

The Problem of Electronic Banking in The Light of Electronic Commerce of Algerian Banks

إشكالية العمل المصرفي الإلكتروني في ظل التجارة الإلكترونية للبنوك الجزائرية

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Abstract: Abstract

E-commerce has witnessed this huge widespread and widespread growth in a short period, and this indicates the significant gains that have been achieved, and in this regard the degree of awareness of these gains differs from one country to another and as for Algeria, it is still a beginner in this field.

The study aimed to know the reality of electronic commerce in Algeria by highlighting the efforts made in this field, as we will try to identify the reality of electronic payment methods and the obstacles and ways of success of electronic commerce in Algeria in particular.

Key words: E-commerce; E-payment; Digital economy; Internet.

الملخص :

شهدت التجارة الإلكترونية نموا هائلا و انتشارا واسعا في فترة و جيزة، و هذا ما يدل على المكاسب الكبيرة التي جاءت بها، و في هذا الصدد فإن درجة إدراك هذه المكاسب تفاوتت من بلد إلى آخر، أما بالنسبة للجزائر فلا تزال مبتدئة في هذا المجال.

هدفت الدراسة إلى معرفة واقع التجارة الإلكترونية في الجزائر من خلال تسليط الضوء على الجهود المبذولة في هذا الميدان، كما سنحاول التعرف على واقع وسائل الدفع الإلكتروني و معوقات و سبل نجاح التجارة الإلكترونية في الجزائر بصفة خاصة.

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1. Introduction :

All countries and societies have recognized the importance of the new economic system based on globalization. Today, the world is facing a huge flow and a comprehensive information revolution that has contributed to the growth and development of trade relations and exchanges. It's called E-Commerce — which has become a reality in all parts of the world where there is no electronic commerce without electronic means of payment that has become a necessity, urgency and development requirement to increase its contribution to e-commerce as well as to develop local and marketing production sectors and provide opportunities. But in order for the Arab countries, especially Algeria, to benefit from electronic commerce and its means of payment, it is necessary to provide the necessary requirements of technological infrastructure, regulations and legislation to keep abreast of all modern developments. E-commerce is one of the These developments. In the light of this introduction, we raise the following problem: How much does Algeria depend on electronic commerce and what are the repercussions of payment methods on it?

We ask the following questions:

- What do we mean by electronic commerce?
- What is the reality of e-commerce in Tunisia, Egypt, UAE
- What is electronic payment?
- What is the reality of e-commerce in Algeria?
- What is the reality of using e-payment in Algeria?

Objectives of the study:

The aim of this study is to shed light on the reality of electronic commerce in Algeria by reviewing the efforts made in this field, as well as to show obstacles and ways of its success.

the importance of studying:

The importance of the study lies in the gains achieved by electronic commerce, and this is evident through the wide spread and growth that it achieved in a short period of time. Therefore, Algeria must be located in relation to this trade.

1. The reality of internet use in Algeria :

To talk about e-commerce in Algeria, it is necessary to first look at the digital and information infrastructure of this country, and that the most important element of e-commerce is the Internet infrastructure of advanced communication and information, the human resources needed to manage it and the causes and obstacles their adoption and ways and solutions

1.1. Internet and number of users

As part of the modernization of infrastructure and services, connections to the fiber optic network are continuing. In the first semester of 2015, 84 municipalities out of a total of 1296 were connected to the fiber optic network, in order to meet the needs of Algerian Internet users and to provide quality service. The development reached

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in the first hexagons of 2015 about 357 Gb/s. The following table gives the most important indicators as follows.

Table 1 : Information and communication technology indicators for the period 2012 to the first semester of 2015

Indicators	2012	2013	2014	First semester of 2015
Fiber optic length (Km)	46231	50800	61556	66958
N° of municipalities connected to fiber optic	1000	1081	1229	1296
National internet domain view (MB/S)	130000	172021	348000	1170000
International internet dmain view (MB/S)	104448	166000	278000	357000

Source: Ministry of Post and Information and Communication Technologies website 2018 www.mptic.dz

We note from the table that from year to year the value of these indicators increases, which gives a clear indication that Algeria has an infrastructure of this technology and has the currency of integration into the digital economy.

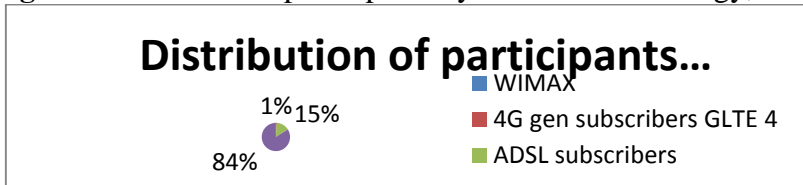
- Number of Internet subscribers :

In the first six of 2015, the number of subscribers in Algeria quadrupled in one year to close to 10 million in 2014, including 8231905 mobile subscribers, and is expected to increase further with The introduction of wireless high flow technology for telephony (GLTE4).

The percentage of Internet subscribers was estimated at 84 per cent in 2014 for 3G mobile technology while Wimax technology remains low in use. Despite the relatively high price of 3G technology, Algerian citizens prefer to use it because Internet services are available and easy to access, as well as mobile means of communication such as smartphones and tablets and the following form gives these percentages as follows :¹

¹ بوجحيش خالدية و البشير عبد الكريم دور تكنولوجيا المعلومات و الاتصال في تطوير مخرجات الابتكار (دراسة مقارنة بين الجزائر وتونس) جامعة حسنية بن بوعلي - الجزائر.

