E-commerce in Africa

Morocco, Tunisia, Senegal and Ivory Coast.

Recommendations for regional integration in the Mediterranean

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Novembre 2015





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ACKNOWLEDGEMENTS

We would like to thank all the people we met during the various missions, who took the time to share their experience with us as well as factual information regarding e-commerce. We would like to thank in particular the participants of the Steering committee and those who sent us written contributions.



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REFLECTION CARRIED OUT BY IPEMED

AT A TIME of globalisation, knowledge-driven and immaterial economies, a reflection on regional integration must necessarily take into account the on-going computerization phenomenon. The digitalisation of contemporary societies and economies is a major transformation. This phenomenon can be compared with industrialisation, is a historical process occurring over a long period and aiming at the automatic processing of any type of information. This transformation is too important to let countries alone carry out strategic actions and ensure governance at the national level. According to IPEMED, it requires a global Euro-Mediterranean policy to create a common digital space, a ".med".

This is one of the main recommendations of the report "Steps towards a .med space. Trust in the Mediterranean digital society" published in 2012 by Laurent Gille, Wahiba Hammaoui and Pierre Musso. It also recommended "the development of an industrial strategy encouraging the development of contents (software and programmes) and services linked to Information and Communication Technologies (ICT) and supporting young engineers via start-ups and incubators".

Indeed, this Euro-Mediterranean policy must be developed in view of coproduction, which implies sharing added value, working in a sector logic and developing - especially in the South - contents (software and programmes) and high added-value activities enabling to employ the skilled, and even high-skilled, workforce of these countries with high unemployment rates.

Following this idea, Rachid Jankari drew up a second report in 2014 called "Information technologies in Morocco, Algeria and Tunisia. Towards a Euro-Maghreb ICT industry?". It proposes a better understanding of the reality of the digital sector in North Africa.

The report shows that, even though efforts must be made to make ICT more accessible and in spite of the weaknesses of public policies, the three North African countries have the minimum assets (national strategies, technological zones, skills, national champions, etc.) to take advantage of the digital revolution and use it to enhance the economic emergence of their countries. They must intensify their efforts to shift from digital consumption towards content and high added-value activities production.

In 2015, the Institute chose to focus on e-commerce, on-line commerce and m-commerce, a developing sector in the South featuring great potential to reinforce the weak South-South and North-South economic exchanges and to create skilled employment. We can also reflect on coproduction and sectors by studying the current and future conditions necessary to the development of this industry. Besides, by making the connection with the sector's realities in two Sub-Saharan countries, it highlights the emergence of a great global region Africa-Mediterranean-Europe, called La Verticale. This is a first in IPEMED's reflections.

This report, although not intended to be exhaustive given the broad subject and studied countries, aims at better understanding the e-commerce sector in the selected countries and at identifying current or potential regional integration dynamics. It offers a significant amount of information on this merging sector as well as a comparative analysis of four countries, opening up to other regions in the world. The report concludes by presenting ten recommendations for a harmonious social and economic development of the sector as well as a better regional integration.

Macarena Nuño, IPEMED Project Manager



SUMMARY

E-COMMERCE FIRST appeared in 1994, with the on-line sale of Ten Summoner's Tales, Sting's fourth album. Twenty years later, e-commerce is spreading all over the world, with a volume estimated at USD 1,500 billion in 2014, according to eMarketer. However, the Middle East and Africa still find themselves in a marginal position. According to the United Nations Conference on Trade and Development (UNCTAD), Africa remains the region with the lowest e-commerce penetration, with about 2.2 % of global B2C e-commerce in 2013.

"Will e-commerce take off in Africa in 2015?" Such was the title of the Africa Telecom People symposium held on 8 and 9 October 2015 in Abidjan. The present IPEMED study attempts to provide an answer to this question while explaining if, and in which conditions, Africa has started to develop a type of e-commerce that could foster social and economic development as well as regional integration.

To do so, the study specified the types of e-commerce (FIGURE 1) and the seven categories of actors working in the sector.

FIGURE 1 Actors and types of e-commerce

Types of e-commerce: **E-commerce actors:** 1. Purchase of imported products (B2C) 1. Public authorities 2. Sale of national products (B2C) 2. Producers 3. Other B2C sites 3. Buyers 4. Commerce among individuals (C2C) 4. Digital sector 5. On-line adminstrative services (G2C) 5. Logistics 6. Distribution 6. Commerce among professionals (B2B) 7. Case of digital services 7. Finance

Source : author

The study first explains the methodology applied and then analyses each of the types of e-commerce in the four African countries, leading francophone Africa, which are Morocco, Tunisia, Senegal and Ivory Coast. It highlights the significant differences between the four countries, each of them presenting strengths and weaknesses illustrated in **TABLES 1** and **2** and the following comments.

¹ www.emarketer.com/Article/Worldwide-Ecommerce-Sales-Increase-Nearly-20-2014/1011039

² www.africatelecompeople.net

 TABLE 1 Key figures of the economy in Morocco, Tunisia, Senegal and Ivory Coast (2014)

Morocco	Tunisia	Senegal	Ivory Coast
446,550	163,610	196,710	322,463
33.92	10.99	14.67	22.16
1.4	1.0	3.1	2.4
67	80	50	57
110	48.6	15.65	31.06
3,242	4,458	1,072	1,529
2.4	2.7	4.7	8.7
0.2	5.4	0.1	0.5
	446,550 33.92 1.4 67 110 3,242 2.4	446,550 163,610 33.92 10.99 1.4 1.0 67 80 110 48.6 3,242 4,458 2.4 2.7	446,550 163,610 196,710 33.92 10.99 14.67 1.4 1.0 3.1 67 80 50 110 48.6 15.65 3,242 4,458 1,072 2.4 2.7 4.7

Source: World Bank

 TABLE 2 Ranking of studied countries according to their degree of preparedness to information society (2015)

	Morocco	Tunisia	Senegal	Ivory Coast
2015 NRI Rank out of 143 countries	78	81	106	115
2014 NRI Rank	99	87	114	122
NRI Environment subindex	80	103	87	95
NRI Readiness subindex	87	69	129	118
NRI Usage subindex	64	81	98	117
NRI Impact subindex	83	81	78	107
2015 ICT Development index out of 167 countries	99	93	132	137

Source: World Bank

Morocco is the most powerful of the four countries. Its agricultural and artisanal sectors are organised and the country has a strong will to export. However, exchange regulations hinder the development of e-commerce. Tunisia is the country where public authorities first started reflecting upon a national e-commerce strategy; nevertheless, its implementation proves rather difficult. Senegal managed the best symbiosis with its diasporas through e-commerce resources. Yet, it is the country with the highest broadband price in comparison with the average revenue. Finally, Ivory Coast, a country undergoing significant changes, shows the highest GDP growth. It hosts e-commerce international companies such as Jumia and Cdiscount and is getting ready to develop its own e-commerce industry.

Beside the specificities of studied countries, the report highlights the strengths and weaknesses common to North-African or Sub-Saharan countries, or to the four chosen countries.

^{3 17.4} days of GDP against 0.26 in Tunisia.

^{4 9%} against 2.6% in Morocco.



In all of them, the mobile phone network is much more developed than the fixed network giving access to the Internet. Of course, if we want to make the difference between the two types of e-commerce according to the access terminal and the telecommunications network used, we will have to talk about m-commerce rather than e-commerce. Generally speaking, the legal framework is complete for most countries though not always recent, which hinders electronic payments or consumer protection. The organisation of agricultural, artisanal and industrial sectors is necessary to develop the exportation of national products, especially in the context of e-commerce. The existence of a common currency (CFA franc) and of regional initiatives such as that of the Central Bank of the West African States (BCEAO) and of the Interbank Electronic Banking Group (GIM) of the West African Economic and Monetary Union (WAEMU) have a significant impact on cross-border electronic payments. On the contrary, the strict exchange regulations are a real obstacle for Morocco. The access to telecommunications networks was not an obstacle to the development of e-commerce. It seems partly solved in big cities and probably slightly less in rural areas. The emergence of an African middle class is the most significant factor for the development of e-commerce and mass distribution. As shows the study of Bearing Point and Ipsos for CFAO, it is the members of the middle class and of the upper classes who most frequently resort to e-commerce, given their purchasing power. In the four studied countries, the absence of an efficient logistics infrastructure enabling to distribute parcels with a good price-quality ratio is a great obstacle. Solutions are being implemented with or without the posts of the concerned countries. The lack of trust in the digital economy is also an obstacle for both on-line orders and payments. Therefore, credit cards, which are accessible to the small part of Africans with a bank account, as well as mobile payment solutions, widespread in Sub-Saharan Africa, remain little used for on-line payments. To this day, the significant investments granted by multinational companies (ex: Jumia, Cdiscount) are not profitable yet. Finally, the various tax regimes (ex: VAT) applied in the different countries are another obstacle to exportations and cross-border e-commerce.

We can now answer the initial question and the subsequent ones.

Will e-commerce enable the development of local champions or will it give free rein to international giants?

Just like for mass distribution, investments in mass e-commerce are such that only multinationals can ensure them. However, national actors could work as their partners.

Will national companies be able to export towards foreign clients more easily?

The exportation of national products and services via e-commerce, just like via traditional means, mostly depends on the dynamism and organisation of production sectors.



Will Africa manage to overcome obstacles and inefficiency or will these obstacles (preserving incomes) be so important that e-commerce will remain insignificant and monopolised?

It will all depend on States' political will to limit corruption, to make exchange regulations more flexible and to provide information regarding the quality of postal services.

Will there be a positive ecological impact?

There is no doubt that proximity m-commerce has a positive ecological impact, while international e-commerce is more controversial and depends on many factors.

Will e-commerce bring more well-being to Mediterranean and Sub-Saharan African populations?

It will, when e-commerce will enable to sell local products or to get goods that are useful to the economy. It will not if it contributed to developing a western consumer society at the expense of the African culture and the environment.

Can e-commerce contribute to a greater regional integration?

E-commerce is intrinsically international and triggers complex issues (exchange regulations, logistics, payment service providers, cyber-security), the solution to which lies at the regional or even continental level.

Is e-commerce taking off in Africa?

Indeed, the study highlights a taking-off.

What are the main obstacles to overcome?

The ten recommendations in the study bring up the ten main obstacles to overcome.

How will e-commerce enable a decrease in transaction costs and facilitate, or even generate, trade?

Obviously, e-commerce enables isolated people to buy goods and services that are non-available on site. In some cases, it spares people from going abroad to buy necessary goods.

Does e-commerce formalise informal trade?

It is likely that e-commerce will increasingly apply to products that are currently the preserve of informal trade. Thanks to electronic payments enabling traceability, it might contribute to making formal part of the informal trade. The available data do not make it possible to measure this phenomenon yet.



The recommendations cover each of the ten key elements hindering e-commerce:

- Promoting an e-commerce satisfactory to African people
- Developing the production of local contents adapted to e-commerce
- Developing consumer's protection and education
- Making e-commerce accessible to all
- Developing payment services inspired from the best practices
- Developing reliable logistics and distribution
- Fighting cybercrime to build confidence
- Adopting adapted public policies
- Creating an International Observatory of E-commerce
- Mobilising non-governmental organisations

We shall now address the issue of a potential link between e-commerce and regional integration, which is one of IPEMED's focal area. The study shows that telecommunications, logistics and payment multinationals are willing to develop regional integration, as any national or local specificity incurs expenses for them. Manufacturers and their clients are also in favour of regional integration, as they need larger markets and easy cross-border purchasing. Administrative, customs and financial policies (exchange regulations) hinder regional integration, thus making cross-border commerce in Africa very low compared to that of Europe or Asia. Nevertheless, States need regional integration, as issues regarding electronic payment, cyber-security or consumer protection are so complex that they can only be solved at the regional or continental level.



METHODOLOGICAL NOTE

THE OBJECTIVE OF this study is to see whether e-commerce could foster regional integration and whether such dynamics already exist or could be developed. To do so, we must first examine whether e-commerce is currently adapted to the four studied countries and, beyond, to the Mediterranean and Sub-Saharan Africa. This fundamental interrogation raises many questions, and especially those asked afterwards by the Steering Committee of the study:

- will e-commerce enable the development of local champions or will it give free rein to international giants?
- does it favour national companies by enabling them to export to foreign clients?
- will it enable to overcome obstacles and inefficiency or, on the contrary, will these obstacles (preserving incomes) be so important that e-commerce will remain insignificant and monopolised?
- what ecological impact will it have?
- to what extent is it interesting for European, Mediterranean and Sub-Saharan populations, as separated entities and among each other?

Here are a few of the issues we are going to tackle in this report.

What does the notion of e-commerce cover?

E-commerce can be understood in a narrow or in a broader sense. Here, we will choose an intermediary definition, broader than e-commerce in the strict sense of the term which, according to the OECD, gathers "the sale or purchase of goods or services, by enterprises, individuals, governments, and other public or private organisations conducted over computer networks". In this report, we will include in our definition the sale or purchase of goods or services that are only partly conducted over a computer network. Thus, we will include the purchase of goods ordered via computer but paid by cash upon delivery, or the payment of water, gas or electricity bills resulting from a traditional contract with on-line bill payment. Contrary to the studies carried out by the mass distribution sector, we will also include commerce among individuals - with or without money transaction involved - as well as not strictly commercial teleservices offered by public authorities, paid per unit or via taxes. However, we will not go as far as including the whole e-business sector, which comprises digital processes other than commercial, and the whole ICT sector7.

⁵ Contrary to us, the French Federation of E-commerce and Distance Selling excludes from e-commerce the sales order via non-electronic communication channels, such as mail for mail-order selling. Thus, the remote sales including them are about 10% higher than e-commerce alone. We will not enter into these considerations as, in emerging countries, mail-order selling do not have a long history as is the case in France. Besides, all mail-order selling companies now resort to e-commerce.

⁶ E-business (for electronic business), sometimes used in the sense of e-commerce, reflects a broader notion of integration in a company of ICT-based tools (often called software packages) to improve operation and create value for the company, its clients and its partners.

⁷ According to the OECD, the ICT sector comprises: production sectors (manufacturing of computers, TV, radios, phones, etc.), distribution sectors (wholesale trade of computer equipment, etc.), service sectors (telecommunications, computer services, audiovisual services, etc.)

We will thus study e-commerce and its environment considering that it can be defined as "the sale, purchase or supply of goods or services completely or partly conducted via an electronic network and especially the Internet (e-commerce in the strict sense of the term) and mobile networks (m-commerce)".

In theory, e-commerce is as broad as commerce itself. This is why we must divide it into categories to get our bearings. We will distinguish the various types of e-commerce according to the following parameters:

- depending on the access network type, we will talk about m-commerce
 when it is conducted via a mobile terminal and of e-commerce when it is
 conducted from a fixed Internet access. In the report, we will talk about
 e-commerce covering the two conceptions;
- according to the nature of suppliers and buyers, we will use the traditional classification (B2B, B2C, C2C, etc.);
- according to the geographic specificities, we can distinguish between local, national and cross-border commerce;
- according to the nature of the exchanged goods, we can distinguish between consumer goods, intermediate goods and services and also by trying to identify the digital services and/or the services made possible by the digital sector;
- according to the steps of purchase or sale, we will distinguish between search for clients, suppliers and products on the Internet or virtual marketplaces, electronic order, delivery, payment and after-sale service.

Traditional commerce from companies towards consumers (*B2C-Business to Consumers*)[§] includes retail commerce, tourism and travels, cultural goods (books, music, videos), on-line services (banking, insurance, etc.), on-line gaming, software, etc. We will not include information and press websites, more visited than e-commerce websites, as the information they publish is generally free, even though they can encourage the sale of paper copies.

According to the estimations of the UNCTAD, the value of B2C e-commerce reached over USD 1,200 billion worldwide in 2013³ and according to eMarketer, it reached USD 1,400 billion in 2014³⁰. The UNCTAD added that this part of e-commerce is growing faster than the others. Even though it is less significant than B2B in value, B2C will be at the core of our analysis for two reasons: firstly, because it concerns more people, so that it is much more visible than commerce among companies, and secondly, because there is no need for a relation between the buyer and the seller prior to ordering, which is not the case for commerce among companies.

⁸ Here is the definition of the European e-commerce foundation: any contract between a company and a consumer regarding the sale of goods or services entirely or partly concluded via a remote communication technique.

⁹ UNCTAD, 2015 Report on information economy, Unlocking the potential of E-commerce for developing countries.

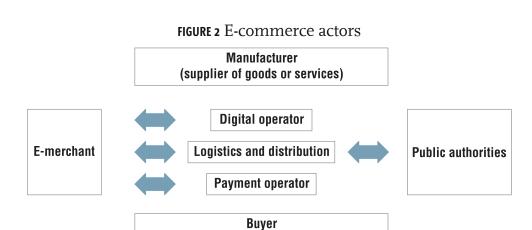
¹⁰ According to the estimations of eMarketer, electronic sales to consumers (B2C) reached USD 1,471 billion worldwide in 2014. Margaux Duquesne, L'informaticien, 6 February 2013. www.linformaticien.com/actualites/id/27993/l-e-commerce-explose-1-trillion-de-dollars-en-2012.

Commerce among companies (B2B-Business to Business) reached over USD 15,000 billion worldwide in 2013, according to the UNCTAD, which accounts for 8% of B2B commerce. In the United States, it currently accounts for nearly half of the turnover of manufacturing companies, while it only accounted for 20% in 2012. We can add exchanges of companies with their employees (B2E-Business to Employees), including employment contracts and pay. Although it is quite significant in volume, it will not be the object of our focus as we consider that B2B commerce comes after an initial sale agreement between two companies in traditional commerce conditions between professionals, requiring physical encounters and a mutual knowledge. After a first sale conducted via conventional means, purchase orders follow one another, with the characteristics of B2B e-commerce.

Government to citizens (*G2C-Government to Citizens*) and Government to companies' procedures (*G2B-Government to Business*) do not belong to e-commerce in the strict sense of the term as they are not always characterised by a payment per unit. Nevertheless, we consider them important as they play a driving role in the development of e-commerce, for tax payment of virtual public markets for instance.

The last type is commerce, or rather exchanges among citizens (C2C-Citizens to Citizens) based on barter and social networks. We can cite eBay, Craiglist in the Unites States, Le Bon Coin and PriceMinister in France. Generally speaking, this type of commerce is not included in e-commerce statistics as they often come from large companies (B2C) and the figures regarding commerce among individuals do not interest them or bother them. In France, only in the field of transports, a few companies have been widely talked about, such as Uber for the reservation of taxis or cars with drivers, Blablacar for car sharing, Zipcar and Drivy for car rentals among individuals, but also Ladepanne, for the rental of DIY equipment among individuals, Airbnb for accommodation sharing, etc. This new concept of Uberisation¹¹ based on collaborative commerce, or social commerce, or on demand economy is estimated between USD 20 and 30 billion in 2013, doubling every year and a half, which would bring it to USD 100 billion in 2016. In Morocco, the number of visits on classified ad websites, which often lead to sales among individuals, is much higher than on e-commerce websites strictly speaking and than on institutional websites.

The specifications of the study propose to examine "the existing conditions and the conditions to be created before and after to support the development of this sector." To do so, we must study the e-commerce value chain (FIGURE 2).



Source: author

We will divide it into seven types of actors (FIGURE 2), which we will briefly define. Some of them can play several roles:

- **public authorities** regulate the sector. In the framework of public markets, they can also be buyers, and in the case of remote electronic procedures, such as on-line visa delivery, they can be sellers;
- manufacturers, goods or services suppliers, concerned by e-commerce.
 Generally speaking, they are not the first on the spot, unless they are particularly powerful and in relation with the final client, like for example national air carriers, banks or great public and private invoicing agents;
- e-merchants. They sell goods and services on-line. They coordinate the various traditional functions of suppliers. They ensure the daily management of an on-line sale platform, with real-time updating, exploitation, maintenance, cyber-security, while ensuring client assistance, reimbursements and returns, etc. One of the study's objectives is to determine whether and how to "make southern Mediterranean countries shift from digital consumption towards content production and high added value activities." Here, we examine whether retail websites are operated by southern or northern actors. We will also distinguish between traditional merchants, using e-commerce as another way to sell their products, and pure players with no previous traditional retail activity experience, creating sales platforms in order to connect sellers and buyers other than themselves. We will also include Governments and public organisations as they offer on-line services such as water or electricity provision, as well as other on-line public services paid per unit or via taxes;

¹² Marketing, packaging, logistics, sale, physical distribution, purchases, payments, management, legal affairs, etc.

the broad sense of the term:

• digital service suppliers for e-merchants and their clients. They are mainly telecommunications operators supplying connectivity via e-commerce platforms. They use or offer various channels and technologies¹³. We will only distinguish between those that can be used on mobile devices - m-commerce - and other fixed channels, such as phones, fixed Internet, physical points of sale¹⁴ representing e-commerce in the strict

sense of the term. The combination of both represents e-commerce in

- payment service suppliers. Firstly, they are banks delivering and managing checks, bank transfers, withdrawals, credit, debit and prepaid cards¹⁵, mobile banking and automated teller machines (ATM). Secondly, they are other payment service operators that do not have the right to issue money, such as telecommunication operators, offering mobile payment options¹⁶. Thirdly, they are traditional retailers that can be included in e-commerce circuits by delivering products in exchange for cash payments upon reception of the product, if it is in accordance with the order¹⁷;
- **suppliers and actors of the logistics chain** including carriers, freight forwarders and final distribution points which, if there is no delivery to the final client, collect the goods and deliver them to the clients¹⁸;
- **buyers** who actually are clients and can be governments (B2G), companies (B2B) or individuals (B2C). It could be interesting to know the number of potential buyers according to the purchasing power of the population. The GDP per inhabitant gives a good idea of the average, however, it does not take into account the repartition among social classes. Another indicator that we find more relevant is the emergence of the African middle-class with the study of Bearing-Point for CFAO. The study is well documented for Ivory Coast and Morocco and could be generalised to other countries.

Finally, we will distinguish between national e-commerce and crossborder or international e-commerce. For the latter category, we will distinguish between import e-commerce, where the inhabitants of the studied countries mostly buy products from the rest of the world, and export e-commerce, where the companies of studies countries try to sell their goods and services abroad. These distinctions are essential because import and export commerce and national commerce have quite a different impact on the country's economy and on people's lives.

¹³ Technologies used in terms of e-commerce: electronic data interchange (EDI) specifically developed for B2B, free and secured Internet, fixed and mobile phones (SMS, MMS, etc.), analog and digital television, social networks.

¹⁴ It is e-commerce if the local point of sale is connected to a remote retail site.

¹⁵ Electronic money concerns all electronic, computer and telematics treatments necessary to the management of debit cards and associated transactions. A prepaid card is a means of payment deriving from the debit card. The essential difference is that it is not connected to the bank account of the carrier.

¹⁶ We will not use the term e-wallet as it covers several elements: i) a device to stock currency with no prepaid account, with or without a chip (ex: Monéo or Skrill); ii) through a mobile phone (ex: M-PESA, Orange Money), in that case we talk about mobile money; iii) a secured device installed on mobile electronic devices (mostly mobile phones) enabling to initiate a bank transfer from one's account towards the account of a supplier or an individual. The device does not contain any currency but it gives secured access to one's bank account, via a payment terminal installed on site for instance (ex: Google Wallet, Paypal). In that case we talk about mobile banking.

¹⁷ Cash on delivery.

¹⁸ They can be post offices, local shops, local carrier agencies, etc.

VIII-

Statistics are being published in an increasing number of countries, both on national e-commerce¹⁹ and cross-border e-commerce. However, the studies we found do not cover the studied countries yet. Besides, as a transversal field, it requires investigations in several complementary sectors, which, given the limited budget of the study, cannot be carried out for each of them. Therefore, we must establish priorities:

- Analysis of the economic context: in order to highlight the obstacles to the development of companies in general, and of e-commerce companies in particular, we will only analyse a few homogeneous economic data enabling to compare the studied countries as well as elements of the Doing Business 2016 report of the International Bank for Reconstruction and Development (IBRD). We will add a socio-economic analysis on the middle classes of the studied countries since, as we will see later on, they are the main current and potential buyers for the e-commerce sector. Finally, we will add explanations on transversal topics (cloud, money transfer, etc.), in the part dedicated to regional synergies, if not in monographs;
- Analysis of the legal and regulatory context: in its 2015 report on e-commerce, the UNCTAD analyses the existence or non-existence of laws in the four following fields: electronic transactions, consumer protection, protection of privacy and protection against cyber-crime. We will add the existence or non-existence of recent banking laws regarding payment service providers (PSP). Nevertheless, we must point out that this analysis has its limits. Indeed, in order to be complete, it should include not only a comparison on the existence of laws, but also on their provisions as, in developed countries, these laws have been amended in order to adapt to information society. In practice, we will find a middle ground by adding to the existence of laws their date of enactment, which gives an idea of their modernity, adding comments collected in the concerned countries on whether or not they are adapted to the development of e-commerce;
- Political, administrative and fiscal environment: these three fields all deserve to be deeply analysed, all the more so as the institutional management of e-commerce is divided between several ministerial departments, making data collection complex and difficult and compelling us to collect data with private actors. We will only deal with the points required in the specifications and those we have been aware of and which seem to have an impact on e-commerce. In the fiscal field for instance, we reminded the basic fiscal context of the studied countries specifying, when it was pointed out to us, the particular difficulties that this context represents for e-commerce. In monographs, exchange regulations have been cited as an obstacle several times.

- International commerce environment: when it comes to this essential element of cross-border e-commerce, many fields can be analysed: free-trade agreements, customs tariffs, exchange regulation, foreign trade figures, foreign partner companies, etc. This field could be the object of a study in itself, therefore we must limit ourselves to essential information having an impact on cross-border e-commerce. In particular, one of the difficulties is linked to the fact that websites aiming at selling their products worldwide must respect the fiscal legislation of each target country. The detailed analysis of these constraints cannot be examined in this report, however they have a significant impact and they can be considered as an obstacle to cross-border e-commerce.
- Unavailable, imprecise and fragmentary data linked to the newness of the subject and absence of homogeneous definitions among actors. Data collection and verification require comparing several sources, to ensure consistency among them, and even estimate figures from published data and our knowledge of the market. As for monographs, we cannot only rely on the UNCTAD, which gives estimations on the number of on-line buyers in Africa and other continents, but does not provide quantitative indications on e-commerce in the studied countries. The same goes for the estimations of eMarketer²⁰ and Payvision, which offer indications on e-commerce in Africa and the Middle East but not individually on the studied countries. We cannot rely on the European E-commerce Foundation either as it gathers the Middle East and North Africa in a MENA zone, while completely excluding Sub-Saharan Africa from its statistics. The same goes for the Nielsen study of on-line purchase intentions in the world^a, which includes five African and Middle Eastern countries but none of the studied countries². These sources provide a global vision of e-commerce in the region under focus (Mediterranean and Africa), but we cannot draw any deep analysis from them. As for the four studied countries (Morocco, Tunisia, Senegal and Ivory Coast), few homogeneous data on e-commerce can provide relevant indications, in accordance with the specifications of the study and with the indicators published by the UNCTAD in its report of March 2015 on information economy, specifically dedicated to e-commerce. In the absence of data, we looked for e-commerce websites, as if we were willing to buy products and services in these countries, and we assessed the relative importance of the different websites based on the number of visits, measured by websites like Alexa. As for other data - regarding populations and their growth, GDP, GDP per inhabitant, average GDP growth over the period 2011-2015 and inflation - they come from the World Bank. The literacy rate (people over 15 years old) comes from 2015 data of the WHO. As regards digital data, we resorted to the 2015 ITU report Measuring the information society, on 2010 and 2015 data³³ and to the report of the World Economic Forum 2015 Global information technology report. We also used the data of the 2015 and 2009 Global competitiveness report of the WEF.

²⁰ eMarketer data result from estimations based on internal information of large global companies such as Visa, Mastercard, Paypal and Amazon. Yet they are not very detailed.

²¹ http://ir.nielsen.com/files/doc_financials/nielsen-global-e-commerce-report-august-2014.pdf

²² Egypt, Pakistan, Saudi Arabia, South Africa and United Arab Emirates.

²³ www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2015.aspx



- Necessity to distinguish between e-commerce types: different types of e-commerce (formal, informal, import, export, B2B, B2C, C2C, etc.) have very different impacts on the economy of the studied countries and on the subsequent regional integration possibilities. In order to deeply analyse the different elements of e-commerce, we will choose Morocco, which is the country with most data, and then we will extend the resulting arguments to other countries, without necessarily carry out the same demonstrations;
- **Digital environment:** we do not think it is necessary to precisely describe the available infrastructures and services (underwater cable, 3G, 4G, covered territory, etc.) i) because none of the studied countries has yet created a geographic observatory enabling to know which telecommunications infrastructures, services and digital services are available on the territories and at what price and that this work would require a study in itself; ii) because the dense and well-connected areas gather most of high-and middle-classes of the studied countries, which are the only ones to be able to resort to e-commerce; iii) because describing infrastructures and digital services would pointlessly weight upon the report and in the absence of figures, it would be impossible to link it to e-commerce development. We will limit our analysis to the international indicators published by the International Telecommunication Union and the World Economic Forum on connectivity, services and uses in the studied countries;
- Regarding obstacles and opportunities for the development of e-commerce, the missions carried out in each country enabled to collect testimonies on the obstacles and opportunities that we can approve or reject from the collected studies and data. As regards the development potential of these new forms of e-commerce resulting from the emergence of middle-classes, mostly urban, rather connected and mobile, we will rely on the IPSOS-Bearing Point-CFAO study on African middle-classes and their consumption habits;
- **Impact on social development:** we will search whether, and to what extent, e-commerce can enable local small producers or artisans to sell their products more easily, and whether it enables entrepreneurs to create on-line sale companies or other companies linked to e-commerce.

In the four studied countries, the mobile phone network is much more developed than the fixed network giving access to the Internet. Of course, if we want to make the difference between the two types of e-commerce according to the access terminal and the telecommunications network used, we will have to talk about m-commerce rather than e-commerce.

We studied the sectors of e-commerce and its environment taking into account its nature, characterized by the traditional distinction between the

fields of expertise of the different concerned Ministries which are:

- Production, traditionally attached to Ministries of Agriculture, Craftsmanship, SMBs, Industry;
- The digital sector, traditionally attached to the Ministry in charge of Telecommunications, is one of the ingredients creating a favourable environment at all the levels of the value chain;
- Logistics and distribution, traditionally attached to the Ministry of Trade, will be the object of an analysis including the aspects of consumer protec-
- Finance, and in particular electronic money, traditionally attached to the Ministry of Finance and to central banks, will be the object of specific analyses.

After providing a few elements on the general geopolitical situation, we will analyse e-commerce in each of these countries. We will start by establishing a general picture of the sector with the main elements, and we will then examine the potential obstacles and levers to its development. In order to respect the specifications and given our budget, we will talk about the legal and administrative framework, the main actors, good practices and key figures; however we will not go as far as comparing in detail the clauses of the legal framework, the amount of banking commissions or the applicable customs tariffs.

In order to make reading easier, we decided to limit development, while using footnotes to provide explanations, as well as hyperlinks enabling the reader to look for more information.

In order to develop all these sections, we chose to go one or several times to each of the studied countries. We also went to Geneva, for the World Summit on the Information Society, and to Paris, to the annual symposium of the French Federation of E-commerce and distance selling on e-commerce issues¹⁴, and we decided to base our analysis on the following information sources:

- interviews carried out in each country, the list of which is provided in the appendixes;
- E-commerce websites, identified by search engines from researches carried out as if we were trying to buy products and services in these countries. Then, we compared the relative importance of these different websites based on the number of visits, measured by the company Alexa*, well documented for Morocco but much less for the other studied countries26;

²⁴ www.lesenjeuxecommerce.com

²⁶ Website ranking is calculated every day and varies from one day to another. For the present study, the data were mostly collected on 8 June 2015 with a few data collected in the following days. This procedure seems acceptable as we are not looking for a precise ranking but rather rough estimates on ranking which do not vary over a one-month period.



