

The development of e-commerce in Algeria during the period 2010-20121, reality and obstacles

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Abstract:

E-commerce has experienced tremendous development, especially at the start of the 21st century. This research aims to study the evolution of the reality of electronic commerce at the global, Arab and Algerian levels.

The results showed that there is great progress in e-commerce globally, and some Arab countries have made remarkable progress in e-commerce, while many other Arab countries have experienced great delays. As for Algeria, it still lags considerably behind in the field of electronic commerce, despite the efforts made to keep pace with technological transformations. It has also made significant progress in the adoption of information and communication technologies. Algeria still has to work a lot to keep pace with global developments, adopting a well-defined and well-studied strategy.

Keywords: E-commerce, internet, information and communication technologies, Algeria.

JelClassificationCodes: L 81, L4

1. INTRODUCTION

The second half of the 20th century saw many developments that affected many areas. Technological development is one of the most important manifestations of the period. And this through the emergence of the international information network (Internet). Moreover, the development of the latter has become the most important means on which the countries of the world, especially the developed countries, rely to conclude trade, advertising, marketing and trade agreements. This has led to the intensification of competition in an environment characterized by rapid changes, and these changes have resulted in the spread of a new concept, which is electronic commerce.

The volume of e-commerce has witnessed a significant acceleration in the recent period, especially in the wake of the Covid-19 pandemic. 1.5 billion people in 2020, up from around 1.4 billion people in 2019. E-commerce sales are 26.7 trillion \$ in 2020, an 8% increase from 2019. This equates to 30% of global GDP. During the disruption caused by the COVID-19 pandemic, e-commerce has been a lifeline for both sellers and buyers.

Electronic commerce has offered great opportunities for countries and institutions to expand and sweep global markets, thanks to the rapid spread of the Internet and its significant contributions to the growing volume of electronic commerce globally. In order to keep pace with these developments, the majority of countries have sought to prepare their economies and institutions for the transition to a digital economy based on the Internet and electronic commerce. Algeria being an integral part of this world, it has become obligatory for it to support these developments and to integrate into the world economy.

Research problem: Through the above, we will try to answer the following problem:

What is the evolution of Algeria's adoption of electronic commerce? What is its position in the world and in the Arab world?

Research hypothesis: The study assumes that:

Many Arab countries have adopted electronic commerce and have been able to keep pace with various technological developments; some of them have held very important positions in the application of information and communication technologies. Also, Algeria has not experienced a great development in the field of electronic commerce, despite the great potential it has to develop and benefit from its advantages.

The aim of the research:

The research thesis aims to identify the reality of the adoption of electronic commerce in Algeria and in the Arab countries.

The importance of research:

The importance of the research paper is reflected in the fact that it studies electronic commerce, which is a topic of great importance to both countries and institutions.

The method used in the research: In order for us to achieve the objective, this research paper relied on the descriptive analytical method.

2. E-commerce definition, its forms and benefits

Electronic commerce is one of the most important transformations that have taken place from the end of the last century until today. The following will be exposed to its concept, shapes and characteristics.

2.1 E-commerce definition

There are many definitions related to the term electronic commerce, as there are many international bodies and organizations that are familiar with it, and the following will be mentioned the most important of them:

The term electronic commerce refers to the use of the Internet and the World Wide Web to exchange transactions of all kinds with the use of digital technology in commercial transactions between businesses and individuals (Kenneth C, Laudon, , & Carol Guercio Traver, 2001). Each of the televisions belongs to automatic media networks and the Internet, and their common peculiarities are represented in information processing, which includes text, data, sound and image (Goldstein & David O'connor, 2002).

The World Trade Organization defines electronic commerce as the activities of producing, distributing, marketing, selling or delivering goods and services to the buyer through electronic media.

According to the Organization for Economic Co-operation and Development, electronic commerce includes all forms of business information that span between businesses and individuals and is based on the exchange of electronic data.