Fig.1 : Distribution of participants by nature of technology, 2014



Source: Ministry of Post and Information and Communication Technologies www.mptic.dz

Table 2 : Algeria's position among the Arab States with regard to the Internet

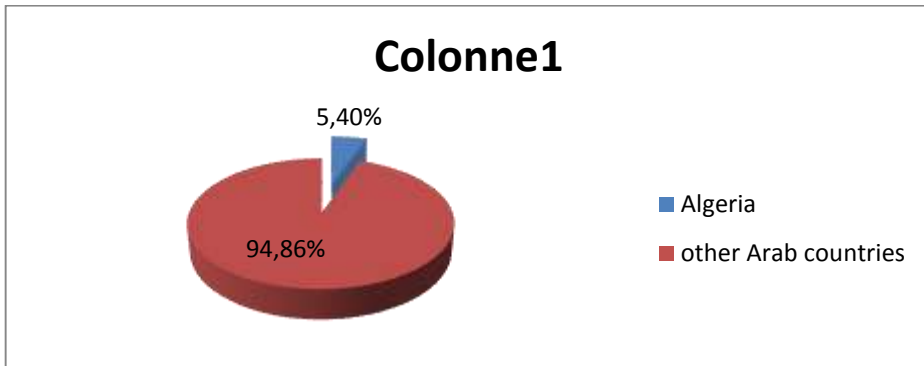
Rank in relation to the number of internet users	country	Number of internet users 2014	ratio	Rank in relation to the number of internet users	country	Number of internet users 2014	ratio
14	Saoudi Arabia	1830000	1.41	9	Tunisia	50553704	3.95
17	Qatar	216400	0.16	10	Lebanon	3336517	2.57
4	United Arab Emirates	8807226	6.78	1	Egypt	46200000	35.61
13	Oman	2584316	2	5	Algeria	6669927	5.14
16	Bahrain	1297500	1	8	Yemen	5210593	4.01
11	Kuwait	3022010	2.32	6	Syria	5920553	4.56
15	Libya	1362604	1.05	12	Iraq	2997884	2.31
7	Jordan	5700000	4.39	3	Sudan	9307189	7.17
2	Morocco	2020715	15.5	18	Palestine	n/a	n/a
Total						12972357	100
						7	

Source: www.internetworldstats.com

From the table, Algeria ranked fifth for the number of Internet users in 2014, after Egypt, Morocco, Sudan and the UAE, with 5.14 percent.

Fig.2 : shows the percentage of Internet users in Algeria relative to Arab countries

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Source: www.internetworldstata.com

1.2. The Growth of using the Internet in Algeria:

Algeria's DZ: Internet Users: Individuals: % of Population data was reported at 59.580 % in Dec 2018. This records an increase from the previous number of 47.691 % for Dec 2017. Algeria's DZ: Internet Users: Individuals: % of Population data is updated yearly, averaging 6.610 % from Dec 1990 to 2018, with 26 observations. The data reached an all-time high of 59.580 % in 2018 and a record low of 0.000 % in 1990. Algeria's DZ: Internet Users: Individuals: % of Population data remains active status in CEIC and is reported by World Bank. The data is categorized under Global Database's Algeria – Table DZ.World Bank: Telecommunication. Internet users are individuals who have used the Internet (from any location) in the last 3 months. The Internet can be used via a computer, mobile phone, personal digital assistant, games machine, digital TV etc.; ; International Telecommunication Union, World Telecommunication/ICT Development Report and database.; Weighted average; Please cite the International Telecommunication Union for third-party use of these data. This can be explained in the following table (**Table (3)**).

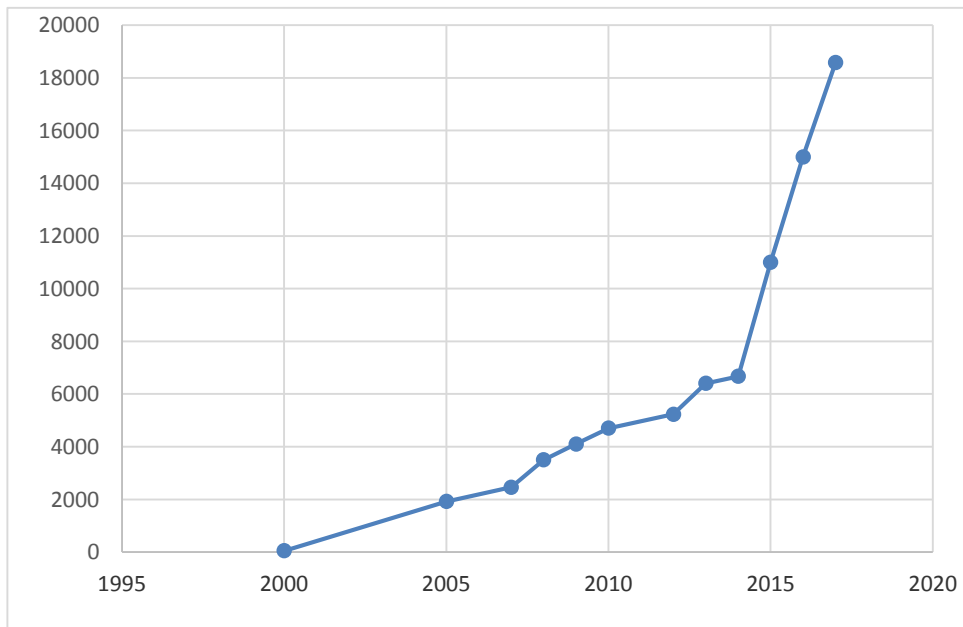
Table 3: Algerian Internet Usage and Population Growth

YEAR	Users	Population	% Pen.
2000	50.000	31,795,500	0.2 %
2005	1920.000	33,033,546	5.8 %
2007	2460.000	33,506,567	7.3 %
2008	3500.000	33,769,669	10.4 %
2009	4100.000	34,178,188	12.0 %
2010	4700.000	34,586,184	13.6 %
2012	5230.000	37,367,226	14.0 %
2013	6404.000	38,813,722	16.5 %
2014	6669.927	38,813,722	17.2 %
2015	11000.000	39,542,166	27.8 %
2016	15000.000	40,263,711	37.3 %
2017	18580.000	41,063,753	45.2 %

The source: www.internetworldstats.com/af/dz.htm 2019/10/15

The significant increase in the use of Internet technology in Algerian society between (2000 -2017) can also be explained by the curve explained (figure below).