- the local economic information provided firstly by relevant public actors, such as the Ministry of Trade or the Central Bank, by relevant professional organisations²⁷ as well as by private companies involved in e-commerce like, for instance, Jumia²⁸, CFAO, IPSOS and Bearing Point²⁹;
- major international studies on e-commerce and its environment listed in the annexed bibliography. The most important ones are listed below:
 - the 2015 UNCTAD report on information economy which is specifically about e-commerce³⁰;
 - the July 2014 eMarketer report³¹ and the studies carried out by e-commerce professionals;
 - the monographs of cross-border e-commerce published by the Cross-border E-Commerce Community³²;
 - the IPEMED report on information and communication technologies in Morocco, Algeria and Tunisia;
 - the ITU reports on the assessment of information society, including in particular the IDI (ICT Development Index) and IPB (ICT Price Basket) indexes;
 - the 2015 Global Information Technology Report of the World Economic Forum with its Networked Technology Index (NIR);
 - the Doing business 2016 report of the IBRD on the ease of doing business in 189 countries;
 - national or regional studies carried out by governments or financial institutions in the studied countries.

As regards the information and key figures³³ required in the specifications, we will present them in the various sub-chapters below. We will always justify our choices when our developments stray from the requirements of IPEMED initial specifications or from the UNCTAD indicators that we now consider as a reference.

From the monographs created, we compared the situation with that of other continents, examined regional synergies and tried to draw conclusions on the opportunities and obstacles to the development of the sector at the national and regional level. Once we understood whether and to what extent e-commerce could benefit from or contribute to a better regional integration, we issued recommendations in this regard.

²⁷ FNEM in Morocco and SEVAD in Tunisia.

²⁸ The company Jumia, which is one of the great e-commerce actors in the studied countries, passed on to us unpublished statistics. We thank them for the information they agreed to give us.

²⁹ In 2015, the companies Bearing-Point and IPSOS carried out a study on African middle classes for the CFAO company. They passed on to us part of the results.

³⁰ http://unctad.org/en/PublicationsLibrary/ier2015_en.pdf

³¹ eMarketer, July 2014: worldwide E-commerce sales to increase nearly 20% in 2014.

³² ww.crossborder-ecommerce.com/

³³ key figures: % GDP, turnover, bank-account penetration, Internet penetration rate, n° and types of payment cards, market share of main actors, investments in the sector, etc.



E-commerce in Africa

E-COMMERCE FIRST appeared in 1994, with the on-line sale of Ten Summoner's Tales, Sting's fourth album. If we consider e-commerce in the broad sense of the term, including e-government, e-commerce appeared in France in the 1980's with mail-order selling and the Minitel. E-commerce really took off in the United States in the 1990's with companies such as Amazon, EBay and AOL. These companies collected significant financial assets on the stock market, until the Internet bubble burst in 2000. Today, e-commerce is more mature and is developing worldwide, especially in Asia, thanks to the rise of mobile phones34.

Twenty years later, e-commerce is spreading all over the world, with a volume estimated at USD 1,500 billion in 2014, according to eMarketers. However, the Middle East and Africa still find themselves in a marginal position. According to the UNCTAD, Africa remains the region with the lowest e-commerce penetration, with about 2.2 % of global B2C e-commerce in 2013. Cross-border e-commerce accounted for about USD 300 billion in 2012, or 30% of global e-commerce. But here again, the share of Africa is quite low.

In the monographs of the four studied countries (Morocco, Tunisia, Senegal and Ivory Coast), we will describe the types of e-commerce and their actors (FIGURE 3) in order to later be able to answer essential questions on the emergence of e-commerce in Africa.

FIGURE 3 (reminder) Actors and types of e-commerce

Types of e-commerce:	E-commerce actors:
1. Purchase of imported products (B2C)	1. Public authorities
2. Sale of national products (B2C)	2. Producers
3. Other B2C sites	3. Buyers
4. Commerce among individuals (C2C)	4. Digital sector
5. On-line adminstrative services (G2C)	5. Logistics
6. Commerce among professionals (B2B)	6. Distribution
7. Case of digital services	7. Finance

Source: author

³⁴ In that case, we talk about m-commerce. According to Keira McDermott, Payvision, Key Business Drivers and Opportunities in Cross-Border Ecommerce, "M-commerce was estimated at USD 133 billion in 2013, or 10.6%, while its growth rate is very high, with an expected contribution of USD 516 billion in 2017, nearly half of which coming from Asia".

³⁵ www.emarketer.com/Article/Worldwide-Ecommerce-Sales-Increase-Nearly-20-2014/1011039



The case of Morocco



MOROCCO IS THE most populated and the wealthiest of the studied countries, as show the key figures collected about its economy in 2014. At the geopolitical level, Morocco is a partner for Africa, thanks to its strategic position (hub) on the continent and because its economic model is considered as "reachable" by its African neighbours, compared with the European or American models.

TABLE 3 Key figures of the Moroccan economy (2014)

Surface area (km²)	446,550
Population (million inhabitants)	33.92
Population growth (%)	1.4
Adult literacy rate (WHO 2015 %)	67
GDP (billion USD)	110
GDP/inhabitant (USD)	3,242
GDP growth (%)	2.4
Inflation (%)	0.2

Source : World Bank

In its annual report Global competitiveness report 2015-2016, the World Economic Forum ranked Morocco 72^{nd} out of 140. It is rather representative of MENA region countries. In 2009-2010, it was ranked 73^{rd} out of 133 countries. In we focus only on innovation, however, Morocco is lagging behind, ranking 92^{nd} . As regards the ease of doing business, the 2016 IBRD report ranks Morocco 75^{th} out of 189 countries.



E-commerce in Morocco

AMONG THE STUDIED COUNTRIES, Morocco is the country with more available data on e-commerce thanks to the publications of the National Federation of E-commerce in Morocco (FNEM). Every year, the FNEM conducts a survey with its members and compares the collected data with that of the National Telecommunications Regulatory Agency (ANRT) and that of the Interbank Monetary Centre (CMI).

For 2014, the FNEM reports:

- 903,000 on-line buyers, against 769,000 in 2013*, for a total of 18 million internet users:
- the total amount of e-commerce transactions reaches Dhs 24.09 billion, against 23.1 billion in 2013, that is a 4.29% growth";
- Dhs 2 billion of on-line financial transactions in 2013;
- an average sale transaction of Dhs 709, of which we can deduce 34 million transactions³⁸ and an average number of 38 transactions per buyer per
- Dhs 1.1 billion on-line payment by debit card, with a decrease of 13.4% compared with 2013;
- 2,419 retail websites in 2014, against 1,320 in 2013, a growth of nearly 100%. Supplier companies are major accounts (15%), SMBs (50%), very small businesses (14%), associations (6%) and governments (2%)*;
- Purchases mainly concern services (49%), consumer goods (34%), tourism (11%) and public services (5%).

As regards the way Moroccans perceive this type of commerce, we have several interesting sources:

the National Control Commission for the Protection of Personal Data (CNDP) carried out a first control campaign in 2013 which revealed that the law was generally respected, with a few irregularities and legal proceedings;

³⁶ The FNEM figure of 769,000 buyers is consistent with that of the ANRT which reports, for the year 2013, 750,000 individuals having conducted one or several purchases on the Internet. The difference can be explained by remote purchases via other ways than the Internet.

³⁷ According to the CMI, in 2013 the total amount of electronic transactions in Morocco reached Dhs 13.4 billion (€1.2 billion). However, this figure is not relevant as it does not take into account the e-commerce transactions paid upon delivery which are included in our definition. According to Planet Expert (www.planet-expert.com/fr/pays/maroc/vente-a-distance) the market of door-to-door selling exists in Morocco but it remains marginal. The total turnover for direct selling reached USD 12 million in 2013 (-39.3% compared with 2012 and +5.7% over the past three years). The sector employs about 87,000 people.

³⁸ Number of transactions = volume of transactions / average sale transaction.

³⁹ Average number of transactions per buyer per year = Number of transactions in 2014 / number of buyers.

⁴⁰ According to the magazine Aujourd'hui, Le Maroc, n° 3128 of 14 to 16 March 2014, in 2013, the 387 merchants affiliated to the CMI note 23.9 million payment operations via Moroccan and foreign debit cards, for a total amount of Dhs 18.5 billion, increasing by 20.3% in number and 16.5% in volume compared with 2012. Ismaïl Bellali, CMI Deputy Director, estimates that 1.9 million operations were conducted on-line in 2013 (+61%) for a transaction volume of Dhs 1.36 billion (+82%).

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- according to the FNEM, people buy products on-line because they can save time (73%), have more choice (67%), can compare prices (59%), avoid the crowd (58%) and have access to lower prices (55%);
- according to an opinion polling of May 2012⁴¹, the only reasons why people did not purchase on-line were because they were afraid of counterfeit products (38%), of the use of personal data (26%), the lack of advice (24%) and the lack of guaranty on delivery (22%).

According to the interviews we conducted, the lack of trust in e-commerce and exchange regulation are the major obstacles to the development of this type of commerce.

The following sections offer a few examples among which the 2,419 websites identified by the FNEM in 2014. They are gathered by types of retail websites. When the figures are available, we will indicate, between parenthesis, the website traffic rank in the world and then in Morocco. We will sort websites by traffic descending order.

■ Electronic purchase of imported products

At the core of e-commerce lies the possibility for Moroccan people to buy on-line foreign and Moroccan products sold by companies (B2C). The most visited e-commerce website in Morocco is Jumia⁴⁷, launched in 2012. It currently ranks 26th among Moroccan websites, with a traffic rate of 84.6% from Morocco and 15.4% from the rest of the world - undoubtedly with an important share of the Moroccan diaspora. Jumia gave us an example of its activity over one week of May 2015, when it attracted 1.7 million unique visitors on its website and sold 4,000 smartphones. Other similar websites must be cited, especially Kaymu.ma⁴³, ranking 119th with 87.7% of Moroccan visitors, or La Redoute.ma⁴⁴, ranking 1,782nd with 76.20% of Moroccan clients. Foreign company websites follow, such as Amazon, Paypal, Alibaba and Cdiscount. They are established outside Morocco but visited by Moroccans and respectively rank 37th, 41st, 46th and 429th. These websites sell even more imported foreign products than the former⁴⁵. For instance, 0.6% of Alibaba visitors are Moroccan, whereas 0.8% of Cdiscount visitors are.

■ Electronic purchase and sale of national goods and services

The most visited e-commerce websites for Moroccan goods and services are that of companies offering public services:

the website of the air carrier Royal Air Maroc, ranking 580th, attracts a lot of foreign internet users (73% vs 27% for Moroccans);

⁴¹ Averty Market Research & Intelligence study conducted with 1,224 people in 38 cities. Le matin ECO, 19 September 2013.

⁴² www.jumia.ma

⁴³ Kaymu results from Africa Internet Holding (AIH), a branch of Rocket Internet

⁴⁴ www.laredoute.ma

⁴⁵ As these companies do not have a specific Moroccan website, they do not have a purchase team on site.



- the website Lydec⁴⁶ (Dhs 33 million of payments) for the purchase of electricity and potable water ranks 1,964th, with 88.2% of Moroccan visitors, which leads us to think that part of the diaspora pays on-line the water and electricity bills of their relatives who stayed in the country;
- various tourism actors gathered on the national portal Visit Morocco⁴⁷, ranking 3,200th with only 28.6% of Moroccan visitors.

They are followed by services such as:

- Hellofood⁴⁸, ranking 76th with 89.50% of Moroccan visitors. The website offers ready-made meals from national restaurants and caterers;
- livremoi.com * offers logistics services. Ranking 8,764th, with 85.60% of Moroccan visitors, leaving 14.40% for the Moroccan diaspora willing to have furniture delivered to their relatives;
- Other air carriers which, according to Les Echos⁵⁰, accounted for 43% of Moroccan e-commerce in 2012 with respective turnovers of Dhs 174 million for Royal Air Maroc⁵¹, 55.2 for Jet4you and 49 for AirArabia.

They are followed by Moroccan product websites like microchoix.ma¹⁷, ranking 217th of Moroccan websites and selling computer equipment, Shoppeos.ma is offering women clothes and ranking 648th with 93.5% of Moroccan visitors, "mes cadeaux.ma"s, ranking 2,195th with 80% of Moroccan visitors and boutika.ma, ranking 2,227th with 93.7% of Moroccan visitors. Let us not forget bank websites like Attijariwafabanks, ranking 1,525th, with 26.6% of foreign visitors, or money transfer websites like Wafacash, ranking 5,862nd with 84% of Moroccan visitors. Let us conclude with a Moroccan product discount website carried by the members of the FNEM, via a dedicated GIE. Launched on 22 January 2015, with the Minister of Industry, Trade, Investment and Digital Economy and the Ministry of Foreign Trade, the website Made in Moroccos already ranked 3,784th for Moroccan websites on 18 June 2015, with 63.5% of Moroccan visitors and 31.7% visitors coming from Switzerland. If it is promoted in other countries where the Moroccan diaspora is highly represented, there will be significant development margin opportunities.

⁴⁶ Lydec is a public service operator managing water and electricity supply, sewage and rain water collection as well as public lighting for 5 million people in the greater Casablanca region (Morocco). It provides on-line or mobile bill payment services. https://client.lydec.ma/site/application-mobile-lydec

⁴⁷ www.visitmorocco.com/index.php/fre

⁴⁸ www.hellofood.ma

⁴⁹ http://livremoi.ma/ plate-forme de livres.

⁵⁰ Les ECO suppléments of 25 February 2013

⁵¹ www.royalairmaroc.com/fr-fr

⁵² www.microchoix.ma/

⁵³ http://shoppeos.ma/

⁵⁴ www.mescadeaux.ma/ for the creation of lists and purchasing gifts in Morocco

⁵⁵ www.attijariwafabank.com

⁵⁶ www.made-in-morocco.ma/content/1-gie_only_morocco_made_in_morocco



■ Electronic purchase and sale of goods among individuals (C2C)

Although most studies on e-commerce do not take into account commerce among individuals, we consider that it is essential in Morocco and in the studied countries, as shows the traffic on the website avito.ma9, dedicated to classified ads and ranking 5th among Moroccan websites, with 88% of national visitors.

In relative terms, it seems that e-commerce among individuals is to e-commerce what the informal economy is to the economy. Let us not forget this. Similarly, the website marocbikhirs ranks 6,356th but with only 53.6% of national visitors, which means a great penetration in the Moroccan diaspora.

■ Collective and unclassifiable websites

We do not have easy access to data enabling to characterise the nature of all the sites and all of them do not enter the category of import or export. However, here are several active Moroccan e-commerce websites that we must cite.

Morocco developed websites for products of diverse origin, like deal websites⁶⁰, such as⁶¹, Superdeal⁶², Hmizate⁶³, Mondeal⁶⁴, Allcitybon⁶⁵. After an excellent start, tour operators accused them of unfair competition and their activities dropped in early 201467, even though the website Hmhizate keeps winning market shares.

Other websites - although they are less visited - must also be pointed out like The next clic⁶, Freya for fashionⁿ, Kitea ⁿ for furniture and Mubawabⁿ for real estate.

■ On-line administrative services offer (e-Gouv - G2C)

We put forward the idea that electronic administration acts as a powerful catalyst in favour of e-commerce. The website of the Ministry of National Education⁷ ranks 38th among Moroccan websites, with 97.9% of Moroccan visitors. It is not only used once to look for institutional information, it is regularly used for the many on-line services it offers to the personnel of the Ministry and to their students.

⁵⁷ On 6 July 2013, Avito Maroc claimed 3.2 million unique visitors per month and the publication of 300,000 ads per month. It is the Avito branch that raised USD 50 million of funds in South Africa. Source: Moncef Ben Hayoun, le Matin, 6 July 2013.

⁵⁸ www.marocbikhir.com

⁵⁹ A survey with the Moroccan diaspora around the Mediterranean and in Sub-Saharan Africa on the websites they visit would undoubtedly bring useful information for regional integration.

⁶⁰ According to Athar Housni in Les Eco of 16 May 2014, in the first quarter 2013, deal websites reported a 23% transaction drop.

⁶¹ Launched in 2008 in Chicago and in 2013 in Morocco according to Alham Nazi, L'Economiste of 7 January 2013.

⁶² www.superdeal.ma

⁶³ www.hmizate.ma

⁶⁴ http://mondeal.ma

⁶⁵ www.allcitybon.ma

⁶⁶ L'Economiste of 3 January 2013.

⁶⁷ Athar Housni, Les ECO of 16 May 2014. Deal websites recorded a 23% drop in transactions in the first quarter.

⁶⁸ www.wamda.com/2014/07/how-to-get-people-to-trust-you-6-lessons-from-daily-deals-websites

⁶⁹ www.thenextclic.com

⁷⁰ http://freya.ma

⁷¹ www.kitea.ma

⁷² www.mubawab.ma

⁷³ www.men.gov.ma

Indeed, the administration offers many procedures in terms of e-commerce as we define it, especially the Massar school management systemⁿ, and more generally on-line services of the Ministry of education, the website of the Kingdom public treasury for tax collection*, Assiaqacard* for the delivery and renewal of driving and vehicle licences and Watiqa® for requests to local authorities regarding civil status. There are also electronic procedures for companies, especially that of the National Social Security Fund⁷⁹ or of the Moroccan Office of Industrial and Commercial Property®.

■ E-commerce among companies (B2B)

Professionals are much less numerous than individuals, therefore B2B e-commerce websites have less visitors than B2C and C2C websites dedicated to individuals. We can cite e-commerce platforms or market places for Moroccan professionals, like for instance Solostocks⁸¹, which mostly consists of a company directory. Solostocks is a Spanish company established in Morocco. It makes easier the sale among companies and professionals by connecting offer and demand.

We can cite other market places like BtoBa or the Japanese website Maroc.biz83. However, just like for Solostock, Alexa does not provide the ranking of their traffic in Morocco as they are little visited by the general public84.

In addition to the market places at the foundation of B2B, other initiatives to promote Moroccan goods and services enable to initiate trade flows like, for example, the website www.madeinmorocco.be. Their flagship product consists in organising conferences dedicated to favouring B2B commerce with Morocco and, therefore, e-commerce.

■ Particular case of e-commerce in the digital sector

In this paragraph, we will deal with commerce in the digital sector but also with commerce of other services that were made possible by the digital sector. Firstly, we must cite the three major on-line digital content retailers:

- on-line newspapers offering free or paid information;
- telecommunication service operators selling mobile phone recharge cards on-line:
- software editors offering free or paid downloads for office software, computer security and other general public software.

⁷⁴ www.maroc.ma/fr/actualites/de-nouveaux-services-fournis-par-le-systeme-massar-au-profit-des-lyceens-et-leurs-parents

⁷⁵ www.men.gov.ma/sites/fr/Lists/Pages/services_ligne.aspx

⁷⁶ www.tgr.gov.ma/wps/portal/erecouvrement

⁷⁷ www.assiaqacard.ma

⁷⁸ www.watiga.ma

⁷⁹ www.cnss.ma/fr

⁸⁰ www.directinfo.ma

⁸¹ www.solostocks.ma

⁸² www.btob-maroc.com

⁸³ http://maroc-biz.com

⁸⁴ A programme carried out by the International Commerce Centre in 2015 will enable to develop B2B Moroccan websites, which will provide a more complete picture.

These on-line sales undoubtedly account for the major part of B₂C digital content e-commerce. In the absence of available data, we can guess that B₂C commerce websites also exist to sell equipment and software to individuals, with the websites of major global companies of the sector like Apple or Microsoft⁸⁵ and C₂C classified ad websites for second-hand equipment and software sale.

Morocco is willing to develop offshoring with internationally recognised successes, especially in call centres. After having launched the National pact for industrial emergence, various incentive measures were implemented. Three industrial platforms (P2I offshoring) are already working: Casanearshore, Technopolis and Fès Shore. Oujda Shore was launched and other cities are being studied in the context of the regionalisation of offshoring offer in Morocco. According to this strategy, this sector is very dynamic internationally. Therefore, development perspectives are favourable. Their common platform, Medz-sourcing.com⁸⁵, shows that the key to success is the organisation of a whole sector rather than an e-commerce action including the development of a dedicated market place.

E-commerce might be a solution to develop this kind of industry, it undoubtedly helps traditional commerce. However, it cannot be the driving force of B2B commerce as it requires - both at the national and international level - solid business relations. Good referencing is just not enough.

Potential levers and obstacles to development

WE MUST NOW analyse the levers and obstacles to the development of e-commerce in Morocco. We will do so by examining its constitutive actors.

■ Political, administrative and fiscal environment

The administration in charge of e-commerce is obviously the Ministry of Industry, Trade, Investment and Digital Economy (MCINET). This is an asset as it covers two essential elements of e-commerce: commerce and the digital sector.

Several organisations are particularly concerned by SMBs likely to manufacture Moroccan goods that could be sold on-line as well as logistics and on-line selling companies: the Direction of digital economy and the Direction of commerce and distribution of the MCINET, the National Agency for the Promotion of Small and Medium Businesses (ANPME), the Moroccan centre for innovation which contributes to financing innovative projects and the OMPIC (Office marocain de la propriété industrielle et commerciale) for commercial registers, patents, brands and models.

⁸⁵ On the website Microsoft Morocco, software can only be bought in dirhams.

⁸⁶ ww.medz-sourcing.com

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In terms of taxation, Moroccan companies must pay company taxes on all the products, profits and revenues in relation to their assets, activities and the profitable operations they conduct in Morocco. The normal rate of company taxes is set at 30%. However, many companies can benefit from tax exemption⁸⁷, especially small businesses (10%) and companies located in free zones (8.75%). Import and export taxes are respectively set at USD 970 and 595 per container⁸⁸.

Besides, the e-commerce legal framework in Morocco seems quite exhaustive (TABLE 4), even though we should go into the provisions in depth and see if they are adapted to the current situation.

TABLE 4 Moroccan legal framework

Moroccan legal framework		Comment
Law on electronic communications	Yes	Law n° 53.05 on electronic exchanges, Dahir of 30 November 2007
Law on consumer protection	Yes	Law n° 31-08 on consumer protection published in the official gazette n°5932 of 7 April 2011.
Law on the protection of personal data	Yes	Law n°09.08 on personal data processing
Law against cyber-crime	Yes	Law n°07-03 completing the criminal code on violations regarding data processing automated systems
Law on electronic money establishments	Yes	

Source: UNCTAD, author

■ Manufacturers and buyers

Commerce requires both manufacturers and buyers. As regards production, we observed that the administration is willing to develop the sectors of Moroccan food products (e.g. Olives, saffron) and artisanal products and to promote them abroad with a true brand policy. In order to market their products, the e-commerce companies we talked about in the first part of this report contribute to creating value and employment in Morocco, including if they sell imported products for which part of the added value goes to Moroccan commerce companies.

⁸⁷ www.invest.gov.ma/?lang=fr&Id=20

⁸⁸ IBRD report Doing business 2015.

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We must now characterise Moroccan buyers. We were able to do so thanks to a study of the Bearing Point firm. The major part of Moroccan e-commerce buyers belongs to the middle class - people from the middle of the pyramid, with a revenue ranging between USD 5.7 and 13.6 per day. The study comprised a qualitative survey with eighty households and a quantitative one with eight hundred Moroccan households. It shows that middle-class Moroccan households generally have one child and dedicate in average 25% of their budget to food and 18% to housing. For food, they tend to favour local shops and street vendors while Internet purchases remain marginal, with 3% of people connecting to the Internet once a week and 16% once a month.

■ Digital environment

Here are a few key figures characterizing the digital sector in Morocco.

 TABLE 5 Key figures of the Moroccan digital sector (2013)

Object	Key figures	Comments
Landline telephone penetration rate (%)	8.9	
Mobile phone penetration rate (%)	128.5	Including pre-paid
Price of mobile broadband (USD)	11.7889	
Mobile download speed (kbps)	1,898	
Mobile link upload speed (kbps)	444	
Computers in households (%)	47	Surprisingly high figure90
Percentage of Internet users (%)	56	

 $Source: ITU, World \ Economic \ Forum$

We can examine how prepared Morocco is to enter information society. The Global Information technology report 2015 of the World Economic forum shows that Morocco is close to the average of middle-income countries and offers individuals and companies easy access to ICT (affordability).

⁸⁹ In relation to the average GDP per inhabitant, this amount corresponds to 1.32 day of revenue.

⁹⁰ It might be an average, some households having several computers, in working order or not.

Table 6 Morocco ranking for its level of preparedness to the digital economy (2015)

	Ranking	Comments
NRI rank 2015 (out of 143 countries)	78	improved with respect to 2014 (99/148)
NRI Environment subindex	80	better score for businesses than individuals
NRI Readiness subindex	87	good score on accessibility (32nd)
NRI Usage subindex	64	government usage (48th)
NRI Impact subindex	83	of which economic 120 and social 64
ICT Development index 2015 (out of 167 countries)	99	Slight deterioration with respect to 2010 (96)

Source: 2015 report of the World Economic Forum for the NRI, 2015 Report of the ITU for the ICT Development Index

During our interviews in Rabat and Casablanca, the digital sector was not identified as a major obstacle to the development of e-commerce. Yet, we cannot generalise this without prior verification in rural areas.

At the legal and regulatory level, a project of Digital Technology Code gathering all concerned laws was communicated to the Government General Secretariat in June 2013. It comprised 114 articles with provisions on e-administration services, the fight against cyber-crime and the rights and obligations of digital service providers. In terms of e-commerce, the code project compelled merchants to specify "the different steps to follow to conclude the contract as well as the technical means enabling the user to identify the mistakes made while entering the data and to correct them." ⁹² Nevertheless, this project was withdrawn in the expectation of a better consultation with key actors⁹².

As regards public policies, Morocco adapted various digital strategies: the five-year plan 1999-2003, e-Maroc 2010, covering the period 2005-2010, the Moroccan digital strategy 2013 which covers the period 2009-2013 (TABLE 7) and in the near future the plan Maroc 2020 which is the continuation of the former.

⁹¹ Interview of Boubker Badr by Ayoub Naïm, in Les Eco, of 16 December 2013.

⁹² http://juristconseil.blogspot.com/2013/12/le-code-du-numerique-la-loi-n-67-13-en.html

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In 2014, the court of auditors assessed this strategy and showed mixed results on the four strategic priorities and the two secondary fields:

 TABLE 7 State of progress of the Moroccan digital plan 2013

buuget (IIIItiioii Diis)	Progress on 30 June 2013
2,128	1% of operational projects, 22% in progress
2,186	36% of operational projects, 3% in progress
320	22% of operational projects, 56% in progress
481	0% of operational projects, 67% in progress
	20% of operational projects, 20% in progress
	40% of operational projects, 60% in progress
	2,186

Source: Moroccan court of auditors, 2014.

Priority I included the provision of computers and internet connexions, as well as the training of key actors. Some programmes, such as the multimedia package in high-schools were a success (71%), others, like the provision of primary schools and middle schools (GENIE) or that of multimedia packages (VMM) only reached a third and a quarter of their targets respectively.

Priority 2 on electronic administration saw the creation of nine projects, among which the electronic certification implemented by the Post, the interoperability general framework, the fixing of appointments at hospitals³³, harbour management³⁴, on-line request for criminal records or civil status documents, etc.

As regards priority 3, managed by the National agency for SMBs, 310 SMBs benefited from the programme Moussanada TI for digital and software advice, 2,533 very small businesses were issued a "digital licence" after training³⁵, while local commerce benefited from a specific programme Rawaj. We can imagine that these companies were then better prepared to sell their products on-line.

⁹³ www.maroc.ma/fr/applications-mobiles/prise-de-rendez-vous-dans-les-hopitaux-public

⁹⁴ www.anp.org.ma/Grandschantiers/Pages/Portnet.aspx

⁹⁵ Project carried out in cooperation with France and implemented with the Federation of Moroccan chambers of industry and service commerce and the Moroccan federation of information technologies, telecommunications and offshoring (APEBI).

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Priority 4, dedicated to the creation and growth of local actors, enabled to develop excellence centres with a high export potential, like the cluster Maroc numérique for instance. Generally speaking, this priority is lagging behind. As regards e-commerce, it is regrettable that the cluster policy only concerns technological innovations and not traditional industries, which would benefit from a sector organisation.

At the legislative level, the legal framework of electronic transactions is defined in law n°53-05 on legal data electronic exchange of 30 November 2007s, especially in its article 417-1 providing that "writing in electronic form as the same value as writing on paper".

The ANRT and the CNDP are active institutions in this sector. Public actors also play a significant part in the development of e-commerce, especially:

- schools and specialised training centres in the digital sector, like the National Institute of Posts and Telecommunications, the Rabat international University and its future digital university supported by the AFD⁹⁷, the Agadir Ibn Zohr University and its Moroccan virtual Campus⁹⁸ at the origin of the e-omed project⁹⁹, universities members of Rabat digital cluster¹⁰⁰. Business schools, like the Institut des Hautes Etudes de Management, ESCA management school, etc.
- research centres, like the National Centre for general scientific and technical research, the Moroccan centre of studies on digital economy or the Fondation Maroc Numérique.
- establishments linked to building stock, especially:
 - Casablanca, Rabat and Tangier technology parks;
 - the integrated parks for outsourcing of Casanearshore, Rabat Technopolis and Fès Shore;
 - company clusters, like Maroc numéric cluster, Astec (Association of Technology park companies), etc.

In this context, efficient private actors developed, especially the three major telecommunication operators: Itissalat Al-Maghrib (Maroc Telecom), Meditel and Inwi, with mobile money services like Mobicash¹⁰¹ and Meditelcash¹⁰².

⁹⁶ www.egov.ma/sites/default/files/files-wysiwyg/Loi%20n%C2%B053-05%20relative%20%C3%A0%20l%27%C3%A9change%20%C3%A9lectronique%20de%20donn%C3%A9es%20juridiques.pdf

⁹⁷ www.afdb.org/fileadmin/uploads/afdb/Documents/Procurement/Project-related-Procurement/Maroc_-_Mise_en_place_de_l%E2%80%99Universit%C3%A9_Num%C3%A9rique_au_sein_de_l%E2%80%99Universit%C3%A9_Inter nationale_de_ Rabat_-_GPN.pdf

⁹⁸ www.cvm.ac.ma

⁹⁹ http://eomed.org

¹⁰⁰ www.marocnumericcluster.org/index.php?option=com_content&view=article&id=55<emid=61&lang=fr

¹⁰¹ www.mobilepaymentsworld.com/maroc-telecom-launch-mobi-cash

 $^{102\} www.mariage-franco-marocain.net/article-meditel cash-paiement-et-retrait-mobile-money-116019409.html$



We can add the numerous ICT companies (about 1,500), with a very strong growth driven by offshoring¹⁰³ and major foreign companies such as the American Google and Microsoft, the French Atos-Bull and Cap Gemini and many Moroccan companies like Dataprotect or Dataplus, as well as all the companies listed in specialised directories like that of NICT in Morocco¹⁰⁴. In this regard, let us not forget the six Moroccan digital champions described in Rachid Jankari's report for IPEMED, all the more so as their role in Moroccan e-commerce has progressed since his report was published in October 2014:

- the MedTech¹⁰⁵ group computer developer and its branches¹⁰⁶;
- Disway¹⁰⁷, a supplier-wholesaler of computer equipment and software for exportation in North Africa and Sub-Saharan Africa;
- M2M, specialised in process dematerialisation 108;
- Intelcia Group¹⁰⁹ offers outsourced IT solutions;
- Involys, editor and integrator of management IT solutions in Sub-Saharan African, and especially in Ivory Coast, Senegal and Gabon. Listed since 2006, Involys achieved a turnover of Dhs 47 million in 2012.

These different actors gather in various professional structures: the General Confederation of Moroccan companies (CGEM) representing employers or the APEBI which is its counterpart for the ICT sector. These actors implemented an e-thiq@a¹¹⁰ label, the objective of which is to build trust for on-line consumers on retail websites and to promote the development of e-commerce in Morocco.

In terms of data secure hosting, the offer is quite diversified, with companies such as nplusones¹¹¹, which opened its data centre in Morocco, hostoweb¹¹², OVH Maroc¹¹³, Arcanes Technologies¹¹⁴, etc. Just like for e-commerce websites, we can observe the presence of foreign companies with a branch in Morocco and smaller but growing Moroccan companies.

¹⁰³ http://en.compubase.net/Morocco-Algeria-Tunisia-the-North-African-IT-Telecom-Distribution-Channel_a124.html

¹⁰⁴ www guideinfo ma

¹⁰⁵ Turnover of Dhs 375 million in 2012

¹⁰⁶ Omnidata, Omnishore, OmniAcademy (training), NCRM (integrator of banking automated machines solutions and payment of train tickets and parking solutions), AEBDM (integrator of telecom solutions) and Forum (integrator), Disway in Tunis and Dubai.