Electronic commerce is also defined as a group of buying and selling operations that take place over the Internet and include information exchange and transactions, as well as financial and legal information services. This business relies on a variety of means to carry out transactions, the most important of which are fax, telephone, internet and information networks (Iartinet & Ahmed Silem, 2005).

In general, and through the previous definitions, we conclude that electronic commerce is the set of commercial transactions to which the Internet contributes, in whole or in part.

2.2Forms of E-commerce

Electronic commerce takes many forms, depending on the parties involved, which can be cited as follows:

2.2.1. E-commerce between Business and Business (B to B):

By entering into commercial agreements and issuing invoices.... etc. Exchanges can take place directly between buyers and sellers or through a third party responsible for the so-called electronic market.(Sherif, 2007).

2.2.2. E-commerce between business and consumer (B to C):

By displaying the institution's products and entering into agreements with consumers wishing to obtain the products ... etc. This type of exchange is arguably the most viable aspect of e-commerce as it allows consumers to purchase goods and services directly over the Internet for personal use.

2.2.3. E-commerce between the government and Business (B to G):

It includes all the practices between institutions and government agencies to conduct business transactions.

2.2.4. E-commerce between government and consumer (G to C):

It is represented in all transactions that bring the government and the consumer together to facilitate the services provided by the government to its citizens in response to their demands at a lower cost.

2.2.5. E-commerce between consumer and consumer (C to C):

This trade takes place between consumers by offering certain people their personal items on a site and other consumers to request them.

2.2.6. E-commerce between the consumer and Business (C to B):

Represented by individuals who sell goods and services to businesses.

2.3 Advantages of e-commerce

E-commerce offers several benefits, whether for businesses, consumers or the economy as a whole (government).

2.3.1. Advantages of e-commerce for companies:

E-commerce offers several advantages to businesses, the most important of which are (Amor, 2000):

- Reduce costs;
- Equal opportunities between institutions;
- Speed and inventory control;
- Continuous communication with customers, in particular consumers;
- abundance of information (MERCERON, 2001)

2.3.2. The advantages of e-commerce for the government:

E-commerce offers several benefits to government, the most important of which are:

- Electronic commerce enables the activation of businesses, especially small and medium-sized businesses.
- Increase government transparency and improve government services;
- Improve the trade balance;
- Increase in productivity and economic growth;
- Maximize the use of opportunities in the technology market.

2.3.3. Benefits of e-commerce for consumers:

E-commerce offers several benefits to consumers, the most important of which are:

- Continuity of service 24 hours a day, all year round and everywhere;
- Freedom of choice and arbitration between available goods and services;
- Low product prices;
- Achieve customer satisfaction thanks to the detailed information available on the products in record time, which helps to make the optimal decision.

Fig.1.The seven policy areas of the E-Commerce for All initiative



Source: (UNCTAD, 2017)