Fig 3: Internet Users in Algerian Growth



The source: www.internetworldstats.com/af/dz.htm 2019/10/15

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We also ~~note by analyzing the number of users of social networking sites~~, There were 19 930 000 Facebook users in Algeria in June 2019, which accounted for 46.1% of its entire population.

The majority of them were men - 63.5%. People aged 25 to 34 were the largest user group (7 600 000). The highest difference between men and women occurs within people aged 25 to 34, where men lead by 2 400 000.

But The Messenger users were 10 342 000 Messenger users in Algeria in June 2019, which accounted for 23.9% of its entire population.

The majority of them were men - 66%. People aged 25 to 34 were the largest user group (4 100 000). The highest difference between men and women occurs within people aged 25 to 34, where men lead by 1 500 000

1.3. Some popular websites in Algeria :

youtube.com ، google.dz ،google.com ،ouedkniss.com ،facebook.com ، yahoo.com

2. Reasons and Obstacles for the Non-Reliance of Algerians on Electronic Commerce:

2.1. Reasons for not adopting electronic commerce in Algeria : Among the reasons we find:²

-Informatics literacy .

It is meant by ignorance of the methods and means of dealing with computers and software, as the term illiteracy in modern definitions means does not improve the use of the computer. Therefore, a large group of customers have never sat in front of the computer and dealt with it, so we do not imagine that they can practice their trade. online that focuses on computer use.

-Language barrier.

Where most e-commerce transactions are English

-High cost of getting a computer.

This prevents the spread of this trade, which requires a computer in the first place. Therefore, the proliferation of computers is also linked to the

² محمد بن بوزيان ، التجارة الإلكترونية فرص وتحديات ، المنتدى العلمي الدولي الخامس حول الاقتصاد الافتراضي وانعكاساته على الاقتصاديات الدولية ، خميس مليانة 13-14 مارس 2012 ، ص11

need to consider acquiring not only at the level of the person, but also at the commercial level.

-High cost of using the Internet

The costs of normal communication in our country continue to rise in light of the absence of competition in the telecommunications sector, which the state still monopolize the bulk of which is trying without decreasing the cost of communication via the Internet.

-The immaterial nature of the transaction is intangible .

Many people are not encouraged to deal with people who do not face them face to face and on non-paper electronic media, and this age enters the factor of trust, mistrust and insecurity in this electronic mediation.

-Lack of interest in the country's top administrative bodies.

It is inconceivable that the Ministry of Commerce in our country did not even consider conducting a survey of the extent of people's interest in this type of trade and thinking about its technology or benefiting from the experiences of Western countries in this field.

-The underdevelopment of the Algerian banking system.

In terms of modern payment methods and techniques, this resulted from the control of the values of the monetary society (cash), where most transactions are carried out in traditional cash and not with modern financial handling tool.

-Lack of interest of economic institutions in the country

It's this modern business technology that enables them to open up wider economic horizons, making it almost non-existent in our country.

2.2. Obstacles to the growth of e-commerce in Algeria :

Algeria, like other developing countries, faces many obstacles that stand as a stumbling block in the growth of e-commerce. The most prominent of these challenges can be presented in:

2.2.1 Technical and technological obstacles: These challenges in turn are³ :

2.2.1.1 Weak electronic infrastructure where successful e-commerce requires the establishment of a sophisticated technological infrastructure that will help spread the use of the Internet and provide the appropriate and supportive environment for electronic commerce, capable of bearing the burdens and risks of this modern type of trade. Statistics available in Algeria Poor infrastructure necessary to conduct e-commerce on a wide range of telecommunications networks, software, hard drives and floppy devices

2.2.1.2 Weakness of technology and electronic awareness where there are still some shortcomings in the areas of accreditation, measurements and communication protocols

2.2.1.3 Difficulty in integrating e-commerce with some existing applications and business databases

2.2.1.4 Support for adequate lines of communication and slow Internet

2.2.2. Trade Obstacles :

Moving from traditional trading environment to e-commerce patterns, through which exchanges, business and business activities are carried out via digital data, is a real challenge for businesses and businesses, most of which lack smallpox convertibility to e-enterprises.

Since their inception, many businesses have been closely linked to traditional trade patterns in their business processes domestically and externally, and have not yet sufficiently understood the new concept of e-business, which makes the transition to e-commerce require first their conviction of the importance and usefulness of trade and then adopt policies and develop interim strategies for the transition to e-commerce.

The main obstacles can be summarized in⁴ :

2.2.2.1. Weakness of business expertise and technical assistance to transform business into e-business

2.2.2.2. The lack of capital markets in most countries to support e-commerce projects, because in the absence of capital it is difficult for individuals who have ideas and creations to get opportunities to start their e-commerce projects.

³ علاوي محمد لحسن ، مولاي لخضر عبد الرزاق ، آليات التجارة الإلكترونية كأداة تفعيل التجارة العربية البينية ، الملتقى العلمي الدولي الخامس حول الاقتصاد الافتراضي وانعكاساته على الاقتصاديات الدولية ، خميس مليانة 13-14 مارس 2012، ص 11

⁴ مراد رايس ، عبد الهادي مسعودي ، عوائق اعتماد التجارة في الوطن العربي و الإسلامي ، الملتقى العلمي الدولي الخامس حول الاقتصاد الافتراضي وانعكاساته على الاقتصاديات الدولية ، 13-14 مارس 2012 ، خميس مليانة ، ص 12-13

2.2.3. Legislative and legal obstacles

Legislation and laws on how to regulate e-commerce is one of the most important institutional structures for e-commerce.

