



Kingdom of Morocco
Ministry of Foreign Trade



Economic Commission for Africa
Office for North Africa

e-commerce in North Africa synthesis of national studies



North Africa Development Forum

Trade for Growth and Job Creation



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Foreword

Within the use of ICT as a development tool in general and as a mean of economy opening in particular, the Economic Commission for Africa (ECA) started the study of e-commerce in North African countries, including the feasibility of a regional electronic commerce platform. This study is part of the activities undertaken by the ECA within the African Information Society Initiative (AISI) and results from a recommendation by the seminar held in Tangiers from March 1st to 3rd, 2005 under the theme: « ICT and development of exchanges within AMU countries ».

The « e-commerce in North Africa » report was written by Mustapha Mezghani, Consultant (Tunisia), based on studies carried out by Fatimetou Mint Mohamed-Saleck (Mauritania), Nadia Hegazi (Egypt), Aziz Rabbah (Morocco) and himself (Tunisia). Data concerning Algeria, Libya and Sudan were collected from bibliographies as well as Internet.

This document is a synthesis of the summary report of these various studies.

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List of abbreviations

ADSL	Asynchronous Digital Subscriber Line
EFTA	European Free Trade Association
BtoA ou B2A	Business to Administration
BtoB ou B2B	Business to Business
BtoC ou B2C	Business to Customer
EMV	Europay, Mastercard, Visa. International standard for electronic money based on smart card
AFTGA	Arab Free Trade Great Area
WTO	World Trade Organisation
GDP	Gross Domestic Product
GNP	Gross National Product
TI	Information Technologies
ICT	Information and Communication Technologies
EU	European Union
WAEMU	West African Economic and Monetary Union
AMU	Arab Maghreb Union
USD	US Dollar
WIMAX	Worldwide Interoperability for Microwave Access

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Introduction

Telecommunication networks and Internet covering North Africa represent an extraordinary potential in terms of economic growth, social development, employment growth and expansion of world and regional trade. Electronic commerce is probably an outstanding catalyst of trans-national trade and of regional exchanges development, provided that there is a favourable environment, a co-ordination between national policies and the different stakeholders, an existing infrastructure as well as a logistic to ensure the conclusion and the execution of trade agreements.

Aware of the importance of the contribution of ICT to the development of the country, poverty eradication, food safety, health, education, employment and export, and aware of the importance of a global society of Information and Knowledge, six out of the seven North African countries belong to the thirty-two African countries that have an ICT strategy. Only Libya is part of the group of seven African countries that do not have one yet. This strategy will help them to reach the objectives of the millennium more easily.

Some countries that set about doing it quite early and were able to provide the necessary means, obtained convincing results. Thus, the « Networked Readiness Index Rankings 2005 » established by the World Economic Forum puts Tunisia in the first place among the African countries (36th rank in the world), Egypt in the 6th place and Morocco in the 7th.

Thanks to their strategies, these countries approached the various sides of ICT: (a) as economic sector able to improve drastically GDP and the balance of commerce of the country by developing exportations, (b) as horizontal tool and support tool enhancing the development of companies and promoting the economic progress of the other sectors of activity, (c) as communication tool with a universal calling enabling to reach different and various targets, unknown to the communicator, (d) as a tool reducing distances and taking people closer to each other as well as customers to suppliers or States to their citizens, (e) as a tool facilitating data analysis and information processing.

However, not all of these strategies were defined at the same time and their implementation is highly reliant on the means owned by the countries and the importance given by them to ICT in their respective scales of priorities. This situation created a gap between the countries of the region themselves and even if some countries made tremendous progress that made them become models for other countries of the world, some others are lagging far behind.

Moreover, and if North Africa holds a fairly good position compared to the rest of the continent, the region is too much behind in terms of expansion of digital culture, compared to the Northern countries and some Southern countries. ICT indicators show that, despite the progress registered, efforts are necessary to make up for the delay registered in this field.

Indeed, many obstacles are to be overcome by the different North African countries but at different levels, dealing with all ICT environments: infrastructural, technical, but also legal, institutional, educational and financial. North Africa is the theatre of a double division: a division within each country with a population more favoured than another in terms of access to digital culture and another division within the region between the countries themselves, some of them being more developed digitally than others.

1. Foreign trade in North Africa

1.1. Trade dynamics in North Africa

1.1.1. The North African regional dynamics

The study shows that the North African region does not represent a political and commercial regional unit yet since no regional economic community gathers simultaneously the seven countries. AMU, which is the sole regional economic community made of North African countries only, includes five members among the seven. However, in addition to the bilateral trade agreements existing between them, the countries of the region have some regional or international groupings in common (AFTGA, CEN-SAD, COMESA).

