The present brief is prepared by the African Trade Policy Centre of the Economic Commission for Africa (ECA) as a background note for the West African Economic and Monetary Union and the United Nations Conference on Trade and Development e-commerce workshop, to be held in Ouagadougou from 9 to 11 October 2018. Drawing from current literature and ECA research, the brief is aimed at outlining the state of play regarding electronic commerce and digital trade in African countries.

I. Introduction

Definitions of e-commerce can capture various elements of the digital economy, from online sales to wholly digital products and trade in data, or new trade resulting from the adoption of novel digital technologies. The present paper is anchored to an understanding of e-commerce as “the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders” (Organization for Economic Cooperation and Development, 2013). This includes goods or services that are ordered online, but with physical payment or the ultimate delivery of the goods or services. This type of e-commerce is defined by the method of placing the order, which excludes orders made by telephone calls, facsimile or manually typed e-mail.

Such e-commerce may take the following five major forms (International Trade Centre, 2015):

(a) Business-to-business, which covers a transaction between companies (e.g. Jumia);

(b) Business-to-consumer, which covers a transaction between a company and an individual (e.g. Taxify);

(c) Consumer-to-consumer, which covers a transaction between individuals, often conducted through an e-commerce platform;

(d) Government-to-business, which covers a transaction between a company and a Government, often in the form of electronic government (e-government) procurement (e.g. single window);
(e) Coop2Coop, which refers to an emerging form of e-commerce that takes place between cooperative organizations that are autonomous associations of persons united voluntarily to meet their common goals.

A salient feature of e-commerce is the prerequisite of the Internet. In this regard, Internet access, usage and literacy are key elements in understanding the African e-commerce context. Significant improvement in these key areas have been made, which are helping to make e-commerce an African reality. Africa counted approximately 19.9 per cent of its population using the Internet in 2016, compared with only 6.7 per cent in 2010.

Trade facilitating services, such as secure online payment or efficient delivery means, may have an important bearing on Africa’s e-commerce development potential, in particular trade facilitation measures, which serve as facilitators of e-commerce (e.g., logistics chains for the delivery, storage and customs clearance of small packages).

Considering those elements, observers (Fredriksson, 2013; MacLeod, 2018) identified the following potential:

(a) Challenges:
(i) Affordable information and communications technology (ICT) infrastructure;
(ii) Digital literacy among producers and users;
(iii) E-commerce supporting services;
(iv) Adequate e-commerce legislation;

(b) Opportunities for the development of e-commerce in Africa:
(i) Having access to new markets;
(ii) Interacting with governments;
(iii) Facilitating participation in value chains.

With the considerable growth of the e-commerce economy, momentum has been building for policy and regulation. At the international level, negotiators from a number of countries at the World Trade Organization (WTO) have given considerable attention to the establishment of a comprehensive work programme to examine trade matters relating to e-commerce. At the continental level, e-commerce is now a topic for consideration under the African Continental Free Trade Area. At present, the African Union Commission is developing an e-commerce strategy in terms of strategically approaching e-commerce and examining possible linkages with the agreement.

E-commerce is not a phase II negotiating topic in the African Continental Free Trade Area at this time, but there would be scope to include it if negotiators so wished. A number of African countries are of the view that e-commerce cross-cuts the ongoing free trade area discussions, notably in the context of the services sector negotiations, such as

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2 With regard to the International Telecommunication Union data, geographical distribution does not count the following countries as part of the African region: Algeria, the Comoros, Djibouti, Egypt, Libya, Mauritania, Morocco, Somalia, the Sudan and Tunisia. Additional information is available at www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.
computer and related services, communication services (e.g., telecommunications and postal services) and financial services (e.g., electronic payment methods) (Sarr, 2018).

In addition, the President of the New Partnership for Africa’s Development will be addressing the Group of 20 during its summit to be held in Buenos Aires from 30 November to 1 December 2018, which will include the topic of e-commerce. The matter will also be a topic for discussion at the UNCTAD Africa E-Commerce Week, to be held in Nairobi from 10 to 14 December 2018.

II. African international negotiations and commitments in terms of e-commerce

At the multilateral level, e-commerce rules were pursued aggressively by some WTO members. African countries, however, were in the vanguard of resisting the reduction in policy space that such rules would impose. As a result of failing to reach an agreement on e-commerce at the eleventh WTO Ministerial Conference, held in Buenos Aires from 10 to 13 December 2017, a total of 71 WTO members (including Nigeria as the only African country) have since stated their interest to move forward as a group for plurilateral discussions on e-commerce.

African countries have also made various commitments regarding e-commerce and related topics. Notably, the economic partnership agreement negotiations and the Morocco-United States of America free trade agreement have addressed the issues.