The presence of Arab States and countries throughout the world is a real challenge in developing legal legislation and controls that are compatible with modern electronic commerce patterns. The most important legal challenges in electronic transactions can be presented as follows⁵ :

2.2.3.1. Difficulty in prosecuting many electronic and private business transactions such as narcotic drugs (e-pharmacology) and thus a gap between traditional trade and e-commerce laws

2.2.3.2. Gap in tax legislation drafted according to the nature of traditional trade transactions and information technology innovations, which subject the consumer to tax according to traditional trade and not to be subject to electronic purchase of the same good or service

2.2.3.3. The difficulty of identifying the financier and knowing the address of its establishment and legal entity, given the ease of movement of the financier to practice

Electronic business processes without the need to move to the consumer country.

2.2.4. Social and psychological obstacles

The social and psychological causes that hinder e-commerce are related to the characteristics of Algerian society, which still has a lot to wait for you to join the information society, including⁶ :

2.2.4.1. **Digital illiteracy** Algeria, with its 41.6 million inhabitants and an Internet penetration rate that exceeds slightly the regional average, is a mid-sized online market. The country had 18.6 million Internet users at the end of 2017 (Internet World Stats) (21 million according to Hootsuite), accounting for 44.2% of the Algerian population and 4.1% of the internet user population in Africa. This rate is above the African average (35.2%) and below the global average (54.4%).

⁵ علاوة محمد لحسن ، مولاي لخضر عبد الرزاق مرجع سبق ذكره ، ص 12
⁶ سمية ديمش ، التجارة الإلكترونية، حتميتها وواقعتها في الجزائر، مذكرة مقدمة ضمن متطلبات نيل شهادة الماجستير في العلوم الاقتصادية، تخصص تحليل و استشراف اقتصادي، جامعة منتوري -قسنطينة- 2010/2011، ص 283

2.2.4.2. Language One of the challenges of e-commerce is the language factor which is one of the critical issues in using network networks for commercial symptoms, where most e-commerce transactions are conducted in English.

2.2.4.3. Psychological handicap: Among the things that hinder the transition to electronic commerce and make it an unrealistic alternative is consumer behavior and the view of Algerian society towards openness to the outside world and concluded a modern type of trade deals that transcend borders. Algerian consumers were surprised by this modern type. From exchanges and shopping through an electronic intermediary, which led to their lack of receptiveness to the idea of e-commerce and resistance to it, and distinguish consumer behavior with the following :

- Lack of consumer confidence in anonymous vendors who don't see them directly in front of him.

- Not to impart electronic commerce in the customs of society. Many prefer to inspect goods and services closely, touch them, feel them, and perhaps taste before the transaction is concluded.

- Consumer fear of the element of risk that characterizes e-commerce, there is the possibility of transmitting untruthful information from the merchant about the specifications and prices of the product and therefore there is a risk of receiving it permanently.

- Fears of theft of data and information especially related to bank card numbers.

I. Payment methods and systems in Algeria:

I.1. Debit card:

The debit card has been created by each bank. It has established an inter-bank company which is the Bank of Agriculture and Local Development, the National Bank of Algeria, the External Bank of Algeria, the National Fund for Savings and Reserves, the Algerian Popular Loan, the Bank of Local Development, the National Fund for Agricultural Cooperation , the Algerian Baraka Bank, and these banks have established a company for:

- Modernization of payment methods for the Algerian banking system.
- Development and management of cash transactions between banks.
- Improve the banking service and increase the volume of cash circulation
- Placement of the dispensers in banks supervised by the company.

This company manufactures debit cards according to the international standard and prints the obligation of both parties, especially with regard to the delivery times and procedures, as well as linking the electronic distributors and the interests of SATIM through a network that allows for withdrawals, whether internal or Local plus a record connected to the Clearing Authority to liquidate accounts between expenses .⁷

I.2. Interbank cash network :

In 1996, SATIM prepared a project to find an inter-bank cash solution. The first phase of this project, which started in 1997, consists of setting up an electronic cash network between banks in Algeria. This network covers only services related to the issuance of debit cards from the local automated distributor and Therefore, national and foreign private and public banks can offer their customers a cash withdrawal service through an automated distributor. SATIM also ensures the proper conduct of the withdrawal process, monitors counterfeit cards and detects all manipulations.

I.3. Interbank cash treatment centre:

SATIM oversees the inter-bank cash processing center and works to connect distribution centers with various institutions participating in the withdrawal function. This center connects the distributor to the service provider via lines through the national network and the center for objecting to lost or falsified cards. with a license application addressed to the Agency Licensing Center which accepts or rejects the request,

Therefore, it can be said that the withdrawal process is carried out in a semi-direct way, with a network between banks and SATEM, which creates a kind of risk, which makes the demand for it weak for many reasons, including faults and errors, tendencies to freedom, and poor distribution of automatic distributors .

Despite this, ordinary money remains the most used in transactions between Algerians because of lack of confidence in other means. This indicates that the Algerian banking system is still very late in this field.

I.4. Credit card:

The aim of adopting a bank card in Algeria is to unify the technologies that make up the device. Therefore, the optimal method of payment is one that is characterized by simple usage, a standard model for its use (pay+e-line) and a secure payment method for the holder (smart card) and has an electronic clearing device. as well as providing dispensers and equipment necessary for the processing center with terminal devices, in addition to forming a committee of banks representing all participants to determine the development of an electronic payment manual and

⁷ بوعافية رشيد ، الصيرفة الإلكترونية والنظام المصرفي الجزائري ، مذكر لنيل شهادة ماجستير في العلوم الاقتصادية البلدية ص 155

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rules for ~~dealing between traders and employees and dealing with~~ non-payment issues and various disputes.

