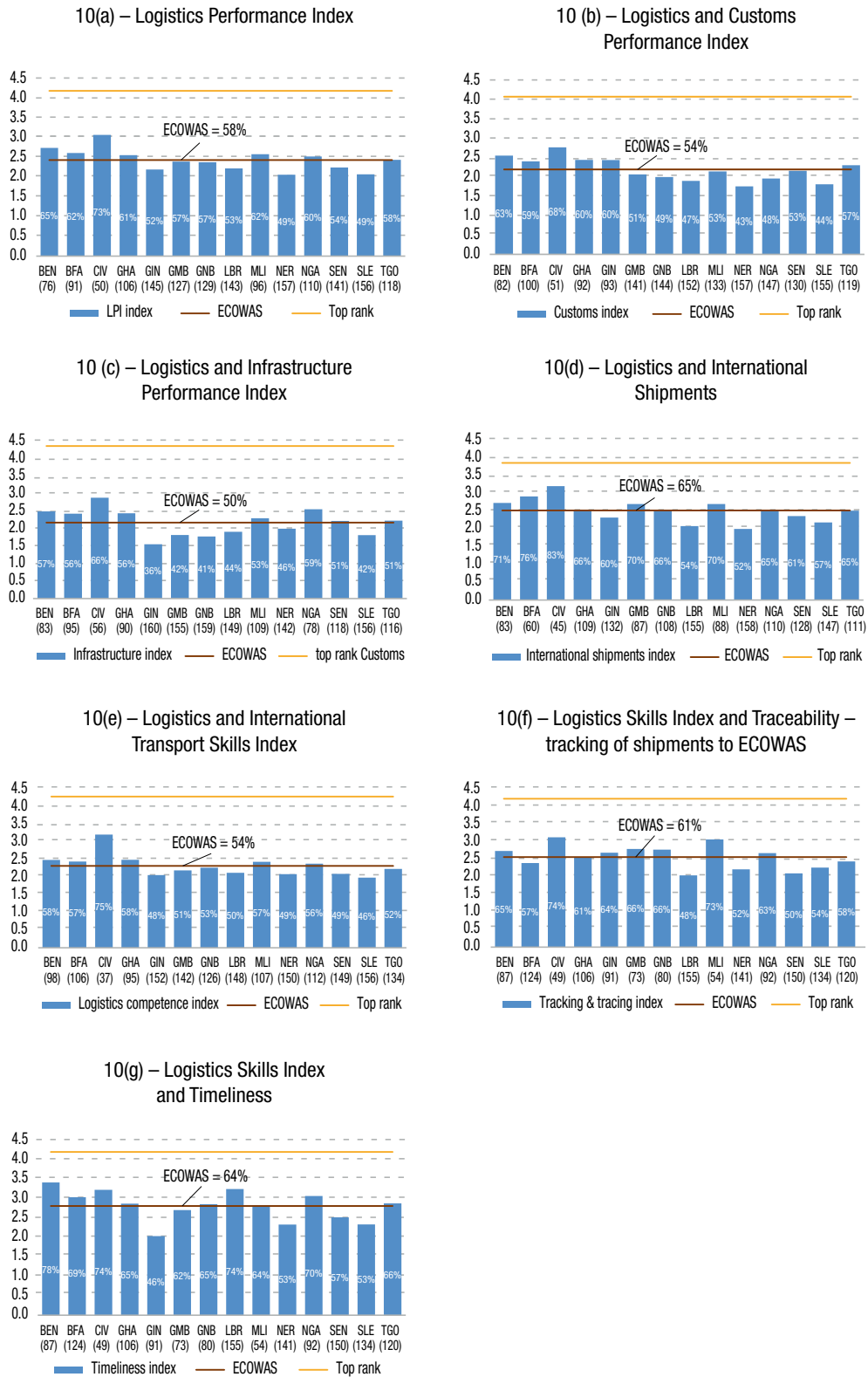
All ECOWAS countries, with the exception of Guinea-Bissau, ratified the WTO Trade Facilitation Agreement of 2013 between 2015 and 2021:¹⁴

- The African Union Convention on Cross-Border Cooperation, (Niamey Convention) adopted in June 2014, has been ratified by the Niger (2015), Burkina Faso (2016), Benin (2018), Mali (2019) and Togo (2018); and signed but not ratified by Guinea-Bissau (2015), Ghana (2017), the Niger (2017) and Guinea (2018).
- Countries are committed to the dematerialization of procedures with the widespread use of a computerized customs clearance system in all ECOWAS countries. Automated System for Customs Data (ASYCUDA) World has been set up in Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Guinea, Liberia, Mali, the Niger, Sierra Leone and Togo. The Gambia is currently upgrading its customs system to ASYCUDA World, and Guinea Bissau still uses ASYCUDA++. Côte d'Ivoire has developed its system SYDAM World on the basis of ASYCUDA World. Senegal has developed its own system (GAINDE). Ghana and Nigeria have called upon private service providers to set up their computerized customs clearance systems.
- ECOWAS – with the support of the World Customs Organization, World Bank and ASYCUDA Programme (UNCTAD) – has developed a regional transit system called SIGMAT. This system simplifies and dematerializes the transit procedure. This system is deployed in several countries – and should be extended to all ECOWAS countries in the next two years. It would contribute to reduce the delay and the cost of the transit of goods.
- The establishment of single windows for foreign trade is gradually developing in most ECOWAS countries.

¹⁴ The Niger (6 August 2015), Togo (1 October 2015), Côte d'Ivoire (8 December 2015), Mali (20 January 2016), Senegal (24 August 2016), Ghana (4 January 2017), Nigeria (16 January 2017), Sierra Leone (5 May 2017), the Gambia (11 July 2017), Benin (28 March 2018), Burkina Faso (21 September 2018), Guinea (24 October 2019), Cabo Verde (6 February 2020) and Liberia (29 April 2021).



Figure 10 Logistics performance (ECOWAS, 2018)¹⁵



Source: UNCTAD on the basis of data from the World Bank (2018).

¹⁵ See annex for the three-letter international standard for country codes (ISO 3166).



4. PAYMENT SOLUTIONS

The emergence and development of electronic money and mobile payments are making uneven progress in different countries. Payment for online orders is mostly made by cash on delivery in ECOWAS countries, due in particular to unequal financial inclusion between countries and interoperability issues. Better interoperability of payment services, including cross-border services within ECOWAS, would promote access for online shoppers and improve their commitment to e-commerce.

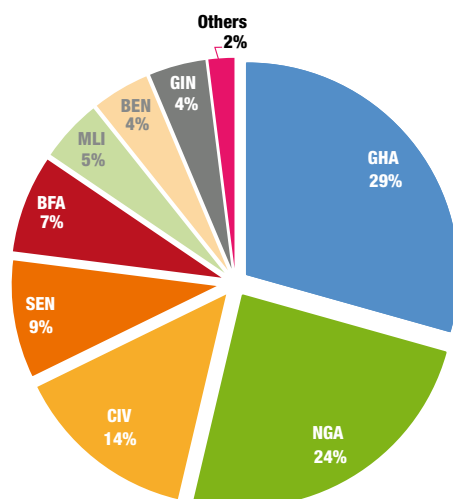
4.1 Typology of mobile currency penetration in ECOWAS and WAEMU

The emergence of electronic money and mobile payments is strong but uneven between ECOWAS countries.

Mobile payment flows by country in ECOWAS:

- Ghana and Nigeria account for 53 per cent of electronic transactions by value (see figure 11);
- All WAEMU countries account for 42 per cent of electronic transactions by value;
- Cabo Verde, the Gambia, Guinea-Bissau, the Niger, Liberia and Sierra Leone account for less than 0.5 per cent of all mobile money transactions in the subregion by value.