The main grouping of the region, the AMU, did not manage yet to create a true regional dynamics, the part of intra-regional trade still being too low compared to other groupings all over the world, including the African continent. Besides, this part is very low compared to other groupings with similar level of development.

The agreements of trade integration signed by the North African countries may represent a full range of advantages for them, like for instance, being a force and a power of negotiation much more important. Now the lack of mechanisms that govern the implementation of these agreements as well as the unsuccessful initiatives or those slow to put in place, can result in a disinterest of the regional issue by the member countries and affect trade between them negatively.

1.1.2. Trade agreements in North African countries

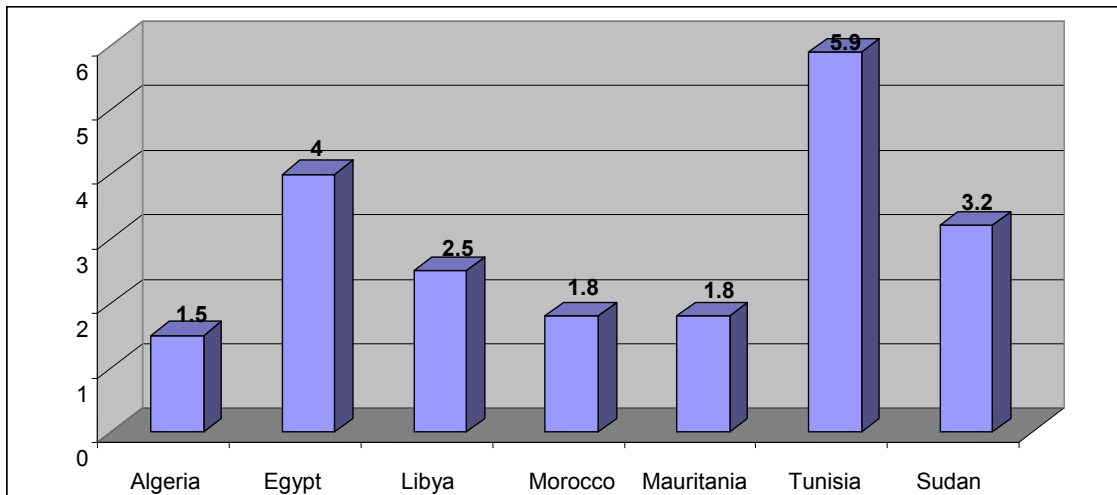
All North African countries are committed in multilateral and regional trade processes and are signatories of preferential bilateral and regional agreements. Most of the countries are signatories to several overriding trade agreements.

Preferential agreements signed with the European Union are the most important regional agreements for the sub-region.

Table 2.1 hereafter details about the trade agreements of the North African countries.

1.1.3. Exchanges within North Africa

The figures given in the report clearly show that the North African region does not have a very active internal trade dynamics and the visions are definitely turned elsewhere.



Picture 1-1: Part of exportations intended to the North African market in 2004 (in %)

	Algeria	Egypt	Libya	Mauritania	Morocco	Sudan	Tunisia
FTA with EU	Signature of the association agreement 22/04/2002 entry into force 01/09/2005	Signature of the association agreement 25/06/2001 entry into force 01/06/2004	Observership ¹	Partnership agreement with ACP States	Signature of the association agreement 26/02/1996 entry into force 01/03/2000	Signature of a co-operation document between EU and Sudan 25/01/2005 in addition to the agreement with ACP States	Signature of the association agreement in July 1995 entry into force 01/03/1998
AFTGA	In negotiation	Member since 1997	Member since 1997		Member since 1997	Member since 1997	Member since 1997
AMU	Member since 1989		Member since 1989	Member since 1989	Member since 1989		Member since 1989
COMESA ²		Member since 1994	Member since 2005			Member since 1994	
Agadir Agreement		Signature of the agreement 25/02/2004			Signature of the agreement 25/02/2004		Signature of the agreement 25/02/2004
SEN-SAD ³		Member since 2001	Member since 1998		Member since 2001	Member since 1998	Member since 2001
FTA with United States		QIZ			Signature in March 2004 and entry into force in January 2006		In negotiation
FTA with Turkey			In negotiation		Signature in April 2004 and entry into force in January 2006		Signed in November 2004 entry into force scheduled July 2005

Table 1-2: Commitments and preferential agreements signed by the countries of the sub-region