During its banking reform, Algeria opened the way for the development of e-commerce by issuing its first card: CIB, Visa Gold and CASHU Card

In Algeria, the first credit card, which is the global electronic payment card, CP-I-VISA-Gold, licensed by an international authority - Visa ⁸ - is an example of the state of Bashar, the number of credit cards and the Gold Card is distributed in the following table

Table 4 : Statistics of electronic payment card (gold card) for Algeria post of Bechar

Years	From 2017 to February 2018
Gold card	54208
Distributed	34280 by 64.24%
Undistributed	19928 by 34.76%

Source: Ben harket Hakim, Othmani Ahmed, Statistics of electronic payment card (gold card) for Algeria post of Bechar

We note from the table that the Gold Card was widely distributed in one year, with the distribution rate reaching 64.24%, so 34280. This rapid development in distribution is due to the development of this card and the high demand for it in Algerian banks.

*Statistics on BNA bank card at the level of Bashar Province

Table 5: CIB Interbank Card Statistics

DRE Bechar	A card created and renewed	Distribution card	Cancelled card	A card remained in stock
2016	3282	1748	409	1125
2017	3070	2104	939	27

Source: Ben Harakat Hakim, Othmani Ahmed, e-payment card statistics for the National Bank of Algeria BNA in the province of Bechar

Table 6 : Statistics on BEA bank cards at the level of Bechar province

Indicator	End of November 2014	End of December 2015	End of January 2016	End of February 2017	End of June 2018
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⁸ بوغافية رشيد : الصيرفة الإلكترونية والنظام المصرفي مرجع سبق ذكره ص 174 - 175

Number of gold interbank cards	5594	5694	5704	5784	5750
Number of gold cards	7272	7370	7389	7419	7455

Source: Ben Harakat Hakim and Othmani Ahmed e-payment card statistics of BEA bank of Bechar

The table shows the increase in the number of electronic payment cards of BEA in Bechar, where we note that the increase in the number of cards over the last five years indicates that banks have become playing an important role in the world economy in particular and Algeria in particular, where it is considered the backbone and the first pillar to achieve Directives and objectives of the State.

Table 7: Statistics about the online payment card of the local development bank in Bechar:

Year	2012 to 2014	2015 to 2016	2017
BDL	928 cards	2349 cards	142 cards

Source: Ben Harkat Hakim and Othmani Ahmed, Electronic Payment Card Statistics of the Local Development Bank in Bechar

The table shows the statistics of the local development bank's electronic payment card in Bashar State. We note the increase in the number of payment cards for the local development bank from 928 years 2012 to 2014 and the development of its increase to 2349 from 2015 to 2016 and decreased in 2017.

II. Electronic clearing system:

This system replaced bank payment orders, and the real time total settlement system, which is performed in the electronic payment clearing services for the electronic settlement of interbank payments, appeared within the electronic clearing payments system, which involves the element of certainty where payments are made in Same day without cancellation or delay. This is a system that deals with automated processing of public payment methods: instruments, transfers, truncations, debit and payment with bank cards, using advanced means such as scanners and various software. This system represents the second part of payment systems. developed in accordance with international standards with this goal the ultimate improvement of banking services provided to customers.⁹

The system entered into force with the participation of: Bank of Algeria, all banks, Telecom Algeria, SATIM, Association of Banks and Financial Institutions (ABIF)

⁹ محمد حسين منصور: المسؤولية الالكترونية- دار الجامعة الجديدة للنشر - الإسكندرية 2003 ص 127

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throughout the national territory. This system is based on the information exchange system for digital data and images entered into force on 15 May 2006.

III. Factors impeding electronic payment methods in Algeria:

High cost of using the Internet, in the absence of competition in the telecommunications sector, the bulk of which is still monopolising by the state.

-The lack of interest of economic institutions in the country in this modern commercial technology, which can open them wider economic horizons, making it non-existent in our country.

-The lack of interest of the higher administrative bodies in the matter, it is not reasonable that the Ministry of Commerce in our country did not even consider conducting a survey of the extent of interest in this type of trade and to benefit from the experiences of Western countries in this field.

-The Algerian banking system is lagging behind in terms of modern payment methods and techniques

-The prevalence of illiteracy in the modern sense, i.e., information illiteracy, or ignorance of ways and means of dealing in the field of informatics .

-The widespread illiteracy in our country .

-Inaccuracy due to some errors committed by employees in handling invoices and repeated technical errors lose trust between the bank and the customer

-Credit card theft or loss by third parties .

-High costs for the bank of distributing cards, printing them and granting interest-free loans

-Risk of liquidity on the bank in case of excessive use of the card by customers.¹⁰

IV. Solutions and ways to develop electronic payment methods in Algeria:

In view of the growing global interest in e-commerce, Algeria must recognize the reality of its position on the modern electronic trade map and try to remedy the delays and take advantage of the opportunities created by e-commerce by finding solutions and taking some measures to promote the development of electronic commerce. to trade and create the appropriate enabling environment for its spread.

- Awareness-raising methods:

It is agreed that the shift towards e-commerce and dealing in a virtual world that is free of physical means and does not recognize temporal and spatial boundaries is in fact a major challenge to consumer habits and business ideas that have been stable for decades. The light of a carefully thought-out scientific information plan, customized according to the categories addressed.

The conduct of these enlightenment campaigns aimed at raising awareness and psychological readiness for e-commerce is a key factor in forming a positive public opinion about e-commerce and the benefits of dealing with it among all groups of all ages and cultures, whether individuals or institutions.

¹⁰ عمار لوصيف ، مرجع سبق ذكره ص 180-182

Therefore, the success of these awareness-raising methods calls for their focus on spreading the culture and knowledge of the uses of the Internet and e-commerce. sensitizing the public to the benefits of this trade, creating human resources, and harmonizing the training and education system with this modern type of transaction.