Figure 11 Mobile payment flows by country in ECOWAS¹⁶



Sources: UNCTAD on the basis of data from the Central Bank of West African States (BCEAO), Financial Access Survey (International Monetary Fund (IMF)) and central bank websites.

Mobile payment flows by type of operation in WAEMU:

- The breakdown of mobile money transactions by type of operation provided by BCEAO for WAEMU countries alone indicates that transactions related to mobile money payments are still largely confined to the administration of electronic wallets through operations of recharging/withdrawing. This represents more than 65 per cent of transactions in value,

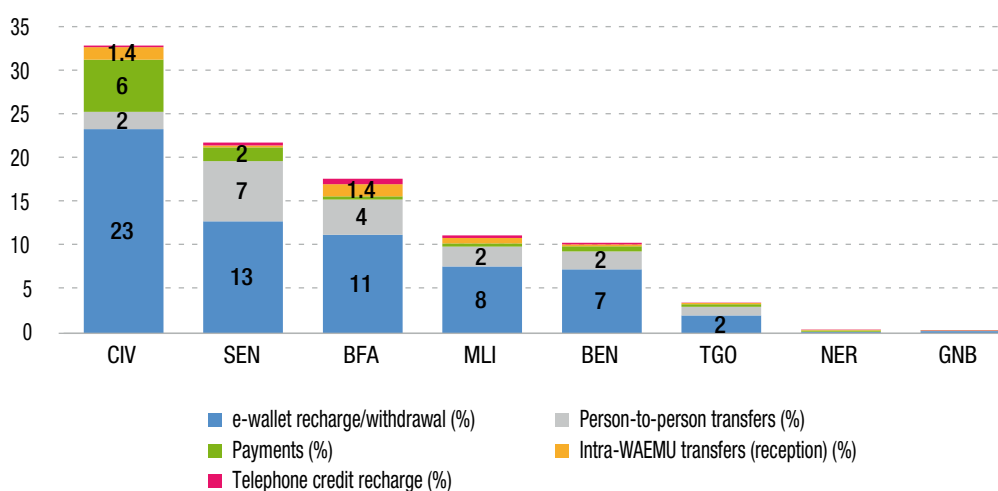
¹⁶ See annex for the three-letter international standard for country codes (ISO 3166).



and 23 per cent of all WAEMU mobile currency transactions. Volumes for 2020 correspond to top-up and withdrawal operations in Côte d'Ivoire (see figure 12).

- Person-to-person transfers, which include payments related to informal trade, account for 18 per cent of the amounts exchanged (including 38 per cent in Senegal and 22 per cent in Burkina Faso).
- The use of mobile currency payments that require a special chip for formal payments remains limited to 9 per cent of all WAEMU mobile currency transactions, including 64 per cent in Côte d'Ivoire and 17 per cent in Senegal.
- It was noted during the workshops organized in the various countries that the cost of transfers in the context of mobile currency can represent a brake on its mass adoption throughout ECOWAS, whether for transfer operations, payments or reloads and withdrawals (see box 3).

Figure 12 Mobile payment flows by type of electronic transaction in WAEMU¹⁷



Sources: UNCTAD on the basis of data from BCEAO (2021).

4.2 Specialization of countries between banking and mobile currency penetration

A form of specialization seems to be emerging on a country-by-country basis reflecting potential difficulties in terms of interoperability of payment services. Since the penetration rate has reached a critical size of about 30 per cent, countries seem to have preferred the deployment of the dominant payment solution. With the exception of Ghana, which has strong overall penetration, whether banking services or mobile money accounts, all countries with a penetration rate of more than 30 per cent, whether in terms of deposit accounts or assets, e-money accounts have thus focused on one of the two solutions, with a ratio of 1 to 6 or 1 to 4.7 in favour of the electronic money for GuineaBissau or Côte d'Ivoire, and conversely a ratio of 1 to 30 for the Gambia and nearly 1 to 100 for Cabo Verde in favour of banking (see figure 13).

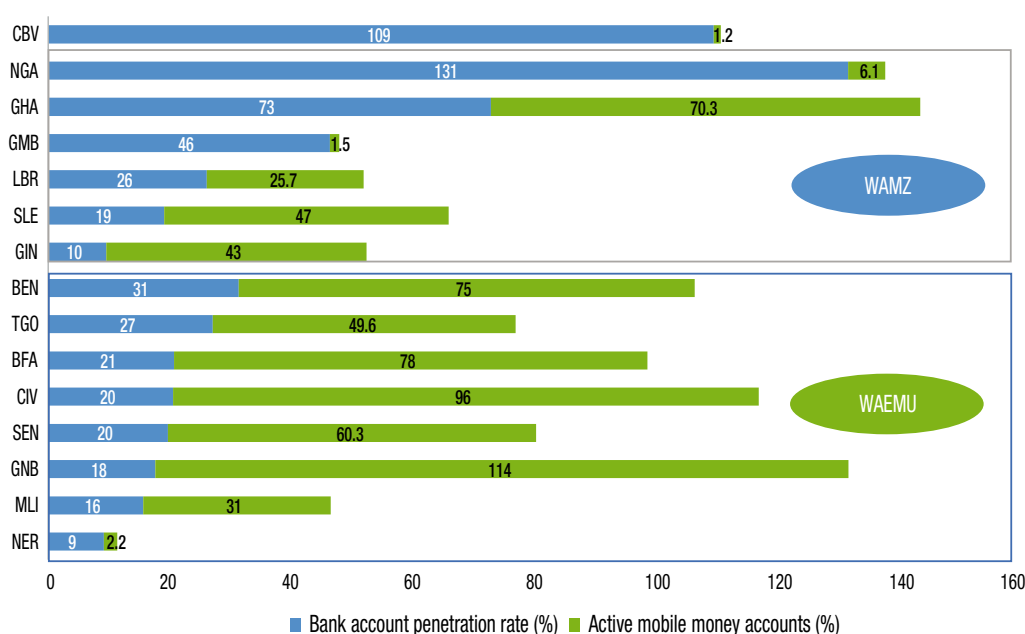
¹⁷ See annex for the three-letter international standard for country codes (ISO 3166).



The penetration of mobile money is much more widespread than banking in the countries of WAEMU, with the exception of the Niger, which has an overall low penetration of financial services (9 per cent of banking rate and 2 per cent of the population over 15 years of age with an active mobile currency account). The share of the population with an active mobile currency account is more than double the rate of banking in almost all other WAEMU countries, with respectively a rate of 31 per cent to 114 per cent, against 9 per cent to 31 per cent for banking.

The countries of the West African Monetary Zone (WAMZ), on the other hand, have a relatively higher rate of banking, with the exception of Sierra Leone and Guinea. Nigeria and the Gambia have banking rates well above the mobile currency account rate, with 131 per cent and 46 per cent, respectively, against 6.1 per cent and 1.5 per cent. Ghana and Liberia also have higher banking rates than mobile currency penetration, but are the only two ECOWAS countries to have similar penetration rates. In particular, Ghana seems to have “adopted” both payment solutions, with a banking rate of 73 per cent and an emoney account rate of 70.3 per cent.

Figure 13 Financial inclusion: “Specialization” between banking and mobile currency account by ECOWAS subregion^{18, 19}



Sources: UNCTAD on the basis of data from BCEAO (2021), Bank of Cabo Verde (2021), Central Bank of the Republic of Guinea (BCRG) (2021), Bank of Ghana (BOG) (2019) and the Financial Access Survey (IMF, most recent year by country).

¹⁸ The Strict Banking Rate (SBR) measures the percentage of the adult population holding accounts in banks, postal services, national savings banks and the treasury. When banking rate data are not published by central banks, this rate was approximated by the rate of depositors in deposit accounts, according to data from the IMF Financial Access Survey.