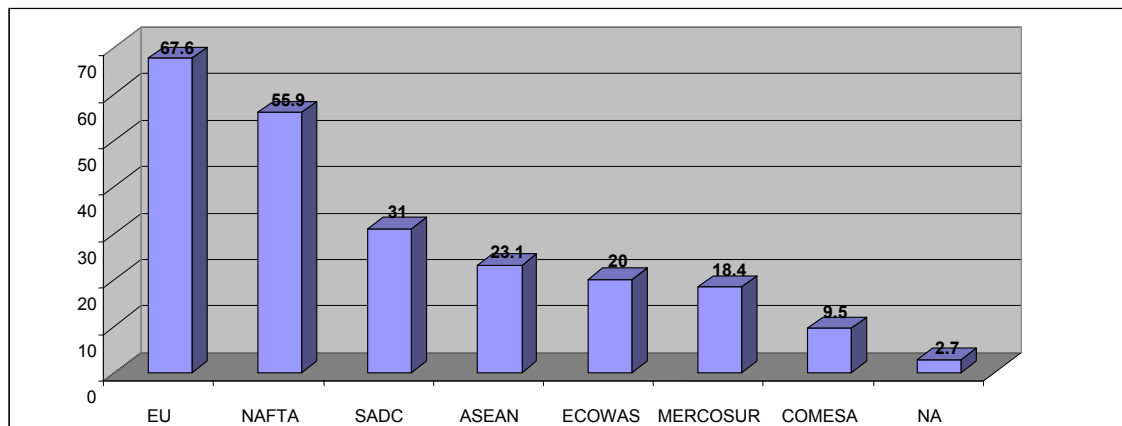
¹ Libya is not a member of the Barcelona Process. The country has the role of observer. However, Libya was invited to accept the experience of Barcelona to adhere to the Euromed Process.

² COMESA : Common Market of Eastern and Southern Africa

³ SEN-SAD : Sahelian and Saharian Countries Union

For the North African countries, and the AMU countries in particular, the exchanges with Africa are mainly exchanges with the North African region. However, the study shows that these exchanges are poor if we take into account the global exchanges made by these countries with the rest of the world. The North African sub-region is therefore one of the most extreme cases because of the lack of inter-regional integration.

None of the countries in the region allocates more than 6% (figure achieved by Tunisia) of its total exportations to the North African region. The most important bilateral trade in the sub-region is achieved between Tunisia and Libya.



Picture 1-2: Comparison of the level of intra-regional exportations in different areas of the world (2004)

Intra-regional commerce in North Africa represents about 2.7%. As a matter of comparison, the Southern Africa Development Community (SADC) achieves a trade integration rate of 31% (the community was created in 2000 and the integration rate was 8% in 2001).

1.1.4. Exchanges with the European Union

North African countries are definitely looking towards Europe since they benefit from advantageous trade agreements and particular historical relationships.

The commercial activity of the North African countries is highly focused on Europe. Indeed, except Sudan (that allocates 76% of its exportations to emerging countries of Asia), the European Union represents the outlet of 40 to 80% of the North African countries' exportations.

The dependence of North African countries (except Sudan) on EU is also confirmed by the importations of these countries, making it clear that EU is the main partner of the North African countries. Thus the interest of these countries in the North Africa region leaves no much room for inter-regional exchange.

2. The economy of Information and Knowledge in North Africa

The report deals with the intangible economy before getting into e-strategies in North Africa.

2.1. National e-strategies

Aware of the opportunities offered by the Information and Communication Technologies (ICT) in the social and economic development process, North African countries defined e-strategies and put into place an action plan for the development of digital economy.

All countries defined ICT strategies and only Libya does not have one yet.

Even if these strategies are different in terms of form and function of the initial situation of the concerned country, they all focus however on the following four same measures:

- Develop an appropriate digital infrastructure to promote access for everyone and everywhere,
- Encourage the emergence of a strong local sector through the promotion of the private sector,
- Develop the skills of human resources (producers as well as users of the technology) through training and education,
- Put into place appropriate institutional and legal frameworks promoting the development of ICT.

Thus, national strategies are linked to the infrastructural, institutional and legal environments of digital economy but also to the development of local human resources and companies.

2.2. Digital infrastructure upgrade

2.2.1. National strategies linked to digital infrastructure

Stating that the expansion of digital culture can only take place based on a sound digital infrastructure, national strategies of the North African countries first endeavoured to improve their telecommunication infrastructures, overcome fixed and mobile telecommunications monopoly, increase their international bandwidths and implement a large programme of expansion of high speed internet on all their territory. These programmes have all the same slogan: « Internet for everyone everywhere ».

