

Obstacles to the adoption of e-commerce application in Libyan commercial banks

Dr. Mohammad Othman El-Fitouri,
E-Commerce Department,
Faculty of economics and political science,
Bani Walid University, Bani Walid, Libya
Email: mohamed.el.fitouri2012@gmail.com

Abstract- Nowadays, e-commerce is one of the modern methods that are used as a tool of change by the organizations, especially in adoption of the rapid technological developments. The expansion has resulted in the spread of electronic banks, which are modern compared to conventional banks because of its many advantages. This research aims at identifying the obstacles of the application of e-commerce in Libyan commercial banks. This study also aims to highlight the role of e-commerce, study the relationship between the e-commerce and the increasing of the effectiveness of banking services, and identify the reality of the application of e-commerce in Libyan commercial banks. In order to achieve the objectives of the research, the descriptive analytical method was used to collect the required data and the results are analyzed using SPSS software. The research sample consisted of (560) single administrative leaders and officials in departments and sections. The results indicated that the application of e-commerce methods is one of the important tools that increase the performance of Libyan commercial banks. The results also revealed a close relationship between the application of e-commerce methods and banking services. Finally, this study has reached a set of recommendations in the forefront of the need to create a climate of awareness aimed at spreading the concept, importance and advantages of e-commerce and the need to work to promote the Libyan commercial banks by so as to follow the optimal method of the application of e-commerce with great benefits.

Keywords—e-commerce; internet; information technology; Libyan commercial banks

I. INTRODUCTION

Technology in general, and e-commerce in particular, contribute to improving product quality and innovation of new products, and enhancing competitiveness to meet the challenges facing business organizations from trade and international agreements and regional blocs, multinational companies and the growing role of international strategic alliances, [1]. E-commerce has a set of new expressions that have entered our lives strongly and are circulating in regular use to reflect many of the humanitarian activities associated with the information

and communications technology revolution. Despite the obvious advantages achieved by e-commerce at the present time, especially in developed countries, it still suffers from deficiencies in the fields of confidentiality of information, the Arab region is witnessing in the recent period an awakening in the definition of the importance of e-commerce through conferences, seminars and studies in an attempt to attract attention. The business community, [2]. Given that commercial banks are one of the most influential business organizations on the economies of countries because of their influential role in the financing and investment operations of the various economic and financial sectors, therefore these banking institutions need to benefit greatly from the knowledge and technology community, especially electronic commerce and its applications in banking operations and commercial and financing activities for these institutions to keep pace with the performance of electronic financial institutions. On this basis, this study focused on highlighting the importance of applying e-commerce in the Libyan commercial banks by taking advantage of the opportunities for the application of e-commerce and its multiple advantages, foremost of which is improving the level of performance of banking services and raising their effectiveness, in addition to ensuring that they have a high competitive advantage. It secured its position in the local and international market [3]. The study also focused on knowing the directions of managers about the importance of applying e-commerce in Libyan commercial banks and trying to identify the extent of the contribution of internal and external environmental factors in spreading awareness and the culture of e-commerce in Libyan banking institutions. The research also focused on highlighting the most important obstacles facing the application of electronic commerce in Libyan commercial banks. This research aims to improve banking services in Libyan commercial banks, and this is done by the following:

- Highlighting the role of e-commerce in increasing the effectiveness of banking services.
- Study the relationship between e-commerce and the effectiveness of banking services.
- Identify the obstacles to implementing e-commerce in the Libyan commercial banks.
- Evaluating the reality of the application of e-commerce, and the methods used to secure it on

the international information network, as well as identifying the extent of officials' interest in the importance of implementing e-commerce in commercial banks.

- Determine the basic foundations for the application of e-commerce in commercial banks and identify obstacles to the application of electronic commerce in these commercial banks.
- Reaching results that help suggest appropriate recommendations for businessmen and decision-makers to understand the role of the e-commerce in order to increase the efficiency of banking performance.

A. Research problem

Through the theoretical and field exploratory study carried out by the researchers, it was found that there are a set of general aspects of the research problem in the Libyan commercial banks, as represented by the following:

- Lack of awareness and knowledge among most managers of the Libyan commercial banks of the importance of e-commerce and its impact on the volume of activity and the advantages of using the network.
- Resisting change by the human resources of banks.
- Insufficient online training, e-commerce applications, information security and confidentiality, and the lack of legislation and laws governing e-commerce.
- Not taking advantage of electronic payment and payment systems.
- This study aims to answer the following questions:
- What are the areas of application of e-commerce in the Libyan commercial banks?
- How well do managers understand the opportunities for implementing e-commerce?
- What are the obstacles to implementing e-commerce in Libyan commercial banks?