¹⁹ See annex for the three-letter international standard for country codes (ISO 3166).



Figure 14 Summarizes the situation of digital payments penetration within ECOWAS:

- The use of debit cards for banked populations remains extremely limited, with half of the countries having debit card penetration rates of less than 8 per cent, for a median banking rate of 21 per cent.
- The penetration of active mobile money accounts is relatively higher, with a median rate of 34 per cent (see figure 14).

Figure 14 Penetration of digital payments (ECOWAS, 2020)²⁰

Figure 14(a) – Banking and debit cards

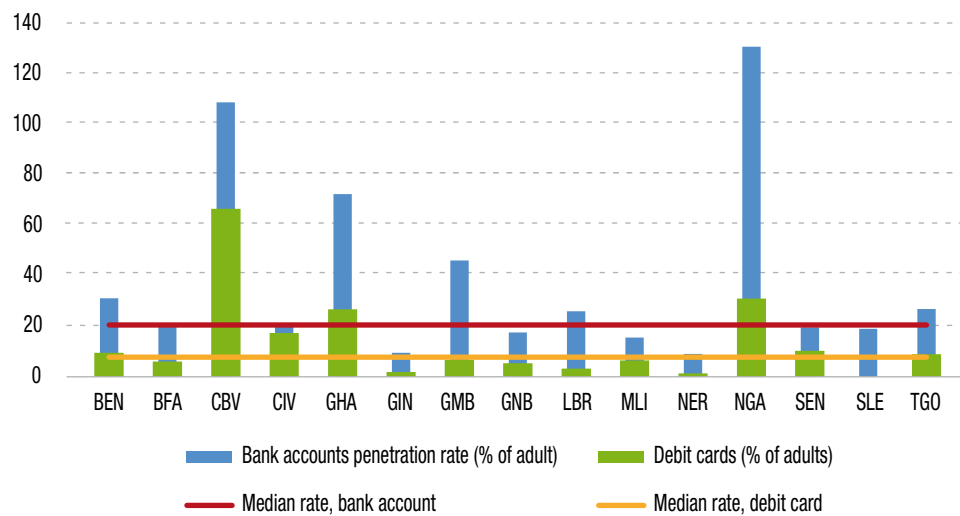
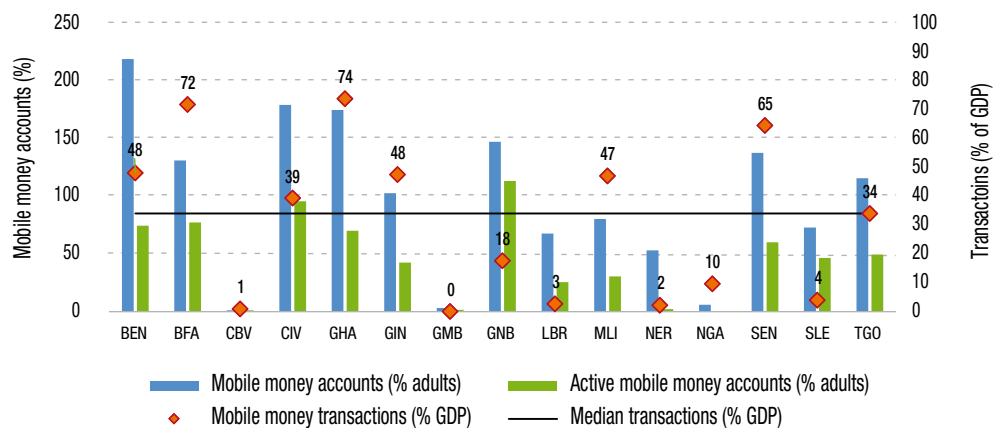


Figure 14(b) – Mobile currency accounts and transaction volume



Sources: UNCTAD on the basis of data from BCEAO (2021), Bank of Cabo Verde (2021), Central Bank of Republic of Guinea (2021), Bank of Ghana (2019) and the Financial Access Survey (IMF, most recent year by country).

²⁰ See annex for the three-letter international standard for country codes (ISO 3166).



Box 3 COVID-19 highlights the importance of electronic payments

Beyond its negative aspects on the economies of the region, linked to the disruption of value chains and the increase in unemployment in promising sectors such as tourism and transport, the COVID-19 crisis has marked an increased use of digital applications and platforms that allow the growth of e-commerce (especially for the delivery of essential goods), telecommuting, telemedicine and online education, among others, supported by a growth in electronic payment transactions. At the regional level, this trend has benefited from the impetus of BCEAO by the issuance in April 2020 of Opinion No. 004-03-2020 on measures to promote electronic payments in the context of the fight against the spread of COVID-19. This intervention has stimulated the use of electronic payments and innovation in both the public and private sectors. In Togo, a platform called Novissi guarantees income to the most vulnerable groups, including the informal sector, to compensate for the loss of income resulting from the COVID-19 crisis. Amounts received by mobile money can be used by beneficiaries to purchase essential goods and pay their water and electricity bills. In Burkina Faso, the pandemic has led to the acceleration of private sector projects for the development of payment aggregation platforms, such as LAGFO, supported by the fintech TICANALYSE, which allows individuals to make purchases and payments online through the use of a QR code or a simple code.

Source: UNCTAD.

Box 4 Experience of the Pan-African Payment Settlement System in the WAMZ

After a test phase initiated in the WAMZ, the Pan-African Payment Settlement System (PAPSS) instrument was launched commercially on 17 January 2022 in Accra within the region composed of the Gambia, Ghana, Liberia, Nigeria and Sierra Leone. PAPSS is a platform designed to facilitate instant cross-border payments in local currency between countries, even though, unlike WAEMU countries, WAMZ countries do not have a common currency. The system thus allows a customer from a given country to pay in their own currency while the seller located in another country will receive the payment in their own local currency.

The Board of Directors of PAPSS is composed of the President of the Central Bank of the Niger, and representatives of the central banks of the Gambia, Ghana, Guinea, Liberia and Sierra Leone, as well as representatives of the African Export–Import Bank, the initiator of the initiative, and the African Development Bank and the African Union.

The Managing Director of Smart Africa – an alliance of 32 African countries, international organizations and global private sector actors in charge of the African digital agenda – announced that his institution and the African Export–Import Bank have recently signed a Memorandum of Understanding to support the development of pro-PAPSS policies and regulations across the continent. The collaboration between Smart Africa and PAPSS could help boost intra-African trade within the framework of the African Continental Free Trade Area (AfCFTA).

Source: UNCTAD.



5. LEGAL AND REGULATORY FRAMEWORKS

ECOWAS countries have very different situations regarding the legal and regulatory framework for e-commerce, implying a need for harmonization and updating, as some legal instruments underpinning domestic legislation are old, including the ECOWAS legal framework, which dates from 2010 and 2011, and needs to be revised. There is also a significant need to strengthen specific skills on data protection, consumer protection and cybercrime, for both police and judicial services.

5.1 Overview of the ECOWAS legal and regulatory framework

The legal framework as provided by ECOWAS to regulate electronic transactions is based on Supplementary Acts A/SA.1/01/10 and A/SA.2/01/10, and Directive C/DIR/1/08/11:

- Supplementary Act A/SA.1/01/10 relates to the protection of personal data in the ECOWAS area: “Each Member State shall establish a legal framework for the protection of private and professional life following the collection, processing, transmission, storage and use of personal data, subject to the protection of public order.”
- Supplementary Act A/SA.2/01/10 deals with electronic transactions in the ECOWAS area, which “aims to ensure the security and legal framework necessary for the emergence of reliable electronic transactions in the subregion”. In particular, the Act defines the tools to regulate electronic transaction activities, including the obligations and responsibilities of actors, as well as measures to secure such transactions.
- Directive C/DIR/1/08/11 is on the fight against cybercrime in the ECOWAS area. The objective of the directive is “to adapt the substantive criminal law and criminal procedure of ECOWAS Member States to the phenomenon of cybercrime”.