Often taken into account very early in the national strategies, ICT infrastructures have effectively been developed only very recently, as of 2001. All the countries have then adopted a series of measures to develop Internet access, like transferring the monopolies on telecommunications and democratising ADSL which became accessible to the population. Competition among Internet services providers led to the fall in prices. Besides, overcoming the mobile telephony national operator monopoly resulted in a democratisation of the use and the price.

2.2.2. ICT indicators in North African countries

As an essential part of the expansion of ICT, telecommunications, and particularly fixed telecommunications, are the basis of Internet penetration not only in workplaces but also in households.

As for fixed telephony, the statement is the same for all North African countries: figures are very low. For all these countries, progress has been very slow and insignificant throughout the years.

Except Algeria, Libya and Tunisia (which even so opened the capital of their fixed telephone operator), all countries have already overcome the monopoly of the historical operator of fixed telephony, Egypt being the last country that achieved it (monopoly on fixed telephony ended in January 2006).

However, this achievement did not have a significant effect on the progress of teledensity as the one that takes place when a new mobile telephony operator enters the market, and for all these countries, the growth of telecommunications national markets remains supported by mobile telephony that dramatically boomed after 2001 in the whole region.

Countries	Algeria	Egypt	Libya	Morocco	Mauritania	Tunisia	Sudan
Number of fixed operators	1	2	1	2	2	1	2
Fixed teledensity (%)	7.82	14.04	13.56	4.26	1.34	12.47	1.85
Number of mobile operators	3	3	2	2	3	2	3
Mobile teledensity (%)	41.52	18.41	4.15	39.37	24.30	56.32	5.04

Teledensities, Source: IUT (2005)

Table 2-1: Mobile and fixed telephony penetration rate

IT penetration rate has the same importance. It is very heterogeneous in all North African countries. This indicator is closely linked to the penetration of Internet in households.

Countries	Algeria	Egypt	Libya	Morocco	Mauritania	Tunisia	Sudan
IT penetration (%)	1.06	3.78	-	2.35	1.41	5.63	8.97

Source: IUT (2005)

Table 2-2: IT penetration rate in North African countries

For all North African countries, the monopoly of Internet services provider has been overcome. Several public and private providers are contesting the market, which led to the increase in the number of subscribers to Internet, hence the increase in the penetration rate of Internet in these countries.

Countries	Algeria	Egypt	Libya	Morocco	Mauritania	Tunisia	Sudan
Number of subscribers to Internet (in thousands)	944	3,499	67	4,118	27	373	-

Source: IUT (2005)

Table 2-3: Number of Internet subscribers in North African countries

Internet penetration rate is not homogeneous throughout North African countries. Some are more advanced than others since some countries, such as Mauritania, effectively started their development in 2005 only.

Countries	Algeria	Egypt	Libya	Morocco	Mauritania	Tunisia	Sudan
Internet penetration (%)	5.83	6.75	3.62	14.61	0.47	9.46	7.73

Source: IUT (2005)

Table 2-4: Internet penetration in North African countries

Governments first began to create public centres for Internet access. These centres rapidly proliferated and now they contribute significantly to the expansion of digital culture in large cities as well as in urban areas. Tunisia, for example, intends to create one per village by 2009 in addition to the large number of existing centres.

To continue the expansion of ICT in landlocked areas, North African countries are thinking about covering the whole of their territories through the new interconnection technologies such as satellite or Wimax.

2.2.3. Governmental impetus and e-services

All national strategies resulted in positive achievements by governments. Even if all countries have not arrived to the stage of electronic commerce, many of them have started national projects of e-government and other e-services.

North African countries have several national projects in this area, some of which are presented in this report.