¹⁰⁷ Created in 2010 and listed on the Casablanca stock exchange since 2006, Disway achieved a turnover of around Dhs 1.3 billion in 2012. The company works with a network of 2,000 retailers. In 2015, the company targeted a 30% exportation rate, mainly towards North African and West African countries.

¹⁰⁸ Created in 1990 and listed on the stock exchange since 1999, M2M designs and develops information flow dematerialisation solutions with expertise in electronic payments, e-gov and information flows. In 2012, it achieved a turnover of Dhs 83 million.

¹⁰⁹ Created in 2000, Intelcia Group employs over 3,000 collaborators in France (1,000) and Morocco (2,000). In 2012, it achieved a turnover of about €62 M. The Moroccan group aims to be among the first five francophone outsourcers.

¹¹⁰ www.cgem.ma/fr/Label-e-thiq@-CGEM

¹¹¹ www.nplusone.ma

¹¹² www.hostoweb.com/hebergement-mutualise

¹¹³ www.ovh.com/ma

¹¹⁴ www.heberjahiz.com/fr/apropos.php

One of e-commerce tools consists of identifying people and companies. In this regard, Morocco implemented a biometric identity card for adults over eighteen. It has a chip and a bar code coding to digital footprints and a picture. However, there is no unique identification number or unified civil status file based on biometric data. Electronic signature was introduced in 2007 by law n°53-05 on legal data electronic exchange, however, it was only implemented in 2012¹¹⁵ and the Post was selected as service provider for electronic certification¹¹⁶. Moroccan customs are currently implementing it in order to dematerialise customs clearance documents.

■ Distribution and logistics environment

National e-commerce is included in the statistics of domestic trade, which contributes about 11% of GDP and employs around 1.2 million people, or 12.8% of the Moroccan population. It is dominated by resellers (58%) and service suppliers (28%), mostly via traditional shops, 10% via the Internet and 1% by distribution chains¹¹⁷.

Since the 1990's, the distribution market has developed quickly and currently accounts for 13% of GDP. The share of traditional small shops remains significant, with a very heterogeneous retail distribution, mostly represented by small family shops. Generalised and specialised mass distribution only developed recently with supermarkets established in Casablanca, Rabat, Marrakesh and a few other big cities. According to Planet expert¹¹⁸, mass distribution accounts for about 10% of sales and mostly sells local products (from 70 to 80% of products), which, unless a specific study declares otherwise, is superior to what we can observe on e-commerce websites¹¹⁹.

The MCINET¹²⁰ drew up the Rawaj vision 2020 plan for the development of commerce and distribution. It revolves around four main priorities: mass and medium size distribution, independent commerce, network commerce and franchise and shopping public spaces under the responsibility of local authorities (wholesale markets, slaughterhouses and fish markets). E-commerce is not one of the selected priorities.

As for the logistics chain, the World Bank report¹² ranks Morocco 62nd out of 160 for international logistics, with the following criteria:

- customs: 73rd;
- infrastructures: 48th;
- maritime freight: 59th;
- traceability: 71st;
- length: 63rd;
- logistical quality: 73rd.

¹¹⁵ Magazine Challenge 10-23 January 2014, p. 50-53.

¹¹⁶ www.baridesign.ma/wps/portal/barideSign

¹¹⁷ http://en.compubase.net/Morocco-Algeria-Tunisia-the-North-African-IT-Telecom-Distribution-Channel_a124.html

¹¹⁸ www.planet-expert.com/fr/pays/maroc/reseau-de-distribution

¹¹⁹ Morocco has about two hundred supermarkets with a surface area of more than 300 m2 and seventeen hypermarkets. In 2010, the Moroccan holding Best Financière acquired assets of the German group Metro, which has shops in big cities, among which Casablanca, Rabat, Fez, Tangier and Agadir. The same holding signed a franchise agreement with Carrefour. The new shopping centre Morocco Mall opened in 2012. It is the largest in Africa.

¹²⁰ www.invest.gov.ma/?ld=34519&lang=fr&RefCat=8&Ref=153

 $^{121\} Logistic\ performance\ index.\ http://lpi.worldbank.org/sites/default/files/International_LPI_from_2007_to_2014.xlsx$



As for national logistics, there are no data available.

Solutions exist to send and receive a parcel, for example, the service Amana¹²² of the Moroccan Post, or the services of multinational companies such as TNT, DHL, Fedex and UPS established in urban zones and offering faster services. However, according to the Universal Postal Union (UPU), in 2014, only 64% of Moroccans were likely to benefit from home delivery, against 72% in 2011.

■ Financial environment

In December 2014, the World Bank published a study on financial inclusion in Morocco¹²³, highlighting the following results (FIGURE 4):

- 59% of Moroccan adults have already used financial services, 53% in urban areas and 19% in rural areas;
- Out of the 41% who never used them, 15% estimate that they have no money to put away, 11% do not see the point and 9% think they are too expensive.

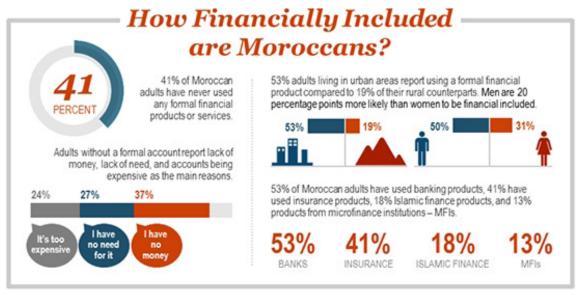


FIGURE 4 Financial inclusion of Moroccans (2014)

Source : World Bank, 2014

While debit cards are quite common in the Moroccan middle class, the mobile payment phenomenon is not as significant as in Sub-Saharan Africa. According to an opinion polling of May 2012¹²⁴, 82% of on-line buyers had an account and a debit card, 4% had an account but no debit card and 11% neither an account nor a debit card. 59% of buyers use their debit card for payment, 51% chose to pay upon delivery and 27% chose to pay by cash in a certified shop.

¹²² www.amana-colis.ma/wps/portal/messagerie

¹²³ Financial Inclusion and Financial Capability Survey Report

http://responsiblefinance.worldbank.org/~/media/GIAWB/FL/Documents/Publications/Enhancing-Financial-Capability-and-Inclusion-inMorocco-FINAL pdf

¹²⁴ Averty Market Research & Intelligence study conducted with 1,224 people in 38 cities. Le matin ECO, 19 September 2013.

According to the CMI¹²⁵, the total amount of electronic transactions in Morocco was of Dhs 18.4 billion in 2014 for withdrawal and payment operations, which remains low with respect to the country's consumption total spending of about 400 billion a year. In Morocco, as in many emerging countries, cash is king. By adding foreign debit card spending, the total of spending by debit card reached Dhs 20.9 billion in 2014. These payments were mostly made in supermarkets (23%), hotels (19%), ready-to-wear (11%), catering (10%) and petrol (5%).

The Moroccan Ministry of finance is driving e-commerce by offering electronic payment services for the payment of public debts. Created in 2008, the General Treasury broadened the traditional means of payment of public debt by adding two electronic payment options. They are, on the one hand, bank transfers that reached 20,620 transfers in 2014 with Dhs 326 million and, on the other hand, on-line payments in the framework of a convention with Maroc Télécommerce with 22,722 articles paid in 2014, reaching Dhs 53 M. In addition to public debts, the Regional Treasury started collecting local residence taxes, professional taxes and income taxes. In 2015, the Central Treasury also planned to collect payments of customs claims and road fines on-line. It intends to connect to the multi-channel payment platform Fatourati and to acquire e-signature certificates in order to dematerialise payment supporting documents.

A new banking law n°103-12 regarding credit institutions and similar establishments¹²⁶ was passed recently. It explicitly targets payment services linked to e-commerce and especially "the execution of payment operations by any remote means of communication, provided that the operator only acts as an intermediary between the payer and the provider of goods and services". It enables the Central Bank to authorise non-bank new operators, which will manage payments rather than create money, with less prudential regulations, in view of developing electronic payments and e-commerce.

After multiple debates, the Central Bank authorised several payment service suppliers in order to enable buyers to pay on-line from an e-commerce website:

- CMI created the first authorised electronic money platform for payment clearing by debit card. It charges a commission ranging between 1 and 3.5% with a minimum amount per transaction;
- Maroc Télécommerce was certified in 2012 and purchased by CMI. It created a multi-channel platform Fatourati¹²⁷ enabling any debt issuer or service or good supplier to diversify their cashing means beyond traditional means (bank transfer in agency, check). Fatourati ensures the payment of any type of transactions or debts via a banking agency, its website or its ATMs, via a mobile phone, a call centre or a selling point;

¹²⁵ www.usinenouvelle.com/article/maroc-la-monetique-en-plein-boom.N233924 for 2013 and Anne Sophie Martin, La vie éco, 22 January 2015 for the figures 2014.

 $^{126\} Law\ published\ in\ the\ Official\ Gazette\ n^{\circ}\ 6340\ of\ 5\ March\ 2015,\ https://ribh.files.wordpress.com/2015/03/loi_nc2b0_103-12_vf_ribh-cover.pdf$

¹²⁷ www.maroctelecommerce.com/docs/cp.pdf



- M2M SPS (Secure Payment Services)¹²⁸ was authorised in June 2012. It targets unbanked customers thanks to a commission system particular to every sector which will enable, for instance, micro-payments, contrary to the current CMI model always requiring a minimum amount per transaction;
- PayPal: in December 2014, PayPal signed with Attijariwafabank¹²⁹ an exclusive innovative service Attijari-PayPal enabling Moroccan e-merchants to transfer their funds from their PayPal account towards an Attajariwafabank bank account, in dirhams or in another currency, in compliance with exchange regulations¹³⁰;
- Vantage Payment Systems (VPS) was certified for its Payzone¹³ platform enabling distance payment via mobile or email and for its platform project Blue TFS which is planning a unique 0.25% commission for its clients, be they States, private clients, small project promoters or cooperatives¹³;
- Fast Payment¹³³ was authorised in April 2014 for its self-titled platform. It is a Moroccan SMB of eighteen people, a branch of the French group TFS, offering a range of services including cashing of payments on e-commerce websites, interfacing with the website graphics, transaction follow-up, etc. Commissions are fixed at 0.25%. The system meets the 3D Secure requirements certified level I PCI DSS¹³⁴;
- Maroc traitement de transactions (M2T)¹³⁵, authorised in January 2014, offers the platform Aman Pay¹³⁶. It operates in Morocco, Senegal and France;
- FPay, authorised in September 2014, claims to be the first in Morocco with a level 1 PCI DSS¹³⁷quality;
- HPS and its plaform PowerCARD¹³⁸.

The generalisation of the 3D-Secure security service, developed under the trade names Verified by Visa and MasterCard SecureCode, is a trust factor that will benefit the development of the sector.

Even though mobile payments are theoretically authorised in Morocco since 2013, they do not develop much. According to the regulator¹³⁹, only 2% of Moroccans said they used such services. In 2013, a very small share of Moroccans resorted to this means of payment (0.3%).

¹²⁸ http://newsroom.mastercard.com/mea/fr/press-releases/mastercard-donne-la-licence-a-m2m-sps-en-tant-que-membre-principal-pour-renforcer-lacceptation-des-cartes-a-travers-le-maroc

¹²⁹ www.attijariwafabank.com/Entreprise/Produits/Pages/Paypal.aspx

¹³⁰ The percentages of legal transfers require a minimum of 30% on the account in Dhs and a maximum of 70% on the account in convertible Dhs or currency.

¹³¹ www.payzone.ma

 $^{132\} www.vantage-card.com/actualites/paiement-electronique-blue-tfs-bientot-operationnel-au-maroc-513.html$

¹³³ Payment services operator, directed by Youness Azennoud http://fastpayment-worldwide.com

¹³⁴ https://fr.pcisecuritystandards.org/minisite/en/

¹³⁵ PCI-DSS 3.0 level 1 certified company and ISO27001. www.m2t.ma/fr/accueil

¹³⁶ http://thenexties.com/amanpay-nouvelle-plateforme-paiement-electronique-au-maroc-15799-20140109

¹³⁷ http://fastpayment-worldwide.com

¹³⁸ www.leconomiste.com/article/monetique-hps-lance-la-3e-generation-de-powercard

¹³⁹ ANRT, Annual report 2013, p. 57. www.anrt.ma/sites/default/files/Ra_Annuel_Anrt2013.pdf

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Finally, we must point out that exchange regulation and heterogeneous tax systems significantly hinder cross-border commerce.

Here are the figures regarding the electronic payment market in Morocco.

 Table 8 Estimation of the electronic payment market in Morocco (last known year)

Object	Value	Comment
Number of sellers (e-merchants)	700 to 1,000	Sources CMI and FNEM
Number of buyers (e-buyers)	750,000	Source ANRT in 2013
Number of debit cards	10,900,000	Source CMI, January 2015
Card penetration rate (%)	33	Calculated (number of cards / population)
Number of mobile banking accounts	100,000	Calculated (~ 0.3 % x population)
Mobile banking penetration rate (%)	0.3	Source ANRT 2013
Number of transactions	22,700	Figures CMI January 2015
Figures CMI January 2015	€25 million	Dhs 53 million ¹⁴¹
of which financial fees (%)	0.25 to 3.5	non-published
of which bill payment		non-published
of which other transactions		

Source: ANRT, CMI, Maroc télécommerce, FNEM, Kingdom General Treasury

¹⁴⁰ These figures do not take into account the payments of on-line services and goods purchases as we could not have access to the data.

¹⁴¹ According to the Kingdom General Treasury for Maroc Télécommerce transactions.

Strengths and weaknesses

FROM THE INFORMATION above and the testimonies collected on-site and on-line, we can summarise the opportunities and obstacles to the development of e-commerce in Morocco as follows:

■ Strengths

- Political will, shown in the 2013 Moroccan digital programme and soon in the 2020 Moroccan digital vision;
- Will to export, likely to develop export e-commerce¹⁴²;
- Increasing number of young Moroccans using the Internet and phones to have fun and get information¹⁴³.

■ Weaknesses

- Access to funding, administrative red tape, insufficient education, infrastructures, work and corruption regulation, identified by the IBRD Doing business report.
- Exchange regulation;
- According to the FNEM, loss of trust due to a first generation of e-merchants comprised of young computer engineers who could easily create and develop e-commerce websites;
- Unreliable delivery services, cited by buyers as the first obstacle, highlighted by the FNEM survey and that of IPSOS and Bearing Point for CFAO;
- Cyber-crime creating a feeling of insecurity.

■ Opportunities

- Population growth with a middle class driving a potential market growth for on-line sellers;
- End of CMI and Maroc Télécommerce monopole¹⁴⁴;
- Strategic location of Morocco in Africa, a gateway into the continent favouring export.
- E-commerce.

¹⁴² Moroccan international barometer http://fr.slideshare.net/CGEM_Maroc/presentation-bdi6

¹⁴³ The ANRT published information in June 2015 explaining that today, one household out of two has a computer and one out of two is connected to the Internet. www.anrt.net.ma/printpdf/lagence/actualites/enquete-annuelle-sur-l%E2%80%99usage-des-tic-au-maroc-un-menage-sur-deux-possede-un-ordin

¹⁴⁴ http://thenexties.com/amanpay-nouvelle-plateforme-paiement-electronique-au-maroc-15799-20140109

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■ Threats

- Corruption hindering the development of the Moroccan private sector45;
- Risk of losing the sovereignty of Moroccan marketplaces in relation to that of great global actors;
- Increasing consumer loans which is likely to generate over-indebtedness;
- Faster development in other regions of the world, as shows the downgrade from 96th in 2010 to 99th in 2015 for the level of preparedness to information society (ICT development index of ITU);
- Legal security of electronic transactions theoretically covered by regulations, but to be confirmed by jurisprudence¹⁴⁵.

To conclude, Morocco is the most advanced of the studied countries in terms of e-commerce. However, it is lagging behind compared with Middle Eastern countries and other continents. From our point of view, e-commerce is still developing, with the competition of multinational and Moroccan actors. Commerce is oriented towards the purchase by Moroccan people of foreign products, the government is trying to balance this phenomenon with a policy of national product exportation via e-commerce.

¹⁴⁵ Moroccan International Barometer http://fr.slideshare.net/CGEM_Maroc/presentation-bdi6 and Swissleak revelations, ranking Morocco in the 3rd position among African States, with USD 1.6 billion on Swiss bank accounts.



The case of Tunisia



TUNISIA HAS LONG been a trading nation exporting towards Europe, the Middle East and Africa. Its foreign trade policy relies on three principles: liberalisation, diversification of exported products and diversification of partners. Thus, Tunisia currently has trade agreements with fifty countries in the region, representing over 800 million consumers.

Here are a few key figures on the Tunisian economy.

TABLE 9 Key figures of the Tunisian economy (2014)

Surface area (km²)	163,610
Population (million inhabitants)	10.99
Population growth rate (%)	1.00
Adult literacy rate (WHO 2015 %)	80
GDP (billion USD)	48.6
GDP/inhabitant (USD)	4,458
GDP growth (%)	2.7
Inflation (%)	5.4

Source : World Bank

In its annual report Global competitiveness report 2015-2016, the World Economic Forum ranked Tunisia 92nd out of 140. It boasts a better position than most other countries of the MENA region in almost all the categories. And yet, Tunisia has lost nearly 50 ranks. In 2009-2010, it was ranked 40th out of 133 countries. In the ranking focusing only on innovation, however, Tunisia is lagging behind, ranking 110th. As regards the ease of doing business, the 2016 IBRD report ranks Tunisia 74th out of 189 countries, along with Morocco.



IN 2014, TUNISIAN industrials created the SEVAD¹⁴⁷, a national trade association for e-commerce and distance selling, affiliated to the UTICA. They organised their first show in December 2015. The SEVAD intends to group together all the actors of e-commerce and distance selling sectors in Tunisia.

Exchange and foreign trade regulations obviously hamper e-commerce with foreign countries. Import purchasing is difficult as the currency is not convertible and it is forbidden for Tunisian people to pay in foreign currency, except for people with dual nationality and foreigners who have debit cards in currency. Yet, improvement was made in April 2015 with the launching of the technological card, urgently required by the Minister of Information Technologies in order to solve the problem of IT developers who wanted to promote their retail websites abroad and who needed to buy advertisement on foreign search engines. A circular regarding the technological card was sent to banks and it was announced that individuals and companies were allowed to buy advertisement in currency on search engines, with a threshold of Dts 1,000 per year for individuals and Dts 10,000 for companies. According to the Central Bank, this measure will be implemented in two steps. Later on, it will be authorised to reuse in currency part of the money received in currency.

Exports are also hindered by the fact that Tunisian companies can sell in currency but cannot reuse the currency obtained and really be actors on the global e-commerce market.

In 2014, many portals and retail websites existed in the main fields of e-commerce. Here are a few examples.

■ Electronic purchase of imported products

Just like in Morocco, the website Kaymu¹⁴⁸ is active in Tunisia. It mostly sells imported products. Jumia is not present yet, probably because the Tunisian market is still small.

■ Electronic purchase and sale of national goods and services

Many other websites exist, with a more significant share of Tunisian products, but we do not have any data regarding the number of visits or the origin of their visitors. They are, among others, Promouv¹⁴⁹, Afariyet¹⁵⁹, Yooopy¹⁵¹, and Happystreet¹⁵² mostly selling household appliances and multimedia equipment, Modeco¹⁵³ and Mabrouk¹⁵⁴ specialised in fashion, Fouta-napoleone¹⁵⁵

¹⁴⁷ www.sevad.tn

¹⁴⁸ www.kaymu.tn

¹⁴⁹ www.promouv.com

¹⁵⁰ www.affariyet.com

¹⁵¹ www.yooopy.tn

¹⁵² www.happystreet.tn

¹⁵³ www.modeco.tn

¹⁵⁴ www.Mabrouk.tn

¹⁵⁵ www.fouta-napoleone.com



specialised in textiles (Toufa), Maryouli¹⁵⁶ for customised t-shirts, Monresto¹⁵⁷ for catering, etc. Deal websites like the leader Bigdeal158, offering group purchasing, intend to meet the expectations of Tunisian people: e-commerce development, need to buy cheaper products and will to consume better and local products.

■ Electronic purchase and sale of goods among individuals (C2C)

The first Tunisian website for classified ads is Tayara¹⁵⁹ with about 200,000 ads. It is followed by many other websites specialised in the sale or rental of buildings¹⁶⁰, second hand cars¹⁶¹, or boats¹⁶².

■ Collective and unclassifiable websites

In addition to retail websites, some companies support the development of e-commerce, with among them 912commerce.com¹⁶³, Feedback Leaders¹⁶⁴ and Viamobile165, funded in November 2009, which developed m-transfert, m-payment and m-banking innovative mobile applications.

Finally, the Ministry of Trade implemented a business incubator specialised in on-line services¹⁶⁶ for young entrepreneurs and university graduates. Since 2009, the incubator has hosted nearly forty promoters and between 10 to 20% of them succeeded in their business creation (TABLE 10) and even developed e-commerce websites.

TABLE 10 Examples of companies created in the Tunisian incubator

Free classified ads website. For any type of purchase, rental, etc. www.216annonces.com	216Annonces
On-line ordering of restaurant menus http://monresto.net	MonResto
Chair e-commerce website www.chaisepaschere.com	Chaisepaschere.com
Shop A7sen-Soum www.a7sen-soum.com	Mgengoum;
Sale of artisanal products www.darlartisanat.com	<i>S</i>arlartisanat ∞ m
Services of computer engineering and IT financial engineering www.sseiif.com	ssellf
Web services, webmarketing consulting	lide eb ords

¹⁵⁶ www.maryouli.com

¹⁵⁷ www.monresto.net

¹⁵⁸ www.bigdeal.tn

¹⁵⁹ www.tayara.tn belongs to SCM Ventures, operating under the control of Schibsted ASA and its branch Schibsted Classified Media (SCM). SCM is currently the largest company for classified ads in Europe.

¹⁶⁰ http://tunisie.immo-entre-particuliers.com or www.cologimmo.com/annonces-immobilieres-Tunisie-qq-tunisie.html

¹⁶¹ www.automobile.tn/occasion/vendeurs-pro/besbessami.pap.127

¹⁶² www.clickandboat.com/location-bateau/tunisie/all

¹⁶³ http://912commerce.com

¹⁶⁴ www.feedback-leaders.com/presentation

¹⁶⁵ Viamobile is an international software integrator linked to CREOVA group, a software editor for mobile phone payment systems for financial institutions, telecommuniaction operators and e-commerce and distance selling companies.

¹⁶⁶ www.commerce.gov.tn/Fr/pepiniere-des-projets-de-services-en-ligne_11_190. The incubator offers the following services to its members: free domiciliation with a connected office, assistance by the incubator executives and access to a partner network

■ On-line administrative services offer (e-Gouv - G2C)

Three governmental e-procedures must be pointed out in Tunisia. The first one regards students who need to acquire a Post e-Dinar card for the payment of university fees and scholarships. According to the Post, students account for 80% of e-commerce via e-Dinar cards. The second one is the website Fatouranet¹⁶⁷ for the on-line payment of water, electricity, phone bills, etc. The third one is the government portal comprising several websites enabling students to register on-line or to view baccalaureate results on their mobile phones¹⁶⁸. It also enables citizens to access on-line forms¹⁶⁹, without offering a complete e-procedure.

The Tunisian Internet Agency enables to buy on-line a domain name¹⁷⁰ and the portal Tunisie Tradenet enables companies to deal with foreign trade formalities on-line¹⁷¹.

■ E-commerce among companies (B2B)

A 2009 survey, cited in the UNCTAD report¹⁷, provides information on the use of B₂B commerce by Tunisian companies:

- 30% of companies with 6 employees or more were present on the Internet;
- 10% of companies with 6 employees or more had conducted or received electronic orders;
- 69% of companies with 250 employees or more were present on the Internet;
- 18% of companies with 250 employees or more had conducted or received electronic orders.

Currently, part of Tunisian companies is trying to optimise their SEO on American, European or Asian virtual market places. An intermediary step consists in optimising their SEO on Tunisian B2B platforms such as:

- Tunisie Place de Marché (TPM)¹⁷³. At the moment of the study, it was the leader B₂B market place in Tunisia and enabled Tunisian professionals to edit B₂B market places on-line;
- The platform Tunisia e-Business Network, launched on 1st April 2015 by the National office of the Tunisian Craft industry and the Tunis Chamber of Commerce and Industry with the support of the American government, enables any company registered on the platform to get in touch with many foreign companies in various sectors;
- B2B universal is a B2B platform based on the project e-Business network.
 It intends to develop contents (images, product information sheets, e-catalogue for suppliers, etc.) in order to encourage foreign companies to buy Tunisian products on this platform and on international platforms such as www.tradekey.com;

¹⁶⁷ www.fatouranet.poste.tn/fn/home.jsp

¹⁶⁸ www.echos.education.gov.tn/2011-06-18/avis_res_bac_fr.pdf

¹⁶⁹ Example: www.femme.qov.tn/fileadmin/user1/doc/Formulaires/certificatavantmarriage.pdf 170 www.ati.tn/fr/home.php

¹⁷¹ www.tradenet.com.tn/html_fr/ttn_accueil.htm

¹⁷² UNCTAD, report IER2015, figure II 5, p. 19.

¹⁷³ www.tpm.com.tn

¹⁷⁴ www.tunisia-ebusinessnetwork.com/fr/pdf/brochure.pdf



• Tunisian eRetail plateform: this B2B platform project intends to connect national suppliers and importers with distributors. In addition to product reference, it will try to introduce functionalities such as the dematerialisation of commerce documents like invoices and purchase orders. An international consultant should be hired to carry on the project and launch, if possible, a public-private partnership to create the platform.

■ Particular case of e-commerce in the digital sector

The Franco-Tunisian Digital Alliance, which aims at connecting French and Tunisian companies to use their complementarities and conquer new markets, especially in the Middle East and Africa, is one of the significant achievements in terms of regional integration between France, Tunisia and African countries. It can apply to e-commerce sector.

Potential levers and obstacles to development

WE MUST NOW analyse the levers and obstacles to the development of e-commerce in Tunisia.

■ Political, administrative and fiscal environment

Among the studied countries, Tunisia was the first to define and carry out a proactive policy in favour of e-commerce. It started in 1997, with the creation of an interministerial commission in charge of implementing e-commerce and e-government strategies. Then, in 1999, an interministerial council on digital economy was implemented, involving the Ministries in charge of Trade and Information technologies.

In 2000, law 2000-83 was enacted. For the first time, it implemented a regulatory framework to manage electronic exchanges and commerce. An e-commerce directorate was created under the auspices of the Ministry of Trade and Craftsmanship, in view of implementing a strategy to develop the sector, with the support of the Ministry in charge of Telecommunications, to offer solutions and prepare an infrastructure favourable to e-commerce.



In 2009, the directorate for the development of e-commerce and immaterial economy of the Ministry of Trade and Craftsmanship published a guide to promote e-commerce¹⁷⁵. In 2011, the Tunisian government assessed its policy, which led to an action plan to promote this sector and digital culture with consumers and economic operators¹⁷⁶. In 2012, in spite of all these efforts, the Ministry observed that e-commerce did not succeed in modernising commerce in Tunisia¹⁷⁷. The two main reasons were the

lack of price competitiveness and the absence of adequate funding for e-commerce projects. It created a public-private task force in order to boost the sector and draw up a new action plan.

¹⁷⁵ http://fr.slideshare.net/khabbab/quide-e-commerce

¹⁷⁶ Khabbab Hadhri « Le commerce électronique en Tunisie: Réalités et Perspectives », [E-commerce in Tunisia: realities and perspectives] Editions universitaires européennes, 2011, 100 pages.

¹⁷⁷ www.commerce.gov.tn/Fr/presentation-de-lenvironnement-du-e-commerce-en-tunisie_11_187



After assessing the situation, in 2013, the task force proposed an ambitious action plan involving the following actions:

- developing the Tunisian offer on the Internet, especially by supporting young entrepreneurs and graduates willing to develop on-line service projects in a dedicated incubator;
- adapting and modernising consumer defence and investment promotion trade regulations;
- promoting the sector through a plan to raise awareness on e-commerce advantages in companies in order to reinforce on-line Tunisian offer;
- implementing a public-private strategic partnership in terms of certification of Tunisian retail websites and incubator management. It could be the e-dhamen certification (guaranty and trust), based on the 2011 European directive on cyber-consumer protection;
- upgrading services linked to e-commerce (logistics, post, etc.);
- developing efficient e-payment services.

In spite of these successes, the results of Tunisian e-commerce are not up to the expectations of the government, which intends to create employment through the digital industry. In order to address this issue, measures regarding e-commerce were included in the Strategic national plan Digital Tunisia 2018 aiming at "making of Tunisia an international reference in the sector and at making of ICT a lever of socio-economic development" (FIGURE 5). This strategy, aiming to double the number of retail websites from 700 to 1,400 over the period 2014-2018 has six priorities¹⁷⁸: digital infrastructure, uses for companies and citizens, e-government, offshoring, innovation and entrepreneurship and e-business.

FIGURE 5 The six objectives of the Strategic national plan Digital Tunisia 2018

- Doubling digital added value to reach Dts 10 billion in 2018, against 4.5 in 2014.
- Increasing five-fold digital exportations from Dts 1 billion to Dts 5 billion.
- Doubling the number of jobs created each year in the digital industry, to create 25,000 jobs a year from 2018, against 7,500 in 2014.
- Tripling the number of households having access to the Internet, to reach 3 out of 5 in 2018, against 1 out of 5 in 2014.
- Increasing five-fold the penetration rate of mobile broadband, from 15% to 60%in 2018.
- Doubling the number of retail websites, from 700 to 1,400 and increasing five-fold the Tunisian presence in market places, from 2,000 in 2014 to 10,000.



In 2015, the initiative Smart Tunisia completed this plan. At the same time, the Ministry of Trade announced the implementation of three projects to reach the e-commerce objectives: the Tunisian e-Retail and B2B universal platforms described in Tunisian B2B websites and the e-dhamen certification project, classified in B2C export websites.

In terms of taxation, regular VAT of 18% is lowered down to 12% for information treatment machines179. Import and export taxes are respectively of USD 805 and 910 per container. Tunisia is therefore the studied country with less import taxes.

In order to broaden public action beyond the field of e-commerce, the UNCTAD presents a Tunisian legal framework (TABLE 11) which will be complete as soon as the laws on cyber-crime are published. From our point of view, we consider that a banking law on electronic payment modes is also necessary.

TABLE 11 Tunisian legal framework

Legal framework		Comment
Law on electronic communications	Yes	Orientation law n°2007-13 of 19 February 2007 on the establishment of digital economy ¹⁸¹ .
Law on consumer protection	Yes	Law of 7 December 1992 on consumer protection
Law on the protection of personal data	Yes	Organic law n°2004-63 on the protection of personal data and decree A19- 07-2001 on electronic signature
Law against cyber-crime	Planned	
Law on electronic money establishments	Planned	

Source: UNCTAD, author

¹⁷⁹ www.impots.finances.gov.tn/documentation/impots_fr/tva_fr_9.htm

¹⁸⁰ IRBD report Doing business 2015.

¹⁸¹ Decree n°2007-1274 of 21 May 2007 drew up the list of the following activities, linked to the digital economy: production, engineering or development of digital applications or contents; production, engineering or development of high added value technical systems and solutions in the field of information and communication technologies; development of innovative services mostly based on information technologies.



■ Manufacturers and buyers

Several times, actors highlighted that the production sectors of food and artisanal products were not well organised.

As regards buyers, a survey on e-commerce carried out in July 2012-2013 by the e-commerce directorate showed that among Tunisians who had never ordered on the Internet, only 15% of them were not ready to do so, while 68% were ready to order on-line. Among the recommendations and guidelines drawn from this survey, the Ministry supervisor cited the obligation to review the business models of on-line Tunisian companies in order to better adopt the Internet as a commercial channel as such, as well as the web integration to meet the expectations of Tunisian clients throughout the purchasing process, in view of retaining customers¹⁸².

There are no studies on the middle class in this country. However, a study carried out by Medianet¹⁸³ on a sample of 170 Tunisian websites and on 20 million visits over eight activity sectors shows that in 2014, 81% of Tunisian web users accessed the Internet from a fixed computer and 19% from a mobile device. Among the latter, 84% accessed it from a mobile phone and 16% from a tablet. Internet users consult websites about food processing (5.22%), health/beauty (4.66%), technology (4.51%), services to individuals (4.16%), public services (3.39%), banking and finance services (3.36%) and the media (2.45%).