The ECOWAS regulatory framework does not cover the following:

- Supplementary Act A/SA.2/01/10 on Electronic Transactions in the ECOWAS Area does not enshrine any formal definition of the concept of electronic commerce, but only of electronic communication.
- The means of consumer protection in electronic contracts concerning the right of withdrawal or to rescind is usually defined as the right to unilaterally withdraw from a commitment, and is not contained in the ECOWAS Supplementary Act.
- There are no regulatory texts on electronic payment instruments at the ECOWAS level, which can be a source of insecurity, and does not reassure potential users of electronic transactions, contributing to the fact that consumers pay mainly in cash on delivery of the good or service.



Box 5 The ECOWAS Commission ICT Strategy and Cyber Security Agenda

ECOWAS ICT Strategy 2018-2023

The ECOWAS ICT strategy was developed with a focus on 4 axes: adapting the political, legal, and institutional frameworks; infrastructure development; application and content development and ICT capacity building. These cover areas such as broadband infrastructure development (both submarine and terrestrial); harmonization of sector policies and regulatory framework (including regional roaming on public mobile communications network); and a cyber security agenda aimed at fighting cybercrime and improving the cyber security environment.

An **ECOWAS ICT Accessibility Policy** for persons with disability was also adopted in 2019 to ensure universal access to ICT Services for all. The ICT Accessibility Policy is being adapted by member states as part efforts towards digital inclusion.

ECOWAS Cybersecurity Agenda

The ECOWAS Cybersecurity Agenda was launched in 2017 with the aim to support ECOWAS member States, protect their cyberspace and critical information infrastructure, build confidence in the use of ICTs, and strengthen their cyber capability. The agenda has five actions lines: (a) Legislation/Policy Framework; (b) Handle Cybercrime; (c) Cyber Resilience; (d) Capacity-Building; and (e) International Cooperation. The Commission adopted two strategic policy documents in 2020 under this Agenda:

ECOWAS Cybersecurity and Cybercrime Strategy: The overall objective of the Cybersecurity Strategy is to establish a community strategic framework to be considered by member States in their national strategies, and implemented in their action plans on cybersecurity and the fight against cybercrime before the end of 2022.

ECOWAS Critical Infrastructure Protection Policy. The policy “sets the minimum normative framework that each member State should adopt to ensure the protection of their critical infrastructure and essential services; provides elements of methodology and criteria to identify the infrastructure and services concerned in the various sectors; proposes a list of preventive, reactive and proactive measures that can be implemented; provides the principles and modalities of cooperation between member States with interdependence in critical infrastructure or essential services”.

Source: ECOWAS Commission.

National legal frameworks

While all countries except Guinea-Bissau have adopted a legal framework on electronic commerce, this framework most often needs to be completed or put in place. Moreover, not all the legislation of the Supplementary Acts has been transposed at the domestic level, and its application remains uneven and insufficient (see table 7 for an overview at the level of the 15 member States).



Table 7 Key digital and e-commerce laws

Country	Electronic transactions	Data protection and privacy	Cybercrime	Online consumer protection
Benin	Law No. 2017-20 of 13 June 2017 on the Digital Code	Law No. 2017-20 of 13 June 2017 on the Digital Code	Law No.10/2011 of 12 October 2011 on combating corruption and other related offences	Law No. 2017-20 of 13 June 2017 on the Digital Code
Burkina Faso	Law No. 045-2009/AN of 10 November 2009 regulating electronic services and transactions	Law No. 010-2004/AN of 20 April 2004 on the Protection of Personal Data Law No. 001-2021/AN on the Protection of Personal Data	Penal code Decree No. 2009-397/PRES promulgating Law No. 021-2009/AN on the punishment of offences relating to electronic payment processes	Law No. 016-2017/Year of 22 April 2017 on the organization of competition in Burkina Faso
Cabo Verde	Law No. 49/2003 on Electronic Commerce Law No. 33/2007 on the recognition of electronic signatures	Law No. 41/VIII/2013 on Data Protection, updated by Law No. 121/IX/2021 National Identification (2014)	Cybersecurity Act (Act No. 9/ 2021)	Law No. 88/V/98. Legal system for the protection and defence of consumers
Côte d'Ivoire	Law No. 2013-546 of 30 July 2013 on Electronic Transactions	Law No. 2013-450 of 19 June 2013 on the Protection of Personal Data	Law No. 2013-451 of June 2013 on the fight against cybercrime	Law No. 2016-412 of 15 June 2016 on consumption
Gambia, the	Information and Communications Act, 2009 (transaction and electronic signatures)	Information and Communications Act No. 2 of 2009	Law on Information and Communication, 2009 (cybercrime)	The Gambia Consumer Protection Act 2014
Ghana	Electronic Transactions Act (2008) Amendment to the Electronic Transactions Act (2012)	Data Protection Commission (2012)	Cybersecurity Act (2020)	Electronic Transactions Act (Act No. 772) 2008
Guinea	Laws L/2016/035/AN and Decrees D/2021/092/PRG/SGG and D/2021/0196/PRG/CNRD/SGG on Electronic Business	Law L/2016/037/AN on cybersecurity and the protection of personal data	Law L/2016/037/AN on cybersecurity and the protection of personal data	No legislation
Guinea-Bissau	No legislation	No legislation	No legislation	Decree No. 7/2012 of 23 October 2012
Liberia	Electronic Transactions Act (2002) as updated by the Commercial Code of 2010	National Identification Act (2011) Supplementary Act to the ICT Act 2007 (Chapter 9) (ongoing)	Cybercrime Act 2021 (ongoing)	Regulation No CBL/RSD/004/2017 on consumer protection and market conduct of business rules
Mali	Law No. 2016-012 of 6 May 2016 on electronic transactions, exchanges and services	Law No. 2013-015 of 21 May 2013 on the Protection of Personal Data	Law No. 2019-056 of 5 December on the suppression of cybercrime	No data



Country	Electronic transactions	Data protection and privacy	Cybercrime	Online consumer protection
Niger, the	Law No. 2019-03 of 30 April 2019, on electronic transactions	Law No. 2017-28 of 3 May 2017 on the Protection of Personal Data, revised in 2019	Law No. 2019-33 of 3 July 2019 on the suppression of cybercrime	Law No. 2019-50 of 30 October 2019 determining infringements and sanctions in terms of consumer protection
Nigeria	Law on the "National information technology development agency" (2007) Evidence Act (2011) on signature and electronic messages Electronic invoice (2015)	Data Protection Regulation (2019)	Cybercrimes (Prohibition and Prevention) Act, 2015, National Cybersecurity Policy (2019)	Federal Law on Competition and Consumer Protection, 2018
Senegal	Law No. 2008-08 of 25 January 2008 on Electronic Transactions Decree No. 2008-718 of 30 June 2008	Law No. 2008-12 of 25 January 2008 on the Protection of Personal Data	Law No. 2008-11 of 25 January 2008 on Cybercrime	Decree No. 2014-770 of 14 June 2014: obligations of operators regarding the right to information of consumers
Sierra Leone	Electronic Transactions Act (2019)	No legislation	Cybercrime Act (2020) Cybersecurity Act (2021)	Consumer Protection Act (2020)
Togo	Law No. 2017-07 of 22 June 2017 on electronic transactions	Law No. 2019-014 of 29 October 2019 on the protection of personal data	Law No. 2012-018 of 17 December 2012	Law No. 2017-07 of 22 June 2017 on electronic transactions

Source: UNCTAD (Cyberlawtracker) and various websites of regulatory agencies of ECOWAS countries.