3. Electronic commerce in North Africa

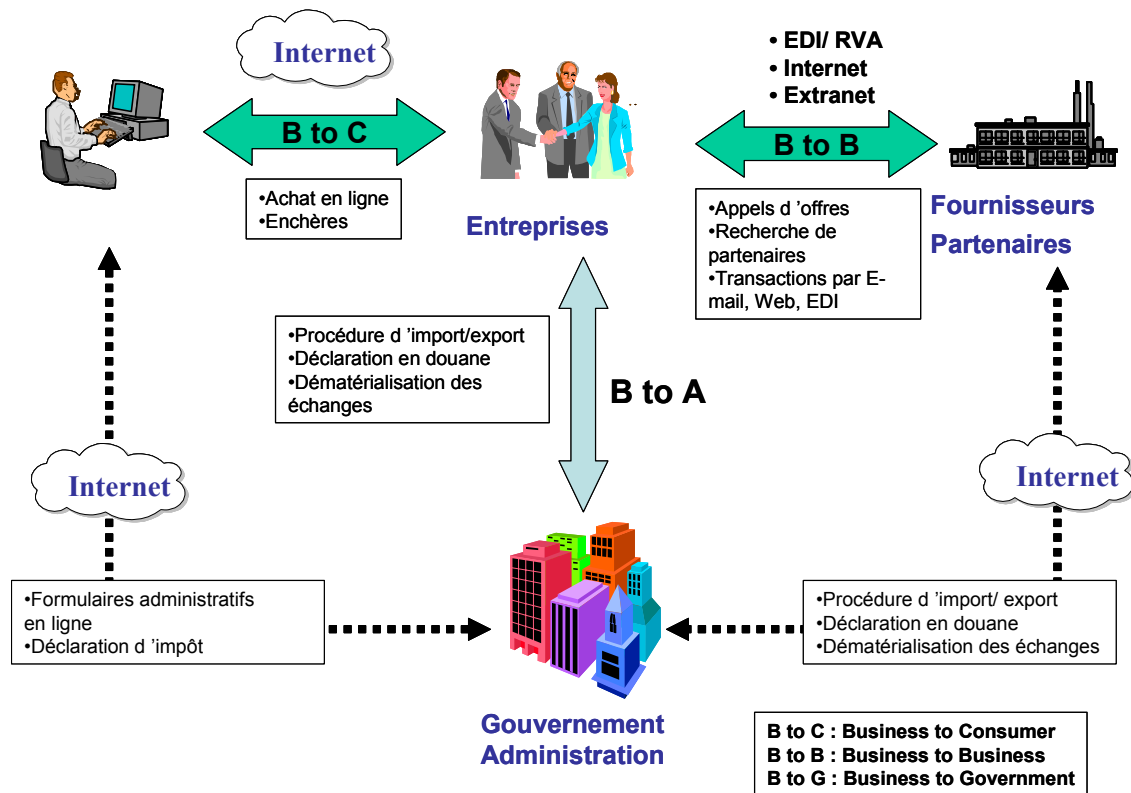
3.1. E-Commerce definition

According to the WTO, "electronic commerce refers to the production, distribution, marketing, sale or delivery of goods and the presentation of services by electronic mean".

Thus, electronic commerce or e-Commerce is understood as all commercial activities carried out on electronic networks, including the promotion, on-line sale of products and services, customer care, etc. Electronic commerce includes inter-company relationships as well as relationships between companies and administrations and exchanges between companies and consumers. Any commercial transaction achieved totally or partially by electronic mean is considered as electronic commerce.

This definition includes not only purchases and sales carried out through a website but also purchases by minitel, by an interactive telephone system (Audiotel type) or even, between companies, through direct and automated relationships from computer to computer such as EDI, Electronic Data Interchange.

<p>On-line purchase Bids</p>	<p>Companies</p>	<p>Invitations to tender Search for partners Transactions by e-mail, web, EDI</p>	<p>Providers Partners</p>
<p>Import/export procedures Customs declaration Dematerialisation of exchanges</p>			
<p>On-line administrative forms Statement of income</p>	<p>Government Administration</p>	<p>Import/export procedures Customs declaration Dematerialisation of exchanges</p>	



Picture 1: Different types of electronic commerce

3.2. How does North Africa prepare itself to electronic commerce

The majority of North African countries have integrated electronic commerce in their ICT strategies. These e-Commerce strategies are more or less voluntarist depending on the stage of progress of the digital culture expansion level. Thus, for Egypt, Morocco and Tunisia, ICT and e-Commerce strategies are closely linked. For the other countries, e-Commerce is relegated to a secondary stage reliant on the results achieved by the ICT strategy.

Egypt, Morocco and Tunisia considered electronic commerce as a component of their ICT strategies and made a significant progress in this area compared to their North African neighbours.

3.2.1. Implementation of a legal environment

Countries of North Africa are all convinced that the development of the Information and Knowledge economy can not be limited to the development of digital infrastructure, but is also dependant on a sound and appropriate legal and institutional environment.

Laws concerning ICT and e-Commerce

Countries that developed their digital infrastructure have also developed the legal aspects relative to ICT. Tunisia took the initiative to develop the legal aspects at the same time as the technical aspects. The Tunisian legislature assimilated actions made on line to conventional actions.

Morocco, Algeria and Egypt have put into place sound legal environments. Egypt and Tunisia have a law on electronic signature. Such a law is in the process of being passed in Morocco.

Mauritania, Sudan and Libya have started works in this area and the process of passing of these laws is lagging behind.