3. The development of electronic commerce

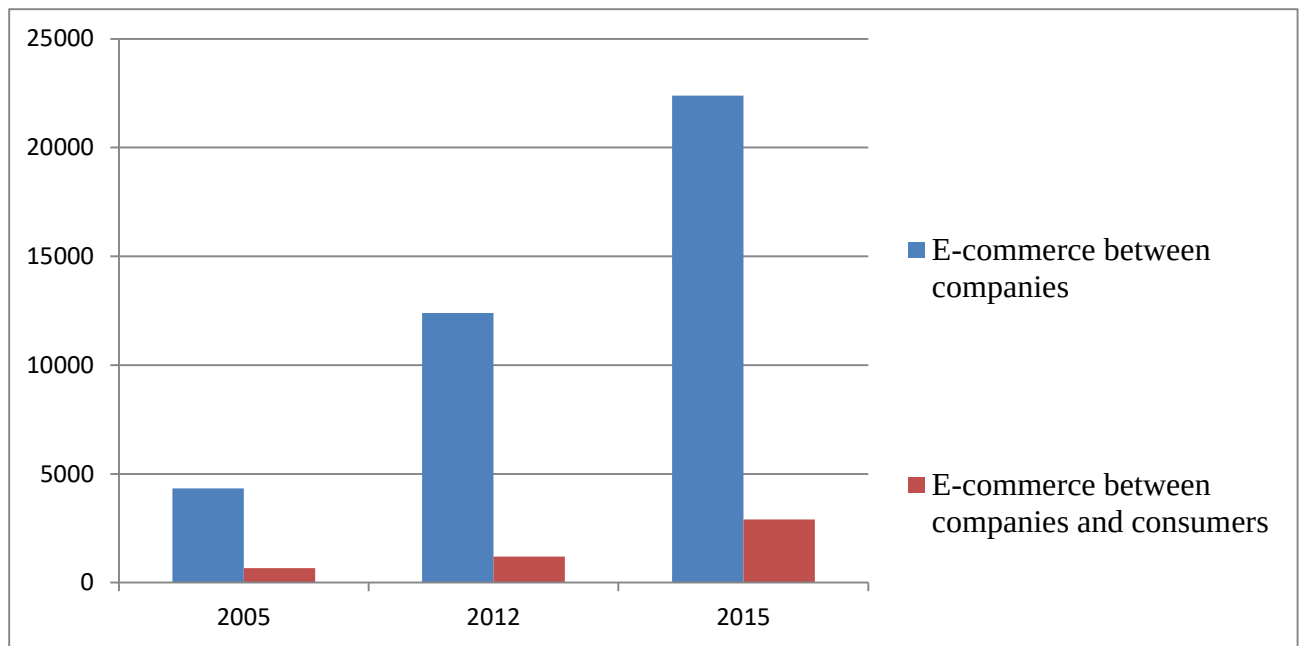
In recent years, the digital economy has created new opportunities for trade and development and has helped many small businesses in countries with different levels of development to more easily connect to global markets and open new avenues for generate income.

3.1. The reality of the development of electronic commerce at the global level:

Technological innovations and e-commerce modalities provide opportunities for businesses of all sizes to take part in national and international trade through the adaptation of supply chains, reduced costs and expanded market reach. Exports of ICT services increased by 40% between 2010 and 2015, and global e-commerce sales reached nearly 25.3 trillion \$ in 2015 (UNCTAD, 2017). The percentage of e-commerce between the same institutions was estimated to be almost 90% of total e-commerce, while the percentage of e-commerce between institutions and consumers was only 10%; this is due to the significant increase in the number of Internet users from 2010 to 2015 by 60%. Over 70% of the population in a number of developed countries already purchase goods and services via the Internet, but this percentage is very low in most least developed countries, as it was only approaching 2% in 2015 (UNCTAD, 2017).

Fig.2. Growth of e-commerce activities over the period 2005-2015

(billion dollars)



Source: (UNCTAD, 2017)

E-commerce at the start of the 21st century experienced a significant acceleration, as the number of business-to-business e-commerce cases reached 22.3trillion \$ EU in 2015 (Fig. 2.); Business-to-consumer e-commerce revenue was 2.9 trillion\$ EU. According to the US Trade Commission, e-commerce between businesses and consumers (Business to Consumer) has also seen a continuous increase, with an increase of 12% between 2010 and 2011.