A. Cross-regional e-commerce commitments

The Morocco-United States free trade agreement contains a whole chapter dedicated to e-commerce. It is similar to the draft economic partnership agreements provisions, which prohibits the imposition of customs duties on digital products. It also stipulates provisions of the most favoured nation treatment for digital products distributed in one of the signatories’ territory and which product has been made by a person of the said signatory.

Although no specific reference to e-commerce can be found in economic partnership agreements (Economic Commission for Africa, forthcoming), the interim economic partnership agreement signed by Cameroon does not deal directly with e-commerce, but the into-effect text provides a chapter on the protection of personal data in view of facilitating cross-border data flow. Furthermore, the Central Africa draft services text follows the European Union-style structure and approach, which includes a chapter on e-commerce. In addition, the Southern African Development Community (SADC) draft services text also includes a section on e-commerce.

In both draft texts, the disciplines on e-commerce focus primarily on cooperation and dialogue. In addition, they both contain a section agreeing that deliveries by electronic

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3 For the purpose of this section, only the Central Africa, Southern African Development Community and Eastern and Southern Africa economic partnership agreement processes are considered.
4 Article 14.3 (3) of the Morocco-United States free trade agreement.
means shall be considered as the provision of services and not subject to customs duties, which has not yet been similarly agreed at the multilateral level.

The SADC draft provides for commitments by the parties to maintain a dialogue on regulatory issues raised on the topic of e-commerce, including issues relating to the recognition of certificates of electronic signatures, the liability of intermediaries with regard to transmission or storage of information, the treatment of spam and consumer protection. This cooperation is to take the form of information exchanges of relevant legislation and the implementation of such legislation.

As with other cooperation articles, the Central Africa draft text characterizes cooperation in terms of technical assistance, training and capacity-building, applying to the same issues listed above for SADC. It also lists capacity-building for undertaking mandatory information security and information technology security audits.

The Côte d’Ivoire and Ghana stepping stone economic partnership agreements explicitly provide for future negotiation of trade in services and e-commerce. The Eastern and Southern Africa interim economic partnership agreement does not make any reference to e-commerce. Nevertheless, noting that trade in services is one of the areas for future negotiations, it is possible to foresee that the topic may be presented during the services negotiations, noting that this is the case in all other economic partnership agreement configurations.

B. Intraregional e-commerce commitments

To date, e-commerce policy in Africa has consisted mostly of mechanisms to facilitate e-commerce, notably through trade facilitation measures. Accordingly, there have not been any regional steps taken to regulate e-commerce-related aspects, such as the flows of data or data localization, which have been considered in other regional approaches to e-commerce (e.g., the Transpacific Partnership and that of the European Union). In this regard, there is a need to assess the type of trade facilitation measures that African countries have taken to facilitate e-commerce.

Some African countries participated in an ECA survey in which they reported on the implementation of trade facilitation measures. Of the 47 questions contained in the survey, some were in relation to electronic application, issuance and exchanges of documentation.

Figure I shows the rated scores on the basis of reported implemented measures from respondent countries.

Data aggregated from the reporting countries show that the automation of customs procedures stands high in terms of compliance with trade facilitation measures, in accordance with the WTO trade facilitation agreement. Among the least implemented

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5 Article 44 (a) of the Côte d’Ivoire economic partnership agreement and article 44 (a) of the Ghana economic partnership agreement.
6 This includes the Caribbean Forum of African, Caribbean and Pacific States economic partnership agreement.
measures, however, exchanges of electronic documentation is very low (see figure II). The least implemented measures concern the electronic exchange of certificates of origin, the electronic application for customs refunds, banks insurers retrieving letters of credit electronically, the automated application, verification and issuance of sanitary and phytosanitary measures certificates and the electronic exchange of such certificates.

The survey thus suggests that, while trade-facilitative governmental authority procedures are being implemented more often, trade-facilitating procedures for the business community have not been given as much emphasis by African Governments,
notably single window systems,\textsuperscript{7} which stand at 33 of the 47 trade facilitation measures surveyed.

Single windows can be defined as a mechanism that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export and transit-related regulatory requirements. It is aimed at expediting and simplifying information flows between trade and governments, bringing meaningful gains to all parties involved in cross-border trade. Their benefit is two-fold (Economic Commission for Europe, 2005). For governments, it can bring better risk management, improved levels of security and increased revenue yields with enhanced trader compliance. For traders, the benefit derives from the transparent and predictable interpretation and application of rules and better deployment of human and financial resources, resulting in an increase in productivity and competitiveness.

The African Alliance for E-Commerce reports three types of business models for single windows: public financing, public-private partnership and concessionary. On this basis, three Alliance countries are reported to have integrated single windows, while eight have single windows for foreign trade and two have single windows for port procedures (see map below).