B. Significance of the research

The research derives its importance from the importance of e-commerce and from the great development that the information revolution has reached and its significant use in accomplishing commercial exchanges during record periods of time, thereby reducing the high costs, as the steady development of the Internet and its remarkable expansion to play the main role in the spread of e-commerce in Libyan banks. The importance of this research is to helping the Libyan banks to apply e-commerce and identify obstacles that prevent their application so that we can raise the efficiency of performance in the Libyan commercial banks.

C. Research Methodology

This research depends on the descriptive analytical approach that is based on gathering facts and

information on the nature of the problem at hand, as well as the method of describing and analyzing this information to reach the results related to this matter that help to achieve the goal to be reached from this research. Initial data: The two researchers relied on the questionnaire form that was formulated in a manner that is in line with the objectives and hypotheses of the study and that was distributed to the individuals of the study sample to reach the results of the research. Secondary data: The researchers relied on books, magazines and periodicals related to the subject of the study to obtain secondary data, as well as on the appropriate statistical methods to analyze the data obtained. Based on the questions of the research problem that was identified, the study relied on a set of assumptions and questions that could be formulated as follows:

The first hypothesis: The application of e-commerce methods improves the performance of the commercial banks under study.

The second hypothesis: There is a statistically significant relationship between the managers awareness of the commercial banks and the quality of the banking services provided.

The third hypothesis: The availability of material and human resources necessary for the application of e-commerce methods affects the increase in the quality of banking services.

The first question: Are there obstacles to the application of e-commerce in the Libyan commercial banks? What are these obstacles?

The second question: What is the degree of approval of the application of e-commerce?

The third question: What are the most important advantages that can be achieved when applying e-commerce in commercial banks?

II. LITERATURE REVIEW

Although there are many definitions, we must look at the term e-commerce by dividing it into two sections: The first is 'commerce' and it is known as an economic activity through which goods and services are traded between governments, institutions and individuals, and the second section: 'electronic', which is a type of characterization of the field of the commercial activity tool using electronic media and methods that use the internet as one of the most important of these media. The study will show the definitions that were mentioned in the subject literature with the aim of reaching a general definition, and among the definitions of e-commerce we mention the following: They are the implementation and management of trade activities related to the exchange of goods and services and their payments through electronic means [4]. It is a type of sale and purchase between consumers and between companies, each using the information and communications technology [3]. Hennerrender defined it as the use of computer networks, mainly the internet, to sell goods, services, and information [5]. The Organization for Economic Co-operation and Development (OCDE) defined it as, in general, commercial transactions by individuals and entities that depend on the processing and

transmission of digital data, including image and sound, through open networks such as the Internet [5].

It is the process of exchanging goods and services electronically, whether by using electronic data exchange, fax, electronic transfers, international information network or any other electronic means [7]. It was defined by the World Trade Organization, which is the most common definition, as an integrated set of transactions, establishing linkages, distributing, marketing and selling products by electronic means. E-commerce in general is the completion of business through an electronic formula [8]. The European Commission (EC) defined it as performing business electronically where electronic data is exchanged, whether written, visual or audible, in addition to many commercial activities for exchanging goods and services and completing sales, purchases and deliveries with respect to digital contents, electronic transfers of funds and electronic invoices, commercial auctions, marketing operations and services After sales [9].

The researchers conclude from the various previous definitions that each definition supports a point of view or idea adopted by the author, based on the author's scientific background and interests so that definitions can be abbreviated in a particular direction that may be reduced to the following: These definitions focused on the communication and payment process by phone and the international information network, It also included converting traditional processes to electronic operations, and also concerned with reducing costs and speed of delivery while increasing quality.

The researchers believe that e-commerce can be defined as a new method used in the internet and offers four different types of deals, the first of which is to provide the same internet services and explain the way to access this network for businessmen and consumers, and the second is electronic delivery of services, which means delivery of service product to the consumer in the form of information digital, and the third is the use of the internet as a channel for the distribution of services where goods and services are purchased over the network, and the fourth is the completion of banking services electronically.

According to [9, 10,11] the features of e-commerce are listed in the following:

- E-commerce is featured by rapid development and growth, and thus its share in the global GDP increases, as it is characterized by high speed, i.e. contract speed and speed of delivery for many transactions and thus reduces the element of time and time.
- It is also featured by direct dealing between dealers on the international communications network without the need for a third party, as well as it provides a great opportunity to deal in various markets in the east and west around the clock and from here it is a global trade that knows no borders and is found everywhere.
- It is a cheap way.