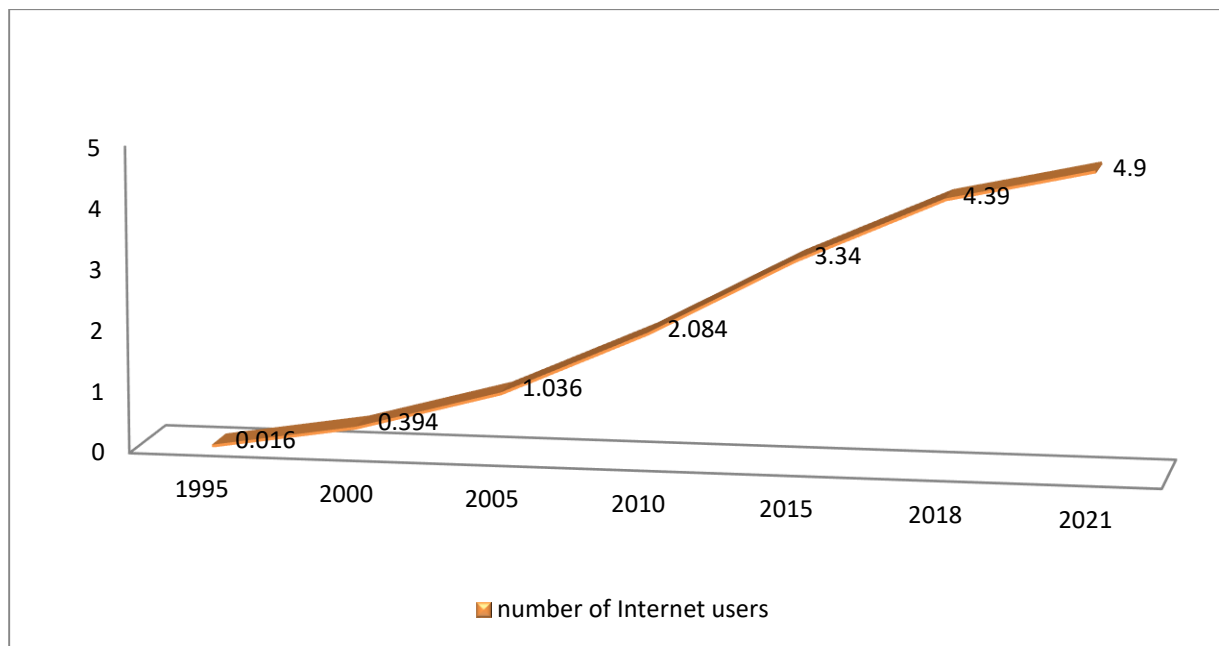
Table 1. Evolution of the number of Internet users in the world over the period 1995-2018 10^9 Users

	1995	2000	2005	2010	2015	2018	2021
Number of Internet users	0,016	0,394	1,036	2,084	3,340	4,390	4,9

Source: Researcher preparation based on International Telecommunication Union data statistics for several years.

In 2021, the number of internet users in the world stood at 4.9 billion, which means that almost two thirds of the world's population is currently connected to the World Wide Web. The volume of e-commerce has witnessed a significant acceleration in the recent period, especially in the wake of the Covid-19 pandemic. The pandemic has led to a further acceleration of digital transformations. Digital solutions have become essential to allow people and businesses to continue some of their economic and social activities remotely.

Fig.3. Evolution of the number of Internet users in the world (Users 10⁹)



Source: Researcher preparation based on International Telecommunication Union data statistics for several years

Figure 03 shows the evolution of the number of Internet users across the world over the period 1995-2021, and through the figure it is clear that there is a very large and accelerated development in the number Internet users, reaching 4.9 billion users in 2021. The Covid-19 pandemic has significantly changed trade patterns and encouraged the growth of online purchases and services in domestic markets where movement control and consumer anxiety have discouraged physical transactions (United Nations, 2021, p. 2).

China is also the world leader in e-commerce, be it business-to-business or worker-to-consumer in terms of income. In 2011, the number of Internet users reached at least 550 million users (or 40% of the population), including 220 million online buyers; with this, it achieved a turnover of 65 billion euros and ranked third in the world (OMC, 2012). The number of consumers who prefer online shopping in 2017, nearly half a billion consumers (السعودية, 2019). The United States of America is also the world's second largest market in 2017 in terms of e-commerce. Britain in Europe and the world is considered one of the largest and most advanced markets for e-commerce, business-to-business and consumers, with over three-quarters of the adult population making up Online purchases.

Singapore is the third largest e-commerce market in East Asia in 2017, despite its small population. South Africa is one of the largest business-to-consumer e-commerce markets in Africa.