- Technological education:

E-culture is disseminated through the organization of awareness forums, seminars and study days on e-commerce and the importance of optimizing the use of the Internet and ICT to serve the national economy in cooperation with information technology companies and national and foreign structures.

-Restoring the business community of e-commerce:

The adoption of e-commerce applications in companies depends largely on the acceptance of this technology and the realization of its potential by the employees of the company, whether they are managers or employees. And training me these employees to introduce them to e-commerce and increase their readiness and readiness to use technology in their work¹¹.

- Valuing the role of education:

In the context of the information economy, where is the attention directed towards knowledge-intensive activity, the aspect of education has a fundamental role as the speaker in which the human capacities needed by the knowledge economy industries are built. The first step to be taken to spread knowledge is to promote literacy initiatives in addition to the following two elements¹²:

A. Integrating the hubs of e-commerce and information and communication technology in the educational process:

It is necessary to invite all educational institutions to adopt the latest developments in the field of modern technologies, and to try to attract new generations to informatics by sensitizing and sensitizing young people educated at all stages of the value of information and communication technology and electronic commerce existing in itself and higher institutes and schools. Specialized in this type of trade, educate and develop the right cadres to expand this type of electronic exchanger.

B. E-Learning

E-learning is one of the most important and effective ways to spread knowledge and employ it to develop human capabilities. The activation and support of universities for distance education, linking them to advanced networks and establishing virtual universities will strengthen the capabilities of individuals and achieve amazing results and sometimes superior to the presence system thanks to the characteristic and advantage of teaching a large number of students without regard to the temporal and spatial constraints, and providing them through The network has the knowledge they need in the various resources selected in order to raise the scientific and

¹¹ فؤاد الشيخ سالم ، محمد سليمان عواد- المعوقات المدركة لتبني تطبيقات التجارة الإلكترونية في الشركات الأردنية- المجلة الأردنية في إدارة الأعمال المجلد 1 ، مطبعة الجامعة الأردنية ، 2005 ، ص 6
¹² أ.ك منصور ، أ.ع خليفى - اندماج اقتصاديات البلدان العربية في اقتصاد المعرفة المقومات والمعوقات- مجلة شمال إفريقيا العدد4 ، جامعة حسينية بن بوعللي ، الشلف جوان ، 2006 ، ص 55

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rehabilitative level of information and communication technology. In addition to publishing multimedia libraries in schools and universities, which help provide references on information and communication technology.

- Government adoption of electronic commerce (government practice of electronic commerce):

The growing awareness of economic decision makers of the importance of e-commerce and its translation into reality by the true adoption of this type of trade will have positive effects on increasing the awareness of the business community of the real benefits of this type of electronic exchange. The role of government is not limited to providing the environment. technology to develop this trade, linking the user audience to a modern electronic system. Indeed, the adoption of this government of electronic commerce (G2B), (G2G), (G2C), its entry as a real buyer in this market, and its initiative to use the Internet in order to offer the purchase of those interested, would encourage Companies to adopt this trade, by providing confidence and motivation among economic actors and the private sector to adopt these modern electronic exchanges, and increase the conviction of the usefulness of this type of exchange and its implications for reducing costs and having better competitiveness.

1.2.1.2. Technological means:

Technological solutions to promote electronic commerce relate to the following elements:

-Universal Internet Use:

The wide spread of the Internet, its increasing use and its emergence as a base for e-commerce, has helped to make it the cheapest and most efficient way to access national and international markets, negotiate and complete transactions, making it obvious that Algeria should be included in its next projects. Urgent need to expand the use of the Internet and work to make the most of it.

The acceleration of Algeria's integration into the world of electronic commerce must develop, spread and penetration of Internet services, increase the speed of communication and improve the quality of this service, especially in isolated and remote areas.

-Liberalization of the market of telecommunications services:

Among the things that limit the development of e-commerce is the closing of competition in the markets of ICT services. Therefore, the role of the public sector must be reduced and liberated from monopoly in order to create an environment and competitive market in which opportunities are equal, and it will be an incentive and encouragement to develop Expanding communication networks, increasing prevalence rates and reducing costs of access to services, as well as developing and improving quality and quality

-Encouraging private sector investment:

The communications and information infrastructure in Algeria is still below the acceptable level in terms of prevalence, capacity or cost. Therefore, the reality of infrastructure requires a lot of investments to develop information and communications systems, especially the Internet field, so that it can reach the level of Convenient and supportive of Algerian e-commerce.

The Algerian Government should pay particular attention to the process of encouraging domestic investments in ICT.

Providing appropriate incentives to attract Arab and foreign capital, which play an important role in transferring modern technologies, localizing technology, developing skills and creating job opportunities in this field.

-Create a local ICT industry:

The development of an Algerian ICT industry is one of the cornerstones of the future of e-commerce in Algeria.

To the extent the growth that can be achieved in the field of this industry is the direct result of the development of e-commerce in Algeria and the dissemination of its applications where this industry helps to support infrastructure and maximize the benefits of access to technology. and its applications in the field of e-commerce.

-Dealing with organizational issues:

The existence of an official authority or an independent entity to regulate the telecommunications sector is a key factor in the growth and spread of e-commerce. Such an authority establishes regulatory mechanisms to create a market that promotes transparency, encourages competition and ensures a rapid transition to the information society with a large number of service providers. Internet and fixed and mobile phone network operators.¹³

1.2.1.3. Legislative means:

Algeria's desire to establish e-commerce and achieve its desired benefits calls for profound changes, including the rapid orientation of Algerian legal systems to address the effects of the use of ICT on the commercial side through a legislative movement that reflects the response to the response of the use of ICT in the commercial sector. New and new Algerian legislation in this field, where this movement must be based on the preparation and rapid adaptation of the legal framework for electronic commerce that ensures that it is organized in a way that will achieve its spread and development.