- The transactions between participants in e-commerce of various types are carried out by electronic means starting from the presentation stage, then exchanging information, conducting negotiations and ending with electronic delivery of other service and commodity products.
- E-commerce is also featured by growth and prosperity as the economy achieves growth and prosperity and income levels rise. Also, there is no direct relationship between the two parties to the business process.
- It is featured by the rapid development that is organically linked to the development in information technology, where the new is found daily, such as the mobile bank that is connected to the network, and those who carry a mobile phone can conduct electronic commercial operations.

A. *The historical development of e-commerce*

The concept of e-commerce dates back to the beginning of the seventies of the twentieth century as American companies used special networks linking them with their customers and business partners, and e-commerce applications began with electronic transfers of funds, but the extent of application did not exceed the giant commercial institutions and some companies, and in the same time period the concept of data exchange came electronically, which in turn expanded the application of electronic commerce from mere financial transactions to other transactions, and the technology spread from one financial institution to another [12].

This was followed by the spread of e-mail with network work and increased its expansion in business since the early eighties as an effective and fast alternative to traditional mail and fax, then it became one of the most important tools used by business and institutions, and with the transformation of the Internet into a financial and profitable tool in the nineties of the twentieth century and its spread and growth outside the term e-commerce. The e-commerce application has been developed. e-commerce started on the internet by sending e-mail lists from people to sell a car or house, and the buyer was contacting the seller and negotiating with customer via mail on the commodity, and applications for buying and selling stocks and tickets on the internet and on private networks also appeared [13].

With the spread of the internet and its entry into the public service in the first half of the nineties, and the emergence and growth of the web during the second half of the nineties, companies started using e-mail with the services of reviewing and creating websites to display their activities, products and means of communication with customers. As a result of the development and improvement of web pages on the internet, the speed of their spread, the increase in the number of users, and the awareness of the importance of the internet, companies have created, changed and updated their activity sites, publishing activity information, vacancy announcements and product data

with drawings and pictures, which accelerated commercial exchanges and collected information about visitors, their desires and needs, and sites started interact with visitor needs, and use programs and means to increase the speed of transmission and publish the web with simple elements, navigation tools, frames, bookmarks, pictures and animations to attract the attention of the viewer. With the development of network communication technologies and access to insurance tools, credit cards have been used to pay for them online [14].

B. Types of e-commerce

E-commerce was categorized by the nature of transactions to [15,16] as follows:

- E-commerce from the company to the company, which is referred to simply as the symbol (B2B), which is the process of buying and selling between companies, which represents electronic trade exchange between one company and another.
- E-commerce from the company to the consumer, which is referred to as abbreviated (B2C), which is the sale of goods and services from companies to consumers through the sale of retail.
- E-commerce from the consumer to the consumer, which is referred to simply as the symbol (C2C), which is selling the consumer directly to another.
- E-commerce from the consumer to the company, which is referred to by abbreviation (C2B), in which people and individuals sell the company's products.
- Non-profit e-commerce and referred to in short (Non-BEC), where we find many non-profit companies that use different types of e-commerce such as religious, social and charitable institutions in order to reduce the costs of managing the institution.
- E-commerce between institutions includes all the internal activities of the institution that often take place on the company's internal network.

C. The use of e-commerce and its advantages:

The applications of e-commerce had become vast and numerous. They were summarized [17, 18] as follows:

- Retail trade: such as trading books and magazines, in which the name of the book is searched, its price is determined, and the payment process is done in an electronic way and delivery is through the publisher.
- Banks and finance: Banks provide the electronic service, the simplest of which is to inquire about the account, follow the prices of international stock exchanges, and buy and sell stocks.
- Distribution: Like distributing electronic products such as computer programs and hardware, and distributing pictures, films, and music tapes.

- Engineering Designs: It is possible to participate in designing a new product without being physically in the place through a working group.
- Commercial transactions: One example is the system of commercial exchange between companies.
- Publishing: One example is that publishing companies announce their issuance electronically.
- Specialized services: such as medical, legal, engineering and administrative consulting.

From all of the above, it is clear that global banks are currently providing a variety of internet banking services and this is done in accordance with specific quality standards. They also enjoy the competitive advantage and seize the available marketing opportunities in the market in which they operate, and achieve higher profit rates through customer satisfaction.

D. Advantages of using e-commerce:

Fraser et al, [19] indicates that the acceptance of e-commerce depends on four sources of competitive advantage, which are reducing costs related to customer contact, reducing costs related to purchasing by improving the physical distribution and supply process, improving the information collection process and thus improving the management process, developing the market share and enter new markets by improving the process of processing customer information. When implementing the e-commerce, the company can get the following benefits [5]:

- Expanding the partnership markets at the local and global levels. Reducing the costs of operating, distributing, storing and retrieving information. In addition to reducing communication costs.
- Increase interaction with customers and shorten the time, as well as consumers can do shopping throughout the day and every day throughout the year and from any location in the world, and provide them with more options.
- Be able to participate in virtual auctions.
- E-commerce enables clients to interact with other clients in electronic societies and the ability to exchange different ideas and experiences.
- It is considered as an effective way to expand the scope of local markets so that they communicate with each other at the global level and then contribute efficiently to the marketing of goods and services worldwide, [20].
- Ease of making international payments resulting from commercial deals by electronic money that is internationally acceptable and within a short period of time [21].