Regional and international conventions

At the level of the African Union, the Convention on Cyber Security and Personal Data Protection (Malabo Convention) of 27 June 2014 is the reference text in the framework of electronic commerce and the digital economy in general. Intended to apply on a continental scale, this Convention regulates electronic transactions, including electronic signatures and the protection of personal data, as well as cybersecurity and the fight against cybercrime. It thus goes further in the regulations than the ECOWAS texts, which do not deal with cybersecurity. To enter into force in the African Union requires its ratification by 15 member States. However, to date, only 14 countries have signed it (including Benin, Guinea-Bissau and Togo) and only 5 have ratified it (including Ghana, Guinea and Senegal), with Togo soon to be the sixth. Given the new challenges posed by digital technology (blockchain, big data, open data, personal data, cloud, etc.), the Malabo Convention would require, like the ECOWAS supplementary act, an upgrade to adapt to the current digital context and provide expected responses, including taking into account the impact of emerging technologies on the legal framework.

The Budapest Convention on Cybercrime is a framework for hundreds of practitioners from parties to the Convention to share their experience and create relationships that facilitate cooperation on cybercrime in specific cases, including emergency situations, beyond the specific provisions of this Convention. All countries can join. Benin, Burkina Faso, the Niger and Nigeria have been invited by the Council of Europe to join, while Senegal (2016), Cabo Verde (2018) and Ghana (2018) have already ratified it.



The United Nations Convention on the Use of Electronic Communications in International Contracts (2005) aims to facilitate the use of electronic communications in international trade by ensuring that contracts and other communications exchanged by electronic means have the same validity and binding force as their traditional paper equivalents. The Electronic Communications Convention builds on earlier texts drafted by the Commission, including the UNCITRAL Model Law on Electronic Commerce and the UNCITRAL Model Law on Electronic Signatures.

Table 8 presents an inventory of the accession of ECOWAS countries to these international conventions.

Table 8 State of play of regional and international conventions

Country	Convention on Cyber Security and Personal Data Protection (Malabo Convention) (2014)	Budapest Convention on Cybercrime (2001)	United Nations Convention on the Use of Electronic Communications in International Contracts (2005)
Benin	Signed in 2015 (not ratified)	Invitation to sign in 2019 (valid until 2024)	Accession on 7 November 2019, entered into force on 1 June 2020
Burkina Faso		Invitation to sign in 2017 (valid until 2022)	
Cabo Verde		Ratification in 2018	
Côte d'Ivoire			
Gambia, the			
Ghana	Signature (2017), ratification in 2019	Ratification (2018)	
Guinea	Ratification in 2018		
Guinea-Bissau	Signed in 2015		
Liberia			
Mali			
Niger, the		Invitation to sign in 2020 (valid until 2025)	
Nigeria		Invitation to sign in 2017 (valid until 2022)	
Senegal	Ratification in 2016	Ratification in 2016	Signed in 2006 but not ratified
Sierra Leone	Signed in 2016		Signed in 2006 but not ratified
Togo	Signature in 2019, ratification in progress		

Source: UNCTAD and various sites.



5.2 Overview of the challenges in the ECOWAS legal and regulatory framework

Table 9 provides a summary of the challenges of the legal framework for e-commerce within ECOWAS.

Table 9 Legal framework for e-commerce – state of play and prospects

<p>The legal arsenal on electronic transactions needs to be updated or supplemented in order to play its role.</p>	<ul style="list-style-type: none"> • Laws on electronic business were adopted in some ECOWAS countries prior to the 2010 ECOWAS Supplementary Act. These laws are generally more oriented towards the business-to-consumer (B2C) segment and do not sufficiently cover electronic contracts between companies (business-to-business (B2B)). • The application of laws may be subject to the preparation of subsequent decrees that are slow to be promulgated. • The entry into force of implementing laws and decrees may be subject to the adoption of specific and costly new technologies that may create technical and financial obstacles to the wider use of electronic communications. One example is the certification necessary for the adoption of electronic signatures, such as the public key infrastructures recommended by the ECOWAS Supplementary Act A/SA.2/01/10 of 16 February 2010 for the certification of electronic signatures, the implementation of which is complex and raises the question of interoperability. • The powers of the legislature and the judiciary need to be strengthened in order to overcome the difficulties for the proper application of the law in the new digital context. • Insufficient administrative resources often explain the limited application of the ECOWAS regulatory framework.
<p>Most ECOWAS countries are facing a legal vacuum on cross-border electronic transactions.</p>	<ul style="list-style-type: none"> • For local and foreign companies, the lack of coherent and/or uniform national and regional regulations, as well as the lack of coordination and cooperation of national and regional legislators may constitute a serious handicap for the development of e-commerce beyond their countries of origin. Uniform trade regulations, particularly in the context of the African Continental Free Trade Area (AfCFTA), would allow companies to gain predictability and therefore legal certainty during their international development. • ECOWAS countries would benefit from acceding to the United Nations Convention on the Use of Electronic Communications in International Contracts, as Benin did after the adoption of its Digital Code (2018). It should be noted that Senegal signed the United Nations Convention in 2006, but has not yet ratified it. • The objective of this Convention is to simplify and harmonize the use of electronic communications in international trade. By acceding to it, the States undertake to recognize foreign electronic signatures, the principle of non-discrimination in electronic communications, technological neutrality and the functional equivalent at cross-border level. This Convention on Electronic Communications enhances legal certainty and commercial predictability.
<p>The regulatory framework needs to be popularized and disseminated to potential users, in particular on data protection, cybercrime and consumer protection.</p>	<ul style="list-style-type: none"> • E-commerce regulation should increase the confidence of consumers facing the risk of cyber scams, and encourage them to replace certain “physical” consumption habits with online purchases. The possibility of retracting and being reimbursed after a purchase, the security of products purchased online, dispute resolution channels for electronic transactions, the protection of banking and personal data, the fact of being assured that the website used is reliable and is linked to a real company with real products or services as described, are all elements to be taken into account by legislators to promote the development of electronic commerce at the national, regional and continental levels. The United Nations Guidelines for Consumer Protection encourage States to provide users of electronic commerce with the same protection as offline commerce. They encourage States to revise their consumer protection policies to take into account the specificities of electronic commerce, and to ensure that consumers and businesses alike are aware of their rights and obligations (Guidelines 63 and 64). • This information should also help to remove the contradiction between the increased demand for protection, including from State services, and the continuation of informal practices. • Within ECOWAS, only Ghana, Guinea and Senegal have ratified the Convention on Cyber Security and Personal Data Protection of 27 June 2014. Togo is in the process of ratification. Benin, Guinea-Bissau and Sierra Leone have signed but have not yet ratified it. Regulations implementing real inter-State cooperation to combat cybercrime on the continent are highly desirable. This would ensure better protection for e-commerce companies against cyberpiracy, but also for consumers against cyberfraud.



5.3 ECOWAS regulatory framework and electronic signature: the issue of (digital) certification of electronic signatures and public key infrastructures

E-commerce transactions, through merchant websites or virtual market platforms, are by definition carried out remotely without simultaneous interaction or physical presence of both parties. The buyer cannot, of course, “see” the product or seller as he would in a “traditional” act of purchase. The notion of identifying and securing the identification of contractors is therefore fundamental to reassuring both parties of the electronic commerce transaction, hence the use of the electronic signature

5.3.1 Definition of electronic signature in the ECOWAS Supplementary Act: digital certification as a condition for the reliability of the electronic signature

Supplementary Act A/SA.2/01/10 on Electronic Transactions in the ECOWAS Area defines the electronic signature, its reliability and the role of certification:

- The Supplementary Act defines the electronic signature in its paragraph 13 as “any data resulting from the use of a reliable identification process guaranteeing its link with the act to which it is attached”.
- The principle of the reliability of the electronic signature, already mentioned in the definition of the electronic signature, is laid down in article 34, paragraph 1: “the electronic signature consists in the use of a reliable identification process guaranteeing its link with the act to which it is attached”, implying that the electronic signature is admissible only once its reliability has been established.
- Article 35 of the Supplementary Act also specifies as conditions for the admission of the electronic signature its creation “by a secure device that the signatory can keep under his exclusive control and which is based on a digital certificate”. Reliability is therefore only effective when the signature is established through a secure electronic signature creation device, and the verification of this signature is based on the use of a qualified certificate.