■ Digital environment

TABLE 12 shows that access to the Internet, and even access to a computer in households, is developing, undoubtedly in high and middle classes.

TABLE 12 Key figures of the Tunisian digital sector (2013)

Key figures	Comments
9.3	
128.5	
3.08 ¹⁸⁴	
1,565	
628	
18.2	
43.8	Probably concentrated on the coast
	9.3 128.5 3.08 ¹⁸⁴ 1,565 628 18.2

Source: ITU, World Economic Forum

¹⁸² www.webmanagercenter.com/actualite/economie/2013/04/30/134244/tunisie-un-nouveau-programme-national-pour-promouvoir-le-commerce-electronique

[.] 183 http://blog.medianet.com.tn/2015/03/etude-medianet-du-comportement-des.html

¹⁸⁴ To compare with GDP / inhabitant at USD 4,458.

E-COMMERCE IN AFRICA

The maturity of information society is characterised by the NRI index¹⁸⁵ of the World Economic Forum. Among the studied countries, Tunisia ranks second, with a position of 81 out of 143 and an advance on the preparation sub-index based on infrastructures, skills and accessibility to ICTs due to low prices.

TABLE 13 presents Tunisia's position in relation to other countries.

TABLE 13 Tunisia ranking for its level of preparedness to the digital economy (2015)

Ranking		Comments
NRI rank 2015 (out of 143 countries)	81	slightly improved with respect to 2014 (87/148)
NRI Environment subindex	103	good score for politics (96th)
NRI Readiness subindex	69	good score for accessibility (32th)
NRI Usage subindex	81	good score for eGov (58th)
NRI Impact subindex	81	good social impact (71st)
ICT Development index 2015 (out of 167 countries)	93	No variation in relation to 2010 (93rd)

Source: 2015 report of the World Economic Forum for the NRI, 2015 Report of the ITU for the ICT Development Index

The Ministry of Communication Technologies and Digital Economy (MINCOM) is in charge of defining the national digital strategy and of ensuring its implementation. In addition to the Ministry and the Digital Economy Superior Council, with a consultancy role, State agencies also play an important part in e-commerce, especially:

- The National Telecommunication Body (INT)186 which regulates telecommunications in Tunisia;
- The Tunisian Internet Agency (ATI), a public company under the legal form of a public limited company, and the main public Internet service provider;
- The IT National Centre, developing e-government software;
- The Telecommunication Research and Study Centre;

¹⁸⁵ The Global Information Technology Report 2014, op. Cit. p. 192.

- The National Agency of Electronic Certification (ANCE)¹⁸⁷, offering e-signature solutions in Tunisia and in Africa. It is the certification authority in Tunisia for public security infrastructures. The ANCE can secure payment transactions and the authentication of e-commerce actors or on-line banking;
- The National Agency for Computer Security (ANSI) controls the IT systems and networks of the various Tunisian public and private organisations. It plays a significant role in transaction security in the country.

As regards research and training organisations involved in the digital sector, we can cite the schools Supcom, Isetcom, Cifode'Com, Esprit, etc. described in IPEMED monograph on ICT in Morocco, Algeria and Tunisia¹⁸⁸.

As for the private sector, it is quite developed. According to the statistics of the Ministry in charge of ICT, in 2013 it included 600 SSI, 300 system integrators, 400 distributors and resellers, 11 Internet service providers and several development centres serving multinationals. This is 10,000 jobs in SSI, 17,000 in call centres, 2,000 in equipment distribution, 5,000 for installers and 7,000 for telecommunication operators.

At the professional level, these actors are gathered within the ICT federation, affiliated to the UTICA, as well as in many professional groups such as TACT and GET'IT, in clusters and technology parks like El Ghazala, and incubators¹⁸⁹ examined in IPEMED study on the ICT sector.

Three operators share the market of the Internet, as well as fixed and mobile telephony. Tunisie telecom, is the leader in the fixed telephony market but it is penalised by the status of its personnel. Ooredoo, a private operator formerly called Tunisiana is the leader in mobile telephony. Finally, Orange Tunisie is the leader in the 3G market. Soon, virtual operators such as Yolo will barge in the market.

In terms of Internet access providers and data hosting, the offer is significant, both in the public¹⁹⁰ and private¹⁹¹ sectors, with many Franco-Tunisian companies.

One of e-commerce tools consists of identifying people and companies. In this regard, Tunisia is well advanced, with an efficient ANCE that already issued over 10,000 e-signature electronic certificates. Its expertise is recognised in Sub-Saharan Africa, and especially in Burkina Faso¹⁹².

¹⁸⁷ www.certification.tn

¹⁸⁸ See IPEMED study concerning the ICT sector in Morocco, Algeria and Tunisia », Jankari, 2014.

¹⁸⁹ www.tunisieindustrie.nat.tn/pepinieres/annuaire.asp

¹⁹⁰ Tunisian Internet Agency, El Khawarizmi computer centre, IT centre of the Ministry of Public Health, National Institute for Office Automation and Micro-informatics, Institute of Higher Agricultural Research and Education, Defence Internet service supplier.

¹⁹¹ GlobalNet, HexaByte, Orange Tunisie Internet (former Planet Tunisie), Topnet, Tunet.

¹⁹² The e-signature model offered by Tunisia to African States in not the only one. According to this model, States can integrate the entire chain of expertise including certificate issuing to all administrations. Other models, that the author prefers, advise States to only keep internally sovereign activities such as agreements with trusted service providers and the use of e-signature, while letting private actors issue certificates for the country's companies, including part of the government's needs.



■ Distribution and logistics environment

The Tribune économique de Tunis¹⁹³ revealed that the market segment of mass distribution remained low (12 to 15%) compared with the whole distribution sector. It is mostly represented by foreign distributors settling in the market¹⁹⁴ and achieving an annual turnover of Dts 800 million (USD 606 million), which barely accounts for 2% of GDP, against 23% in average in Europe. Local shops and markets represent the largest share of sellers, especially in rural areas, as most Tunisians keep doing their daily shopping with these merchants.

In 2014, the World Bank report¹⁵ ranked Tunisia 110nd out of 160 for international logistics, with the following criteria:

- customs: 146rd;
- infrastructures: 118th;
- maritime freight: 73th;
- traceability: 120st;
- length: 124rd;
- logistical quality: 80rd.

As for national logistics, the study provides the following results:

- 57% of shipments in compliance with current standards;
- average delay of 2 days for customs clearance without inspection;
- 61% customs clearance with inspection and 11% with multiple inspections;
- average delay for importation: one day at the port and one day on land;
- average cost for importation; USD 500 at the port and USD 500 in the country;
- average delay for exportation: two days at the port and three days on land;
- average cost for exportation: USD 866 at the port and USD 1,000 in the country.

Several actors take part in the logistics chain and deliver parcels. The Tunisian Post developed a range of products for parcel delivery, for traditional delivery and express delivery with Rapid Poste¹⁹⁶. Its network has over 1,100 contact points covering the entire national territory and ensures home delivery for 90% of the population. 10% of the population get their parcels at the Post office. The company Aramex developed a shop and ship¹⁹⁷ parcel delivery service. We can also cite the German company DHL, the American UPS, etc.

According to the Universal Post Union, in 2012, 93% of Tunisians were likely to receive mail at home, against 72% in average for Africa. However, information and/or guarantees on distribution reliability could help to build trust.

¹⁹³ www.tribune-economique.com/index.php/dossier/231-les-enjeux-de-la-distribution-en-tunisie

¹⁹⁴ Mabrouk, which owns 37 shops under the brand Monoprix and is a Géant shareholder (French hypermarket inaugurated in 2005), holds 36% of the mass distribution market. Chaibi follows with 31% of the market, with the shops Bonprix. It is a shareholder of two Champion supermarkets and a shareholder of Carrefour. Magasin Général holds a market share of 20%. The cash & carry group Promogro, which mostly supplies restaurants and hotels, holds a market share of 13%.

¹⁹⁵ Logistic performance index 2014. http://lpi.worldbank.org/sites/default/files/International_LPI_from_2007_to_2014.xlsx

¹⁹⁶ www.rapidposte.poste.tn/fr/index.html

¹⁹⁷ www.shopandship.com

As in other African countries, where there are no physical addresses and individual mailboxes, home delivery by private companies is a problem as it is difficult for the deliveryman to arrive at the right place the first time, in front of the right person. In order to address this issue, the company Boxstop¹⁹⁸ created a network of local shops to deliver e-commerce products. It has three advantages: it maintains a physical encounter with clients, enables them to get their products outside of usual delivery hours and to pay a merchant they

■ Financial environment

know rather than a stranger.

The Central Bank of Tunisia is involved in the development of e-finance and ensures its regulation. Currently, the legal and regulatory framework does not allow mobile telephony operators to act as payment operators; they can only order bank transfers. In this framework, in 2010 banks and telecommunications signed an agreement in which payment orders could be required via mobile phone, while payments were exclusively made by banks. According to the Central Bank of Tunisia, this situation should evolve once the statuses of the Central Bank will enable it to regulate mobile payment operators that are currently excluded from its sphere of competence.

Regarding on-line payment options, two payment platforms are currently in operation: the platform clicktopay of the company Monétique Tunisie and the Post e-Dinar platform.

The company Monétique Tunisie currently gathers seven hundred retail websites linked to its secure payment server, which can be accessed via the platform clicktopay¹⁹. It claims 2.7 million distributed debit cards, and a 640,000 transactions coming from 96,000 buyers, of which 2/3 from local cards and 1/3 from foreign cards.

The Tunisian Post created an electronic payment platform based on debit cards (Poste Visa Electron, Visa, Mastercard international) and pre-paid cards (e-Dinar smart and e-Dinar universel). It claims 320 retailers affiliated to e-Dinar™ and 5.3 million transactions, including withdrawals, thanks to its partnerships with the three operators to implement mobile banking solutions, which are MobiDinar with Tunisie Télécom, Mobiflouss with Ooredoo and Mobimoney with Orange as well as with the companies Visa and Western Union.

The e-Dinar²⁰¹ card was a secure payment mode, under the form of a top-up prepaid card for on-line payments. It was replaced by the e-Dinar smart²⁰² card. Within the limits of the card balance, it enables its holder to purchase goods and services on-line, to withdraw money from any postal or bank ATM, up to Dts 300 per week, modifiable upon request, and to purchase items in shops equipped with electronic payment terminals (EPT).

¹⁹⁸ http://boxstop.tn/ et http://site.boxstop.tn

¹⁹⁹ www.clictopay.com.tn

²⁰⁰ www.e-dinar.poste.tn/fr/index.htm

²⁰¹ First, e-Dinar with a magnetic strip, then universal e-Dinar, and currently e-Dinar smart, enabling withdrawals and payments from EPTs.

²⁰² www.e-dinar.poste.tn/fr/apropos.html

Other actors are also active, such as the company Global Payment Gateway²⁰³ that designed a security on-line payment platform in compliance with Visa and Mastercard international security standards²⁰⁴.

Two law projects are being examined; one on the reform of the Central Bank status and the other one on banking law. They will introduce electronic payment establishments and the Central Bank will be in charge of their regulation. Circulars to banks will then specify the requirements applicable to non-bank payment operators, like mobile payment operators.

We can therefore present the following figures (TABLE 14) on the e-payment market:

 TABLE 14 Estimation of the e-payment market in Tunisia (2013)

Object	Value	Comment
Number of sellers (e-merchants)	700 to 1,000	
Number of buyers (e-buyers)	96,000	source: Monétique Tunisie
Number of debit cards	2,700,000	of which 2/3 of national cards
Card penetration rate (%)	29 %	
Number of mobile money accounts	0	Mobile money is not allowed
Mobile money penetration rate (%)	0	
Number of transactions	640,000	or over 10% of operations including withdrawals.
Transaction volume	unknown	

Source : Central Bank, Monétique Tunisie

Strengths and weaknesses

By relying on the results above and on the opinions collected on-site, we carried out a SWOT analysis on the development of e-commerce in Tunisia, featuring not only the opportunities and obstacles but also the strengths and weaknesses.

■ Strengths

- Political will characterised by old and consistent policies in favour of e-commerce;
- Advanced training level of Tunisians in relation to other countries, both in terms of literacy and higher education;
- Postal services more efficient than the African average;
- Good debit card penetration in relation to the development of the middle class (29%).

■ Weaknesses

- Difficulties to buy foreign products on-line because of the limits imposed on Tunisians to pay in currency;
- Weakness of the Tunisian offer, due to a lack of maturity for some sectors, like Tunisian craftsmanship which has difficulty delivering on-time quality products ²⁰⁵;
- Reluctance to purchase on-line, due do unfortunate former experiences (delivery non-compliance, transaction insecurity, failure to deliver within delivery time, impossibility to contact the seller, delivery of a damaged product);
- Insufficient reliability of parcel delivery at home and low-quality e-payments sometimes generating payment dysfunctions;
- Margins considered too high for banking intermediaries.

■ Opportunities

- Population growth;
- Demand of Tunisian citizens in favour of e-commerce, if trust is restored regarding logistics and payments;
- E-certification offer;
- Strategic national plan "Digital Tunisia 2018" on e-commerce.



■ Threats

- Terrorist attacks such as that of Bardo and Sousse, which aim at thwarting the touristic season and peace in Tunisia;
- Growing cyber-crime, likely to discredit the payment chain;
- Slower development than in other regions of the world, as shows the non-progression of the ITU ICT development index measuring the preparedness level to information society.

To conclude, e-commerce in Tunisia is still at embryonic stages, even though the government understood its importance and is promoting its development. The major obstacles do not seem to be the digital sector, as the population of eleven million inhabitants has nearly four million Facebook accounts²⁶⁶. However, the exchange regulation, logistics and small market size, combined with the political context and a low regional integration, do not encourage economic actors to invest in the country





SENEGAL IS A West African country located between Gambia, Mauritania, Guinea, Mali and Guinea-Bissau. Contrary to most of its neighbours, since its independence in 1960 the country benefits from political stability and efficient institutions. This is why Senegal attracts foreign investments in this sub-region. In addition to this favourable location, the country benefits from the Priority Action Programme 2014-2018, the Plan Sénégal émergent²⁰⁷ [Emerging Senegal Programme].

Here are a few figures of the Senegalese economy:

TABLE 15 Key figures of the Senegalese economy (2014)

Surface area (km²)	196,710
Population (million inhabitants)	14.67
Population growth rate (%)	3.1
Adult literacy rate (WHO 2015 %)	50
GDP (billion USD)	15.65
GDP/inhabitant (USD)	1,072
GDP growth (%)	4.7
Inflation (%)	0.1

Source : World Bank

According to the World Economic Forum, Senegal is an economy where basic needs are still quite high. In its annual report 2015 the Global competitiveness report, Senegal ranked 110th out of 140 countries, loosing eighteen ranks in relation to 2009-2010. It is rather representative of Sub-Saharan countries. If we only consider innovation, Senegal is in a good position (54th). As regards the ease of doing business, the 2016 IBRD report ranks Senegal 153th out of 189 countries.

E-commerce in Senegal

THERE ARE NO precise data on e-commerce in Senegal. In the absence of traffic indications for Senegalese companies, we cannot get information from Alexa to assess its significance. In the absence of more detailed information, and without claiming to be exhaustive, here is a sample of Senegalese e-commerce websites.

■ Electronic purchase of imported products

Senegalese major e-commerce websites come from foreign companies willing to sell imported products in Senegal, like Jumia.sn, launched in April 2015, or CDiscount or Kaymu.sn.

Other websites also offer specific imported products, like for instance:

- avenboutique²⁰⁸, for household appliances and technological products. It claims to be the first Senegalese e-commerce website;
- Diayma²⁰⁹, which also claims to be the first Senegalese e-commerce website:
- Ebusiness-senegal²¹⁰ for a wide range of products;
- Maketbi²¹ for technological products.

■ Electronic purchase and sale of national goods and services

There are also other Senegalese e-commerce websites, such as:

- Niokobok.com²²² dedicated to diasporas and enabling them to help their relatives in Senegal from abroad by buying a product or a service they need. "You choose products on our website, we deliver your relatives in Senegal in 48 hours" they write. This company was created in November 2011, in the co-working space Jokkolabs, a community of entrepreneurs interested in social innovation and new technologies. At the end of 2013, it was incubated at the CTIC, one of Dakar's main incubators, in order to accelerate its growth²³;
- Tongtong²¹⁴ for local food products;
- Passdocteur²¹⁵ for medical consultations with a possibility of payment by the diaspora;
- Senegalcity.com for real estate;
- Sama event²¹⁶ for on-line ticketing for concerts and events;
- Carmundi²³ for second-hand vehicles:

²⁰⁸ http://avenboutique.com

²⁰⁹ http://diayma.com/

²¹⁰ www.Ebusiness-senegal.com

²¹¹ www.maketbi.com

²¹² www.niokobok.com

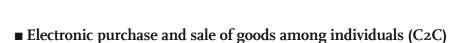
²¹³ Niokobok was selected by USAID, among thousands of companies, because of "the possibility it offers to millions of immigrants to support their families". Niokobok also received many international prizes, like the 3rd Orange Prize for social entrepreneur in Africa and the GIST prize for innovation of the American State Department.

²¹⁴ www.tongtong.sn

²¹⁵ https://passdocteur.com

²¹⁶ http://samaevent.com/

²¹⁷ www.carmudi.sn, a brand of the Afrikamarket group



Many classified ads portals are flourishing, among which senegal.lepetit-bazar.fr, dorgoo.sn, jokko-annonces.com, tewmoutew.com, planete-senegal.com, afrikannonces.sn, Expatdakar²¹⁸, etc.

■ Collective and unclassifiable websites

In this category, we can cite:

- Jovago²¹⁹ along with Booking.com and Expedia for hotel reservations worldwide, including in Senegal;
- Tekci²⁰, carried by the company Ebène, offers a service where buyers select the price they want to pay and are shown matching products. This project is carried out with the support of the CTIC-Dakar incubator, as part of its Buntuteki programme;
- Sunu-marche²¹ for clothes;
- Elmadeal.com for group purchasing.

■ On-line administrative services offer (e-Gouv - G2C)

On-line public service platforms are starting to appear in Senegal, both for companies and citizens. Here are a few examples:

- the campusen²² platform, for the registration and orientation of high school graduates;
- the public function platform¹²³ for job applications in the public sector;
- a dedicated platform for the ENA entrance examination²²⁴;
- the administrative system for computerised procedures (SAFI)²²⁵ offering companies;
- e-procedure services such as e-tax for tax return, taxes and customs and Teledac for building authorizations on-line;
- the public market portal giving access to multiple information on calls for bids²⁶.

■ E-commerce among companies (B2B)

There are a few portals like Dobiza²⁷ or Senegal B2B Marketplace²⁸ linked to the bigger portal TradeBoss²⁹. Senegalese companies are also present on fair trade international websites³⁹ such as that of the Ndem region on the artisans du monde website³¹.

■Particular case of e-commerce in the digital sector

In the absence of more precise information, let us point out that websites such as Avenboutique and Jumia offer digital products.

- 218 www.expatdakar.com
- 219 www.jovago.com
- 220 www. tekci.co
- 221 www.sunu-marche.com
- 222 www.campusen.sn
- 223 www.fonctionpublique.gouv.sn
- 224 www.concoursena.gouv.sn
- 225 www.adie.sn/fr/safi
- 226 www.marchespublics.sn
- 227 www.dobiza.com
- ${\tt 228\ www.tradeboss.com/default.cgi/action/b2b/marketplace/Senegal/countryid/120}$
- 229 www.tradeboss.com
- 230 In 2005, the project "Developing fair trade practices in Senegal" was launched by Enda Tiers Monde and other fair trade organisations, with the support of the French Ministry of Foreign and European Affairs.



Potential levers and obstacles to development

WE MUST NOW analyse the levers and obstacles to the development of the sector in Senegal.

■ Political, administrative and fiscal environment

Neither the Ministry of Posts and Telecommunications nor the Ministry of Trade is working on e-commerce. The foundation Trade point Sénégal³³, a body of the Ministry of Trade in charge of promoting trade through ICT use carries out projects on awareness and training. These projects are only remotely linked to e-commerce.

Many State agencies work in fields related to the digital sector, like for instance the Handicrafts Promotion and Development Agency (APDA) and the Senegalese Agency for Export Promotion (ASEPEX). Some of them would like to develop the marketing of Senegalese products but they are not familiar with the potential of e-commerce and never take action.

In terms of taxation, Senegal has a standard rate of 18%, a reduced rate of 10% that does not seem to apply to the digital sector³³ and a 15% rate for tourism. Import and export taxes are respectively fixed at USD 1,225 and 1,940 per container³⁴, slightly under Ivory Coast. It is interesting to note that Senegal removed taxes on IT services.

According to the UNCTAD, the legal framework in Senegal is sufficient to ensure the development of e-commerce (TABLE 16). It comprises a series of laws; here are the main ones:

TABLE 16 Senegalese legal framework

Legal framework		Comment
Law on electronic communications	Yes	Law n°2008-08 of 25 January 2008 on electronic transactions
Law on consumer protection	Yes	Decree n°2008-718 of 30 June 2008 on e-commerce, in relation to the laws indicated in this table.
Law on the protection of personal data	Yes	Law n° 2008-12 of 25 January 2008 on personal data protection
Law against cyber-crime	Yes	Law n°2008-11 of 25 January 2008 on cyber-crime
Law on electronic money establishments	Yes	Cf. OHADA act cited later on

Source: UNCTAD, author

²³² www.tpsnet.org

²³³ It regards the importation of some goods and services, especially mass consumption products (fruits and vegetables, paper, clothes, new automotive parts, cattle food, water, electricity, building materials, rental, sale for immediate consumption) according to www.sbtps.com/.../fiscalite%20pour%20votre%20entreprise.doc

²³⁴ IRBD report Doing business 2015.



■ Manufacturers and buyers

We collected few information on production and distribution sector structure. However, websites such as made in Senegal³⁵ provide an interesting vision of this country, its culture and traditions. Unfortunately, it does no list any Senegalese producer and remains focused on tourism information, with no e-commerce elements. Of course, the website links to other websites like that of APDA, but here again it is an institutional website mostly linking to other institutional websites and where visitors cannot find what they are looking for. Nevertheless, there is a link of the website artisan connect²⁵ listing a hundred of websites regarding African crafts, but here again very few of them sell products on-line.

It is interesting to point out that 70% of Senegalese exportations go to the African region. Thanks to the Common External Tariff (CET) of the Economic Community of West African States (ECOWAS), Senegal has a large selling market at its disposal. Besides, CET offers greater protection to local productions (soap, poultry farming, agribusiness, etc.) as well as no customs duties.

■ Digital environment

TABLE 17 presents a few key figures on the digital sector in Senegal.

TABLE 17 Key figures of the Senegalese digital sector (2013)

Object	Key figures	Comments
Landline telephone penetration rate (%)	2.40	
Mobile phone penetration rate (2014 %)	92.90	100 at the end of 2014
Price of mobile broadband (USD)	50.6 ²³⁷	
Mobile download speed (kbps)	1,216	
Mobile link upload speed (kbps)	319	
Computers in households (%)	10.30	
Percentage of Internet users (%)	20.90	

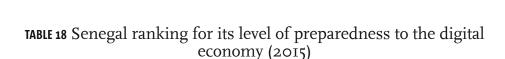
Source: ITU, World Economic Forum

As regards the maturity of information society (TABLE 18), Senegal is the third of the studied countries, ranking 106th out of 143 for the NRI index. Here is where Senegal stands compared with other countries:

²³⁵ www.madeinsenegal.com

²³⁶ www.artisanconnect.net/useful-links/#.VZZWdlLXzoI

²³⁷ To compare with GDP / inhabitant at USD 1,072.



	Ranking	Comments
NRI rank 2015 (out of 143 countries)	106	improvement with respect to 2014 (114/148)
NRI Environment subindex	87	Best score for the private sector (82nd)
NRI Readiness subindex	129	Last of the studied countries
NRI Usage subindex	98	Good score for companies (62nd)
NRI Impact subindex	78	Better economic score (66th) than social (81st)
ICT Development index 2015	132	Out of 166 countries (137th in 2010)

Source: 2015 report of the World Economic Forum for the NRI, 2015 Report of the ITU for the ICT Development Index

The digital sector in Senegal comprises many State and private actors. At the State level, the Ministry of Posts and Telecommunications prepares and implements the government policy. Since the 2000's, several digital strategies followed one another and a new strategy was being finalised in June 2015.

Organisations were created to support the ICT sector, especially:

- the Posts and Telecommunications regulation Authority (ARTP). Among others, it grants authorisations and ensures the application of regulations, the registration and the management of domain names;
- the IT State Agency (ADIE)³⁸. Since its creation in 2004, the ADIE created the Intranet network, hosted and developed the information and communication system of the administration and implemented the e-gov project in cooperation with China;
- GAINDE 2000: this economic interest group was implemented by the Customs IT Services Management Committee (CGPID) in June 2002. With a capital of €150,000, GAINDE 2000 is held at 80% by the CGPID, at 12% by Xconsult and 8% by the IDEE company. It is in charge of the customs IT system²⁹ of the foreign trade electronic collection system of documents (ORBUS 2000)²⁴⁰;

²³⁸ www.adie.sn The ADIE is in charge of creating a network national infrastructure ensuring the interconnection among administration services. It also manages administration software and material equipments and takes care of the recruitment and human resources of high skilled personnel.

²³⁹ www.gainde2000.sn

• the Investment Promotion and Major Projects Agency ²⁴¹(APIX): it supports companies, w ith the certification to the investment Code, in the process of acquiring land and through lobbying actions to obtain exonerations²⁴². APIX²⁴³, a great actor of dematerialisation, implemented

Among major realisations in this field, we can cite:

• a set of submarine cables and fibre optic infrastructures (backbone) deployed by three operators (Sonatel (Orange), Tigo and Sudan Telecom (Sudatel)), as well as the ADIE for the public sector;

in 2013 an electronic platform enabling to create a company in one hour24.

- e-signature, launched at the initiative of customs which started to use it and of the ADIE which is preparing large-scale use;
- identification of people and companies, one of the most important tools
 of future e-commerce. In this regard, three civil-status files are being
 created, in collaboration with the World Bank, but with no apparent coordination among them;
- the Development Fund of the Universal Service of Telecommunications (FDSUT²⁶) is a device of the telecommunications code intended to fund ICT projects fostering the development of the country. A recent report of the Court of Auditors encouraged the Government to receive the modalities;
- the Priority Investment Guarantee Fund (FONGIP²⁶) provides technical and financial support to SMBs working on a strategic field of the sector. Hopefully, e-commerce companies we get funding from this organisation;
- a cyber-village²⁴⁷ project is expected in order to boost the Dakar Technology Centre project, which has known moderate success, with the support of the Indian government. This project intends to offer companies settled in the Centre an incubator framework with financial, technical and technological solutions. Thanks to the generalisation of the presidential project of Cybercases²⁴⁸, they will propose an Internet space, video conferencing devices and spaces for shows and training²⁴⁹. Besides, with the establishment of e-government centres, rural populations and low-income urban populations will have better access to ICTs.

²⁴¹ http://investinsenegal.com

²⁴² Lobbying for the signature of the decree including call centres in sectors eligible to exonerations.

²⁴³ http://investinsenegal.com

²⁴⁴ http://investinsenegal.com/Creer-votre-entreprise-en-24.html

²⁴⁵ www.jo.gouv.sn/spip.php?article5912

²⁴⁶ www.gouv.sn/Le-Fonds-de-Garantie-des.html: The FONGIP, working in collaboration with BPI France, started operating on 27 March 2014. In January 2015 its loan stock was of CFA Francs 1.4 billion. In 2015, it planned to carry out a study on the digital sector in Senegal. Its objective is to create an investment model adapted to Senegal realities. The FONGIP is a second-rate actor, ensuring 70% of bank loans. It intends to reduce funding costs and favour the increase of bank credit up to 50%. SMBs will benefit from enhanced loans from financial institutions. The organism deals with requests and offers its support.

²⁴⁷ www.jo.gouv.sn/spip.php?page=imprimer&id_article=243 et www.adie.sn/index.php/17-actualites/206-projet-cyber-village-du-technopole-l-etat-du-senegal-signe-un-protocole-d-accord-avec-l-inde

²⁴⁸ The Cybercase is a hardwall building in the shape of a hut with a roof covered in fixed metal tiles.

²⁴⁹ The project should be broadened to fourteen and then seventy rural towns, prioritising the most underprivileged zones. The programme intends to train, in each Cybercase, 500 to 1,000 youngsters a year, in very diverse fields such as agriculture and electronics, in order to bridge the digital gap and to make the search for knowledge easier.

Many private actors support the digital sector in Senegal. In the field of telecommunications operators, Sonatel and Expresso share the market of fixed telephony, with a global network of over 300,000 landlines, or a penetration rate of 2.31%. In terms of mobile telephony, Sonatel, Expresso and Tigo shared over 14 million subscribers in the end of December 2014, or a penetration rate of 106.45% mostly relying on pre-paid offers (99%). As regards the Internet market, we considered three market segments: fixed Internet (narrowband and broadband/ADSL), mobile Internet via keys and mobile Internet via mobile terminals (2G and 3G). Sonatel is present on all three market segments, Expresso on fixed narrowband segments, mobile Internet (2G and 3G) from keys or mobile terminals and Tigo on mobile Internet (2G and 3G) from keys or mobile terminals. At the end of December 2014, the global Internet network reached over 6,800,000 lines. This market is developing quickly thanks to mobile Internet. The market is highly dominated by mobile Internet and Internet key segments. A new fixed and mobile telephony operator was certified in the Matam region. It is Hayo, from a Consortium of the Universal Service (CSU), comprised of Senegalese companies251.

The main call centres are PCCI³², Call Me³³, Africatel, AVS³⁴ and Center Value, offering after sale, maintenance and appointment making services. In this ecosystem, IT companies are developing, such as the company ATOS, which announced the creation of a technical expertise centre in Senegal²⁵, the group IB Maroc³⁶ and e-jay, a web agency specialised in e-commerce in Senegal, as well as consulting companies among which Spot one²⁵, Neticoa Sénégal³⁶, Exprimconseil²⁶. And finally, the Senegalese Chapter of Internet Society³⁶.

The various actors gather in different intermediary structures. Firstly, they are professional and consumer federations, mainly:

- employers, organised into two federations: the Conseil national du patronat du Sénégal³⁶¹ and the Mouvement des entreprises du Sénégal³⁶²;
- the OPTIC²⁶³ (ICT professionals organisation), established in June 2003, is a member of CNP and gathers ICT main companies as well as telecommunications operators. It works on ICT promotion and business development, business/networking relations, support to SMBs, public-private dialogue and service to its members;

²⁵⁰ www.artpsenegal.net

²⁵¹ www.lequotidien.sn/index.php/sports/nouvel-operateur-de-telephonie-a-matam-hayo-inquiete-orange

²⁵² http://pcci.fr

²⁵³ www.groupechaka.com/-Call-Me-.html

²⁵⁴ www.africatelavs.com

²⁵⁵ www.reussirbusiness.com/?p=6477

²⁵⁶ www.ib-maroc.com/fr/accueil

²⁵⁷ http://spotoneglobalsolutions.com Company created in 2011 and managed by Marieme Jamme, who was ranked among the one hundred African economic leaders of the future. Based in Senegal and in London, it supports digital companies interested in Africa.

²⁵⁸ www.neticoa.sn

 $^{{\}tt 259\ www.exprimconseil.com/ProjetExpertise.htm}$

²⁶⁰ The chapitre sénégalais of Internet Society, ISOC-Sénégal, was created on 29 February 1999. It intends to promote Internet use in Senegal by highlighting acquired experiences.

²⁶¹ www.cnp.sn

²⁶² www.meds-senegal.org

²⁶³ www.optic.sn

- NE NE
- the Organisation of telecommunications and digital services distributors (ODSENT). Its members sell recharge cards, accounting for 24% of e-commerce transactions, even though they only account for 1% of the amounts in value:
- the Observatory on Information Systems, Networks and Info highways (OSIRIS)²⁶⁴: Established in 1998, OSIRIS' mission is to raise awareness and inform the general public but also to lobby decision makers in order to give a voice to citizens in all issues regarding information society.