Personal data protection

In the legal system concerning ICT, it is essential to consider personal data of individuals and implement mechanisms and laws that guarantee them.

As for Tunisia, the protection of personal data is guaranteed by the constitution and explained by an organic law, the law 2004-63 on personal data protection.

For Morocco, a legal provision is in the process of being passed. As for the rest of the countries, legal provisions at this level do not exist for the moment.

Intellectual property

Today, the protection of intellectual property represents one of the signs of the entry in the Society of Information and Knowledge.

Generally speaking, countries that put into place a legal environment for ICT and electronic commerce have also considered and regulated intellectual property (following the example of Algeria, Egypt, Morocco, Mauritania and Tunisia). For the other countries, this aspect has not been tackled yet (Libya, Sudan).

Consumer protection

Electronic commerce cannot thrive without a good system of consumer protection. A regulator authority is therefore essential to arbitrate between the seller and the buyer.

Most of North African countries have an authority protecting the consumer. Tunisia integrated the protection of the consumer in its law on e-Commerce. The other countries have not done it yet.

3.2.2. Implementation of payment and exchange systems

The state of the electronic money infrastructure is not much advanced in all the sub-region.

However, all the countries committed themselves in the restructuring of their financial, banking and electronic money systems. This restructuring goes along with the implementation of environments promoting foreign investment and trade enhancement. All countries have lightened, sometimes significantly, customs and tax duties and they are simplifying and improving import and export procedures as well.

By encouraging foreign investment and competition at national and international level, North African countries tend to the complete liberalisation of the financial and banking sectors.

The creation of an interbank group as well as the creation of institutions governing electronic money lead to the development of the financial fabric of these countries and, afterwards, will enable the implementation of on-line payment systems. However, the countries achieved different stages of progress, some of them having started to develop earlier than others, which is not likely to improve trade between the countries of the sub-region.

Some of the countries have already put into place an interbank group and an institution governing electronic money. It is the case of Tunisia, for instance, who developed an owner payment system, the e-dinar, and thanks to its electronic money institution, Tunisia progressed towards on-line payment with bank cards. For the moment, Morocco and Mauritania have put into place the basis necessary to the development of electronic money. Both countries now have interbank groups and are ready to create the regulatory authorities of electronic money and to progress towards on-line payment with bank cards.

Morocco and Tunisia are also about to migrate towards EMV standard (Euro Mastercard Visa). As soon as this standard is implemented, the region will have a reliable basis for electronic money exchanges, particularly within on-line commerce.

No currency in the region is totally convertible. However, Morocco, Mauritania and Tunisia use convertibility for current transactions. Moreover, measures have been undertaken to enable and simplify exchange transactions and accounts opening in foreign currency in order to encourage exporters as well as foreign investors.

At regional level, there is no foreign exchange system and the countries are obliged to use international currencies to exchange between them. As a result, the non convertibility of these currencies is a major handicap for the development of commercial practices between the countries of the region.

3.2.3. Implementation of a logistic environment

Electronic commerce presents a component which is essential to its success: logistics. Sales being virtual and non centralised, it is necessary to distribute the goods that are purchased. An e-Commerce system can only be viable with the guarantee that the logistic chain works perfectly and the delivery deadlines are fulfilled. Goods traceability is thus becoming the most essential element of the logistics.

The state of logistics in North Africa is very heterogeneous from one country to another. Some countries have a quite developed infrastructure that covers all the national territory, but for others, the distribution of mail is a problem itself (like in Mauritania or Sudan).

Despite the existence of some very positive aspects, the development of logistics in the region is not satisfactory. This observation is even more negative when we consider the existing logistics between the countries. From this point of view, the North African region suffers from a very huge lack, which makes any electronic commerce between these countries quite difficult. The completion of the Maghreb great motorway (to be linked with the Mashreq) seems to be the most promising initiative for the development of exchanges between the countries of the region.

3.3. Brake on e-Commerce

E-Commerce is the sector that can progress the most rapidly at national and regional level. Electronic commerce represents an important factor that can promote national and regional trade. That is why national and regional strategies (AISI) focused on electronic commerce.

3.3.1. At country level

Even though all North African countries are aware of the role that can be played by ICT in the economic development and of the importance of the implementation of ICT strategy, this awareness as well as the reactivity for the implementation of such a strategy took place differently according to the countries.

The situation is all the more difficult since the development of ICT needs a full range of prerequisites at the institutional, legal, technical, etc. levels. And less advanced countries do not have necessarily these prerequisites in terms of ICT development.

Illiteracy and the limited level of training in some North African countries represent an important hindrance to the diffusion of ICT, the diffusion of culture and education being necessary prerequisites.