The acceleration of electronic commerce has created a desire on the part of Algerian legislators to adapt legal rules governing technological developments, but these rules still fall short of ambitions for the nature of electronic commerce. Therefore, it is necessary to review existing legal legislation and technologies and make amendments to enrich them. In order to make it more effective and responsive to the requirements of electronic commerce, on the other hand, it is necessary to devise new legal rules and issue specialized legislation to regulate such commerce in its

¹³ الاتحاد الدولي للاتصالات - الخصائص الإحصائية لمجتمع المعلومات لعام 2009 - الدول العربية ، متوفر على الموقع www.itu.int/dms-pub/itu-d/opb/ind/D-IND-RPM.AR-2009-PDF-APDF

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various aspects. The basic objectives of such legislation are to affect the following aspects¹⁴

- The general framework for e-commerce:

The novelty of the phenomenon of e-commerce has made it surrounded by a kind of dress and ambiguity and lacks the legal rules known to it and its regulations, and therefore the trade law must be amended to include a section on e-commerce, as for the nature of the materials to be included in this section, it relates to the principles. General e-commerce which provides an explanation of the meaning of e-commerce.

- Electronic contracting:

In the framework of e-commerce, the process of buying and selling and concluding contracts between two parties that do not know each other and exist in different places, leading to the emergence of a kind of contracts to be matched by the traditional methods of forming contracts and therefore it is necessary to amend the civil law to include articles adopted contracts Concluded through e-commerce and separates the emerging contractual relationships in an electronic environment and determines the parties to the relationship in this type of contract¹⁵.

- Proof and documentation:

The absence of paper documents and documents in e-commerce is not much of a concept of proof, so there is an urgent need for further amendments and legislation related to the proof process as this legislation gives more recognition of writing on paperless props, and increases the legality of The authenticity of electronic documents is recognized as a document for electronic business transactions, and allows for a great deal of security and confidentiality through electronic signature technology that identifies personal identity electronically and confirms that the documents exchanged are genuine and not distorted.¹⁶

- Privacy and information security:

One of the reasons for the growth of e-commerce is the reluctance of many to deal with this trade out of fear of exposing their privacy and exposure to their data and secrets kept by abuse and forgery, and therefore legislation must be introduced to address the legal liability resulting from exposure to the right. In privacy, regulating the issue of the means used to provide information security and trust among customers similar to electronic encryption

¹⁴ يونس عراب - الأداء التشريعي العربي في التجارة الإلكترونية- ندوة تشريعات التجارة الإلكترونية ودورها في دعم وتنمية الصناعة العربية ، المنظمة العربية للتنمية الصناعية والتعدين 19-21 أبريل 2006 ، تونس ، متوفر على الموقع www.cepax.net.tn

¹⁵ إلياس بن ساسي ،- التعاقد الإلكتروني والمسائل القانونية المتعلقة به- مجلة الباحث العدد2 ، جامعة قاصدي مرباح ورقلة ، 2003 ، ص 65 متوفرة على الموقع www.rcweb.luedld.net

¹⁶ نصر الدين سمار ، إلياس بن ساسي - محاولة تأهيل النظام القانوني للتجارة الإلكترونية في الجزائر - الملتقى الدولي حول التجارة الإلكترونية ، كلية العلوم الاقتصادية وعلوم التسيير ، جامعة قاصدي مرباح ، ورقلة ، يوم 6-7 مارس 2004

- **Consumer Protection:**

Since all e-commerce transactions take place in a virtual space using electronic means, the consumer is vulnerable to theft, fraud, fraud and piracy, so achieving the acceptance of e-commerce adoption by the consumer depends on building confidence in this type of exchange¹⁷ .

- **Intellectual Property :**

The digital nature of information and software on the Internet is very easy to copy and infringe on the versions of creators in the fields of literature, science, software and all digital works published on the network, so it is important to amend the legislation governing intellectual property. To include the protection of electronic trademarks such as card names and securing the management of digital copyright on the Internet with the development of materials to help combat infringement of all intellectual property rights related to e-commerce applications and system.

- **Banking**

Legislation should be developed related to e-money and financial and banking services technology, which covers all areas related to electronic transfer systems, various banking cards and e-banks.¹⁸

1.2.1.4. Economic and financial avenues:

The government is the main and effective driver of the economy. It can take a range of economic and financial measures that will provide the necessary payment for all parties of the information society to adopt e-commerce.

- **Partnership between the private sector and the government:**

The desire to build an information society requires coordination and integration between the public and private sectors, so that each sector has the opportunity to play its role in creating mechanisms to accelerate the transformation towards this society. E-commerce as part of the information society cannot be carried out by the government alone, but it is essential to give leadership to the private sector and to activate its role in the development of this trade in all its dimensions, by giving it the freedom to launch and ensuring its participation in defining vision, planning and preparing rules and regulations. The necessary procedures for the application of electronic commerce, evaluation and follow-up of the implementation of this project.¹⁹

- **Developing and encouraging enterprises to shift to e-commerce:**

¹⁷ فوزي محمد سامي - حماية المستهلك في التجارة الإلكترونية - نشرة التحكيم التجاري الخليجي ، العدد 23 البحرين 2002 ص 10

¹⁸ يوسف أحمد أبو فارة - التسويق الإلكتروني عناصر المزيح التسويقي عبر الإنترنت - الطبعة الأولى دار وائل للنشر والتوزيع ، عمان الأردن 2004 ص 51

¹⁹ مجلس الوزراء العرب للاتصالات والمعلومات - الإستراتيجية العربية العامة لتكنولوجيا الاتصالات و المعلومات بناء مجمع المعلومات 2007-2012 ، 2007 ، متوفرة على الموقع www.atcm.org.eg/upload/ictjuly2008.doc

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There is a global agreement that the private sector plays an active role in the growth and prosperity of e-commerce. However, what distinguishes the institutions of this sector in Algeria is their lack of interest in this business technology that will open up wide horizons. The Algerian government must therefore play a positive, encouraging and motivating role for these companies to maximize their use of e-commerce and raise their awareness of the opportunities and challenges posed by e-commerce²⁰.