The clusters, technology centres and incubators play a significant part by supporting Senegalese digital companies and helping them develop. Let us note:

- the new town of Diamniadio, near Dakar future airport, should have a technological park of 25 ha but there were no information available as to the realisation dates at the moment of the study;
- the CTIC Dakar³⁵ incubator: the information and communication technologies growth incubator derives from a public-private partnership, the objective of which is to structure, support and stabilise the country's ICT SMBs. In three years, CTIC Dakar supported sixty companies and startups and trained nearly 1,300 young entrepreneurs. The Senegalese ICT incubator Foundation intends to develop this kind of incubators in other regions;
- the Jokkolabs Dakar²⁶⁶ co-working space: a professional shared working space with a community atmosphere. It is an open space welcoming any entrepreneur willing to expand its network, meet new collaborators, exchange on practices and develop its professional, personnel or associative projects.

As regards training and research organisms specialised in the digital sector, let us cite the polytechnic superior school¹⁶⁷ (Cheikh Anta Diop University), the Thiez polytechnic school¹⁶⁸, the Ecole nationale supérieure des télécommunications (ENSMT)²⁶⁹, the Gaston Berger University of Saint-Louis²⁷⁰. Besides, the Senegal Virtual University (UVS), a government key project within the context of its digital economy policy, started in 2014. About 2,000 students were enrolled when it was launched.

²⁶⁴ www.osiris.sn

²⁶⁵ www.cticdakar.com

²⁶⁶ http://dakar.jokkolabs.net

²⁶⁷ www.esp.sn

²⁶⁸ www.ept.sn

²⁶⁹ www.esmt.sn

²⁷⁰ www.ugb.sn

E-COMMERCE IN AFRICA

In terms of security data hosting, some offers are hosted abroad, like that of OVH Sénégal²⁷ and of Orange Business services. Several companies created a data centre for their own use, like for instance the banks CNCAS and BICIS, the cement works Sococim, the Senegalese chemical industries (ICS), the operator Tigo and the company Expresso. However, no one has yet built a data centre for cloud offers. Several integrators have this kind of projects, like Catalyst, Neurotech or Orange. Competent constructors are working on-site, such as ABM technologies, which is preparing a cloud offer²⁷.

■ Distribution and logistics environment

Mass distribution is not quite developed in the country, apart from a few shopping centres in Dakar, such as Seeplazza²⁷³ and Central Park Dakar²⁷⁴and companies like the group Casino. Therefore, the informal market dominates the distribution sector, with a large share of small-scale commerce275.

As Dakar is located by the Atlantic Ocean, goods can be easily transported by ship, contrary to interior countries that require road transport²⁶. In 2014, the World Bank report^m ranked Senegal 101nd out of 160 for international logistics, with the following criteria:

- customs: 76rd;
- infrastructures: 116th;
- maritime freight: 59th;
- traceability: 103st;
- length: 98rd;
- logistical quality: 146rd.

As for national logistics, the World Bank study provides the following results:

- 59 % of shipments in compliance with current standards;
- average delay of 2 days for customs clearance without inspection;
- 14 % customs clearance with inspection and 7 % with multiple inspections;
- average delay for importation: one day at the port and one day on land;
- average cost for importation; USD 500 at the port and USD 500 in the country:
- average delay for exportation: two days at the port and three days on land;
- average cost for exportation: USD 866 at the port and USD 1,000 in the country.

According to the UPU, in 2012, only 5% of Senegalese were likely to receive mail at home, against 72% in average for Africa. In Dakar and inside the country, the offers of the Senegalese Post remain limited. Global leaders of express parcel transport are also present: DHL, FEDEX and UPS.

²⁷¹ www.ovh.sn

²⁷² www.abm-technlogies.com. €2 M turnover in 2014, with branches in Mali and in Guinea.

²⁷³ www.seaplazadakar.sn

²⁷⁴ www.centralparkdakar.sn

²⁷⁵ www.planet-expert.com/fr/pays/senegal/reseau-de-distribution

²⁷⁶ www.senegalbagages.net/envoi-par-bateau-au-senegal/

²⁷⁷ Logistic performance index. http://lpi.worldbank.org/sites/default/files/International_LPI_from_2007_to_2014.xlsx

²⁷⁸ Niokobox offers two types of delivery: home delivery or in-store delivery. Home delivery costs €4 in the Dakar region and €8 in Thiès, M'bour, Saint-Louis and Louga. In-store delivery is free. In all cases, recipients are informed by SMS when their order is ready and they can come and get it with the code they received via SMS to confirm their identity. https://www.niokobok.com/faq.html



The main issue remains the absence of road infrastructures inside the country and the absence of physical addresses and individual mailboxes, hampering home delivery. However, a few companies, like Niokobox²⁷⁸ managed to overcome these obstacles.

■ Financial environment

In December 2014, the bank-account penetration279 reached 16.40%280. Along traditional banks, we can find various micro-finance institutions or decentralised financial systems (DFS) meeting the needs of part of the population, especially those who cannot turn to banks. The DFS penetration rate reaches 16.21%281. It is therefore a significant mode of access to financial services. In 2013, there were 18 banks for 383 DFS. However, nearly 40% of DFS are either located in Dakar on in Thiès282.

Taking advantage of the booming mobile telephony, mobile banking is progressively developing in the country thanks to innovative financial services offered by telephony operators in collaboration with banks.

A third actor, the Post, is developing its local agency network in order to implement e-payment services283. According to Malik Ndiaye, Director of cabinet of the Minister of Posts and Telecommunication, there is a significant conflict of interests between banks and telecommunications operators - to which we can add the GAFA (Google, Amazon, Facebook and Apple) - to get the e-payment market share.

Apparently, it is worth it as nearly 7% of the Senegalese GDP comes from its diasporas, with a great share of money transfers284.

The regulatory framework of mobile banking is based on the applications of regulation n°15/2002/CM/WAEMU of 19 September 2002 on payment systems as well as on instruction n°01/SP/2006 of 31 July 2006 of the BCEAO on e-wallets and e-money establishments. These innovative devices enabled the emergence of banking and non-banking actors offering e-money services as indicated below.

²⁷⁸ Niokobox offers two types of delivery: home delivery or in-store delivery. Home delivery costs €4 in the Dakar region and €8 in Thiès, M'bour, Saint-Louis and Louga. In-store delivery is free. In all cases, recipients are informed by SMS when their order is ready and they can come and get it with the code they received via SMS to confirm their identity. https://www.niokobok.com/faq.html

²⁷⁹ Calculated by taking into account people over fifteen, outside accounts opened in DFS, e-money issuers and postal financial services.

²⁸⁰ www.bceao.int/IMG/pdf/note_d_information_4e_trimestre_2014.pdf

²⁸¹ http://drs-sfd.gouv.sn/sitedrs/documents/Publications/Situation_T4_2014.pdf

²⁸² www.cespi.it/AFRICA-4FON/wp4%20BAYE.pdf

²⁸³ On this subject, here is an extract of the opening speech of the seminar held on 24 August 2015 on the Post and digital economy in Dakar: "Today, we must recognise that the traditional banking world and that of mobile operators are engaged in a fight to get the monopole in financial mobility [...] All the Posts are trying to diversify their products and services in order to better answer their clients' needs in terms of reliability, rapidity and security. The relation to the market is reversing. It is now the clients who choose their services and suppliers. [...] When we analyse the value chain of mobile banking, we must admit that banks and operators are not the only actors. Indeed, the segments linked to the management of offers and technical platforms, but also to marketing and distribution, can be taken care of by more experienced and efficient service providers. [...] one of the issues we must address is that of accounting and interoperability between e-wallets. This is a real

²⁸⁴ The money sent by Senegalese immigrants rose from FCFA 442 billion in 2006 to 552.6 billion in 2008, with a rise of 33.3 billion expected in 2009, thus contributing to the payment balance in the country. www.cespi.it/AFRICA-4FON/wp4%20BAYE.pdf

The Senegalese offer is large and varied. It includes commercial banks, mobile operators, non-bank e-money issuers, third-party suppliers, technology companies, ministries, etc. Here are a few examples:

- FERLO, a commercial company certified in 2011 by BCEAO as e-money establishment. Its FERLO MONEACARD is a subregional prepaid card (rechargeable in store) enabling to withdraw cash from any bank ATM with the logo IMG-WAEMU, with withdrawal fees amounting to FCFA 500;
- SGBS, a branch of the bank Société Générale, is the only commercial bank to offer its own mobile money solution, called Yobantel. Yobantel takes advantage of the large network of Senegal Crédit Mutuel branches, the largest DFS in the country;
- Orange developed its solution Orange Money, in partnership with BICIS, a branch of the bank BNP Paribas. It is a mobile payment service issuing e-money enabling, from a virtual account created on Orange mobile, to put money on a virtual Orange Money account, transfer money to a relative, check the balance on the account, pay one's own or one's relatives' bills, reimburse a micro-credit loan, buy Orange credit and withdraw money anywhere in Senegal (linked to the distribution network);
- Tigo, the second mobile telephony operator, launched Tigo cash. This mobile money service is based on the platform Ericsson Wallet Platform Solution:
- Mobile Cash, launched by two of the largest DFS, ACEP and PAMECAS, in partnership with the Mobile Banking Enabler technology supplier, is a mobile money platform dedicated to microfinance clients;
- CSI (Cellular Systems International) W@ri is a money transfer service established by banks activated by SMS for cash-to-cash transfers. It works with a large and dense agent network;
- Joni-Joni, developed by the Senegalese company BOSS, is a money transfer and e-payment system;
- the group Chaka Comput²⁸⁵ offers dematerialised access possibilities to bank accounts (mobile banking).

As regards electronic transactions via mobile phone, the first results on the Senegalese market showed that nearly 800,000 clients had a mobile account at the end of 2011, almost two years after the first launches. In March 2014, this figure rose up to 1,500,000. Senegal population reaching over 14 million people, the market remains huge. However, it is necessary to better understand clients' activities and financial needs.

Outside mobile money, the GIM -WAEMU certifies e-payment services in the WAEMU zone and regulates the market along with the BCEAO. At the end of December 2013, fifteen Senegalese banks and financial establishments were connected to the IMG-WAEMU and were able to conduct debit card operations. As to the number, nature and volume of transactions, the data we have from this organisation show that Senegal is the country completing more transactions, in volume, on IMG-WAEMU members equipment with €77 million electronic transactions, in payment issue and reception, as shown in TABLE 19 and 20.

TABLE 19 Number and volume of debit card transactions in Senegal (2013)

	Number (million)	Number (% WAEMU)	Amount (G FCFA)	Amount € million	Amount (% WAEMU)
Recipient country ²⁸⁷	689	21.15	50.47	76.9	23.21
Supplier country ²⁸⁸	678	20.78	50.25	76.6	23.11

Source: GIM-WAEMU, scoreboard of the evolution of e-money activities in the WAEMU zone in the end of December 2013.

 TABLE 20 Estimation of debit card payments in Senegal (2013)

	Number (million)	Number (%)	Amount (FCFA billion)	Amount (€ million)	Amount (%)
National payments	1.79	6.28	0.10	0.2	3.01
International payments	26.68	93.72	3.22	4.9	96.99

Source : GIM-WAEMU

From the figures available, we cannot draw estimations on the e-payment market in the country.

²⁸⁷ Transactions are taken into account when the recipient is Senegalese.

²⁸⁸ Transactions are taken into account when the supplier is Senegalese.

Strengths and weaknesses

HERE IS THE SWOT analysis of e-commerce in Senegal, based on the information we collected.

■ Strengths

- Political will appearing in the Plan Sénégal émergent and its digital section.
- Political stability;
- Recognised innovation skills encouraging companies like ATOS to establish their West African branch in this country.

■ Weaknesses

- Access to funding, infrastructures, labour regulation, corruption, administrative red tape and taxes, according to the World Economic Forum:
- Distrust regarding the on-line payment system due to fraud;
- High cost of home delivery;
- High cost of telephone communications and improvable service quality, especially inside the country, featuring problems with on-line financial transactions for the purchase of recharge cards²⁸⁹, for instance;
- Absence of e-commerce public policy.

■ Opportunities

- Population growth, young population;
- Strategic location in West Africa and member of regional organisations200;
- Political stability;
- Postal services currently being modernised.

■ Threats

- Corruption, which hamper investments and favours useless investments;
- Risk of losing sovereignty with regard to great global actors and especially the GAFA.

To conclude on the Senegalese e-commerce market, it is an emerging market, still focused on the capital region. The WAEMU is an asset; however, the absence of a policy in favour of e-commerce is an obstacle as it could encourage on-line export of products from agriculture, fishing and handicrafts.

E-commerce websites enabling the diaspora to offer services to Senegalese people is an interesting characteristic to point out.

²⁸⁹ www.seneweb.com/news/Technologie/les-distributeurs-de-services-de-telecommunications-deplorent-la-qualite-du-reseau-des-

²⁹⁰ The size of the local market could be broadened from 14 million to over 300 million consumers thanks to the Ecowas TEC.



The case of Ivory Coast



Following the disputed election of 28 November 2010, the political dead-lock in Ivory Coast led to an armed conflict. Since, thanks to the lifting of economic sanctions and the financial help provided by the IMF and Club de Paris, the government is operational again. After a strong recession of -4.7% in 2011, recovery was significant (8% growth in 2013), even though it is mostly focused in urban centres. Over the same period, inflation dropped (from 4.9% in 2011 to 0.5% in 2014). Ivory Coast is the second economy in West Africa, with a high economic potential and growth perspectives are positive, both in the short and medium terms.

As in many other African countries, the tertiary sector has been booming for several years. Services accounted for 48% of GDP and employ 22% of its active population. The telecommunications sector is a booming activity driving, with other sectors, this service growth.

TABLE 21 offers a few key figures on the Ivorian economy.

TABLE 21 Key figures of the Ivorian economy (2014)

Surface area (km²)	322,463
Population (million inhabitants)	22.16
Population growth rate (%)	2.40
Adult literacy rate (WHO 2015 %)	57
GDP (billion USD)	31.06
GDP/inhabitant (USD)	1,529
GDP growth (%)	8.7
Inflation (%)	0.5

Source: World Bank

In its annual report Global competitiveness report 2015-2016, the World Economic Forum ranked Ivory Coast 91nd out of 140 countries. It is doing slightly better than the African average. In 2009-2010, it was ranked 116rd. In the ranking focusing only on innovation, Ivory Coast ranks 53th. As regards the ease of doing business, the 2016 IBRD report ranks the country 142th out of 189 countries. At the same time, the IRBD ranks Ivory Coast in the top ten of most reforming countries.

Over the last few years, the improving economic environment and business climate favoured the return or the entry of investors and major economic actors on the Ivorian market. It is the case of the African Development Bank (ADB) in Abidjan, of the air carrier CORSAIR, of the French mass distribution leader CARREFOUR, or the Orrick, Herrington & Sutcliffe LLP law firm.

E-commerce in Ivory Coast

WHILE IN 2001 only 10% of the three thousand formal economy Ivorian SMBs used e-commerce, the CGECI, the Ivorian managers federation, explained that it intended to organise a symposium on the topic in Abidjan, at the beginning of 2016. This would not be a first since it already organised a seminar on e-commerce in Abidjan in April 2015 for the members of the ECOWAS291.

Other actors are also active, especially the Agency for the promotion of Ivory coast exportations (APEX-CI), which has a partnership with the Federation of International Trade Associations (WFTA) based in Montreal, to train Ivorian economic operators and more generally WAEMU economic operators to export agricultural products, especially raw products and fruit. Apart from these projects, we did not find any consistent e-commerce policy in the country.

Different types of e-commerce portals were created. We will divide them into categories as we did for other countries.

■ Electronic purchase of imported products (B2C)

The main e-commerce Ivorian platforms are the following:

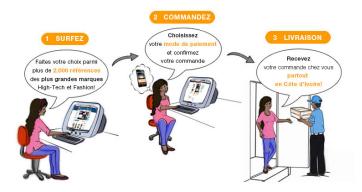
- Jumia.ci29, launched in 2013, is the third Ivorian website in traffic, with 88.3% of national visitors. It gets over 500,000 unique visitors per month and offers over 50,000 products. In one week in May, when Jumia had a special offer on smart phones, over 7,300 devices were sold.
- Kaymu²⁹³, ranked 86th, with 80.6% of national visitors.

²⁹¹ https://tft.unctad.org/?page_id=4466

²⁹² Jumia is already present in Nigeria, Kenya, Morocco and Egypt. Jumia created six agencies in Ivory Coast, in the towns of Yamoussoukro, Bouaké, San Pedro, Daloa, Gagnoa and Korogho.

E-COMMERCE IN AFRICA

Here is an advertisement explaining the on-line purchasing procedure, from Jumia website:



■ Electronic purchase and sale of national goods and services

The main private e-commerce platform for Ivorian products and services seems to be Hellofood294, providing home catering services and ranked 189th Ivorian website for traffic, with 93.6% Ivorian visitors. Other e-commerce websites selling Ivorian products exist or are being developed, like the Ivorian website Ribla Neda25, nominated to Ivory Coast innovation first prize. It is the first on-line sale platform for raw agricultural products or by-products. We can also cite SanliShop²⁹⁶, Sigata²⁹⁷, Monkiosk²⁹⁸, cadeau.ci/shops²⁹⁹, Sitcom³⁰⁰ etc.

Foreign websites like the Nigerian website Jovago³⁰¹ ranked 230th in Nigeria, or the international website Booking.com³⁰² offer on-line hotel bookings³⁰³.

■ Electronic purchase and sale of goods among individuals

We can cite the websites Lamudi304, for real estate ads, and Carmudi305, for car sale, present in several countries among which Ivory Coast.

■ On-line administrative services offer (e-Gouv - G2C)

Ivory Coast still offers little on-line services. However, it is modernising this sector, with the coordination of ANSUT36. Websites like that of the Ivorian electricity company (CIE)307, of the Ivorian water supply company (SODECI)308 or of the SOCOPRIM managing the toll of the HKB300 bridge now offer on-line payment services, especially via mobile.

²⁹⁴ www.hellofood.ci

²⁹⁵ www.riblaneda.com

²⁹⁶ www.sanlishop.ci

²⁹⁷ www.sigata.com/shopping

²⁹⁸ http://monkiosk.com/home.php?cat=61

²⁹⁹ www.cadeau.ci/shops/product.php?productid=262

³⁰⁰ www.sitcom.ci

³⁰¹ www.jovago.com/fr-fr/hotels/cote-d-ivoire/abidjan/267

³⁰² www.booking.com

³⁰³ On retail websites like Booking.com, hotels can be booked in the four studied countries.

³⁰⁴ www.lamudi.ci

³⁰⁵ www.carmudi.ci

³⁰⁶ https://www.ansut.ci

³⁰⁷ www.cienet.net

³⁰⁸ www.sodecinet.net

³⁰⁹ www.socoprim.ci



■ E-commerce among companies (B2B)

Several Ivorian companies are present on global B2B marketplaces, like Tradeboss³¹⁰.

It is worth pointing out an initiative of the Ministry of agriculture carried out in partnership with the SAP company. It is the e-agri project (FIGURE 6), carried out by the company Agraria. Relying on the data of the Ivorian agricultural e-market, the company offers various information systems and observatories.

Marché Electronique
Agricole hydrien

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Destina des ventes et finance e Agri.

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FIGURE 6 General organisation of E-agri project

■ Particular case of e-commerce in the digital sector

An interview with Patrick M'Bengue, vice president of the ICT Commission of the General Confederation of Ivory Coast businesses (CGECI) confirmed our hypothesis. B2B e-commerce is not a driving force in this sector. Indeed, B2B commerce often starts with a referencing phase and usually involves a physical encounter. If it is a success, it is followed by orders that can be made electronically or not.



■ Political, administrative and fiscal environment

Potential levers and obstacles to development

The administration in charge of e-commerce is the Ministry of Posts and Telecommunications, while the Ministry of Trade, Craftsmanship and SMB promotion is in charge of helping small and medium-size companies. It is not explicitly in charge of e-commerce.

In terms of taxation, the normal VAT rate is fixed at 18%. This rate applies to IT equipment and software. The reduced tax rate is of 11% for certain operations. As for customs tariffs, since I January 2000, WAEMU third-party countries must pay duties and taxes in compliance with the common external tariff, whatever their point of entry into the WAEMU. The tax rate for foreign companies is of 20% withheld at source. Import and export taxes are respectively set at USD 1,960 and 1,390 per container³¹².

As for the Ivorian legal and regulatory framework, the UNCTAD considers that it is sufficient to ensure the development of e-commerce. It comprises a series of laws and regulations specific to the digital sector and to commerce development, as shows TABLE 22.

TABLE 22 Senegalese legal framework

Legal framework		Comment
Law on electronic communications	Yes	Law of 30 July 2013
Law on consumer protection	Planned	Text adopted by the government on 3 June 2015 ³¹² .
Law on the protection of personal data	Yes	Law n° 2013-450
Law against cyber-crime	Yes	Law n° 2013-451

Source: UNCTAD, author

In terms of consumer protection, law n° 2013-450 on the protection of personal data³³³ and law 91-999 of 27 December 1991 completing the 1945 order on competition, prices, prosecutions and punishment of offences to the economic legislation represent most of the legal framework. However, we cannot talk about consumer right as such³³⁴ since positive law does not include any protective provisions on the creation, execution or termination of contracts regarding consumers (right and delay of withdrawal, right to be informed, prohibition of oppressive provisions, debt write-off programme, right to consumer association, consumer legal assistance, etc.) This issue is about to be addressed since an Ivorian consumption code is being formulated with a project of law of June 2015.

³¹¹ IRBD report Doing business 2015.

³¹² http://news.abidjan.net/h/553379.html

³¹³ www.artci.ci/images/stories/pdf/lois/loi_2013_450.pdf

³¹⁴ Joseph Issa-Sayegh, le droit ivoirien de la concurrence, Ohadata D-06-04 http://siteresources.worldbank.org/INTCOMPLEGALDB/Resources/ DroitIvoirienConcurrence.pdf



Order n°2012-293 of 21 March 2012 on telecommunications and ICT and law n° 2013-546 of 30 July 2013 on electronic transactions³¹⁵ provide a sufficient legal framework to enable e-commerce, defined as "any economic activity by which a person offers or ensures, at a distance and electronically, the provision of goods and services."³¹⁶

In terms of fight against cyber-crime³³, law n° 2013-451 explains the legal framework while decree n°2011-476 of 21 December 2011, identifying the subscribers to telecommunications services open to the public, facilitates the prevention and punishment of telecommunications services fraudulent use. It identifies all users, especially Internet and mobile phone users, and masters the subscribers' nominative file, while ensuring the respect of users private lives.

Finally, on 15 July 2015, the Council of Ministers adopted a law project ratifying order n°2015-503 of 8 July 2015 on the VAT exoneration and on the reduction of duties and taxes on the purchase of IT equipment, electronic tablets and mobile phones.

■ Manufacturers and buyers

According to Ivorian managers, the sector policy is quite developed in the country, with a structured cocoa and palm oil sector. More structure would enable national producers to benefit from a greater share of the added value of the products it offers. During the June 2015 IT forum, Frédéric Massé, Vice-president EMEA Government Relations at SAP gave the example of the cashew nut industry. Their price is fixed in Dubai, where nuts are consumed, while the 450,000 concerned Ivorian farmers get an annual revenue of €700. In the absence of a structured industry, they cannot influence the price of the nut whereas, in the opposite case, they could decide to wait before selling when prices are too low. If the industry were better organised, B2B commerce could be initiated between producers and their cooperatives and between these cooperatives and their importer clients. B2C commerce with final clients would also make sense.

The IPSOS and Bearing Point study for CFAO provided elements on middle classes in Ivory Coast. According to the ADB, their average revenue ranges between USD 2.6 and 10.5 with an average of USD 4.8 per day. These households have in average three children. Going to a shopping centre is considered as a leisure and they go once a month in average, for grocery shopping. As for e-commerce, 2% of the people go to e-commerce websites once a week and 7% once a month. That is twice less than in Morocco.

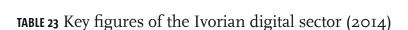
■ Digital environment

As for other countries, we have a lot of information of the digital sector and on the digital environment of companies. Here are a few key figures.

³¹⁵ www.egouv.ci/sites/default/files/fichier_telechargement/Ordonnance%20aux%20TIC.pdf

³¹⁶ A presentation of Dr Assoko Heracles explains the provisions of the law. http://fr.slideshare.net/GOTIC_CI/presentation-du-30-avril-2014-a-la-crrae-uemoa-dr-assoko-transactions

³¹⁷ www.artci.ci/images/stories/pdf/lois/loi_2013_451.pdf



Object	Key figures	Comments
Landline telephone penetration rate (%)	1.30	
Mobile phone penetration rate (2014 %)	95.40	100 in March 2015
Price of mobile broadband (USD)	30.36318	
Mobile download speed (kbps)	871	
Mobile link upload speed (kbps)	611	
Computers in households (%)	2.30	
Percentage of Internet users (%)	2.60	This figure of the ITU seems underestimated 319

Source: ITU, World Economic Forum

TABLE 24 presents its position compared with other countries in the world.

 TABLE 24 Ivory Coast ranking for its level of preparedness to the digital economy (2015)

Ranking		Comments
NRI rank 2015 (out of 143 countries)	115	improved with respect to 2014 (122/148)
NRI Environment subindex	95	111 in 2014
NRI Readiness subindex	118	good ranking on infrastructures (89th)
NRI Usage subindex	117	good ranking on company uses (95th)
NRI Impact subindex	107	of which economic 99 and social 114
ICT Development index 2015	137	out of 166 countries (142th in 2010)

Source: 2015 report of the World Economic Forum for the NRI, Report of the ITU for the ICT Development Index

On 26 March 2015, during the firth edition of the Africa IT & Telecom Forum held in Abidjan on "Digital future in Africa", Daniel Kablan Duncan, the Ivory Coast Prime Minister, reminded that ICT enabled to create 520,000 jobs in the Ivorian formal sector and he asserted the country's ambition to become a global technological hub.

³¹⁸ To compare with GDP / inhabitant at USD 1,529.

There is a real political will to support ICT development. The organism in charge of the sector is the Ministry of Posts and Information and Communication Technologies. Apart from the fight against cyber-crime and the various reforms on the legal framework, the Ivorian government initiated a large ICT development programme through infrastructures, service accessibility, development of national expertise30 and implementation of a VITIB technological free zone in Bassam.

As regards infrastructures, the current priority is to cover the national territory with fibre optic. This project, called RNHD (national broadband network) is a set of point-to-point transmission links with fibre optic broadband (6,635 km) supposed to link most administrative centres on the entire territory. Besides, the connexion to two submarine cables, for a total of three cables (WACS, SAT-3, ACE), enables to reduce the cost of international connectivity, increase the passband and develop broadband networks as well as new services (e-commerce, etc.). Finally, the 3G network is increasingly developing, with a good quality passband in many urban zones.

Launched in February 2015, the project "one citizen, one computer, one Internet connexion" intends to reduce the digital gap by providing 500,000 households with a laptop and an Internet connexion. The ANSUT expects a 20 to 48% reduction in relation to the market price. However, prices remain high compared with the minimum wage (FCFA 60,000, or €92). Another project to create 5,000 public cyber-centres in villages of over 500 inhabitants intends to open-up rural areas and help populations master ICTs.

In addition to the Ministry, State agencies play an important part in the sector, especially:

- the ARTCI: Telecommunications Regulation Agency in Ivory Coast;
- the ANSUT: National agency for Telecommunications Universal Service;
- the AIGF: Ivorian Agency for the Management of Radio Frequencies.

Many private actors also contribute to the development of information society, among which telecommunications operators. Two leaders are driving the sector: Orange and the South-African company MNT, accounting for 70% of the mobile market. The penetration rate reached 100% in March 2015, with 22.0 million subscribers³². In order to simplify the telecommunications sector, the State compelled Koz and GreeN to merge with two other operators (Café Mobile and Warid Télécom) who have licences but no real impact on the market. By doing so, the State intends to get four major operators for a better visibility of the offers and an improved service quality.

³²⁰ In addition to trainings in telecommunications and electronic engineering offered by the Polytechnic National Institutes Houphouët Boigny (INP-HB), the creation of the École Supérieure Africaine des Technologies de l'Information et de la Communication (ESATIC) in March 2012 aims at providing the country with a cutting-edge training structure as well as skilled and competent engineers and technicians. The ESATIC has a training and certification fibre optic laboratory. It is the only laboratory in West Africa to issue fibre optic certificates recognised by the Fiber optic association. This school has an incubator and intends to favour entrepreneurship as well as the creation of local startups.

³²¹ Prices for computers range between FCFA 168,000 (€250) and FCFA 249,000 (€38) and that of tablets range between FCFA 50,000 (€77) and FCFA 196.000 (€299):

³²² www.artci.ci/index.php/Telephonie-mobile/abonnes-service-mobile.html

The fixed telephony network is operated by two companies: CI Telecom (historic operator, France Télécom) and Arobase Telecom (MTN). About 250,000 subscribers generate a €626 million turnover, 60% of which comes from services such as the installation of virtual private networks, wiring and equipment sales.

Five suppliers share the fixed and mobile Internet market, led by Afnet, bought by MNT, with 56.2% of market shares and CI2M (a subsidiary of Côte d'Ivoire Telecom) with 42.31%. The share of other Internet access suppliers remains low and does not exceed 3% (Izinet, VIPnet, ALink and Yoome). In December 2014, there were 5,232,900 subscribers to the Internet (see TABLE 25). According to the ARTCI, the telecommunications regulator, subscribers connect to the Internet mostly via mobile (3G) (97.63%) and secondarily via the fixed network (1.11%) and via other wireless networks (1.26%). Besides, we must point out that 86% of Internet subscribers live in Abidjan, against 14% inside the country.

 TABLE 25 Total Internet subscribers in Ivory Coast (2013)

Fixed Internet access	124,182
Mobile Internet access	4,899,894
3G key access (exclusive data)	208,824
Total number of Internet subscribers	5,232,900

Source: ARTCI

The market offers many development opportunities and represents a great national challenge to reduce the digital gap and favour social inclusion. This trend can be observed in most West African countries.

Seventy-two digital companies are gathered within the Ivorian Group of ICT operators (GOTIC), affiliated to Ivorian managers.

In terms of data hosting, public and private actors are developing security servers and their number keeps increasing: there were 5 in 2005, 20 in 2010 and 57 in 2014.

Research and training organisations are involved in the digital sector, like the new École supérieure africaine des TIC³³ or the Houphouët Boigny Polytechnic National Institute.

The clusters, technology centres and incubators play a significant part by supporting Ivorian digital companies and helping them develop. Let us note in particular the Mahatma Ghandi technology park located in the VITIB free zone in Bassam.



■ Distribution and logistics environment

Regarding distribution inside the country, the informal sector dominates. The

major supermarket brands are Cash, Hayat and Leader Price. They almost only offer expensive imported products and are therefore unaffordable for most Ivorian households.

Investments were recently made in the distribution sector:

- In June 2013, Carrefour announced the opening of a fist hypermarket in Abidjan in September 2015, in collaboration with CFAO³²⁴, in the framework of a regional strategy;
- On 4 June 2014, CDiscount, the on-line commerce subsidiary of Casino group, announced its establishment in the country, in collaboration with Bolloré Africa Logistics.

In 2014, the World Bank report³⁵ ranked Ivory Coast 79nd out of 160 for international logistics, with the following criteria:

- customs: 120th;
- infrastructures: IOIth;
- maritime freight: 75th;
- traceability: 95th;
- duration: 67th;
- logistical quality: 64th.

As for national logistics, there are no data available.

According to Patrick M'Bengue, vice president of the ICT Commission of the CGECI, the weak spot of Ivorian e-commerce is logistics. E-commerce professionals need a logistics chain enabling to deliver their clients quickly. For all the actors of on-line retail, delivery is one of the challenges in Sub-Saharan Africa, where precise addresses (street names, numbers, etc.) are scarce. According to UPU data, in 2011, 99% of Ivoirians did not have a postal address.

The Ivorian Post is little used and very slow. It does not have many vehicles and they are not reliable for some destinations. On the contrary, private companies such as DHL have significant fleets of planes and lorries and are increasing their number of rounds in order to serve an increasing number of towns and villages via certified pick-up points. However, prices remain high. Ivorian passenger transport companies, like UTB or STIF, are starting to diversify their freight activities and progressively offer parcel delivery services. Nevertheless, this requires coordination among several transport companies. IT tools for parcel traceability are available; the difficulty will be to have them implemented.

In 2013, Jumia created its own logistics company, in collaboration with AIG. Jeremy Hodara, of Jumia, explains: "We have warehouses and call centres in all the countries where we operate. We had to build our own operations and create the entire logistics chain." Following Jumia's example, Kaymu chose to rely on the local delivery network implemented by Jumia and intends to implement more and more pick-up points, where products are delivered before being picked up by clients.