The digital certification of the electronic signature as a condition for the principle of non-discrimination between handwritten signature and electronic signature:

- Article 30 of the Supplementary Act provides the framework for the principle of non-discrimination between paper and electronic media: “Writing in electronic form shall be admitted into evidence in the same way as writing on paper and shall have the same probative force as the latter, provided that the person from whom it emanates can be duly identified and that it is drawn up and kept under conditions such as to guarantee its integrity.”
- However, article 33 specifies the conditions for the application of this principle by stipulating that “the copy or any other reproduction of documents passed by electronic means has the same probative value as the document itself when it is certified by bodies approved by a State authority”.
- The combination of article 35, which refers to the digital certificate, and article 33, which refers to the need for certification of conformity, suggests that the principle of non-discrimination is conditional on the digital certification of the electronic signature.

The secure device for creating an electronic signature and qualified certificate is not specified in the Supplementary Act, but implicitly refers to the public key infrastructure: digital signature and digital certificate:



- The digital signature is classically defined as “a numerical value affixed to a data message and which, through a well-known mathematical procedure associated with a private cryptographic key of the sender, makes it possible to determine that this numerical value was created from the private cryptographic key of the sender. The mathematical procedures used to create digital signatures are based on public key encryption. Applied to a data message, these mathematical procedures transform the message in such a way that a person with the original message and the sender’s public key can accurately determine: (a) whether the transformation was performed using the private key corresponding to that of the sender; and (b) if the initial message has been altered after the transformation has taken place.”
- Secure electronic signatures based on digital signatures are conventionally based on asymmetric cryptology or public key infrastructures.

5.3.2 Electronic signature, digital signature and certification under the UNCITRAL Model Laws on Electronic Commerce (1996) and Electronic Signature (2001)

The UNCITRAL Model Laws on Electronic Commerce (1996) and Electronic Signature (2001) aim to enable and facilitate the use of electronic signatures by establishing technical reliability criteria for the equivalence between such signatures and handwritten signatures.

UNCITRAL distinguished between digital signatures, based on a digital certificate, and electronic signatures, recalling that uniform rules on electronic signatures were based on technological neutrality and should not discourage the use of other authentication techniques. The Model Law thus recalls that there are various other mechanisms, also included in the broader concept of “electronic signature”, which could be envisaged, such as biometric authentication mechanisms based on handwritten signatures, the use of personal identification numbers (PIN codes) or scanned signatures beyond just digital signatures based on public key cryptology requiring public key infrastructures.

Any technology or method that enables the legal functions of identifying and approving the content of the legal act (contract) that is “sufficiently reliable” is thus recognized as fulfilling the requirements for a signature under the 2001 UNCITRAL Model Law, which provides a broader application than that transposed in the ECOWAS Supplementary Act, which limits the secure device guaranteeing the reliability of the electronic signature to a digital certificate.

5.3.3 Towards the deployment of public key infrastructure in ECOWAS countries

Several ECOWAS countries are committed to the adoption of such technology, but with varying degrees of advancement and an uncertain present or future rate of use by potential e-commerce players.

Benin, Cabo Verde, Côte d’Ivoire, Ghana, Nigeria and Senegal have put in place laws to regulate the implementation of a public key infrastructure and mechanisms accrediting digital certifications, with varying degrees of implementation:

- Since August 2017, Côte d’Ivoire has approved three providers of electronic certification services.
- The National Information Technology Development Agency in Nigeria announced that it had started certification operations for electronic signatures in June 2021.
- Benin has finalized the technical part of development, and is now finalizing the contract for trust service providers.



- The implementation of public key infrastructures, part of the Cybersecurity Agenda of the Ministry of Finance and the “e-Transform” project in Ghana.
- Senegal has prepared a draft order establishing and setting the conditions for the operation and organization of the steering committee for the project to set up a national infrastructure for the management of public keys.
- The Gambia has recognized the establishment of public key infrastructures which is recognized as an integral part of the National Cyber Security Strategy for 2020–2024.



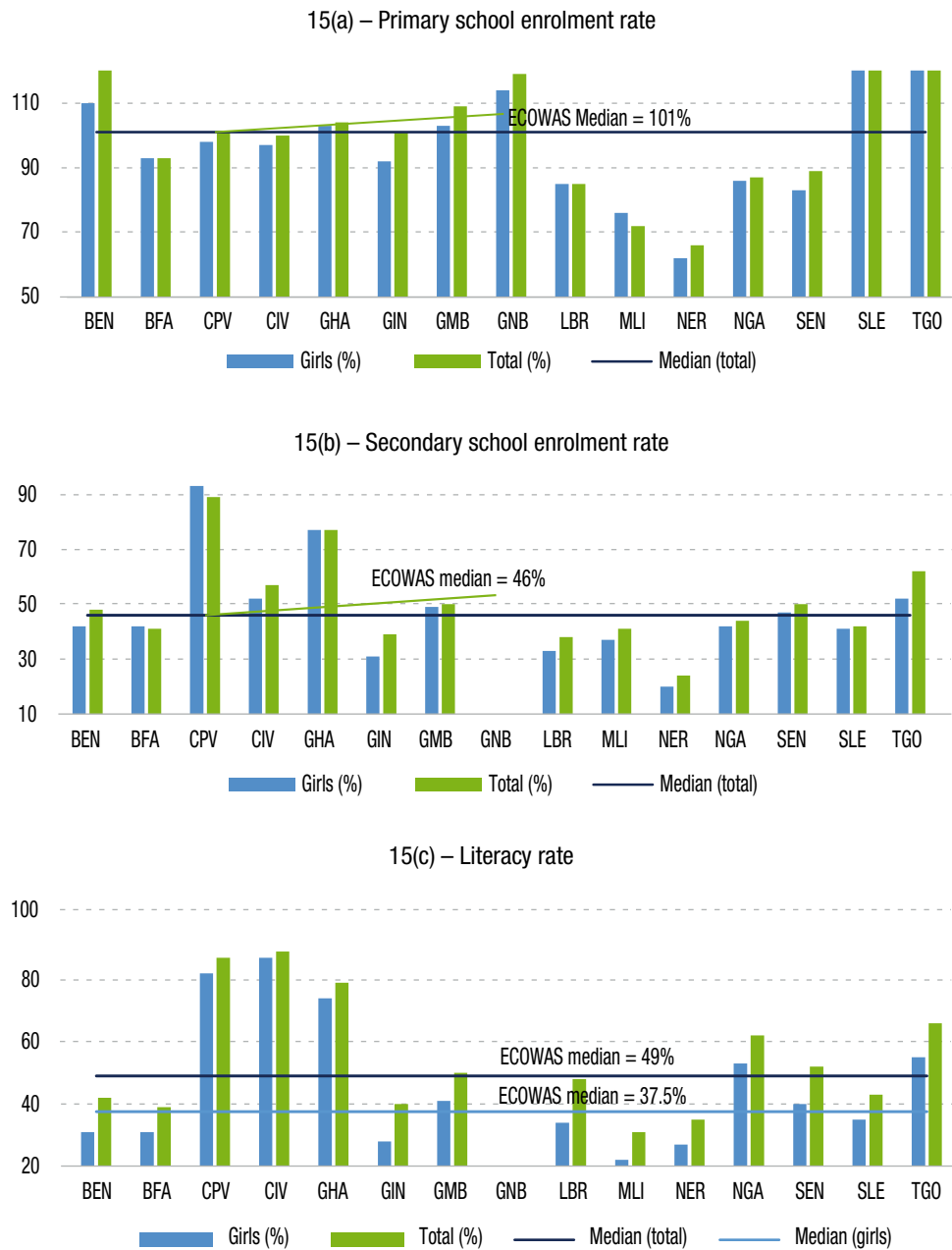
6. E-COMMERCE SKILLS DEVELOPMENT

The development of the skills required for e-commerce is limited by the overall level of human capital development in ECOWAS countries. It is important to take stock of the match between the existing training offer and the needs of the market for qualifications related to e-commerce and the digital economy:

- The illiteracy rate is very high in ECOWAS countries: the median literacy rate is 49 per cent for all countries and 37 per cent for women (see figure 15).
- Access to higher education is marginal: the median enrolment rate beyond primary education is 46 per cent.
- Large disparities exist between men and women entrepreneurs in the e-commerce sector, and very few women try to start their own businesses.
- The ECOWAS Commission has placed a high priority on digital skills for women and youth in the region. In 2019, the ECOWAS Programme on the Promotion of Digital Skills and Digital Entrepreneurship for Youth was launched with the overall objective to alleviate poverty, creating a conducive environment for employment and economic growth through youth capacity-building and e-skills development. In particular, this programme seeks to encourage and support youth to fulfil tomorrow's job requirements and become entrepreneurs. It is implemented in partnership with the African Development Bank and financed by the Bill and Melinda Gates Foundation. The programme took off in 2019 and aims to: (a) equip youth with practical ICT skills; (b) support the creation of an environment (Smart centre) where youths can hone their ICT and design skills; (c) promote a culture of entrepreneurship, innovation and job creation among the youth; (d) facilitate economic development through the supply of young entrepreneurs; (e) provide e-learning service support to schools to broaden access to education and training opportunities, so as to widen the opportunity for fresh and new skills into the job market over time; (f) unleash and enhance ICT-related female entrepreneurship skills through the promotion of gender equality and women's empowerment in all its activities; and (g) facilitate the proliferation of tech hubs and accelerators.
- In addition to this, the ECOWAS Conference of Heads of State established in 2003 the ECOWAS Centre for Gender Development to, among other things, mobilize and empower women, and activate their participation in the regional integration process. In 2019 the Centre, in partnership with the Common Market for Eastern and Southern Africa and the East African Community, with financial support from the African Development Bank, set up a digital platform for women called "50 Million African Women Speak". The platform creates a space for improving the capacities of women entrepreneurs to network and share information; access financial services and peer-to-peer learning; provide coaching within communities; access business opportunities between urban and rural areas; and facilitate cross-border and transnational trade opportunities.



Figure 15 Primary and secondary school enrolment and literacy rates (ECOWAS, 2010–2020)^{a, 21}



^a The default availability year was 2020 for secondary primary school enrolment rates, with the exception of data from Cabo Verde (2019), Liberia (2017 and 2015), Mali (2018), the Niger (2019 and 2017) and Nigeria (2018); and secondary school enrolment data from Guinea (2014), the Gambia (2010), Sierra Leone (2017) and Togo (2017). Data for GuineaBissau are not available for secondary schooling or literacy. Literacy rates default those of 2018, with the exception of Cabo Verde (2015), Côte d'Ivoire (2019), the Gambia (2015), Liberia (2017), Mali (2020), Senegal (2017) and Togo (2019).

Source: UNCTAD on the basis of data from the World Bank (2022).

²¹ See annex for the three-letter international standard for country codes (ISO 3166).



The transversal dimension of e-commerce and the digital economy makes it difficult to set up competence centres bringing together all the required qualifications:

- Management of the project in its business component;
- Mastery of computer and digital tools;
- Construction of a business plan.

The gap between the training offer and the needs of the market is sometimes substantial: it is important to take stock of these gaps in order to identify the gaps and needs to broaden and clarify the training offer, in initial training (university) as well as in continuing training (incubators).

The nascent network of incubators should be accompanied and supported to support the emergence of e-commerce and digital economy players.



7. ACCESS TO FINANCING

The e-commerce sector of ECOWAS countries faces a double challenge in terms of access to finance. On the one hand, such access is generally difficult, with both a relatively low rate of banking and a rate of conversion of deposits into credit. On the other hand, the digital start-up sector typically faces difficulties in accessing financing given the frequent absence of collateral in its activities.

Technology start-ups in West Africa have little access to remittances, with the exception of Nigeria and, to a lesser extent, Senegal:

- The list of “100 African start-ups in which to invest”, established by MyAfricanStartUp 100, with the support of the African Development Bank, is 85 per cent co-established by English-speaking companies. Start-ups from Nigeria, Kenya and South Africa occupy half of the 2019 rankings.²² Senegal is the first French-speaking country in terms of the number of start-ups involved. The financial and business services sectors comprise the majority.
- According to the Partech investment fund,²³ ECOWAS countries accounted for 29 per cent of the funds invested in 2018 for tech start-ups, including 26 per cent in Nigeria alone. Senegal (1.9 per cent) is the first French-speaking State and the seventh in the ranking. Ghana (0.5 per cent), Mali (0.3 per cent) and Côte d’Ivoire (0.1 per cent) are the only other ECOWAS countries included in this ranking.
- Nigeria (26 per cent), Kenya (30 per cent) and South Africa (21.5 per cent) together account for more than 75 per cent of the funds invested in 2018 for tech start-ups.
- E-commerce start-ups rarely access bank financing and loans because of their activity, which is sometimes on the border between the formal and informal sectors, and the fact that they most often lack collateral or guarantees.

²² The companies were selected on the basis of the innovative nature of their technology and solutions, with growing business and less than €1 million per year for at least two years, and a service of international scope.

²³ The authors of the annual report of the investment fund Partech have counted only amounts above \$200 000 for tech start-ups whose main market is in Africa.



Box 6 Senegal adopts a law for start-ups

Monitoring the implementation of eT Readies in the region has been done with the intention of identifying ambitious initiatives led by a number of countries, which deserve particular attention in view of their potential for replication at the regional level. In Senegal, the draft law dedicated to start-ups (Startup Act), adopted by Parliament in December 2019 and promulgated by President Macky Sall on 6 January 2020, is the result of successful public–private cooperation involving the various stakeholders of the innovation ecosystem. This new legislation allows the Government of Senegal to take fiscal and administrative measures, opens up access to financing facilitation, supports measures for businesses, and creates more favourable conditions for access to public procurement. The law on business creation in Senegal was accompanied by a measure in the 2020 Finance Law providing for tax exemptions for the first three years and the reduction of business registration fees for start-ups. The Startup Act will also help to foster political cooperation, as a decree is to be promulgated for the creation of a start-up evaluation commission to serve as a platform for public–private cooperation on innovation issues. A thriving digital ecosystem and infrastructure to support start-ups are key to fuelling the creation and growth of e-commerce businesses. Instruments such as the Startup Act are welcomed by the private e-commerce sector, as they pave the way for different forms of support, including financial measures and public–private partnerships. This legislative initiative in Senegal was the first of its kind in sub-Saharan Africa, after Tunisia paved the way for such initiatives on the African continent. Other West African countries are moving in the same direction, including Ghana and Mali. According to the eT Ready of Mali, a draft Startup Act has been adopted by the Council of Ministers and is awaiting parliamentary approval.