3.2. The reality of the development of e-commerce in Arab countries:

The factor of communication via the Internet is a very important factor in the field of electronic commerce. We note that there is a relative delay in the use of the Internet (Table 2), particularly in Egypt, Morocco, Tunisia and in Algeria. If some other Arab countries have

experienced significant improvement in this area, this is of course due to the efforts made by these countries to make better use of information and communication technologies.

Table2. Evolution of the percentage of Internet users in certain Arab countries

	United Arab Emirates	Kuwait	Bahrain	Saudi Arabia	Egypt	Morocco	Tunisia	Algeria
2010	68,0	61,4	55,0	41,0	21,6	52,0	36,8	12,5
2016	90,6	78,4	98,0	73,8	39,2	58,3	50,9	42,9
2020	95	98	96	82	54	62	55	48

Source: Prepared by the researcher based on ITU data statistics for the years 2010 , 2016 and 2020

Some Arab countries also saw significant improvement in the ICT sector in 2020, and this happened in Bahrain, Qatar and the United Arab Emirates. While others have remained at the bottom of the world, as in the case of Tunisia, Morocco and Algeria; this is due to insufficient efforts in this area. Through the following table, the ranking of some Arab countries in the world according to the ICT index will be highlighted.

Table3. Ranking of some Arab countries at the global level according to the ICT index in 2017

	Bahrain Algeria	Qatar	United Arab Emirates	Saudi Arabia	Tunisia	Morocco	Algeria
World Rank	31	39	40	54	99	100	102

Source: Prepared by the researcher based on ITU data statistics

Electronic commerce has developed in some Arab countries and has occupied important ranks in the world. Where the UAE dominated Arab countries in 2018 and ranked 33rd globally; While many Arab countries have remained at the bottom by occupying the last rank as shown in the table above.

Table4. E-commerce index for some Arab countries during 2018

	United Arab Emirates	SaudiArabia	Kuwait	Tunisia	Morocco	Libya	Algeria	Egypt
World Rank	33	52	59	79	81	107	111	113

Source: (UNCTAD, 2019)

3.3. The reality of the development of electronic commerce in Algeria:

Rapid technological and economic developments at a global level have led to the growing importance of electronic commerce and the increasing diffusion of its application. This forced Algeria to apply this profession at the national level.

3.3.1. The development of Internet use in Algeria

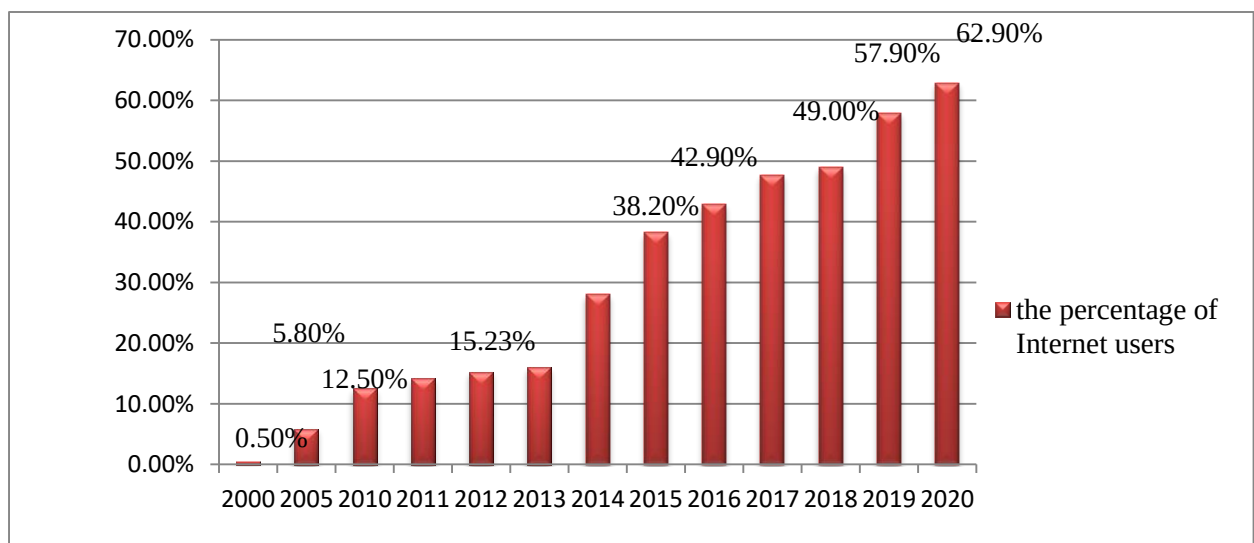
Considering that the Internet is a very important electronic medium which allows the approximation of distances and leads to the removal of barriers, to the reduction of costs and to the increase of the speed and efficiency of transactions. Algeria sought to popularize Internet technology by establishing a national network and linking it to the international network in 1993, and it was dedicated solely to the Center for Scientific and Technical Research and Information. Then the Internet was distributed to the private and the public to exercise their activities in 1998, so that the number of Internet users has experienced a great development thereafter; the number of Internet users raised from 50,000 users in 2000 to 4.7 million users in 2010. The ratio of the number of Internet users to the population reached 13.6% in 2010. We note that the 2000 period in 2010 Algeria recorded a jump. There is nothing wrong with using the Internet, despite its great delay in this area, compared to the development that is taking place on a global scale.