■ Financial environment

According to all our sources, most on-line buyers keep paying for their purchases upon delivery. Contrary to eBay, offering secure payment via PayPal, Kaymu clients pay upon delivery and generally by cash, so that the seller must wait until the end of the process to get paid.

Here are a few indications on the Ivorian financial context. As to the legal and regulatory framework, BCEAO instruction n° 01/SP of 31 July 2006³²⁶ on e-money issue and e-money establishments sets the operating conditions of e-money establishments activities, defined as "a company or any other legal person authorised to issue means of payment under the form of electronic money and of which the activities are limited to the issue of e-money, the provision of e-money to the public and the management of e-money." It is completed by regulation n° 15/2002/CM/WAEMU of 19 September 2002³²⁷ on payment systems. It contains precise provisions regarding evidence via digital means, like electronic signature, which is essential to secure commercial and financial transactions.

According to BCEAO, in December 2014, the bank account penetration³²⁸ in Ivory Coast reached 16.49%³²⁹ against 7.35% in 2009. Five factors can justify this low bank account penetration: cost of banking services considered high by the population, insufficient banking networks, especially in rural areas, targeting and offer adapted to high-revenue clients, prohibitive required supporting documents and lack of transfer initiatives from government to citizens. Besides, consumption habits and payment modes do not favour the daily use of debit cards. Therefore, according to the press³³⁹ "banking establishments - especially international ones, keep coveting Ivory Coast as they are attracted by the great progress margin linked to the still low bank account penetration in the country."

Other types of payment have been identified as shows a study carried out in the framework of the Partnership for financial inclusion³³ to develop micro-finance and promote mobile financial services in Sub-Saharan Africa. The bank-account penetration is not representative of financial inclusion given that Ivorians have 6.17 million mobile financial accounts (mobile banking), 2.81 million bank accounts³³ and 1.30 million microcredit accounts.

 $^{326\} www.bceao.int/IMG/pdf/INSTRUCTION_N_o_o1_-_2006_-_SP_DU_31_JUILLET_2006.pdf$

³²⁷ www.bceao.int/IMG/pdf/Reglement_n_15_2002_CM_UEMOA_relatif_aux_systemes_de_paiement_dans_les_Etats_membre s_de_L_UEMOA.pdf

³²⁸ Calculated by taking into account people over fifteen, outside accounts opened in decentralised financial systems, e-money issuers and postal financial services.

³²⁹ www.bceao.int/IMG/pdf/note_d_information_4e_trimestre_2014.pdf

³³⁰ Côte d'Ivoire économie, April2015, n° 42, p.1. www.cotedivoire-economie.com

³³¹ Susie Lonie, Meritxell Martinez, and Rita Oulai, International Finance Corporation (IFC), "Data overview on the e-money provided by Ivorian mobile financial services".

³³² This figure does not allow to calculate the bank account penetration as some people have several accounts.

Indeed, the BCEAO regulation boosted mobile money in West Africa and more particularly in Ivory Coast, where five payment service providers exist today, having been certified by BCEAO to supply mobile financial services (MFS). They are three telecommunications operators and two other actors:

- in 2008, the telecommunications operator Orange Côte d'Ivoire launched Orange Money, in partnership with the International Bank for Commerce and Industry in Ivory Coast (BICICI). In 2014, Orange Money went into partnership with the Bank of Africa (BOA) and the BICICI to offer bank account (mobile banking) and microcredit account integration services;
- in partnership with the International Bank for West Africa (IBWA-CI), the telecommunications operator MTN-Côte d'Ivoire offers money transfer from account to account, from account to cash and from cash to cash, as well as bill payment (water, electricity, etc.), the purchase of phone recharges, top-up of e-wallet, withdrawals, salary or fee transfer, or any other type of payment. MTN-CI launched a money transfer service in partnership with the Société générale de banques en Côte d'Ivoire (SGBCI). It issues electronic money and ensures the distribution of this money to the population;
- the telecommunications operator MooV-CI launched Flooz in partnership
 with the IBWA-CI and offers money transfer from account to account,
 from account to cash and from cash to cash, as well as bill payment. The
 telecommunications operator MooV-CI, in partnership with the Banque
 atlantique Côte d'Ivoire (BACI), also offers services of cash in cash out,
 money transfer, phone credit purchase and payment of bills, salaries,
 market services and account management services;
- CELPAID was certified in 2010 in partnership with the Banque transatlantique de Côte d'Ivoire;
- Quash services was certified in 2013 in partnership with IBW Côte d'Ivoire.

The country is also active in terms of mobile banking:

- E-Tranzact and W@ri supply payment services such as bill payment in the name of clients, with transaction fees, but they do not use electronic money, contrary to the five mobile phone financial service providers;
- Orange, along with the banking group Ecobank, implemented a service enabling Orange Money users with an Ecobank bank account to transfer money;
- in June 2014, Paypal entered the Ivorian market but limited its offer to part of the e-payment service options. At first, only fund transfers to Paypal certified merchants will be authorised, following the model adopted by the American company in most African countries. Most local merchants will be excluded from this service as it does not cover transactions (sending and receiving) among individuals.

Even though e-commerce is booming, mobile payments do not contribute much to this sector. In 2013, deposits and withdrawals accounted for most transactions, for a total of €1.97 billion (TABLE 26). For now, Ivorians seem to be using this tool as an electronic safe. E-communication purchases account for 25% of transactions, but for less than 1% in value. Money transfers among individuals account for 6% of transactions in value, and bill payments for 4%.

 TABLE 26 Use of electronic money on mobile phones in Ivory Coast

 (2013)

	Number (million)	Number (%)	Value (FCFA billion)	Value (€ million)	Value (%)
Deposits	23	35	633	965	49
Withdrawals	21	32	549	837	42
Money sent to third party	4	6	81	123	6
Invoice payment	2	3	29	44	2
Phone recharge	16	24	19	29	1
Total	66	100	1,292	1,970	100

Source: IFC333

In the absence of data on Ivorian e-commerce, we must examine the transactions conducted via debit card in addition to that conducted via mobile phone. According to the IMG-WAEMU, nineteen banks and financial establishments conduct debit card transactions, for sales (issuing country) or purchases (recipient country) as follows:

TABLE 27 Number and volume of debit card transactions in Ivory Coast (2013)

	Number (thousands)	Number (%)	Amount (FCFA)	Amount (€ million)	Amount (%)
Recipient country	626	19.21	45.2	68.9	20.79
Supplier country	530	16.27	37.1	56.6	17.06

Source: GIM-WAEMU

From these two tables, we can note that the number of transactions conducted via mobile phone is a hundred times higher than via debit card, while it is nearly thirty times higher in amount.

³³³ Data overview on the e-money provided by Ivorian mobile financial services. www.agenceecofin.com/monetique/1411-24320-le-marches-de-mobile-money-de-cote-d-ivoire-connait-un-developpement-parmi-les-plus-rapides-dans-le-monde

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In order to assess the share of trade paid via dematerialised means, we must subtract money deposits and withdrawals while noting that in the WAEMU, payments account for 4.19% of transactions in volume and 6.61% of transactions in amount. We can get an estimation of e-payment by debit card by applying these percentages to transactions in Ivory Coast, the recipient country, as e-commerce is mostly focused on importations. We can then distinguish between national and international commerce as the GIM-WAEMU provides information in this regard for the area (TABLE 28).

TABLE 28 Estimation of debit card payments in Ivory Coast (2013)

	Number (thousands)	Number (%)	Amount (FCFA billion)	Amount (€ million)	Amount (%)
National payments	1.65	6.28	0.09	0.1	3.01
International payments	24.63	93.72	2.90	4.4	96.99

Source: GIM-WAEMU data reprocessing

Strengths and weaknesses

BY RELYING ON the results above and on the opinions collected on-site, we carried out a SWOT analysis on opportunities and obstacles to the development of e-commerce in Ivory Coast: .

■ Strengths

- Political will expressed by the Prime Minister and the Minister of Posts and ICT as regards the digital industry and e-government, as well as investment attraction³⁴;
- Strong growth in mobile banking;
- Structured digital industry.

■ Weaknesses

- Corruption considered as an endemic issue in Africa hampers development;
- Insufficient quality of electronic communication which, according to the Organisation of digital and telecommunications service suppliers³³⁵, generates dysfunctions during the purchase of phone recharges;
- Absence of a reliable and cheap parcel distribution logistics service;
- Law bank account penetration preventing, for instance, small producers from having access to loans;
- Administrative red tape, access to funding, political instability, labour regulations, infrastructures and corruption, according the Doing Business report of the World Economic Forum;
- According to Iovation, a specialist in reputation issues, 7% of on-line transactions in Africa are fraudulent, versus 5% in Asia and 2% in Europe. Ivory Coast is the third country in the world for cyber-fraud after Nigeria and Ghana;
- Absence of e-commerce public policy.

³³⁴ Each year, Ivory Coast is progressing in the Doing Business index of the IRBD.

³³⁵ www.seneweb.com/news/Technologie/les-distributeurs-de-services-de-telecommunications-deplorent-la-qualite-du-reseau-des-operateurs_n_88178.html

■ Opportunities

- Population growth;
- Reasonable cost of infrastructures;
- Economic leader position in West Africa.

■ Threats

- Risk of losing sovereignty in relation to great global actors currently dominating the entire Ivorian e-commerce sector;
- 2015 elections generating a climate of uncertainty hindering investments, especially in the e-commerce sector;
- Slower development than in other regions of the world. In spite of a better ICT development index, Ivory Coast is the lower-ranked of the four studied countries.

To conclude on e-commerce in Ivory Coast, it is a country emerging from a crisis and focusing on reconstruction. The first signs of e-commerce, such as digital or logistic infrastructures, are starting to show and the middle class is starting to get equipped. One of the question is to know how the Ivorian industry will innovate and create value to compete with the investments of major foreign companies in the future.

Comparative analysis and interregional synergies

IN THIS SECTION, we will deal with e-commerce regional dynamics by characterising the good practices of each continent, including cross-border commerce. As to the studied countries, we will try to see whether and how the regional integration of the Euromed zone and West Africa have a positive influence on the development of e-commerce in these areas. We will then examine the differences and complementarities of the four studied countries to highlight the potential synergies and illustrate this report with a few examples of African successes. Finally, we will be able to get to the recommendations.

E-commerce regional dynamics in the world

According to emarketer, B2C global e-commerce should reach USD 2,357 trillion worldwide in 2017, with a 17.5% annual growth between 2012 and 2017, mostly due to emerging countries. We observed that for the studied countries, this type of commerce was not a driving force for the economy, while e-commerce with individuals had a direct impact on the economy and especially on international commerce. The comparative analysis of e-commerce market for individuals, with their growth prospects, shows that emerging countries and African countries in particular are lagging behind. To understand this situation, let us start by characterising the specificities of e-commerce in each continent, in order to draw conclusions for Africa.

TABLE 29 collects available data on e-commerce in the different continents, so that we can compare Africa with the others.

TABLE 29 B2C e-commerce worldwide, prospects for 2017 (USD billion)

	2012	2013	2014	2015	2016	2017
Asia-Pacific	301.2	383.9	525.2	681.2	855.7	1052.9
North America	379.8	431	482.6	538.3	597.9	660.4
Western Europe	277.5	312	347.4	382.7	414.2	445
Central and Eastern Europe	41.5	49.5	58	64.4	68.9	73.1
Latin America	37.6	48.1	57.7	64.9	70.6	74.6
Africa and Middle East	20.6	27	33.8	39.6	45.5	51.4
TOTAL	1,058.2	251.5	1504.7	1,771.1	2,052.8	2,357.4

Source : eMarketer, February 2014³³⁶



	2013	2014
Asia-Pacific	370	520
North America	430	470
Western Europe	310	340
Eastern Europe	40	50
Latin America	40	50
Africa and Middle East	20	30

Source: Payvision, Key Business Drivers and Opportunities in Cross-Border E-Commerce. International expansion into emerging markets 2014

Africa is clearly underdeveloped in terms of e-commerce. Let us try to understand why by examining a few specificities of this sector on other continents.

Specificities of e-commerce by continent

IN 2013, E-COMMERCE in **North America** accounted for most of e-commerce in the world, reaching USD 431 billion. This success can be explained by the size and maturity of its economy, as well as its languages: English in the North, Spanish in the South, with a large diaspora from Latin America and commercial agreements (Nafta). As regards cross-border e-commerce, 34.1 million American citizens buy foreign products on-line for USD 40.6 billion, especially products from Great Britain (49%). The United States are also world leaders in terms of export e-commerce, especially towards Great Britain and China, where logistics infrastructures are good.

In **Europe**, one of the strengths of e-commerce is its international aspect. It accounts for 12% of total e-commerce. Payvision explains this success by the Europe 2020 agenda and the Single Euro Payment Area (SEPA,), generalised in Europe from 1 August 2014. The Europe 2020 strategy is a growth strategy implemented by the European Union for the ten coming years. It features a Digital strategy for Europe, structured by the digital agenda³³⁷. The Single Euro Payment Area is a project initiated in 2002 by banking establishments to make payments among thirty-three countries (EU28 + 6 non-member countries) as easy and reliable as national payments, via the implementation of three European means of payment: bank transfer, debit and payment by debit card³³⁸.

³³⁷ http://ec.europa.eu/digital-agenda/

³³⁸ www.economie.gouv.fr/cedef/espace-unique-de-paiement-en-euros-sepa

Any economic actor in this space must comply with directive 2007/64/ EC regarding payment services in the interior market as well as with regulation EC n°924/2009 on cross-border payments and specific complementary payments³³⁹. Today, these measures enable European companies to make easier the resort to twenty-eight clearing offices³⁴⁰ and to the twenty-seven national payment systems that existed before. Besides, the continuous evolution of European texts in terms of payments intends to adapt them to the electronic modes of payment currently developing in Europe.

The European Parliament has recalled the need to use the 'digital dividend' spectrum to achieve broadband for all EU citizens, and has stressed that further action is needed to ensure ubiquitous and high-speed access to broadband, as well as digital literacy and competencies for all citizens and consumers. Therefore, the European Commission³⁴² published a Strategy for a unique digital market. Here is an extract that could be applied to the studied countries: "If cross-border e-commerce does not attract more consumers and smallsize companies, it is mainly because the rules applicable to this kind of transactions can be complex, obscure and sometimes differ from one State to another. The coexistence of twenty-eight different legislations regarding consumer protection and contracts discourages companies from engaging in cross-border exchanges and prevents consumers from accessing the entire range of on-line offers to select the most competitive ones. EU consumers could save up to €11.7 billion a year if they could choose among all available goods and services in the Union when they purchase on-line. 61% of EU consumers say they are confident when they conduct an on-line purchase with a retailer established in their State of residence. However, this percentage drops down to 38% when the retailer is established in another EU Member State. Only 7% of EU SMBs conduct cross-border sales."

In 2014, Payvision analysts foresaw that the **region Asia Pacific** would become the first region in the world in terms of e-commerce. Indeed, with an e-commerce volume of USD 296 billion, it already overtook the United States. In this region, cross-border e-commerce is also booming. China's sales to foreign countries grew by 58.8% in 2013 and should reach €35 billion in 2015. An increasing number of Chinese people are willing to purchase imported products. The increasingly developing free-trade agreement is one of the key factors of commerce in Asia. Currently, inter-State customs duties have been lowered down to less than 5%34.

³³⁹ On 24 July 2013, the Commission adopted a legislative package on the European payment framework. http://ec.europa.eu/finance/payments/framework/index_fr.htm

³⁴⁰ The clearing office is a financial organisation acting as an intermediary between buyers and sellers. Its function is to ensure transaction payment-delivery. The clearing process refers to all activities occurring between the beginning of the transaction and the effective delivery. It is commonly said that the clearing office is the buyer of all sellers and the seller of all buyers.

³⁴¹ www.europarl.europa.eu/ftu/pdf/fr/FTU_5.9.3.pdf

³⁴² http://ec.europa.eu/priorities/digital-single-market/docs/dsm-communication_fr.pdf

³⁴³ http://www.asean.org/communities/asean-economic-community/category/asean-free-trade-area-afta-council



In terms of e-commerce, **Latin America** is more dynamic than Africa, with nearly USD 60 billion e-commerce for 390 million inhabitants, against 34 million for the Africa-Middle-East region, populated with over one billion inhabitants³⁴. For Africa and the Middle East, the UNCTAD³⁵ considers that together, they account for 2.2% of global e-commerce and that since 2005, all Sub-Saharan countries have improved their e-commerce environment. Few national data is available for this continent. However, for the 2009-2012 period, it highlights a growth from USD 2.1 to 3.9 billion in Egypt, 0.02 to 0.06 in Ethiopia, 0.03 to 0.08 in Ghana, 0.03 to 0.08 in Kenya and 0.02 to 0.08 in Nigeria³⁶.

As for the **Middle East**, Paypal carried out a study in 2015³⁴⁷ highlighting that 30 million people currently purchase on-line, a 65% growth in relation to 2011. Therefore, the market grew from USD 11.3 billion in 2011 to 15 billion in 2015, with respective shares of 1 billion for Saudi Arabia, 0.7 for Qatar and 2.9 billion for the Emirates, with respective volumes of 0.7, 0.1 and 1.5 for m-commerce. Purchases come from America (35%), Asia (30%) and Europe (25%) before the Middle East (10%), with seven leader retail websites such as Qatar Airways, Souq.com, Amazon, Ebay, Aramex, Cobone and Sukar³⁴⁸.

In Western Africa, there is already a certain regional integration in the financial field thanks to the WAEMU, which has a common legislative framework in these fields and common organisations such as the BCEAO, which unifies and boosts regional interbanking. Banks ensure the system management via two common private structures. The first one is the WAEMU Interbank Card Processing Grouping (GIM-WAEMU), created in 2003 to ensure the system governance. The second one is the WAEMU Interbank Card Processing Centre (CTMI-WAEMU), created in 2005 to ensure the management of common technical means and make the system operational in order to reduce costs and ensure product quality. After negotiating with debit card international issuers, the latter agreed on a global acceptance of regional debit cards valid in the entire WAEMU, thus generating a virtuous ecosystem gathering the concerned actors³⁴⁹ with a high amount of cross-border transactions, as show TABLES 31 and 32.

 TABLE 31 Distribution of debit card transactions in the WAEMU zone

 (2013)

	Withdrawals (%)		Payments (%)		National transfers	
	transfers	payments	transfers	payments	(%)	
Number	83.66	12.02	0.26	3.93	0.13	
Amount	74.87	18.27	0.20	6.41	0.24	

Source : GIM-WAEMU data reprocessing

³⁴⁴ Source eMarketer, according to table above.

³⁴⁵ UNCTAD, op. cit. p. 25.

³⁴⁶ Worldpay 2014, data include mobile phones and travels.

 $^{347\} www.wamda.com/2013/09/paypal-e-commerce-report-middle-east$

³⁴⁸ The UNCTAD ER2015 study goes into this point in depth and explains that the services offered by these companies in these countries are often of lesser quality than the services they offer to Northern countries or Asia.

³⁴⁹ On 31 December 2013, the GIM-WAEMU had certified 108 banking establishments to deliver debit cards, 63 of which were affiliated to one of the 14 banking groups present in West Africa. Among them, 26 are connected to the Visa network and 5 to the Mastercard network, via the GIM-WAEMU network, while 9 establishments of the CBWAS take part to the West African debit card network via delegations.

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TABLE 32 Distribution of debit card movements in the WAEMU (2013)

	Number (Million)		Amount		
	total of which national (%)		FCFA (billion) € (million) n		of which national (%)
Payments	136.9	6.28	14.38	21.97	3
Withdrawals	3,120	87.44	202.53	30.88	80.3
Transfers	4.1	100	0.53	0.80	100

Source: GIM-WAEMU data reprocessing

Nothing of the kind exists in North Africa where currencies are different and currency transfers are a problem.

Cross-border e-commerce with Africa

In the absence of precise data on cross-border e-commerce, let us examine international trade with Africa in general and more specifically in the studied countries, in order to draw consequences on regional integration perspectives.

E-commerce between Europe and Africa is determined by the Lomé Convention (1975) and the Cotonou agreement (2000) between the EU and forty-six countries of Africa, the Caribbean and the Pacific, among which Senegal and Ivory Coast. More recently, the Joint Africa-EU Strategy³⁵⁰ (2007), provides a long-term global framework for Africa-EU relationships and leads to the various summits. One of the important focuses of this cooperation is "commerce, regional integration and infrastructures". In practice, the UE contributes to connectivity in Africa via the Programme for Infrastructure Development in Africa (PIDA)351 and the project of Support for Harmonization of the ICT Policies in Sub-Saharan Africa (HIPSSA)32. It also encourages the development of the private sector via actions like the EU-Africa business forum353.

As regards the digital industry, the Union for the Mediterranean and Jordan made a common statement at the UFM ministerial meeting on the digital economy held in 201434.

³⁵⁰ www.africa-eu-partnership.org/sites/default/files/documents/02-eas2007_joint_strategy_fr.pdf

³⁵¹ www.afdb.org/fr/topics-and-sectors/initiatives-partnerships/programme-for-infrastructure-development-in-africa-pida/

³⁵² www.itu.int/en/ITU-D/Projects/ITU-EC-ACP/HIPSSA/Pages/default.aspx

³⁵³ www.euafrica-businessforum.eu/index.php/fr/home

³⁵⁴ https://ec.europa.eu/digital-agenda/en/news/union-mediterranean-ufm-ministers-charge-digital-economy-launch-new-digital-cooperation

Here are a few extracts that could be helpful to our analysis: "ICT continues to be a strong source of economic growth and jobs on both sides of the Mediterranean. The continuing success of this digital breakthrough will depend on a multitude of factors that are shaping the societies and businesses of the future, in particular appropriate infrastructures, commonly agreed and used standards, interconnected networks, crossborder regulatory and administrative cooperation, and the availability of skills making users and developers fit for the global digital competition. Common challenges that have emerged due to the pervasiveness of the Digital Economy such as big data, data protection, cloud computing or the governance of the Internet must be addressed. Digital technologies also raise new issues. The amplification of online business, for example, makes it necessary to create new tools, such as electronic signature, or new legal frameworks to protect operators on the Internet. The question of Universal services also emerges."

We cannot assess its impact in terms of e-commerce yet, however, when figures are available, it will be interesting to analyse it. For the future, Ministers decided to boost common efforts in the following fields:

- implementing a digital interoperability framework between the UE and Southern Mediterranean countries as well as among the latter, especially regarding e-trust services and e-signature, by using elements of the European regulations eIDAS355 as a common reference. This will lead to security exchanges among people and organisations in the concerned countries, which is key to ensure trust in e-commerce transactions;
- opening up public data and, for instance, the data on international exchanges and on;
- e-commerce we lacked. They are planning to create a Euro-Mediterranean charter similar to the G8 open data charter adopted in June 2013;
- preparing recommendations in view of a potential long-term strategy on online healthcare in the Mediterranean region, which will foster crossborder e-commerce in this field.

In 2015, African heads of States met in Paris and the foundation Africa-France for a shared growth was launched, which strengthened the relations between France and Africa. The French President declared that the objective is to double exchanges between Africa and France in both ways, as trade between these two regions is stagnating or decreasing (TABLE 33).

TABLE 33 International trade of studied countries with France (2014)

Country and Zone	Market share (%)	Importations (€ billion)	Exportations (€ billion)
Morocco	12.96	3.321	3.856
Tunisia		3.740	3.703
Senegal	17.70	0.090	0.706
Ivory Coast	10.92	0.662	1.025
Total Africa		27.147	27.623

Source: CIAN, Activity report 2015

³⁵⁵ Regulation n°910/2014 on electronic identification and trust services for electronic transactions.

³⁵⁶ www.cian-afrique.org/media/2015/01/LOpinion-En-Afrique-la-France-peine-%C3%A0-r%C3%A9sister-aux-offensives-20-janvier-2015.pdf



The French Council of Investors in Africa (CIAN) explains that Sino-African trade keeps progressing, with over USD 210 billion in 2013, followed by Indo-African trade amounting to USD 70 billion and expected to reach 100 billion in 2015. They benefit from significant public support.

Potential complementarities and synergies among the studied countries

HERE, WE WILL review the various fields involved in e-commerce and we will look for potential complementarities and synergies among the studied countries. We will also look for regional integration perspectives based on agreements among peers (among countries, among companies, etc.) or with the help of public or private international organisations (international organisations or multinational companies).

Synergies of public policies

WE SAW, IN the monographs, that public actors played a significant part in the development of e-commerce. Their international agreements, especially in terms of commercial exchanges and regulation standardisation, are assets likely to favour cross-border e-commerce among the studied countries.

Let us now talk about the main non-governmental organisations that could contribute to regional integration in terms of e-commerce.

At the global level, the studied countries can benefit from a certain regional integration, thanks to:

- the United Nations, as several of its agencies are active in terms of e-commerce, especially the UNCTAD, the ITU and the International Trade Centre;
- the International Organisation for the French-Speaking World, working towards the development of a digital culture⁵⁵⁷, can play a part in the digital industry, even though French is less present on the Internet than in real life, as it ranks 9th for the number of Internet speakers, between German and Malay⁵⁵⁸;

As for Africa in general, we can cite:

- the project of African common market³³⁹, progressively extending the Comesa³⁶⁰, that will solve the issue of customs regulations, because of which only 11% of commercial exchanges in Africa occur among African countries, against 55% in Asia and 70% in Europe;
- the African Union, which used to gather the four studied countries. Morocco withdrew in 1984 because of a disagreement on Western Sahara;

³⁵⁷ www.francophonie.org/-Culture-numerique-.html

³⁵⁸ Cf. Internet world stat cited in the eMarketer report 2014.

³⁵⁹ During the African Economic Forum - the African equivalent of the Davos summit - the Chadian Fatima Haram Acyl, Commissioner of the African Union, asserted that Africa will surprise the world by creating a continental common market.

³⁶⁰ Common Market for Eastern and Southern Africa.

- the Organisation for the Harmonisation of Business Law in Africa (OHBLA)361 currently gathering seventeen countries362. Although it is not entirely standardised, the unique actions of the OHBLA enabled to create a compatible regulatory framework. In theory, some North African countries could join this organisation and we can assume that the growth of business volume between North and Sub-Saharan Africa as well as Pan-African cyber-crime issues will encourage cooperation agreements on e-commerce law in the framework of this organisation;
- the Tripartite Free Trade Area (TFTA), a gathering of three economic regions, none of which is fully integrated: the Comesa, the Common Market for Eastern and Southern Africa, the EAC (East African Community) and the SADC (Southern African Development Community). This common market of 625 million inhabitants is a first on the continent. Its twenty-six countries are working on its ratification;
- the New Partnership for Africa's Development (NEPAD), which plans the construction of roads, railways and other communication channels like cross-border fibre optic networks to favour intercontinental trade.

For North Africa, several organisations could be mobilised to favour a greater regional integration on e-commerce and its environment:

- the Agadir free-trade agreement (2004), currently gathering Egypt, Jordan, Morocco, Tunisia and Palestine, is one of the many organisations working in order to create a free-trade Euro-Mediterranean zone in the long term;
- the Arab ICT Organisation (AICTO)363, a governmental organisation created in 2002 under the auspices of the League of Arab States, intends to promote ICT in the entire Arab region, to provide the necessary mechanisms to encourage cooperation and complementarity among Member States and to implement common policies and strategies in view of developing essential technological fields;
- the Arab Maghreb Union³⁶⁴, funded in 1989. Even though its work has not been successful in the way that was intended, it had a study carried out, financed by the ADB, to prepare the standardisation of ICT regulations. The study report of the firm Bird & Bird highlighted the absence of a constraining treaty like that of the EU to establish a directive and then adapt it to the legislation of each country. The author proposed a convergence strategy rather than a transposition strategy, with a series of mechanisms likely to encourage the concerned countries to standardise their regulations in some given fields;

³⁶¹ http://ohada.org

³⁶² Benin, Burkina Faso, Cameroon, Comoros, Congo, Ivory coast, Gabon, Guinea Bissau, Guinea, Equatorial Guinea, Mali, Niger, Central African Republic, Democratic Republic of the Congo, Senegal, Chad, Togo.

³⁶³ www.aicto.org/?lang=fr

³⁶⁴ www.maghrebarabe.org/fr



- the Barcelona Process-Union for the Mediterranean intends to encourage specific projects of regional cooperation answering the current needs and aspirations of Mediterranean populations and to contribute to sustainable development, job creation, expertise exchange and innovation;
- the United Nations Economic and Social Commission for Western Asia (ESCWA)³⁶⁵, with its headquarters in Lebanon, covers all Mediterranean countries, from Lebanon to Mauritania.

In West Africa, the main regional cooperation structures are:

- the West African Economic and Monetary Union (1994) gathering eight West African countries³⁶⁶ with a common currency, the CFA franc. In the monographs, we saw the essential role of GIM-WAEMU³⁶⁷ for debit cards and mobile money. We consider that, as it intends to create an open and competitive market as well as a rationalised and standardised legal environment, it could intensify its catalysing action on e-commerce, in a broader zone;
- the Economic Community of West African States (Ecowas)³⁶⁸ (1975) promotes cooperation and integration in order to create an economic and monetary union. The advantage of this structure is that it gathers English-speaking countries and not only French-speaking ones, considering that Nigeria is the e-commerce leader in the region. On 1⁵⁸ January 2015, the Ecowas adopted a common external tariff regarding a 300-million-consumer market and suppressed the customs duties among its members. The Ecowas is active in terms of e-commerce with the programme TrainForTrade. In January and February 2015, it organised a distance training on e-commerce practices enabling 153 public and private representatives (among which 27 women) specialised in e-commerce fields to acquire further knowledge on the topic. Generally speaking, the Ecowas free-trade agreements are a significant asset for the region's countries;
- the BCEAO was a global pioneer in adopting a regulation authorising e-money non-bank issuers to practice their activity in 2006.

³⁶⁵ www.escwa.un.org

³⁶⁶ Benin, Burkina Faso, Ivory Coast, Guinea Bissau, Mali, Niger, Senegal and Togo.

³⁶⁷ The GIM-WAEMU offers three types of services, (i) interbanking services ensuring the national, regional and international transaction interoperability, (ii) banking services by delegation: e-money treatment by permanent or temporary delegation for establishments with no e-money systems, (iii) complementary services: centralisation of bill payments, card customisation workshops, ATM and EPT maintenance, support of banking IT systems.



Economic synergies

ECONOMICALLY, THE GDP per inhabitant of the two studied North African countries is significantly higher than that of the other two studied countries, which places them in an intermediary position between Europe and Sub-Saharan Africa and gives them more possibilities to buy products and services online.

 TABLE 34 Comparison of economic key figures of the four studied countries (2014)

	Morocco	Tunisia	Senegal	Ivory Coast
Surface area (km²)	446,550	163,610	196,710	322,463
Population 2014 (thousand inhabitants)	33.92	10.99	14.67	22.16
Population growth (%)	1.4	1.0	3.1	2.4
Adult literacy rate (%) (WHO, 2015)	67	80	50	57
GDP (billion USD)	110	48.6	15.65	31.06
GDP/inhabitant (USD)	3,242	4,458	1,072	1,529
GDP growth (%)	2.4	2.7	4.7	8.7
Inflation (%)	0.2	5.4	0.1	0.5

Source : World Bank

As regards their competitiveness and the ease to do business in these countries, two rather homogeneous and diversified groups appear between North Africa on the one hand, and West Africa on the other hand (TABLE 35).

 TABLE 35 Comparison of the ranking of the four studied countries on competitiveness and the ease of doing business (2015)

	Morocco	Tunisia	Senegal	Ivory Coast
WEF competitiveness ranking 2015-2016 (out of 144 countries)	72	92	110	91
BIRD Doing business 2016 (out of 189 countries)	75	74	153	142
Business creationConnection to electricityCross-border commerce	43	103	85	46
	55	38	170	146
	102	91	113	142
Ranking evolution Doing business 2015-2016	- 4	- 14	8	5

Source: World Economic Forum, IBRD

Ville.

Cross-border e-commerce is hindered by the difficulties of national e-commerce as well as that of international commerce. Difficulties mostly concern currency convertibility, high importation and even exportation³⁶⁹ customs duties, importation quotas and informal economy. On this last point, a report of the United Nations³⁷⁰ highlights the significant amount of informal cross-border exchanges in African regional economic communities, amounting to nearly 43% of the official GDP. The informal sector is nearly equivalent to the formal sector³⁷¹. Surveys carried out in this field show that informal exchange flows at the regional scale account for up to 90% of official flows in some African countries.