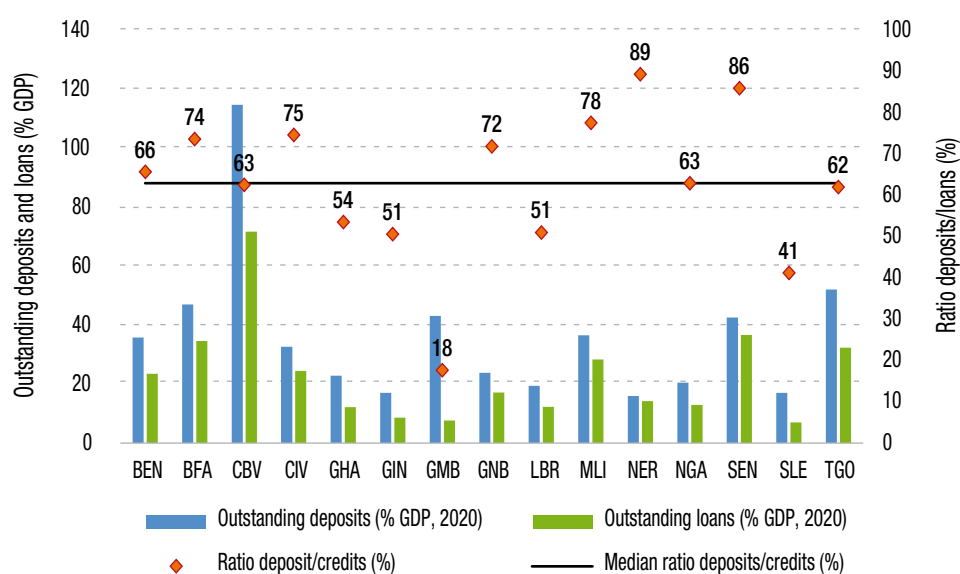
Source: UNCTAD.



The low level of banking in ECOWAS economies only exacerbates the difficulties faced by players in the digital economy in accessing credit institutions, and commercial banks are also limited to a deposit bank role, with extremely limited activity financing activity. The median rate of conversion from deposit to credit for ECOWAS is thus 63 per cent (see figure 16).

The managers of digital start-ups, and more specifically the actors of e-commerce, suffer globally from a lack of skills in terms of project management, as well as in management and accounting, in particular the construction of a business plan and a marketing strategy to demonstrate to credit institutions the validity of their project.

Figure 16 Financing of activity by banks: ratio of loans outstanding to demand deposits (ECOWAS, 2020)²⁴



Data refer to the year 2020 except for Ghana (2018).

Sources: UNCTAD on the basis of data from BCEAO (2021), BCV (2021), BCRG (2021), BOG (2019) and the Financial Access Survey (IMF, most recent year by country).

²⁴ See annex for the three-letter international standard for country codes (ISO 3166).



CONCLUSION: PERSPECTIVE FOR A REGIONAL E-COMMERCE STRATEGY IN ECOWAS

The demand for and commitment to e-commerce is shared, encouraged and promoted by all ECOWAS countries through the widespread adoption of digital agendas or strategies. Digital ecosystems are emerging and developing in all member States, at different levels in different countries, around e-commerce, or through the development of the digital economy or dematerialized payment solutions.

Challenges are mostly shared between ECOWAS countries, at different intensities, starting with access to high-speed Internet, which depends on the extent and reliability of ICT infrastructure, both at the backbone level and last-mile access. These difficulties of access are further reinforced by unequal access to electricity, particularly in rural areas. E-commerce also relies heavily on logistics reliability. However, delivery services are generally insufficient, in connection with the quality of postal services, road infrastructure and addressing issues. The dematerialization of payments, and the adoption and implementation of a legal framework to secure the various players in the e-commerce supply chain, are also major challenges.

These major difficulties or challenges will have to be overcome so that electronic commerce does not remain limited to the wealthiest populations in urban areas of the more advanced countries, which would be neither fair nor effective, but rather supports the vision of Governments of a catalyst for promoting employment and small exporters, social inclusion and diversification of economies.

While the e-commerce strategy will be fundamentally transversal in nature, in order to address the challenges described under the seven pillars, it cannot be broken down into a strategy for each of the seven pillars. Conversely, it is appropriate to build on the strengths and weaknesses identified by this regional assessment to identify opportunities and areas of intervention to engage in an ambitious but reasonable and realistic vision of the ECOWAS e-commerce strategy. This strategy could be broken down into four orientations that emerge as responses to needs highlighted in this regional assessments. These orientations are set out in box 7.



Box 7 Guidance for the preparation of the ECOWAS Commission's e-commerce strategy**Orientation 1: Strengthen and coordinate the action of the directorates of electronic commerce of the member States in order to make e-commerce an industrial strategy**

The analysis of existing strategies and governance frameworks largely reflects a bias towards the development of ICT infrastructures, with strategies most often carried out by the ministries and technical agencies in charge of telecommunications and infrastructure. While this reflects the challenges and priorities currently encountered on the road to digitalization by the ECOWAS economies, it is now necessary to focus also on the “business” aspects of e-commerce through accompanying sectoral industrial policies, the development of ICT infrastructures alone being insufficient to meet, for example, the objective of diversifying the economy, which results from an industrial project. The strengthening of the business component implies a stronger commitment of the ministries and directorates of trade alongside the agencies and ministries in charge of infrastructure and technology.

Orientation 2: Foster the trust and buy-in of potential users of e-commerce by focusing on harmonizing and updating the legal framework

The legal framework of ECOWAS (Supplementary Act) is only partially and variously adopted by all member States, and cannot cover all the issues that have emerged since its drafting (2010). It must be harmonized, updated and supplemented by setting a framework leading to a precise and harmonious definition of e-commerce, on which there is sometimes confusion, by integrating certain missing elements, such as the legal framework for electronic payments, and by reviewing the issue of electronic signatures and their certification. This is fundamental to generate the confidence necessary for the development of e-commerce, but its adoption has not been widespread in the context of the ECOWAS countries.

Orientation 3: Monitor and steer the e-commerce sector

While statistics are provided on Internet penetration or types of electronic transactions by regulatory agencies in charge of the technological aspect of telecommunications or by some central banks, there are no statistics on e-commerce transactions in the ECOWAS region. This contributes to the relative lack of knowledge of the sector. The creation of a supranational body in charge of monitoring e-commerce in charge of such supervision would provide a framework to support countries in the application of the regulations, as well as centralize and disseminate all accredited operators, and monitor initiatives and programmes that contribute to improving the situation of the prerequisites for e-commerce development.

Orientation 4: Adapt the strategic framework to the objectives and actors targeted

The double digital divide among and within the ECOWAS countries, and the uneven developments identified throughout this diagnosis, underline the need to adapt the strategy envisaged to the objectives and actors targeted as a priority. In an environment as transversal and multidimensional as that of e-commerce, it is obvious that the stakes are quite different depending on whether small rural producers or urban populations are targeted, cross-border trade and the export sector or local trade, or whether the focus is on supporting small producers in the informal sector towards formalization or the diversification of the economy. The e-commerce strategy will have to be broken down into various strategic objectives that stakeholders have identified as priorities.



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- Nepal: Rapid eTrade Readiness Assessment (December 2017)
- Samoa: Rapid eTrade Readiness Assessment (October 2017)
- Bhutan: Rapid eTrade Readiness Assessment (April 2017)
- Cambodia: Rapid eTrade Readiness Assessment (April 2017)

See also <https://unctad.org/topic/e-commerce-and-digital-economy/etrade-readiness-assessments-of-LDCs>



ANNEX

International standard country codes

ISO 3-Digit Alpha Country Code	
Code Value	Definition
BEN	Benin
BFA	Burkina Faso
CPV	Cape Verde
CIV	Côte d'Ivoire
GMB	Gambia
GHA	Ghana
GIN	Guinea
GNB	Guinea-Bissau
LBR	Liberia
MLI	Mali
NER	Niger
NGA	Nigeria
SEN	Senegal
SLE	Sierra Leone
TGO	Togo