- Development and diversification of economic structures:

E-commerce is one of the pillars of the economy that reflects what is taking place in it. The prosperity of this trade requires the mobilization of all sectors. However, what distinguishes the structure of the Algerian economy is that it is based on the pattern of rent-production, which is difficult to adapt to the requirements of e-commerce and the knowledge economy, there will be no Algerian electronic commerce unless this economy changes to be able to exploit knowledge to create added value. Therefore, it is necessary to develop the sectors that form the basis of this type of trade so as to increase the competitiveness of the products of these sectors in the local and international markets, both in terms of quality and prices.

Developing the appropriate productive base for e-commerce implies focusing efforts on developing virtual goods and commercial services sectors such as tourism and transport in a manner commensurate with the nature of e-commerce.

-Increase the rate of spending on research and development activities:

Research and development represents one of the most important aspects of technological development. Getting into the knowledge economy and adopting e-commerce calls for the need to get out of the narrow view of the research sector as not achieving added value. Scientists and benefit from their expertise to increase the wealth of scientific knowledge and use it in the production and development of new products and services related to information and communication technology, it is necessary to restructure government spending and rationalize it in order to increase the spending allocated for research and development projects and establish research centers to be In the form of alliances comprising Algerian and international universities and research institutions and a number of companies specialized in this field .

- Development of the electronic payment system

One of the main requirements for the growth of electronic commerce in Algeria and the spread of its applications is the need to replace the traditional system of payment and payment with an electronic system in line with modern technological

²⁰ زايري بلقاسم ، طوباش علي - طبيعة التجارة الإلكترونية وتطبيقاتها المتعددة - مجلة المستقبل العربي ، يصدرها مركز دراسات الوحدة العربية ، السنة 25 العدد 288 ، فيفري 2003 ص 82

developments. The Algerian state must quickly diagnose the current situation and identify the needs of this system. Accordingly, it implements a comprehensive program or plan to modernize and develop common basic methods of payment such as credit and smart cards and electronic money. Algeria should also facilitate electronic payments and expand the customer base by electronic means. whether they are merchants or consumers, by spreading awareness and confidence in the safety of these means and creating incentives that will drive traders to rely on electronic payment method instead of cash payment and giving banks an effective role in advancing the circulation of modern payment methods.

- Cost reduction

The government should seek to reduce the prices of ICT products and services to access them through privatization of the telecommunications sector, open the door to competition, grant tax exemptions to companies operating in the field of ICT and e-commerce and reduce tariffs on products. Imported information and communication technology to be available to most segments of society, especially with the increasing trend towards importing these products instead of exporting them.²¹

3. Conclusion :

The legal system in Algeria suffers from a vacuum in the area of legislation relating to electronic means of payment.

-Weakness of electronic commerce in Algeria is considered the biggest obstacle to the success of electronic payment methods.

-Poor publicity and advertising about electronic payment methods in Algeria.

-There is a revolution spreading slowly in the Arab world in the field of electronic commerce. The Arab region has known some initiatives aimed at optimizing the investment of e-commerce technologies and adopting their application.

-A clear weakness in the indirect indicators of e-commerce in Algeria, mainly related to the technical infrastructure of communications and information. Although this structure has witnessed significant developments over the recent period, it is still below the level required and sufficient for the implementation of electronic commerce, both in terms of rates of electronic commerce. Prevalence or quality and costs

-Underdevelopment of technological infrastructure and high costs of communications and information services and associated equipment.

-Inadequate legislative environment for e-commerce requirements

*Despite the delay in the Arab countries in the field of information technology and the adoption of electronic commerce, there are indications of the possibility of improving this sector and great hope for launching electronic commerce if work is made to provide the appropriate technical, awareness, legislative and commercial

²¹ كمال رزيق مسدورر فارس - التجارة الإلكترونية وضرورة اعتمادها في الجزائر في الألفية الثالثة - الملتقى الوطني الأول للاقتصاد الجزائري في الألفية الثالثة، جامعة سعد دحلب البليدة يومي 21-22 ماي 2002

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environment for the development of this trade. Especially there are a lot of institutions that have already started doing some of their business online.

Suggestions and recommendations:

Despite all the obstacles facing electronic payment methods and systems and electronic commerce, the advancement of electronic commerce and the lifting of the challenge posed by the revolution of information and communication technology calls for a real and strong will on the part of the Arab countries and Algeria, among them, to develop this trade and this will. It can't give us the desired fruits unless they are supported by hard work and perhaps one of the most important things to do in this field.

-Supporting the electronic readiness of all groups of Arab countries and encouraging them to switch to electronic commerce by focusing on the development of the human element as one of the ways to speed up the application of electronic commerce.

-Expedite the embodiment of the e-government project, which provides services to citizens and companies via the network quickly and easily, and the positive effects that this will have in pushing e-commerce and raising awareness that dealing with this trade is not an enterisement option.

-Harnessing the necessary capabilities necessary to move the e-commerce project from planning to implementation, and preparing careful studies on ways to accelerate the process of materializing this project on the ground

-Provision of government support, provision of network infrastructure, and implementation of policies supporting the spread of these services

-It is necessary to clarify the legislative and legal environment relating to the regulation of the electronic payment system by enacting and enforcing the criminal laws relating to crimes committed against electronic means of payment.

-Supporting and opening the field of investment in information and communication technology, attracting foreign capital for investment and supporting the infrastructure needed to implement electronic commerce.

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