The International Exhibition of Information and Communication Technologies, held on 05/18/2009, bearing the slogan "E-commerce and the knowledge economy" is considered the first sign of electronic commerce Algerian. As part of the establishment of the knowledge society, the Algerian government launched in 2013 a strategy called "Electronic Algeria", which aimed to develop the information and communication technology sector and popularize the use of this technology, in particular connection to the Internet in all areas. According to a 2013 report published by the Organization for Economic Co-operation and Development, Algeria invested around 4586 million dollars in 2012 in the field of information and communication technologies; of these, \$ 144 million was allocated to program development and \$ 228 million to media and communication services.

Table 5. Evolution of the percentage of Internet users in Algeria

	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Percentage of Internet users	0,5	5,8	12,5	14,2	15,23	16	28	38,2	42,9	47,7	49,0	57,9	62,9

Source: Prepared by the researcher from statistics from the electronic communication center data

Fig.4. Evolution of the percentage of Internet users in Algeria

Source: Prepared by the researcher from statistics from the electronic communication center data

The percentage of Internet use compared to the population in 2010 was 12.5%, as shown in Table 05, reaching 62.9% in 2020. Through the statistics provided, Algeria made a qualitative leap. This development is due to the efforts made by the Algerian government in the field of trafficking with the developments of information and communication technologies taking place at the global level in relation to the knowledge economy.

In 2018, the Algerian government promulgated Law No. 18-05 on electronic commerce. Thanks to her, the general rules related to electronic commerce were determined. In this document, an electronic commerce concept has been developed as the activity by which an electronic supplier offers or guarantees the supply of goods and services at a distance to the electronic consumer through electronic communications in accordance with Article 06 of the Law 18-05 on electronic commerce (officielle, 2018). How many electronic commerce activities in Algeria are subject to registration in the trade register or in the register of traditional and craft industries, as the case may be. A national card for electronic suppliers is established at the National Center of the Commercial Register. The national map of electronic suppliers is also published via electronic communications and is accessible to the electronic consumer in

accordance with article 09 of law 18-05 (officiale, 2018).

3.3.2. The evolution of the ranking of Algeria according to the indicators of e-commerce and information and communication technologies.

The e-commerce index is the most important indicator to measure the extent to which e-commerce has been adopted and developed in a country; it is based on four criteria:

- ❖ Internet use;
- ❖ The degree of security of the server;
- ❖ Rate of use of bank card;
- ❖ Volume of delivery services.