Electronic commerce adds to the pre-existing development of ICT, and in this area, huge hindrances still remain in the countries. Here again, countries achieved very different stages of progress. Egypt, Morocco and Tunisia have already succeeded in the integration of electronic commerce in many fields whereas the other countries are still at the stage where they study the legal environment prior to the development of electronic commerce.

The study shows that the brakes on e-Commerce in North Africa are first (a) the lack of infrastructures, (b) human resources that remain insufficiently trained in many countries in the use of ICT and the practice of electronic commerce, (c) the trust of the population in the virtuality of electronic commerce, (d) the legal aspect still not adapted to electronic commerce in most of the countries of the region, (e) the banking and financial environment not adapted to electronic commerce or not sufficiently developed at population level and finally, (f) the logistics issue that still exists even for most advanced countries in terms of ICT and electronic commerce.

3.3.2. At regional level

At regional level, hindrances to electronic commerce are not only the result of the individual hindrances of each country but are also and mainly the consequence of inexistent regional dynamics.

The study shows in particular that the brakes on the development of e-Commerce at regional level are the result of (a) restricting laws relating to foreign exchange among North African countries, (b) the inexistence of standardisation or even co-ordination of the e-Commerce legal frameworks among the countries, (c) the absence of mutual recognition of the electronic signature among

these countries, (d) the absence of free movement of goods between the countries, (e) the very poor transport logistic between the countries, (f) the countries seeking to develop exchanges with Europe rather than their North African neighbours leading to a very poor regional trade integration, and finally (g) the laws and strategies of the different countries that are undertaken without consulting the others and which therefore lack of mutual recognition.

3.4. Lessons learned

The study shows many lessons learned from the current situation in North Africa, mainly (a) the successful experiences in some countries that may be duplicated in the neighbouring countries, (b) the adoption of common standards that would be useful to all countries including those most advanced because, from now on, it would allow for a homogeneous progress towards a regional integration in ICT.

4. For a successful electronic commerce in North Africa

4.1. SWOT analysis

The study includes a SWOT analysis, Strengths, Weaknesses, Opportunities and Threats of electronic commerce in North Africa. The analysis is summarised hereafter.

4.1.1. Strengths

- **Existing trade agreements among AMU countries.**

AMU is meant to become a free trade area among its member countries. These countries established free trade agreements between them, which should help them to achieve sound trade integration and to do more trade.

- **Existing free trade areas with Arab countries**

All countries in the region have free trade areas with the other Arab countries. All these countries belong to at least one regional grouping (AMU, AFTGA). As a result, the basis exists to promote a regional trade dynamics.

- **Very favourable ICT strategies**

The majority of countries in the region are aware of the stakes of digital economy. They have all adopted strategies with the objective of expanding digital culture through the implementation of appropriate infrastructures and through training and education.

- **Very positive e-Commerce strategies**

Electronic commerce is one of the main priorities in the strategies undertaken by the countries of the region. They are admittedly at different stages of progress but countries have anyway put into place a legal and institutional environment adapted to the development of the sector.

- **Boom in the ICT sector**

ICT have been really booming in the North African region. The telecommunication infrastructures develop at an exponential rhythm, as well as the number of users. Penetration rates of IT and Internet equipment are increasing and these are about to become accessible to the overall population.

- **Human and technical skills**

Some countries, more than others, counted on the development of human and technical skills and made it a priority in their strategy. Education and training take on a particular importance in some countries which focused on the upgrade of human resources as consumers but as technology producers as well.

- **Some countries own internationally recognised skills in ICT.**

By counting on the development of technical resources, some countries succeeded in taking their skills to an international level. These skills can strongly develop the ICT sector and electronic commerce in the region.

- **Appropriate legal frameworks**

At different stages of progress, countries put into place legal and institutional environments that were more or less adapted to the development of electronic commerce. For some countries, the legal framework is much more advanced than the state of the applications using electronic commerce and ICT in general.

4.1.2. Weaknesses

- **Very poor regional trade integration**

North Africa and AMU represent the regional integrations having the poorest exchange rates in Africa and among the poorest in the world. Electronic commerce is the corollary of traditional trade. E-Commerce cannot develop between these countries without a real regional trade dynamics.

- **Restricting laws relating to foreign exchange (necessary use of other currencies)**

Currencies of the countries in the region are not totally convertible. To do trade with each other, countries must use other convertible currencies. This can only slow down exchanges between these countries.

- **No mutual recognition of the electronic signature among the other countries.**

Some countries have an authority that governs electronic signatures. The problem appears when these countries exchange between themselves electronically: there is no mutual recognition of these signatures.