\textsuperscript{7} This is in accordance with article 10.4 of the World Trade Organization trade facilitation agreement.
III. E-commerce and digital trade in Africa: state of play

To date, the digital transformation is being felt in much of Africa (IDC Italia srl and the Lisbon Council, 2018). Approximately 67 million Africans have smartphones, and the Internet contributes $18 billion to the continent’s gross domestic product (GDP). Specifically, in the West African Economic and Monetary Union (WAEMU) region, approximately 10 per cent of people use the Internet, with the Niger and Senegal at the two ends of the spectrum, with 2.2 and 21.7 Internet users per 100 people, respectively.8

According to McKinsey and Company (2013), by 2025, Internet penetration will reach approximately 25 per cent, 360 million Africans will have smartphones, the Internet will contribute $300 billion to GDP and e-commerce could account for 10 per cent of retail sales in Africa’s largest economies, which would translate into some $75 billion in annual revenue.

While e-commerce is identified as a potential catalyst for boosting trade, its implementation is dependent on other contextual, complementary factors, such as physical and soft infrastructure. Specifically, e-commerce in developed markets has strived, because of logistical infrastructure such as effective transport networks and postal systems, to be available and to deliver to customers (Weigert, 2018).

8 For more information, see International Telecommunication Union data. Available at www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.
A. E-commerce facilitative services

E-commerce relies on logistical services for goods to be delivered to the buyer. In this regard, postal services are of high importance, but are limited. Indicators such as African home mail delivery (see figure III) suggest that postal and delivery services are an underdeveloped sector in Africa. Nevertheless, innovative “leapfrog” technologies are emerging, with a view to overcoming these challenges, such as drone delivery in Rwanda for high-value medical supplies (e.g. Zipline).

**Figure III: Home-delivered mail, 2016**

![Home-delivered mail, 2016](image)

*Source: eTradeforall 2016 data.*

In the WAEMU region, there are large disparities, with as little as 1.7 per cent of the population having mail delivered at home in Guinea-Bissau and 90 per cent in Senegal. The regional average is 23.7 per cent, compared with 25 per cent for Africa.

In addition, the postal reliability index measures the efficiency of postal services (see figure IV). On average, African countries ranked low, with an index score of 29.6 of 100 and an average score of 19.9 for the WAEMU region.

With regard to the e-commerce-related legislative landscape, four pieces of legislation were considered as a prerequisite for conducting commercial transactions online: (a) legislation on electronic transactions; (b) legislation on consumer protection; (c) legislation on privacy and data protection; and (d) legislation on electronic cybercrime.

Data available indicate that at least eight African countries have all four areas covered by legislation, six have three areas covered by legislation, four have three areas covered by legislation, six have only one area covered and four have none. For the 26 remaining countries, data are missing in part or in full.

Online payments require dematerialization. Traditionally, credit card use has been an indicator that measures the usage of credit card among respondent during the previous 9  Data not available for the Central African Republic, the Comoros, Equatorial Guinea and Somalia.

10  Data not available for Côte d’Ivoire.

11  Data not available for the Central African Republic, the Democratic Republic of the Congo, Equatorial Guinea, Guinea-Bissau, Somalia and South Sudan.
The average use for Africa was 2.2 per 100 inhabitants, compared with 1.3 in the WAEMU region (see figure V). Nevertheless, the use of mobile money, as a leapfrog technology, has shown high utilization rates, with 4.6 per cent of the population of Africa using mobile accounts for payments solutions, compared with 1.9 per cent in the WAEMU region (see figure VI).

For those reasons, African countries were ranked at the end of international indices on e-commerce. Of the 144 countries of the UNCTAD business-to-consumer e-commerce
index (see figure VII), including 41 African countries, 21 African countries were ranked in the last two deciles of the index and all of them were ranked below the median value, except for Mauritius.

Similarly, of the 176 countries of the International Telecommunication Union ICT Development Index (see figure VIII), including 46 African countries, 28 African countries were ranked in the last two deciles of the index and all of them were ranked below the median value, except for Mauritius.

Those few indicators suggest that the potential for e-commerce development has been hindered in Africa. Nevertheless, Weigert (2018, p. 13) noted that, even with those limitations:

The main break with the original e-commerce model is the high level of investment made in offline activity and associated human resources. This can be seen, for example, through the development of call centres, responsible for monitoring orders and relationships with a customer base that is often inexperienced, and the acquisition of a fleet of vehicles dedicated to delivering items and collecting cash payments. Given the lack of street names, the knowledge of traffic and delivery areas acquired by the drivers thus becomes a competitive advantage.

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13 The index uses the following four indicators: share of the population using the Internet; number of secure servers per 1 million inhabitants; share of the population over 15 years of age holding a bank account; and the postal reliability index of the Universal Postal Union. For more on the methodology, see http://unctad.org/en/PublicationsLibrary/tn_unctad_ict4d09_en.pdf.