We chose to point out indexes showing that the volume of exchanges between North and Sub-Saharan Africa was increasing:

- the 3rd edition of the International Development Forum Africa³⁷, held in Casablanca in February 2015, gathered one thousand seven hundred companies and led to four thousand business meetings to reinforce intra-African exchanges;
- The 2nd edition of the Journées de l'entreprise numérique held in April 2015 in Ivory Coast³⁷ welcomed seventy Tunisian delegates, of which twenty seven exhibitors who came to present their expertise to potential Ivorian ICT decision makers. The Ivorian and Tunisian Ministers reminded the importance of this collaboration of fifty years which is in a phase of "consolidation of a sustainable bilateral partnership in the ICT industry".

Cross-border commerce among the studied countries and regions is one of the indicators of cross-border e-commerce, and therefore of regional integration. In this regard, the WTO³⁷⁴ explained that in 2013, "the Middle East was the most dynamic region, with a 13% growth in commercial service exportations in 2012. Exportations in Africa increased by 6% in 2012 after a stagnation in 2011". As regards commodity trade, including e-commerce, this report shows that Morocco is the 50th exporter country and the 38th importer country. Tunisia ranks 48th among importer countries, however we have no information as to cross-border flows and that resulting from e-commerce. As for services, Morocco ranks 30th among exporter countries. The other studied countries have not been ranked.

³⁶⁹ According to the report Doing business 2015, Morocco has low exportation customs duties (USD 595/container) in relation to Ivory Coast (USD 1390/container). Ivory Coast and Senegal have high importation customs duties (over USD 1,900/container) while they are lower in North Africa (between USD 900 and 1,000/container)

³⁷⁰ Report n° E/ECA/CTRCI/8/5 of January 2013 of the African Commission of the Economic and Social Council

³⁷¹ Lesser et Moisé-Leeman, 2009

³⁷² Under the auspices of the King of Morocco, this forum on "Time to invest" invited Ivory Coast as a guest of honour. 90% of Moroccan investments are dedicated to the African continent.

³⁷³ www.leconomistemaghrebin.com/2015/04/09/tunisie-cote-divoire-vers-un-partenariat-numerique-gagnant-gagnant-en-matiere/

³⁷⁴ WTO report on international trade statistics for 2013 www.wto.org/french/res_f/statis_f/its2013_f/its2013_f.pdf



Digital synergies

E-COMMUNICATIONS ARE A key element of e-commerce. Online electronic services are part of e-commerce.

As regards Africa, the Alindalou Consulting international³⁷⁵ study makes two observations:

- over the last ten years, mobile phone equipment significantly increased as show Royce Fund statistics: while they were estimated at 130 million in 2005, the number of mobile phone units on the continent now reaches nearly 900 million users, a penetration rate of 85% of the population;
- the use of smartphones and of the various services linked to this kind of mobile significantly increased. According to Deloitte firm, the number of smartphones in Africa should double by 2017, to reach over 350 million connected units.

 TABLE 36 Comparison of digital key figures in the four studied countries (2014)

	Morocco	Tunisia	Senegal	Ivory Coast
Landline telephone penetration rate (%)	7.4	8.5	2.1	1.2
Mobile phone penetration rate (%)	131.7	128.5	98.8	106.2
International band per inhabitant (kbps)	10.77	26	8.35	5.16
Price of mobile GBit (USD)	11.78	8.84	50.56	30.3
in % of GDP/inhabitant	4.68	2.53	57.85	25.13
Computers in households (%)	52.5	33.1	11.6	7.2
Internet in households (%)	56.8	46.2	17.7	14.6

Source: ITU, World Economic Forum

Note: This table has been added and takes into account 2014 figures instead of 2013 figures.

 TABLE 37 Comparison of rankings of the four studied countries for their level of preparedness to the digital economy (2015)

	Morocco	Tunisia	Senegal	Ivory Coast
2015 NRI Rank (out of 143 countries)	78	81	106	115
NRI Environment subindex	80	103	87	95
NRI Readiness subindex	87	69	129	118
NRI Usage subindex	64	81	98	117
NRI Impact subindex	83	81	78	107
ICT Development index 2015 (out of 166 countries)	99	93	132	137
·				

Source: 2015 report of the World Economic Forum for the NRI, 2014 Report of the ITU for the ICT Development Index

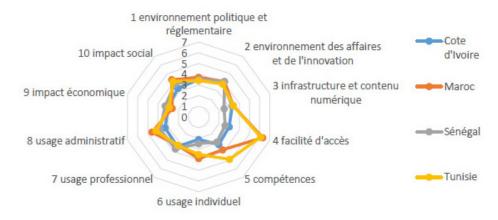
³⁷⁵ Alindaou Consulting international, « La révolution mobile et numérique en Afrique : le saut qualitatif pour fournir les biens et services. », July 2015.

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We could spend time explaining FIGURE 7, but the most significant differences are:

- easy access to ICT (technical and financial possibility for the population to access the Internet), easier in Morocco and Tunisia than in Senegal and Ivory Coast. This difference can be explained by the different competitive Internet and telecommunications offers, driving prices down;
- digital skills (capacity to master ICT to use e-commerce for instance) higher in Tunisia and, to a lesser extent, in Morocco than in Senegal and
- individual use significantly higher in Morocco and Tunisian than in Senegal and Ivory Coast.

FIGURE 7 Comparison of NRI index 2015 elements for the four studied



Source: author

Another essential component of the digital industry regarding e-commerce is information traceability, which requires platforms generally hosted in the cloud. In this regard, relying on a Cisco analysis376, the UNCTAD highlighted that Africa and the Middle East are lagging behind.

In terms of regulations, the buyer must be able to show his rights towards the retailer and these evidences require an adapted legal framework when the procedure is dematerialised (and when the contract is concluded online). The UNCTAD reports the following situation, considering that these texts are not standardised, which compels economic actors to adopt a different legal approach for each country.

³⁷⁶ UNCTAD, "The Information Economy Report 2013, The Cloud Economy and Developing Countries" http://unctad.org/fr/PublicationsLibrary/ ier2013_fr.pdf p. 19.

 TABLE 38 Comparison of legal and regulatory frameworks of the four studied countries

Legal framework	Morocco	Tunisia	Senegal	Ivory Coast
Law on electronic communications	Yes	Yes	Yes	Yes
Law on consumer protection	Yes	Yes	Yes	Yes
Law on the protection of personal data	Yes	Yes	Yes	Yes
Law against cyber-crime	Yes	Planned	Yes	Yes
Law on electronic money establishments	Yes	Planned	Yes	Yes

Source: UNCTAD, author

Among African successes, and more specifically in the digital sector of studied countries, we can cite telecommunications operators present in several African countries such as MTN, Orange, Maroc Télécom for telecommunications operators, and companies such as Microsoft, Google, SAP, ATOS, SNDI for IT and the Internet.

As regards potential synergies, we will not insist on telecommunications, for which we offer various recommendations, however, we will insist on cyber-security. According to the Paypal study on the Middle East**, safety remains the main obstacle for buyers and prevents 40% of online purchases. However, the United Nations Economic Commission for Africa (UNECA) carried out an orientation report called "Tackling the challenges of cyber-security in Africa". It explains that an increased use of technologies presents risks and vulnerabilities and that cyber-crime requires great attention and urgent measures**. To support its recommendation, it mentions a report published by Symantec Corporation in 2013**, explaining that cyber-crime was growing faster in Africa than in any other region of the world and that currently, 80% of African personal computers were infected by viruses and other malicious software**.

The African Union Convention of cyber-security and the protection of personal data intends to "reinforce and standardise the current legislations of Member States and of Regional economic communities in terms of ICT", in the respect of fundamental freedoms and the Human and Peoples' rights. It also intends to create an "adapted nominative framework corresponding to the African legal, cultural, economic and social environment" and highlights that the protection of personal data and private life is a "major challenge of information society". Any processing of personal data must respect a certain balance between fundamental freedoms, ICT promotion and use, and private and public actors' interests.

³⁷⁷ PayPal Insights e-commerce in the Middle East September 2013, 2012-2015. http://static.wamda.com/web/uploads/resources/24-09-2013_FINAL-low_res.pdf

³⁷⁸ www.uneca.org/sites/default/files/uploads/ntis_policy_brief_1_fr.pdf

³⁷⁹ Ymantec Corporation, Internet Security Threat Report 2013, 2012 Trends, Volume 18, avril 2013. www.symantec.com/content/en/us/enterprise/other_resources/b-istr_main_report_v18_2012_21291018.en-us.pdf

³⁸⁰ Franz-Stefan Gacy, "Foreign policy: Africa's internet threat", National Public Radio, 29 March 2010. www.npr.org/templates/story/story.php?storyId=125297426

Logistic synergies

The 2014 report of the World Bank on logistics are ranks the studied countries for the different elements of international logistics, as shows TABLE 39.

TABLE 39 Comparison of international logistic performance indexes of the four studied countries (2014)

	Morocco	Tunisia	Senegal	Ivory Coast
LPI ranking	62	110	101	79
Customs	73	146	76	120
Infrastructures	48	118	116	101
Maritime freight	61	73	59	75
Quality of logistics services	73	120	103	95
Traceability	71	124	98	67
Delay	63	80	146	64

Source: World Bank, Logistic performance index 2014

While it was still at a nascent stage a few years ago, the large-scale food-retailing sector - which represents 25% of the purchases of the African middle class - accounts for 2 to 3% of GDP in Sub-Saharan countries, Kenya excluded. According to a recent report of McKinsey, the turnover of sectors linked to services and consumption should increase by 4 to 5% per year by 2020 in Africa. 130 million households should have annual revenues superior to USD 5,000, against 85 million today382.

The global leaders of the upstream logistic chain are present in Africa, especially Bolloré and Aramex, with its ship and shop service enabling to transport products to the country's point of entry. As for the downstream logistic chain, we saw that large distribution groups went into partnership with logistic groups in order to implement a downstream logistic with reliable parcel delivery. Jumia explains that logistics is the greatest obstacle to the development of e-commerce in Africa³⁶⁴ and that the company had to create, along with AIG, its own logistic company with a dedicated fleet of vehicles. Other types of regional integration can come from passenger transport international companies, like UTB, offering international transport to Burkina, Ghana, Togo and Benin. Since the company has bus stations in the towns they deliver, it could very well consider parcel delivery services that could complete the current offer.

³⁸¹ Logistic performance index. http://lpi.worldbank.org/sites/default/files/International_LPI_from_2007_to_2014.xlsx

³⁸² http://economie.jeuneafrique.com/regions/afrique-subsaharienne/17534-de-la-rd-congo-au-senegal-carrefour-se-lance-avec-cfao.html

³⁸³ www.shopandship.com

³⁸⁴ Jumia's greatest challenges when delivering goods are infrastructure and logistics. In places such as the United States, Europe or China there are many ways to transport a product from point A to point B. Conversely, delivering items in almost any African nation can be a big challenge. Even when different options do exist, they often don't meet the level of customer service Jumia wants to give. Therefore, Jumia, together with AIG, established AIG-Express in order to provide a fulfillment and delivery platform for online vendors in Africa. Jumia now has its own delivery fleet, warehouses and hubs in each country. This investment in infrastructure also means that Jumia is well positioned to help new brands entering the African market for the first time meet as many individual needs as possible.

In Toulouse and Paris, the company Drivoos received the first prize of innovating startup in June 2015 for its solution of collaborative home delivery. This kind of solution could undoubtedly be implemented in Africa, with regional integration possibilities, since many Africans travel from one country to another.

In its study on e-commerce, the UNCTAD uses the figures of the Universal Postal Union as regards parcel transport in Africa (TABLE 40).

TABLE 40 Transcontinental parcel delivery in 2014 (% of flows)

	Developped countries	Africa	Other countries	World
Developed countries	46.3	2.4	14.3	63
Africa	0.7	0.3	0.1	1.1
Other countries	23.8	0.2	11.9	35.9
World	70.8	2.9	26.3	100

Source: UPU

These figures can give us an idea of cross-border e-commerce of African products. However, we recommend to use them carefully as all parcel transports are not always the result of commercial acts, and because African postal services are not always reliable, so that very often, companies prefer to use other networks than the Post to transport their parcels. Nevertheless, the UPU and local posts have a significant part to play in parcel delivery in Africa, especially in the framework of international projects like Euromed postal.

The Tunisian Post, which chairs the electronic service commission of the Posts Pan-African Union, organised the E-Commerce Africa 2014 postal forum on the topic "Keeping the promises of e-commerce in Africa"386. It also organised the 5th edition of the Euromed postal forum in November 2014 on the topic "postal innovation at the service of the Euro-Mediterranean economic integration"387. A further interview with Moez Chakchouk, CEO of La Poste, showed that posts considered implementing measures in this direction, with the UPU e-commerce working group.

More fundamentally, authors like Camille Hazard talk about innovations in the field of private transport, with Amazon considering the use of drones or the "Mole Solutions" process using the principle of magnetic levitation.

³⁸⁵ www.drivoo.com/home

³⁸⁶ www.poste.tn/upload/actualite/E%20commerce%20Africa%202014-fr.pdf

³⁸⁷ www.poste.tn/upload/actualite/EuroMed_postal_2014_communiqueFR.pdf

Financial synergies

JUST LIKE E-COMMUNICATIONS and logistics, e-payments are essential to e-commerce, and online financial services are part of this type of commerce.

According to the African Development Bank, less than 25 % of Africans have access to financial services. This analysis usually refers to the notion of bank-account penetration which is not, and rightly so, used by the UNCTAD389. The development of ICT reveals two types of financial inclusion, that are banking inclusion for people having access to a bank account and digital inclusion for those using other means of payment such as the mobile money offered by telecommunication operators, especially in sub-Saharan Africa.

In the monographs, we dealt with several aspects of e-finance, and in particular with e-banking, debit cards, mobile banking, money transfers, considering that all these means of payment are traceable and excludes them from informal commerce paid by cash. In 2005, the WAEMU realised that its countries presented a low bank-account penetration and that, in parallel, the use of mobile phones was booming, as well as innovative projects of telecommunications operators on mobile payments³⁹⁰. Therefore, it made the development of mobile banking a priority as a strategy to promote access to financial services, especially for ordinary populations excluded from the banking system³⁹¹. This led to instruction n°o1/SP of 31 July 2006³⁹² which favoured e-commerce development via m-payments.

In North Africa, regional integration is not as strong. The Paypal study on the Middle East, which could also be applied to North Africa on this point, shows that payment upon delivery remains dominant (60% in 2015) even if it has been decreasing since 2012 (80%) in favour of debit cards (25% in 2015 against 15% in 2012) and Paypal (15% in 2015 against 5% in 2012).

Many small actors, like Afrimarket³⁹³, are developing in the sector of money transfer as well as cash-to-goods towards Africa. They are trying to defeat the virtual monopoly of Western Union and MoneyGram. Other major actors like Facebook³⁹⁴ are entering the market in view of competing with similar services such as Square Cash, a Snapchat service. In its 2020 Essentials strategic programme³⁹⁵, Orange claims a growth from 13 to 18 million users for money transfer and Orange Money payment in Africa and the Middle-East between 2015 and 2018.

³⁸⁹ The ownership of an account must not necessarily be related to the number of inhabitants but to the number of inhabitants old enough to legally have access to such an account, and even to the number of families.

³⁹⁰ Safaricom, M-PESA, was created in 2007. It is representative of the technological revolution in the field of money transfer and payment via mobile. On 1 March 2012, M-PESA had 14,652,593 active users, or one Kenyan out of three.

³⁹¹ www.banque-france.fr/fileadmin/user_upload/banque_de_france/Eurosysteme_et_international/zonefr/2011/7-5-2011.pdf et www.bceao.int/Concertation-regionale-sur-le,2435.html

³⁹² www.bceao.int/IMG/pdf/INSTRUCTION_N_o_01_-_2006_-_SP_DU_31_JUILLET_2006.pdf

³⁹³ Safety money transfers towards Benin, Ivory Coast, Senegal and Togo. Africamarket intends to become the leader in cash-to-goods, enabling people living in France for instance to send money to their families who can only use it in a network of partner suppliers. Thanks to the services of Africamarket, the inhabitants of fifteen towns can consume goods in nearly 200 shops. They offer a 5% fixed rate.

³⁹⁴ http://newsroom.fb.com/news/2015/03/send-money-to-friends-in-messenger/

 $^{395\} www.orange.com/fr/presse/communiques/communiques-2015/Essentiels 2020-le-nouve au-plan-strategique-d-Orange-2015/Essentiels 2020-le-nouve au-plan-strategique-d-Orange-2020-le-nouve au-plan-strategique-d-Orange-2020-le-nouve-d-Orange-2020-le-nouve-d-Orange-2020-le-nouve-d-Orange-2020-le-nouve-d-Orange-2020-le-nouve-d-Orange-2020-le-nouve-d-Orange-2020-$

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As for m-banking, the IDATE unveils its success in West Africa: "Financial services represent a major mobile service, with for instance the wellknown success of the service M-Pesa (now used by over 17 million people in Kenya especially). Major operators, such as MNT, Bharti Airtel, Orange, Vodafone (in partnership with Safaricom), Etisalat and Maroc Telecom have now included this type of services to their range. Initially developed for transfers between accounts, mobile payment services were quickly extended to other financial services: invoice payment, payment in points of sale, cash withdrawal at ATMs. Operators have already reached critical volumes on this booming market: in June 2013, nine mobile operators had over a million users. However, competition is intensifying between operators but also with new MVNOs (Mobile Virtual Network Operator)305 specialised in this service. The competitive pressure forces operators to reduce their prices and extend their ranges of services: partnerships with banks and insurance companies in order to offer services of bank accounts, credit, savings and insurance; interoperable services between subsidiaries of neighbouring countries. Besides, mobile payment is the first service with a significant value, accounting for 18 % of Safaricom revenues in 2014, for example."

A workshop of the Abidjan IT forum of 19 June 201539 dedicated to financial inclusion concluded that mobile banking was a crucial step towards banking services, as it encouraged users to use financial services. Even though mobile banking is developing an increasing range of products and services, banking services remain necessary for economic actors to enter the formal economy, to benefit from loans, insurances and even accounting services.

As regards trust in dematerialised payment tools, the Ivorian Minister of Agriculture estimates that "In the WAEMU, debit card security standards remain a major issue, especially frauds and increasing cyber-crime which has become international. This was the object of a Gim-Academy training seminar of the GIM-WAEMU. [...] It is a crucial issue for all the subregion's countries because for a bank to be reliable and competitive, debit cards must now comply with EMV and PCI DSS international standards" 398.

Visa, Mastercard and Paypal are global leaders in this sector. However, Pan-African companies are emerging and agreements among active actors have been signed in several countries, which reveals the beginning of regional integration.

The International Monetary Fund highlighted the strong growth of Pan-African banks. Indeed, seven banks have over ten subsidiaries in Sub-Saharan Africa, of which the Moroccan bank Attijariwafa Bank, which is present in eleven countries. Generally speaking, it explains that international trade between Morocco and Sub-Saharan countries significantly increased over the last few years;

³⁹⁶ Currently, there are six MVNO in Africa, two of which are in Senegal: Kirène and Toubatel (Touba Mobile)

³⁹⁷ www.cio-event.com

³⁹⁸ http://www.cotedivoire-economie.com/fichier/1431354355594.pdf

³⁹⁹ Charles Enoch, IMF: Pan-African Banks, opportunities and challenges for crossborder oversight. Washington 2015. www.imf.org/external/pubs/ ft/dp/2015/afr1503.pdf. The report also cites Ecobank, with thirty-two subsidiaries in Africa in 2014, UBA with fourteen, Standard Bank with thirteen, Bank of Africa with twelve, Attijariwafa and Orgagroup with eleven and GBCP with ten.

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 - the project Virtual market place for MENA SME export development™ funded by the World Bank and carried by the International Trade Center intends to develop the presence of North African SMBs on international virtual market places;
 - thanks to the agreement between Orange and Ecobank, a money transfer service between Orange Money and Ekobank accounts will be imple-
 - as regards online payments, Orange foresees major transformations in Africa with agreements among telecommunications operators to develop interoperability via bilateral mobile money systems, as is already the case in Tanzania and in Madagascar;
 - in December 2014, MasterCard opened a laboratory for financial inclusion in Nairobi, Kenya;
 - the mobile telephony operator Airtel and the banking group United Bank of Africa signed a memorandum of understanding to supply financial services via mobile in twelve African countries⁴⁰²;
 - the group Bank of Africa chose Clear2Pay Internet Mobile Bancaire solution to develop its offer of mobile financial services. Bank of Africa is a leading actor in the African banking sector. It has over 1.4 million bank accounts in fourteen African countries (+24% compared with 2011). Clear2Pay is an international supplier of payment technologies and e-banking solutions for financial institutions.

Generally, the managers of the group Bank of Africa explain that the acquisition of Clear2Pay Internet Mobile Bancaire solution is a significant investment for the development of the African continent, which is the second largest mobile market worldwide, with over 50% of Internet transactions being conducted on mobile terminals. We will moderate this optimism by reminding that currently, commerce is not yet concerned by these transactions. Indeed, only 3% of transactions concern bill payments, the interoperability among mobile money operators is not ensured yet, and transaction security guarantees need to be strengthened via solutions such as biometric digital identity for citizens or the FIDO alliance.

⁴⁰⁰ www.worldbank.org/projects/P143929/virtual-market-place-mena-sme-export-development?lang=en

^{401 12} million clients and over €4.5 billion exchanged in 2014 in thirteen countries. CIO Mag.

⁴⁰² Nigeria, Ghana, Burkina Faso, Sierra Leone, Gabon, Kenya, Uganda, Tanzania, Chad, Zambia, Republic of the Congo and DR Congo. www. agenceecofin.com (5 December 2014)

⁴⁰³ http://paymentsolutions4africa.com

⁴⁰⁴ The Fidoalliance is a non-profit organisation created in July 2012 to remedy the lack of interoperability among authentication devices, as well as the problems encountered by Internet and mobile phone users to have several user names and passwords. https://fidoalliance.org

Synergies in terms of e-commerce

In 2015, THE UNCTAD published a first e-commerce indicator covering the four countries of our study, among 130 countries worldwide. It provides an estimation of the number of online buyers per continent. It shows that the region Africa-Middle-East is lagging behind in relation to other regions in the world, with 93.6 million online buyers in 2015 (TABLE 41), or 7.1% of the population over 15, that is twice less than the global average. As it starts from a very low base, this region features the greatest growth potential, with an estimation of 82% expected for the period 2013-2018, against 50% for global growth.

 TABLE 41 Estimated number of online buyers per continent (2013)

	Million	% of population of 15 and more
Asia-Pacific	460.3	14.9
North America	172.3	59.7
Western Europe	182.3	49
Eastern Europe	86.4	24.1
Latin America	84.7	18.6
Africa and Middle East	93.6	7.1

Source: UNCTAD, IER2015.

These dynamics fostering regional integration can come from below, with actors from various countries cooperating, from abroad, with multinational companies investing on entire regions and from public authorities with agreements on regulations favouring cross-border commerce. Let us examine the successful experiences of a few Pan-African companies, which can shed light on regional integration perspectives in the field of e-commerce:

- Konga⁴⁰⁵, co-leader of online commerce in Nigeria (along with Jumia), decided to expand to the entire ECOWAS by mid-2015⁴⁰⁶;
- the Africa Internet Group⁶⁰⁷, with its numerous subsidiaries like Jumia⁶⁰⁸, launched a dozen retail websites in about twenty African countries, including the studied countries. They concern market places, online car sales, taxi reservations, etc.⁶⁰⁹;

⁴⁰⁵ Under the leadership of its founder and manager, Sim Shagaya, the website http://www.konga.com developed quickly, rising from USD 700,000 (€530,000) in 2012 to over 50 million in 2014.

⁴⁰⁶ http://economie.jeuneafrique.com/regions/afrique-subsaharienne/23685-e-commerce-konga-se-deploie-hors-du-niqeria.html

⁴⁰⁷ http://africainternetgroup.com/portfolio

⁴⁰⁸ Jumia, a subsidiary of the group Africa Internet Holding, held by Millicom, MTN Group and Rocket Internet, is currently present in nine African countries: Ghana, Ivory Coast, Cameroon, Kenya, Morocco, Egypt, Nigeria, Uganda and Tanzania. It relies on its own logistic network based in Nigeria. It just raised €120 million for its expansion in Africa. Its African headquarters are located in Nigeria. http://frenchweb.fr/la-marketplace-africaine-jumia-leve-120-millions-deuros/175170#S06Yt6CQ6PYXcHyf.99

⁴⁰⁹ http://direct.economie.jeuneafrique.com/entreprises/entreprises/distribution/22302-comment-jumia-conquiert-le-nigeria.html

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 - the groups Casino and Bolloré, via their subsidiaries, announced the signature of a partnership to launch the brand Cdiscount in Africa, with e-commerce elements. The first two establishments will open in Ivory Coast and Cameroon⁴⁰. Besides, Cdiscount is seriously contemplating to engage in North Africa in the next few months, along with the group Mabrouk, its partner in this region;
 - the global leader Carrefour, present in thirty countries worldwide but in only three African countries (Tunisia since 2001, Morocco since 2009 and Egypt), decided to conquer the African market, including Ivory Coast;
 - in terms of dematerialised payments, the Moroccan company M₂T is also active in Sub-Saharan Africa and especially in Senegal⁴¹;
 - the Moroccan website Hellofood is also active in Algeria, Senegal and Ivory Coast;
 - Microsoft is about to launch an e-commerce platform in partnership with Skrill⁴¹² which, when it is ready, will be accessible by the inhabitants of the studied countries;
 - Kalahari is a South African online sale platform selling over 8 million products. Clients have access to secure payment services via Visa, Master-Card, AMEX, Diners, Miles Discovery, PayU for debit cards, as well as via transfer or via ebuck (programme of the South African First National Bank);
 - the Swiss group Ringier owns several African companies which developed classified ads websites, like Expat-Dakar in Senegal⁴³;
 - the project Virtual Market Place intends to build a retail platform at the North African scale. This project, supported by the World Bank, should mobilise USD I million for Tunisian e-commerce from 2014 to 2017. In April 2015, the International Trade Center trained a group of twenty-five e-commerce consultants along with one hundred first companies on the platform;
 - More generally, the UNCTAD explains that in Sub-Saharan Africa, e-commerce is a promising sector. Indeed, major companies like Seek (South Africa), Tiger global (USA) or Rocket international (Germany) are investing in this region, creating infrastructures and training consumers, thus developing e-commerce in general, which indirectly benefits companies of the concerned countries 44.

Southern countries have a significant diaspora in Northern countries and we think it is in their best interest to favour the online purchase of local products by their diasporas, as Senegal has been doing successfully.

⁴¹⁰ www.bollore-africa-logistics.com/medias/actualites/e-commerce-en-afrique-cdiscount.html

⁴¹¹ M2T connects partner companies with over 2.3 million clients a month thanks to outsourced bill payment and multi-channel card recharge. It is present in Morocco, Senegal and France, with clients in Gambia, Nigeria, Réunion and Madagascar.

 $^{412\} www. a frique it news. com/2014/11/13/microsoft-fait-entree-marche-du-e-commerce-en-afrique$

⁴¹³ www.expat-dakar.com

⁴¹⁴ With one hundred and ten shops in North Africa and the Middle East, the Group Casino is expanding in high-growth potential zones. www. groupe-casino.fr/fr/le-groupe/positionnement-et-modele-economique

Contribution of e-commerce to economic and social development

In the national monographs, we analysed what opportunities each studied country had to develop e-commerce. Here, we are going to change perspective by wondering whether, and in which conditions, e-commerce could ensure the sustainable development of the studied countries, thus creating employment for their young and growing population, which is necessary to their stability.

During our study, we identified three types of positive impacts of e-commerce on the economy:

- imported products: the positive impact is due to the added value generated in the country, like for instance on logistic and payment chains;
- exported products: e-commerce can lead to the development of new markets, and even of improved margins thanks to a shorter distribution chain:
- commerce among national actors: the whole added value benefits the country, shared between the manufacturer, the supplier and the different e-commerce actors;
- the three elements above can have a positive impact on the State which
 can get part of the taxes it does not currently collect, thanks to the shift
 from informal economy, paid by cash, to formal economy, paid via digital
 means.

Local e-commerce

WE MUST ALSO talk about local e-commerce. Even though we did not specifically observed it in Africa, it is developing in France and in the world.

According to Erik Campanini and Kyle Hutchins⁴⁵, "today, with the development of the digital industry, we must rethink retail commerce and put human values at the centre of the relations retailers have with their clients. [...] Successful retailers are those who will be capable of acting simultaneously on five levers of hyper-agility: shopping experience, supply chain ability, HR organisation, data use and channel integration. In emerging countries, companies should not consider the management of client relations as a variation of developed countries practices. Here, two concepts must be examined: frugal innovation (like prepaid consumption to solve the 40% of unpaid bills in Africa), which tackles local problems in a specific framework of resources and constraints and reversed innovation, which uses practices developed in emerging countries to apply them to developed countries initiatives."

E-COMMERCE IN AFRICA

More specifically, we can cite the works of Adeline Brogard⁴¹⁶ on local e-commerce, from which we can draw five major trends likely to boost local trade.

Web-to-store enables to promote local shops and attract buyers. Applications such as leadformance417 enable suppliers to publish information on shops selling a specific product, such as opening times, appointment making or promotional offers. Platforms such as Shopping Adventure⁴¹⁸ intend to list all the physical shops of a country (food excluded) on websites and mobile, to favour local shops that mobile users can find with their phones' GPS. Likewise, companies like Evermaps419 support companies in their drive-to-store strategies.

Web-in-store makes shopping in commercial centres and shops easier thanks to the GPS function on Smartphones. Applications such as Qthru enable clients to scan the price of products themselves and to cut the line at the cashier. Brands like Adidas offer a direct shop access with an increased vision of the products (available colours, sizes), via touch-screen booths. Applications like Codecheck.info¹²¹ enable mobile users to scan the bar code of a product to get general information on the product within a few seconds, such as its composition, in which shop the product is available and at what price.

M-promotion offers rebates and discount coupons. Shopmium⁴²² for instance, enables mobile users to find out about current promotional offers in local shops. Clients can also customise their page by selecting their local shop and only get information on available products. They can also generate geolocated and contextual mobile advertisements.

Digitalisation of loyalty cards. In France, "93% of consumers own a loyalty card and those who own a mobile loyalty card are more active"423. With the introduction of e-wallets on smartphones, it is now possible to store digital coupons, promotional tickets and loyalty cards. Companies like Andelia44 offer interactive booths capable of gathering these functions and helping local shops retain customers, conquer new clients and master their online presence.

Social networks are also a means to promote shops and products via twee shops. However, having a good e-commerce website or good products on a virtual platform is not sufficient; they must be known of the public. Social networks can contribute to promoting them, with experiences such as that of Kellog's, which used Twitter via a tweet shop to promote their new cereals.

⁴¹⁶ www.orange-business.com/fr/blogs/relation-client/marketing-mobile/les-10-tendances-incontournables-du-m-commerce-qui-changent-leshabitudes-dachats

⁴¹⁷ www.leadformance.com . According to Orange, such a tool could multiply by four the traffic of e-commerce websites and increase their

⁴¹⁸ www.shoppingadventure.fr/boutique/paris.html?from=ipgeoloc

⁴¹⁹ www.evermaps.com

⁴²⁰ www.youtube.com/watch?v=aOjDJoLyLHQ&feature=youtu.be

⁴²¹ www.codecheck.info

⁴²² www.shopmium.com/us

⁴²³ www.journaldunet.com/ebusiness/expert/52852/digitalisez-vos-cartes-de-fidelite-pour-creer-du-trafic-en-point-de-vente.shtml

⁴²⁴ www.andelia.net/login.php

In addition to these trends, we can also cite donation websites, which are also part of e-commerce as there is an exchange of goods and services among individuals, even though the donor is not necessarily a professional and if there is no money involved. Among French websites, we can cite Donnons⁴⁵ and Vide grenier, which explicitly favour local commerce: "The website favours local donations for ecological and economical reasons. It is not compulsory, however this is the way to use the website as donations, generating delivery charges and extra constraints for the donor and the taker, are often an issue⁴⁵."