- **No free movement of goods among the countries**

There is no free movement of goods among North African countries, free movement of goods being an essential condition for the development of regional trade integration.

- **Poor transport logistics among the countries.**

Some countries do not have a good internal logistics for the moment. By extension, transport logistics among the countries of the region is very poor and is not sufficiently adapted to a context of on-line commerce where the flow of transactions is continuous and the tracking of parcels represents a crucial aspect.

- **No recognition, standardisation or even co-ordination of the legal frameworks of e-Commerce among the countries.**

Indeed, most of North African countries implemented a legal framework more or less adapted to electronic commerce but these systems are heterogeneous and there is no standardisation in all these countries that would enable electronic commercial exchanges, for the time being.

4.1.3. Opportunities

- **Strong commitment of governments in ICT and electronic commerce**

Countries of the region have already put into place ICT and e-Commerce strategies and carried out huge achievements or are about to do it. In any case, the climate is very favourable to ICT and e-Commerce.

- **Tremendous improvement of ICT indicators**

For all countries in the region, ICT indicators are rising. For some of them this rise is significant. A good penetration of IT and Internet is a necessary basis to the development of e-Commerce.

- **Existence of BMICE: *Banque Maghrébine d'Investissement et de Commerce Extérieur* (North African Investment and Foreign Trade Bank) which task will be to promote the creation of a unique North African currency.**

The creation of the BMICE promises to be a real success at the financial, monetary and even legal level. This progress will affect trade among AMU countries and thus the electronic commerce.

- **Progress in the construction of the trans-North African motorway to be linked with the Mashreq**

The transports logistics may be solved by the completion of the trans-North African motorway that will have to be linked afterwards with the one of the Mashreq.

- **True will of the AMU countries to get closer to one another commercially.**

The negotiations are more and more turned towards economic approximation, at least commercial approximation among AMU countries.

4.1.4. Threats

- **Seeking to develop exchanges with Europe and not with North Africa**

For the moment, all North African countries find it more to their advantage to get closer to Europe than to their African neighbours. Today, some transactions between neighbour African countries go through Europe first.

- **Entry into force of the free trade agreements with EU**

The entry into force of the free trade agreements with EU will lead to North African countries becoming even closer to Europe. This can relegate to a secondary position and even jeopardise the commercial relationships among North African countries.

- **Laws and strategies of the different countries are undertaken without consulting the others**

Within the context of political and economic union, laws and strategies must be defined in consultation with the other members. This is not the case with neither North Africa nor AMU.

5. Conclusion

With definite and ambitious ICT strategies, North African countries seem to be in the right way towards the expansion of digital culture and the development of the intangible economy. Thanks to the countries' promising ICT indicators, North Africa is becoming an emerging region in this area. However, many efforts remain to be done in order to compete with developed countries.

Indeed, even though most North African countries have defined and started the implementation of an ambitious ICT strategy, this process takes place at a pace which depends on their means and priorities.

Several North African countries have quite well progressed in all ICT environments (legal, institutional, infrastructural, etc) and several projects have been successful, providing the region with lessons to learn and models of best practices.

However, we have no choice but to notice that the region suffers from a large heterogeneousness when it comes to the stages of progress in the expansion of digital culture. If some countries succeeded in reaching an international level in this field and are shown as examples, other find many difficulties in putting their strategies into place, when they have one however.

Yet, the definition and the implementation of strategies have always been made in an independent perhaps even competitive manner, without co-ordination between the countries of the region even if some countries were inspired, rightly by the way, by the experience of others. It is essential that the strategies of the countries be co-ordinated together in a spirit of mutual recognition and development that can only be beneficial for the development of the different countries.

Thus, the development of ICT will represent a lever for the development of e-commerce and Trade in the region, with the likely result of developing the regional integration of North Africa and trade among the countries. This trade could be catalysed by the implementation of a regional electronic commerce platform that would be used mainly to put on line information about the commercial laws of the countries and business opportunities at first. Then, the platform would progressively switch to a transactional site on which purchase demands would be posted as well as effective business proposals and presentations of companies and products. Subsequently, we may imagine establishing foreign trade procedures among North African countries or more exactly inter-connecting the existing platforms or platforms to be developed that will enable the on-line definition of such procedures.

In order to help the ICT economic sector to better develop, the North African countries that are most advanced in this field should combine their efforts to promote the ICT sector and attract EDI, in order to get a better strike force, knowing that the size of their most important competitors is closer to the size of all North Africa than to one of its countries taken separately. Sometimes, they are much bigger than the region itself.