14 Cabo Verde, the Central African Republic, the Democratic Republic of the Congo, Equatorial Guinea, Eritrea, the Gambia, Guinea-Bissau, Libya, Mozambique, Sao Tome and Principe, Seychelles, Somalia and South Sudan are not accounted for in the index.

15 The index uses three dimensions: ICT access, ICT use and ICT skills. The dimensions are composed of the following five, three and three indicators, respectively: fixed-telephone subscription per 100 inhabitants, mobile telephone subscription per 100 inhabitants, the Internet bandwidth per Internet user, share of households with a computer and share of households that have Internet access, for the ICT access dimension; share of individuals using the Internet, fixed-broadband subscriptions per 100 inhabitants and active mobile-broadband subscriptions per 100 inhabitants, for the ICT use dimension; and mean years of schooling, secondary gross enrolment ratio and tertiary gross enrolment ratio, for the ICT skills dimension. For more on the methodology, see www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2017/methodology.aspx.

16 The Central African Republic, the Congo, Eswatini, Libya, the Niger, Sierra Leone, Somalia and South Sudan are not accounted for in the index.
B. Digital skills in Africa

The current digital gap between Africa and the rest of the world and among African countries has been identified as an area that requires key strategies and approaches to enhance inclusivity in ICT and e-commerce. E-commerce, as an inclusive development tool, has been identified as having the potential to double the share of women-owned enterprises when moving from traditional offline trade to online cross-border e-commerce (African Union, 2018).

During the 2018 African Union e-commerce conference, the following key initiatives, in line with the Programme for Infrastructure Development in Africa, were implemented by the African Union to enhance digital inclusivity throughout Africa:

(a) Electrification and connectivity of post offices in Africa project;

(b) Guidelines on addressing and postcode systems for improvement in delivery of goods and services, and the African Internet Exchange Points Systems project;

(c) Pan African e-network service for telemedicine and tele-education connecting hub and five regional universities to universities in India.


All of the projects were discussed in the context of the shortage of competent digital skills on the continent. The shortage was seen as a barrier to the growth of e-commerce in Africa, which had forced most companies to import those skills in order to fill the gap.

Source: eTradeforall data.
In sub-Saharan Africa, primary school enrolment in 2016 was estimated at 77 per cent of children of official primary school age who were enrolled in school to the population of the corresponding official school age, but with a sharp decrease observed, with only 55 per cent of children enrolled in the first grade of primary school who eventually reached the last grade of primary education. Secondary school enrolment was estimated at 34 per cent of children of secondary school age.\textsuperscript{17} Based on a report by the Africa-America Institute (2015), in 2012, technical and vocational education and training programmes accounted for only 6 per cent of total secondary enrolment in Africa. In addition, only 6 per cent of young people in sub-Saharan Africa had enrolled in higher education institutions, compared with the global average of 26 per cent. It was estimated in the same report that a one-year increase in average tertiary education levels would raise annual GDP growth in Africa by 0.39 percentage points and eventually yield up to a 12 per cent increase in GDP.

Multiple sets of skills are required to develop e-commerce in Africa, in particular communication skills. Several capacity-building initiatives exist in most countries, including information technology hubs, which play a significant role in skills development, digital literacy, policy advocacy, and research ICT centre of excellence programmes by the World Bank, hosted in a number of tertiary institutions. In addition, there are national and regional experiences that can be used to begin to build up the digital skills required, such as the Ghana Tech Hubs and Business Network, the Centre of Technological Innovation for Development of Djibouti and the Multinational Advanced School of Telecommunications of Dakar in West Africa.

The most crucial challenges facing institutions involved in skills development include difficulties in hiring trainers and teachers, the lack of scholarships to support students, financial resources to run new programmes and resistance to change.

**IV. Conclusion**

With approximately 10 per cent of people using the Internet and 1.9 per cent using mobile accounts for payment solutions, the WAEMU region stands, on average, behind Africa in terms of indicators to e-commerce readiness. Nevertheless, opportunities are to be seized for the region.

The African Union held an e-commerce conference in Nairobi from 23 to 25 July 2018, which attracted the attention of a wide audience and culminated with the adoption of the various recommendations in the following areas:

- Skills and human capacity development programmes;
- Security of electronic transactions;
- Consumer protection;
- Infrastructure and logistics;

\textsuperscript{17} Information taken from United Nations Educational, Scientific and Cultural Organization data.
• Modernization of legal and institutional frameworks;
• Regional and continental cooperation frameworks;
• Development aspects.

A road map was also endorsed towards the establishment of an African E-commerce strategy by December 2019. The road map includes the following milestones:

• Stakeholder mapping, establishment of working groups and situational analysis;
• Secure a ministerial mandate;
• Good practices mapping, capacity-building and awareness-raising campaign;
• Recommendation to appoint a champion on e-commerce and to establish a dedicated unit;
• Development and implementation of the e-commerce strategy.
References