Informal commerce

THE INFORMAL ECONOMY is one of the main obstacles to the development of e-commerce. It keeps existing mostly for the following reasons:

- the tax rate (VAT, company taxes, customs duties, etc.) and administrative constraints linked to tax authorities are considered too high in most studied countries. As a result, to survive or get richer, many small retailers hide part of their revenues from tax authorities, which is possible for cash transactions, but gets more complicated when it comes to traceable digital transactions. This phenomenon exists everywhere, including in France, where pirate software enable retailers to hide a significant part of their cash revenue. Their amount is estimated at €10 billion⁴⁷. As the market is rapidly opening up, e-commerce will undoubtedly help formalise informal trade;
- organised crime generates about UDS 870 billion per year according to United Nations estimations¹²⁸, six times the official development aid. This money is re-injected into the real economy, especially via tax havens and money laundering, which as opposed to e-commerce, is not traceable. Electronic payment frauds are currently estimated between €250 and €750 billion per year according to our sources. In Brazil, one direct debit fraud enabled to embezzle USD 4 billion from 2012 to 2014;
- education: just like medicines and vaccines required good hygiene to fight diseases, risk management and criminal penalties require consumer education to teach them how to avoid risks and build their trust in e-commerce and e-payments;
- corruption: when the salary of civil servants is not sufficient lo live decently and when this salary is not paid on time or not paid at all, civil servants are likely to use t monopoly position to extort funds from their administered. We already talked about the scourge of corruption several times in this report. If some civil servants resort to corruption to live or make benefits, we can understand that they try their best to prevent the emergence of e-commerce as it would jeopardise their intervention. The African Alliance for E-commerce explains that it is sometimes the case for customs officers⁴⁹.

⁴²⁵ www.donnons.org

⁴²⁶ https://donnons.org/interdits.php

⁴²⁷ In 2014, the Association des constructeurs, éditeurs, distributeurs, installateurs de systèmes d'encaissement (Acedise) addressed a report to the French Ministry of Budget in which it reported nearly €10 billion of hidden revenues paid in cash in French small retailers thanks to software added to their cash registers. Thanks to these software, they were able to hide 30% of cash revenues, which amounts to €10 billion per year.

⁴²⁸ www.unodc.org/toc/fr/crimes/organized-crime.html

⁴²⁹ www.aace-africa.net

Strengths and weaknesses of e-commerce in Africa

THANKS TO THE developments above, we can now answer the question as to whether, and in which conditions, e-commerce could be profitable to Africa. Indeed, we highlighted the positive and negative aspects of e-commerce in relation to the sustainable development of the studied countries and we can now present the results through a SWOT analysis.

■ Strengths

- E-commerce favours commerce by enabling inhabitants and companies to access the products and services they need quickly and easily.
- Thanks to its inherent traceability, e-commerce helps to fight against informal economy and corruption.

■ Weaknesses

• E-commerce can contribute to deteriorate the balance of payments.

■ Opportunities

- Youngsters like technology.
- E-commerce can help countries export their products and services and, therefore, create employment.
- E-commerce can favour the creation of an efficient logistic chain.
- E-commerce can contribute to regional integration.

■ Threats

- E-commerce can broaden the gap between rich and poor people, by favouring instructed connected people.
- E-commerce can have a negative impact on social relations in the country by favouring electronic relations instead of real relationships.
- E-commerce can have a negative impact on the environment, as parcel transport is a source of carbon emission.

Recommendations for a better regional integration

WE OBSERVED THAT Africa was lagging behind in terms of e-commerce. However, it features good innovative practices that should be developed, as they could improve the reliability of fixed electronic communications, thanks to mobile phones, of some online payments via payment upon delivery or goods delivery via local networks.

According to Alindaou of Commerce international ***, "the e-commerce market in Africa is booming. In this context, major e-commerce international groups establish themselves in view of becoming the sector's leaders. The main companies are Africa Internet Group, C-discount and Konga. Over the next few years, online commerce will become the greatest trend in Africa."

Sadibou Sow, editor-in-chief of Afrique IT News, shares the same observations as to the sector's potential. This is what he foresees⁴³²:

FIGURE 8 Nine predictions on the evolution of ICT in Africa in 2015

The African middle class will shop on the Internet

New international giants (multinationals) will establish themselves in Africa

ICT will make easier economic exchanges among African countries

Mobile banking will prevail in daily transactions

More and more people will be connected via 3G and 4G

Competition among the best talents will intensify

Content will be more important than ever

Telephony operators will invest in African startups more than ever

The security of IT services will be a central focus

Thus, we can offer ten recommendations while paying attention to elements according to which Africa can leapfrog occidental practices and bring innovations (reverse engineering) based on low-cost use innovations.

⁴³⁰ La révolution mobile et numérique en Afrique : le saut qualitatif pour fournir les biens et services. http://forumforbesafrique.com/wp-content/uploads/2015/06/Etude-Forbes-Afrique-2015.pdf

⁴³¹ www.afriqueitnews.com/2015/01/12/10-predictions-levolution-tic-en-afrique/#sthash.IOt93LUF.dpuf

1. Promoting an e-commerce satisfactory to African people

Firstly, we must understand if African people are willing to establish a certain type of society and therefore, a certain type of e-commerce. Even though e-commerce is in the best interest of Africa, the way it will develop raises political questions:

- while consumer credit in Morocco is rising faster than the economy, shall we establish a consumer society in Africa based on current occidental models? Shall we take the risk of letting populations get into debt to benefit from the so called advantages brought by surplus production of faraway countries?
- shall we tax added value rather than the ecological footprint of imported products by competing with local productions and deteriorating the global environment?
- how to balance collaborative commerce, based on sharing economy^{§32}, and retail commerce, based on waste economy?
- shall we impose e-commerce to fight against the informal economy or shall we maintain the margins of informal commerce which, to a certain extent, favours social inclusion?
- how to prioritise between e-commerce, offering new services to connected people, and digital territorial development, offering connectivity to those who do not have access to the Internet?
- shall staples, raw materials and work tools be treated as a priority in relation to consumer products?

African politicians need to address these issues before we start making recommendations on e-commerce, which must be regarded as a tool at the service of populations and regional integration.

2. Developing the production of local contents adapted to e-commerce

One of the major issues in African countries is that of young people's employment. The e-commerce of imported products has a positive effect on the economy since part of the value chain is located in the concerned countries. However, the development of employment can only occur via the promotion of local products on national and international e-commerce websites.

The creation of local digital contents could promote African products and services, via an attractive digital presentation and a listing on e-commerce platforms, and secondarily via the platforms marketing them. By listing their products and services on national and international platforms, the concerned countries will - at least in this sector - shift from digital consumption to high added value content production.

The presence of local products (saffron, olives, craftsmanship, clothes⁴³³, etc.) and services (image editing, manuscript input, etc.) depend on the upstream production chain. Therefore, we must promote these sectors, and include the promotion of a culture of entrepreneurship, the development of quality brands and controlled designation of origin, as well as their promotion via e-commerce. Fair trade labels could favour the production and exportation of local products, especially via e-commerce, as the global population is increasingly aware of these issues. To do so, economies of scale and credibility could be made by promoting products at the continental⁶³⁴ or regional scale, while taking cultures into account.

3. Developing consumers protection and education

According to a report of the United Nations Children's Fund, by 2050, a quarter of the world population will live in Africa⁴⁵. According to the UNICEF, the African population, which currently comprises 1.2 billion inhabitants, will double by 2050 and will reach 4.2 billion in 2100. This demographic growth will generate an even higher overpopulation and, by the end of the 2030's, most African people will live in cities. This is a godsend for manufacturers, who see market and growth perspectives.

In any case, we must protect African consumers against untouchable dishonest sellers and cyber-criminals. To do so, we have four recommendations to make on consumer protection and education:

- promoting a legal framework protecting online commerce consumers, like for instance, the European directive concerning consumer rights (2011) which is lacking in most States;
- standardising this right at the international level to favour cross-border e-commerce;
- implementing efficient dispute settlement procedures, especially via mediation, as e-commerce national federations⁴⁵⁶ could do, by adding if possible an online mediation procedure and mediation at the regional scale, as the European Consumer Centre does⁴⁵⁷;
- favouring consumer education by relying on the experience of European websites⁴³⁸, while targeting final users, in their own culture, with a real education to online purchasing and credit, in the respect of the African culture⁴³⁹.

⁴³² Cf. FEVAD symposium on the stakes of e-commerce, July 2015.

⁴³³ The collection Asos Africa made in Nigeria is an example. http://akatasia.com/articles/new-collection-asos-africa-springsummer-2014-collection-nigeria-africa

⁴³⁴ Such is the case of the brand www.cottonmadeinafrica.org/fr

⁴³⁵ www.unicef.org/french/publications/index_74751.html

⁴³⁶ In December 2012, the FEVAD launched an e-commerce mediation service in order to reinforce customers trust in online retailers. This system intends to provide amicable settlements to disputes between consumers and companies, to avoid long and costly legal procedures. This approach is consistent with the European directive on the extra-judicial settlement of consumer disputes of 27 March 2013. www.fevad.com/uploads/files/Rapport_du_Mediateur_du_e-commerce_2013.pdf

⁴³⁷ www.europe-consommateurs.eu

⁴³⁸ www.consumerclassroom.eu

⁴³⁹ While overconsumption in occidental countries is jeopardising the future of the planet and the well being of its inhabitants who get into debt to purchase material items, we must respect the wisdom of African peoples, who have deep respect for human relations and religions.

We consider that these measures also contribute to building trust and are therefore crucial to the development of e-commerce.

Just like telecommunications operators contribute to the digital development of their countries; e-commerce actors could contribute to consumer protection and education, directly or in the framework of the telecommunications universal service fund, via telecommunications operators who see their traffic increasing thanks to e-commerce.

We must also make sure populations do not get into debt unnecessarily, considering that for instance, in Morocco consumer credit had increased by 4.1 at the end of February 2015, thus growing 2.5 times faster than the market...

4. Making e-commerce accessible to all

Three major obstacles prevent a part of the population from having access to e-commerce:

- poverty, which compels a large share of the population to content themselves with local products not always fit for consumption, or to resort to degrading activities to have access to the "wonders of consumer society". On this point, we recommend that States favour trade of exported products, thanks to the desintermediation made possible by e-commerce, so that local producers can benefit from a greater share of the products added value. This policy in favour of manufacturers requires an upstream organisation of the sector;
- lack of consumer education on e-commerce mechanisms and subsequent frauds, which they fear;
- absence of electricity or insufficient connectivity to conduct reliable e-commerce transactions. This is the issue we are going to deal with now.

Experts highlight great African shortcomings as regards electrification, both in terms of coverage and reliability (power cuts). Alternative solutions, such as generators and renewable energies (solar power, wind power, water power) are expensive. Regional cooperation is necessary to strengthen this type of investments combining, summarily, great infrastructures for urban conglomerations and renewable energies for villages.

In terms of telecommunications networks, e-commerce via mobile is a good solution to get round weak fixed networks and the low IT equipment rate of households. However, given the small size of phones and smartphones, retail websites must adapt their interfaces to mobile devices. Besides, increased traffic on the networks will generate a saturation of the local loop. Therefore, it is necessary to invest in all types of telecommunications networks and to resort to all available technologies (submarine cables, optic fibre regional and national backbones, local optic fibre, copper or radio loop, satellite coverage, etc.), not to forget energy supplies.



- States and energy and telecommunications regulators must implement connectivity observatories to identify which populations have access to electricity and connectivity;
- they must assess the reliability of electronic transactions on the different parts of their territories and make it public, so as to reassure buyers where quality is sufficient to conduct e-commerce transactions, and to encourage them to find alternative solutions where networks cannot;
- they must take advantage of the digital transition to release valuable low frequencies.

5. Developing payment services inspired from the best practices

E-payments are booming worldwide, with initiatives at the continental levels. As regards the regions of the studied countries, two of them are located within the "franc zone". We saw that in Morocco and Tunisia the impossibility to convert currencies significantly hindered the development of crossborder e-commerce. Besides, the absence of a sufficient offer of payment service suppliers generates extremely high costs.

We recommend that States and their central banks keep adjusting their financial regulations in order to adapt them, as much as possible, to the new means of payment made possible by information technologies, while ensuring a sufficient security level. Given the complexity of these topics, we recommend that actors cooperate at the regional scale to achieve economies of scale and to favour the circulation of goods and services among their respective countries.

6. Developing reliable logistics and distribution

According to the conclusions of the Global E-Tailing 2025 study carried out at the request of DHL, over the next ten years, e-commerce popularity will keep increasing both in developed and emerging markets. According to the African Press Organisation, logistic companies will have a key role in providing supply chain management solutions. They will have to adapt to consumers' changing purchase habits⁴².

In Africa, where precise physical addresses are scarce, deliverymen often have to call customers before delivery in order to get information on the delivery point. In spite of these explanations, they often have difficulties to find people's addresses quickly. Besides, people are not always at home and the deliveryman must either come back or agree on a schedule with the client, which is hardly doable. In average, deliverymen must turn up twice before delivering a parcel. This delivery issue is an obstacle to e-commerce.

We recommend the concerned actors to invest in the distribution chain, as it is part of e-commerce, and to keep implementing fixed addresses to make distribution easier.

They must keep innovating in terms of services, via the development of palliative solutions like that of Box stop in Tunisia, passenger transport companies in Ivory Coast or collaborative transport with Drivoo in France⁴⁸³ and promote them to the public.

Finally, as trust is crucial to the e-commerce industry, the reliability of delivery services must be assessed objectively, by service providers, public authorities and users themselves. In the ideas competition of the FEVAD to develop e-commerce, one user proposed to rate deliverymen. International studies could be carried out on the methodology of such a rating, in the framework of the UPU or the Francophonie. More generally, the implementation of agreements among companies enabling integrated logistics throughout Africa or, at least, in several regions, would make e-commerce easier at the regional level. Regional logistic platforms would also help, following the example of multinational companies' hubs.

7. Fighting cybercrime to build confidence

According to the Paypal study on the Middle East⁴⁵, which is in accordance with what we observed in the studied countries, security is the main issue for buyers and, therefore, the main obstacle to e-commerce. As indicated in **FIGURE 9**, cyber-criminals are particularly active in Morocco and Ivory Coast.

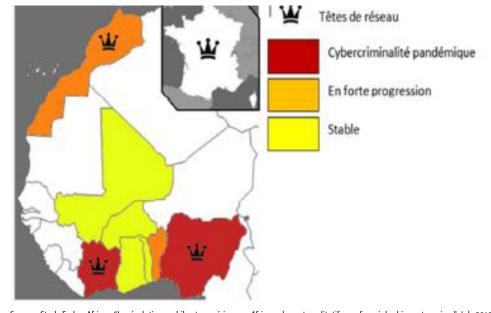


FIGURE 9 Map of cyber-crime in West Africa

Source: Study Forbes Afrique "La révolution mobile et numérique en Afrique: le saut qualitatif pour fournir les biens et services", July 2015.

⁴⁴³ www.drivoo.com/home

⁴⁴⁴ http://fevad.fanvoice.com/ecommerce

⁴⁴⁵ PayPal Insights e-commerce in the Middle East, September 2013. http://static.wamda.com/web/uploads/resources/24-09-2013_FINAL-low_res.pdf

Therefore, we must cite some of the conclusions of the UNECA orientation report "Tackling the challenges of cyber-security in Africa", as well as conclusions we drew from our experience:

- at the national level, laws on cyber-security must be created or strengthened as well as the development of international cooperation in terms of police and justice;
- at the Pan-African level, it is necessary to converge cyber-security national regulations, as we will see in the recommendation on non-governmental organisations;
- we recommend to create one or several resource centre(s) working in a network on cyber-security, like ENISA in Europe, with the African CERT⁴⁴⁶ and the future Bassam cyber-security research centre, carried by the Ivorian Home office.

Besides, digital identity solutions, recommended by the World Bank in its guide on digital identity for African actors, could prevent identity theft⁴⁴⁷. A connexion with the European regulation on electronic identification and trust services (eIDAS) would be a great asset⁴⁴⁸. In practice, we should ask the studied countries to adopt the Budapest Convention on Cyber-crime⁴⁴⁹, while benefiting from international support, in the framework of the Glacy⁴⁵⁹ project for example.

8. Adopting adapted public policies

The Tunisian Ministry of Trade has implemented a department dedicated to e-commerce. The other studied countries carried out public policies to foster its development, at the Ministry of Posts and ICT and at the Ministry of Finances, in collaboration with central banks. The coordination between the Ministries concerned by this transversal national policy is essential.

Standardising regulations is also an important issue as e-commerce often crosses borders. The report of the World Economic Forum shows that tax levels hinder business development in the studied countries. States must make sure that their tax systems favour e-commerce rather than informal economy. Too many taxes encourage actors to hide, selling person-to-person, with payments by cash that cannot be traced.

Exchange policies and currency convertibility are also essential to the development of international e-commerce. The report on competitiveness of the World Economic Forum shows that a part of the people interviewed consider exchange regulations as an obstacle to trade (TABLE 42). The SEVAD Tunisian industrials particularly insisted on this point.

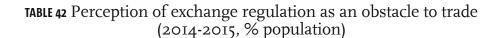
⁴⁴⁶ In IT security, official organisations are in charge of preventing risks and supporting the processing of incidents. These CERT (Computer Emergency Response Team) are warning centres reacting to cyber-attacks, dedicated to companies and administrations. However, their information is generally accessible to the general public.

 $^{447\} http://documents.worldbank.org/curated/en/2014/06/20272386/digital-identity-toolkit-guide-stakeholders-africa-guide-de-lidentit% C3\% A9-\% C3\% A9-lintention-des-parties-prenantes-dafrique$

⁴⁴⁸ Alain Ducass, l'identité numérique pour les acteurs africains, CIO Mag n°35, February/March 2015, p.30-32.

⁴⁴⁹ Mrs Agha-Wevalsiet of the European Council informed us that Morocco and Senegal benefit from the Glacy programme and started negotiations to adopt the Budapest Convention.

⁴⁵⁰ www.coe.int/t/dghl/cooperation/economiccrime/cybercrime/glacy/glacy_FR.asp?



Morocco	Tunisia	Senegal	Ivory Coast
3.1	4.4	4.8	0.4

Source: The Global Competitiveness Report 2014-2015

The same goes for justice, which must be able to sanction frauds quickly, otherwise consumers will no longer have trust in the country.

Finally, African public authorities intend to encourage collaborative e-commerce, or social-commerce, by relying on the sharing culture, which is a characteristic of Africa, while promoting product reuse in order to limit the ecological footprint resulting from consumer society.

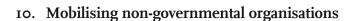
9. Creating an International Observatory of E-commerce

Several times, we observed the absence of reliable statistics, which prevents the sector understanding and development, especially in the studied countries. In addition to official statistics, which are important, we think it is necessary that people can have access to information on e-commerce conditions and on payment and delivery reliability. Following the UNCTAD report, we must bring to the attention of global e-commerce observers (the payers, Alexa, etc.) the significant development perspectives of the African middle class and, therefore, of e-commerce in the concerned countries. The concerned investors and public authorities can then have access to reliable information, which will help them making better decisions. In France, the FEVAD publishes an observatory of e-commerce logistics⁴⁵¹. It would be interesting to compare the figures with that of the studies countries.

Thanks to current technologies, we can create cheap observatories enabling users to rate the services they purchase online and to make these ranking public, and anonymous, for future users. Global Online standard for e-Commerce (GOMSEC) created a first base of indicators with the help of E-commerce Europe⁶⁵². Nevertheless, it should be discussed at the international level, within the European Committee for Standardization or the International Organisation for Standardisation, so that major actors can be represented, especially buyers and other members of the value chain.

In order to control costs, we recommend to create a basis of e-commerce websites at the regional level and to let users express themselves, via rankings, on the reliability of such and such service, as is currently the case on e-commerce websites. Therefore, potential clients will be able to choose what suits them best, by relying on the ranking of other customers. The Tunisian Ministry of Commerce and Craftsmanship intends to collaborate with the EU to create an e-commerce observatory for vendor and retailer decision-makers. This excellent initiative could be developed at the regional scale.

⁴⁵¹ www.fevad.com/logistique



In 2015, the UNCTAD chose to dedicate its annual report on information economy to e-commerce, it is therefore a major development issue. On the contrary, we observed that many other non-governmental organisations are neither aware of e-commerce importance nor of the issues we just raised. Via this report, we encourage them to include e-commerce and its environment in their activities in order to reach their objectives.

The four studied countries are the leaders of Francophone Africa and we can wonder where this success comes from. The answer is assuredly positive, as language is a significant parameter of the digital space, and probably of international commerce as well. Therefore, one of our recommendations consists in promoting e-commerce in the French-speaking space, with potential economies of scale in terms of SEO, and even in terms of e-payment and logistics.

Tunisia and Morocco are both members of the Arab League and we could apply the same logic, by recommending actors to converge regulations and to promote e-commerce within the AICTO and the Arab Maghreb Union.

E-commerce is inherently more international than justice. Very often, justice only sanctions the European intermediaries of African cyber-criminals who committed the so-called Nigerian fraud⁴⁵³ or of that of overpayments premature repayment⁴⁵⁴. International organisations should make easier the judicial proceedings of e-commerce criminals, by promoting, for instance, the Budapest Convention on Cyber-crime, by creating a uniform act in the OHBLA⁴⁵⁵, or by any other appropriate measure.

In terms of standardisation, retailers should not define e-commerce standards alone, they should be assisted by other actors, which would involve the ISO or the UN CEFACT⁴⁵.

More fundamentally, international organisations should carry out field studies to look into the social benefits of e-commerce for populations.

⁴⁵³ Rouen Court of Appeal, case 13/01303

⁴⁵⁴ Aix en Provence Court of Appeal, case 13-81.780

⁴⁵⁵ www.ohada.com





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Appendix 1 - Missions carried out for the study

Mission in Senegal from 21 to 26 January 2015

Thursday 22 January: IT Senegal forum and meetings with:

- Jean-Jacques NTAB, President of the Senegalese Club DSI
- S.E. Yaya Abdoul KANE, Minister of the Post and ICT
- Thierry Breton, Chairman of group ATOS and his collaborator Yannick Tabanon
- · Frédéric Massé, Vice-president EMEA government relations, SAP
- Talla Diop, Development Director of Gainde

Friday 23 January

- Appointment at the Ministry of Trade with Mr Ndao, office manager.
- Appointment at the Ministry of Telecommunications with Malick N'Diaye, Director of the Minister's cabinet.
- Appointment at the FONGIP with Mr Doudou Ka, General Director, with his collaborators.

Saturday 24 January

- Appointment with Aida Sakho, Senegalese expert
- Appointment with Karim Sy, Manager of JOKKO labs

Monday 26 January

- Visit at Cheik Bakhoum, ADIE Managing Director
- Visit at Dakar Cheikh Anta Diop University (Dr Corenthin)
- Appointment with Trade Point

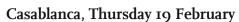
Missions in Morocco from 16 to 18 February 2015 as well as 19 and 20 March 2015

Rabat, Tuesday 17 February

- 12:00 am: Ali Boulanouar, Head of Department of the Receiving Areas at the Ministry of Industry and Commerce
- 2:30 pm: Laurence Jacquot, economic department of the French Embassy in Morocco
- 5:00 pm: Sami Baghdadi, Franco-Moroccan industrial of the digital sector

Casablanca, Wednesday 18 February

- 10:00 am: Latifa Echihabi, General Secretary of the Ministry of Industry
- 3:00 pm: Otmane Serraj, Managing Director of the group Bull Maroc
- 3:15 pm: Nourredine Bakkali, DGA Services & support of La Poste Maroc group
- 3:30 pm: Khalid Safir, Wali de Casablanca



- 11:30 am: Samira Gouroum, Managing Director of Maroc Télécommerce
- 3:30 pm: Charafa Chebani, French Chamber of Commerce and Industry of Morocco

Rabat, Thursday 19 February

• Jean-Michel Mas, international expert

Rabat, Friday 20 February

 Boubker Badr, General Director of the digital economy at the Ministry of Posts and ICT

Casablanca 19 and 20 March 2015:

• Forum for Currency and Electronic payment in Francophone Africa⁴⁵⁷.

Missions in Tunisia from 14 to 17 April and 17 to 19 November 2015

Tuesday 14 April

- 9:00 am: formal meeting with S.E. Mr Noomane Fehri, Minister of Communication Technologies and Digital Economy
- 11:00 am: meeting with Nizar Bouguila, CEO of Tunisie Telecom
- 3:00 pm: Appointment at the French Embassy with Christel Péridon, Head of the Economic Department and Marjorie Chapin, policy officer, on the Tunisian economy
- 4:00 pm: Business France with Mrs Zorah Sadoken in charge of commerce and Mrs Selma Chamy, in charge of the digital sector.

Wednesday 15 April

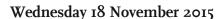
- 9:00 am: FRATEL encounter organised by the Tunisian Telecommunications Body
- 3:00 pm: Karim Kharat, CEO of SHK and Exenon

Thursday 16 April

- 12:00 am: Khaled Bettaieb, Managing Director of Monétique Tunisie
- 7:30 pm: Appointment at the industrial union of e-commerce (SEVAD)
 Maader Mondher, President, Laurent Hanout, Vice-president, and Jean François Papillon, member.

Friday 17 April

- o9:30 am: Lazhar Bennour, Managing Director of e-commerce at the Ministry of Trade, along with his team
- II:00 am: Ali Kedhai, DGA of the Payment Central Fund at the Central Bank of Tunisia
- 12:30 am: Hayet Nayel, Manager of strategy, quality and development of the Tunisian post
- 2:00 pm: interview by the magazine Le Manager



Meeting with Mr Moez Chakchouk, CEO of the Tunisian Post since 23
 April 2015

Thursday 19 November

• Presentation of the e-commerce report at the round-table conference "Creative Africa" of the symposium ICT4All gathering 3,500 people in Hammamet.

Mission in Geneva from 26 to 28 May 2015

Annual forum of the World Summit on information society.

Bilateral meetings with:

- Mr Fredriksson, chief of the ICT Analysis Section at the UNCTAD.
- Mehdi Chaker (CCI/ITC) in charge of the project virtual market places for the development of SMB exportations in Morocco, Tunisia and Jordan.
- "C7 e-Business" workshop chaired by Mr Fredriksson (UNCTAD)**
- "C7 e-Commerce for emerging countries" workshop chaired by James Howe, Senior Adviser, International Marketing and Branding, ITC459

Missions in Ivory Coast from 18 to 25 June 2015 as well as 8 and 9 October 2015

Thursday 18 June

Appointment with Ibrahim Lokpo, General Manager of electronic administration, and Saka Saka, Manager of electronic administration at the Ministry of Public Service.

Friday 19 June

- Appointment with Gnamba Blanche, policy officer at the CGECI
- Appointment with Alain Delium, former manager at DHL
- Appointment with Ousmane Seck, consultant specialised in foreign trade
- Lacina Koné, councillor of the President of the Republic for ICT
- Patrick M'Bengue, President of GOTIC, professional union of the Ivorian ICT sector

Saturday 20 June

- 8:00 am: Jean-Jacques Ntab, CIO of SENELEC and Chairman of the Senegalese DSI club
- 3:00 pm: Kinapara Coulibaly: Managing Director of BNETD



Monday 22 June

- 09:00 am: Mr Bilé, Managing Director of ARTCI and Sylvestre M'Poue, councillor
- 11:30 am: Jack Salieu, policy officer at the African Development Bank
- 2:00 pm: Aminata Dosso, policy officer at Quint-Sens consulting
- 4:00 pm: Guy-Arsene Gounongre, Head of NTIC Department at the CGECI

Thursday 8 October and Friday 9 October 2015

Intervention at the Africa Telecom People forum, dedicated to e-commerce

Missions in Paris

2 July 2015

Conference organised by the FEVAD on e-commerce issues

21 September 2015

• Study Steering Committee

5 November 2015

 Contribution to Tech & Co programme of BFM TV on the digital transformation in Africa⁴⁶⁰

19 October 2015

• Ipemed Scientific Committee

Appendix 2- Participants to the Steering Committee

Ali ANABOUSSIE, Groupe La Poste, Management of International Affairs Mourad BALDZIOUI, DOCAPOST (Groupe La Poste), Manager of Strategic Accounts

Henri BIADALA, Groupe La Poste, Management of International Affairs – Africa

Claire BOSSENBERGUE, Groupe La Poste, Management of Regulation

Medhi CHAKER, International Trade Center, councillor in commercial promotion, office for Arab States (project manager of Virtual Market Place for MENA SME Export Development)

Abebe CHEKOL, UNECA (United Nations, Economic Commission for Africa), ICT for Development Expert

Agnes CHEVALIER, CEPII (Centre for International Prospective Studies), senior economist (member of IPEMED Scientific Committee)

Amadou Mbaye DIOP, African Alliance for E-commerce (AACE), treasurer **Alain DUCASS**, international expert in digital transformation and author of this report

Mr DUFAU-RICHET, Orange Group, Manager of Africa-Middle-East strategy, AME Management

Ndéné FAYE, DOCAPOST (Groupe La Poste), in charge of Sub-Saharan African countries

Laurent HANOUT, SEVAD (Industrial Union of E-commerce and distance selling of Tunisia), Vice-President

Nicolas JASSELETTE, La Banque Postale

Jean-Marc KWADJANE, Phd in Information technologies, co-author of this report

Salvator NIZIGIYIMANA, Régie nationale des Postes, Burundi, Managing Director

Thibault ROUSSEL, Orange Group, Project Manager Orange technology centre

Beatrice ROUX, Groupe La Poste, Manager of International Affairs

Marguerite RUIZ, SOFREPOST (Groupe La Poste), Deputy Managing Director

Ousmane SECK, Councillor in Project Investment and Marketing (Formerly in charge of the Department Africa, Near & Middle East of the CCI Region Paris Île-de-France)

Emmanuel VIVET, Groupe La Poste, Deputy Manager European and International Affairs

Bernard YVETOT, Orange Group, Group Finance & Strategy

Appendix 3 - Written contributions

Torbjorn FREDDRIKSSON, UNCTAD, Chief, ICT analysis section, coordinator of the Information economy report 2015 – unlocking the potential of e-commerce for developing countries

El Amine SERHANI AL IDRISSI, Chairman of the FNEM, Moroccan National Federation of E-Commerce

Arslan TOUBA, Strategy Management, Orange Group

Khaled BETTAIEB, Managing Director of Monétique Tunisie

Hayet HAYEL, Manager of Strategy, Quality and Development of the Tunisian Post

Patrick M'BENGUE, Chairman of GOTIC, Ivory Coast **Laurent HANOUT**, SEVAD Vice-president, Tunisia

Other contributions

Aida SAKHO, young Senegalese graduate Mohamadou DIALLO, Director of CIO-Mag Ousmane Seck, consultant specialised in foreign trade Members of IPEMED Scientific Committee





The Mediterranean world Economic Foresight Institute (IPEMED) is a Mediterranean thinktank. It intends to integrate the countries of both shores of the Mediterranean via economic means. Since its creation in February 2006, the Institute raises awareness of the common future and the convergence of interests of the Northern and Southern countries of the Mediterranean. Mainly financed by private companies and people sharing its involvement, IPEMED adheres to the principles of political independence and North-South parity in its governance and operations.

The Institute is chaired by Jean-Louis Guigou, its founder.

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The collection Building the Mediterranean was created in 2009 by IPEMED.IPEMED experts, coming from both shores of the Mediterranean, confront their reflections in order to stimulate the debate of great Mediterranean issues, to foster a new approach of North-South relations and to put forward recommendations useful to the populations living in the Mediterranean basin. The studies published in the collection Building the Mediterranean are approved by IPEMED Scientific Committee.

They are available on IPEMED website, www.ipemed.coop

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Financing access to water and sanitation in the Mediterranean. Is innovative funding a solution or an illusion?, Caroline Orjebin-Yousfaoui, 2014

Moving towards a North African pharmaceutical market, Mohammed Wadie Zerhouni, L. Asma El Alami El Fellouse, 2013

Towards a Euro-Mediterranean Energy Community, 2013

Turkey and the benefits of supranational regulations: what is the impact of European integration?, Gül Ertan Özgüzer, 2013

Carbon constraint in the Mediterranean: differentiated impacts and policies for carbon reduction in the Euro-Mediterranean region, Louis Boisgibault, Morgan Mozas, 2012

Tomorrow, the Mediterranean. Scenarios and projections for 2030, Cécile Jolly (coord.), 2011