Table6. Evolution of the ranking of Algeria according to the e-commerce index during the period 2016 - 2020

	2016	2017	2018	2019	2020
World Rank	95countries out of 137 countries	97countries out of 144 countries	111countries out of 152 countries	107countries out of 152 countries	80countries out of 152 countries

Source: Prepared by the researcher based on various reports from the Organization for Economic Co-operation and Development.

Table 6 shows the evolution of Algeria's ranking according to the electronic commerce index during the period 2016-2020, and through it, it is clear that Algeria is still in the last ranks and has no significant improvement in this area, despite its ranking 80th out of 152 in 2020, a country with an improvement of four ranks compared to 2018. Thus, Algeria remains far from the first ranks and even far from its neighbors Tunisia and Morocco (79th and 81st respectively in 2018), despite all the efforts and capacities devoted by the Algerian government to develop and improve electronic commerce within it.

Table7. Evolution of the ranking of Algeria according to the information and communication technologies index during the period 2016 - 2019

	2016	2017	2018	2019
World Rank	98countries out of 176 countries	102countries out of 176 countries	83countries out of 176 countries	76countries out of 176 countries

Source: Prepared by the researcher on the basis of various reports from the International Telecommunication Union

Table 7 shows the evolution of the ranking of Algeria according to the information and communication technologies index during the period 2016 - 2019. It is clear that Algeria has reached important ranks in this domain, since it ranks in the ICT index ranking for 2019 76 out of

176 countries. However, this remains insufficient, and the Algerian government must work more to develop and adopt modern information and communication technologies in all fields and for different groups and throughout the national territory. Where limited internet access has been recorded in many rural and remote areas; In addition to expensive access to fix a mobile broadband internet services.

3.4. Obstacles to the development of electronic commerce in Algeria and in many least developed countries

Algeria and many less developed countries face several obstacles to improve their global ranking in e-commerce, which can be summarized as follows (UNCTAD, 2019 , p. 10):

- ✓ Insufficient knowledge of governments, businesses and consumers on the importance of paying attention to e-commerce;
- ✓ Limited internet access in rural and remote areas and expensive access to fixed and mobile broadband internet services;
- ✓ Cash on delivery of goods and limited or no access to online payments and the use of credit cards;
- ✓ Inadequate infrastructure for physical delivery of online purchases;
- ✓ An education system that is not adapted to the development of the digital economy;
- ✓ Lack of business development and e-commerce skills for small and medium enterprises;
- ✓ Unsuitable financial mechanisms, preventing start-ups from launching into e-commerce;
- ✓ Structural barriers that prevent women and youth from engaging in e-commerce, limiting equal opportunities and more inclusive development;
- ✓ Lack of statistical data on e-commerce.

4. CONCLUSION

With the tremendous developments in international communications and information technology, electronic commerce has become a part of the international economic reality, and its use has emerged today for the many advantages it grants, whether to businesses, governments or consumers. By examining the reality of electronic commerce in some Arab countries, it was concluded that these countries have experienced major transformations in this area, in particular some Arab Mashreq countries such as the United Arab Emirates and Saudi Arabia; while many other Arab countries are still ranked last in the world in terms of e-commerce index. As for Algeria, it recorded a significant improvement in terms of information and communication technologies on the one hand. On the other hand, with regard to electronic commerce, Algeria is still at the back of the pack of countries in the world, despite the modest initiatives in the field of the application and adoption of this commerce. In this context, it is worth giving some recommendations for successful adoption of e-commerce:

- Update legal frameworks on e-commerce to facilitate communication between businesses, and between businesses, consumers and government, and expand the use of e-commerce in the local market;

- Dissemination and wide awareness of legal frameworks related to electronic commerce among the public and private sectors and even individuals;
- Adapt the education system to the national economy, in particular small and medium-sized enterprises, particularly in the productive field;
- Combat bureaucracy and facilitate administrative procedures;
- The development of electronic payment methods, which is considered to be the most important challenge facing Algeria, in addition to strengthening confidence in the use of online payments.

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