At the global level, [22] adds that the global leaders of e-commerce have removed borders and restrictions in entering commercial markets, thanks to which the world today is transformed into an open market for enterprises and consumers, which contributes effectively to the growth of global trade in goods and services. It also contributes to the further liberalization

of world trade, especially after WTO members agreed on September 25, 1998 to exempt goods that are delivered electronically from customs restrictions.

Chou [23] has distinguished between two types of benefits for companies or establishments:

1. Functional or practical advantages: These are advantages associated with internal efficiency, which include reducing employee errors, improving data accuracy, improving operational efficiency, improving the level of information security, and increasing the speed of operations.

2. Strategic advantages: These are advantages associated with the relationship of the company or facility and its operations and contribute to achieving competitive and tactical advantages such as improving the mental image of the company or facility and improving relations with other parties.

E. The most important e-commerce applications in international banks:

International banks are currently providing a variety of internet banking services according to specific quality standards in order to achieve important marketing goals such as enjoying competitive advantage and achieving higher profit rates through customer satisfaction [24].

The increasing use of the internet by banks in their banking activities not only changed the nature of the marketing (promotion) channels used, but also changed the pattern of customer interaction with their services. After the reliance on the distribution of banking services focused on the traditional channels represented in the building of the bank and its branches are now most banks provide many of their services through their web sites (Bank web sites) through a remote electronic interaction pattern instead of personal interaction between the service provider (the bank employee) and the recipient (the customer), which is characterized by the pattern of service delivery in traditional channels. Numerous studies have shown that international banks provide a wide range of their services through their websites, which encouraged a large percentage of customers to complete most banking operations through the internet, as it showed that Turkiye Bankasi was the first to adopt the internet in 1997 as a channel to promote banking in the Turkish banking market, which achieved him a great competitive advantage that attracted many customers to him, which prompted Garanti Bank to be its largest competitor to implement this innovative system in the end of the same year [1].

Some studies indicated that approximately 20% of banking transactions for individual customers and 30% for corporate customers are done online, and the proportion is expected to reach more than 60% during the next few years, and the range and depth of the internet service mix for international banks from a limited number of banking services, such as inquiries about the balance, printing of account statements, and electronic payment of bills to a diverse range that includes almost all types of banking services except for

cash and cash withdrawal services, this reliance on the Internet through banking promotion reaches an advanced extent in the case of what is known as virtual banks.

Global banks, which use internet banking services, aim to achieve a number of different marketing goals, considering that these advanced services are currently appropriate to accomplish this goal more effectively in a globalized environment. The internet banking service enables banks to achieve competitive advantage and seize available marketing opportunities in the banking market, and achieving higher profit rates through customer satisfaction, which is logical in light of the low cost of these services as well as the relative decrease in price sensitivity to customers of those services compared to customers who use traditional banking services, allowing banks greater flexibility in the pricing of internet banking services to greater profitability.

F. The most important e-commerce applications in Arab banks:

Most Arab e-stores are established for advertising only, and thus they practice the e-commerce process incompletely. The e-commerce cycle is not complete with advertising only, but with the completion of the sale process and the delivery of the product to the buyer at the required place and time. Because of the lack of adequate logistical infrastructure in the Arab countries, most e-stores are sufficient to implement a half-cycle of e-commerce, which is what some call undeveloped e-commerce, and for financial institutions to successfully and effectively offer their financial services to the markets, the urgent need has emerged to use the activity marketing as a basic function that achieves integration and coordination with the rest of the jobs, something that these financial institutions lack before the eighties of the last century, but they did not give the marketing function any interest and some institutions gave it a limited tactical role.

The beginnings of providing Arab banking services through the electronic network during the year 1995, and some Arab banks have started providing a service to dealers through the computer in the year 1995, and every customer who wishes to obtain this service is required to have a computer that is connected to a private network. The customer is then provided with various banking services depending on a special program. With the increasing spread of the internet, these banks have found a better way to settle their services due to their global spread and not resorting to special programs that are more expensive and much less in achieving wide geographical coverage.

The first Arab banks to start providing banking services via the internet is the Emirates Bank International Group through the service (Bank Net) and this service allows customers to obtain all banking services provided by the group from anywhere in the world through the password for each customer. However, the Arab economic sectors have not yet sufficiently understood the new concept of e-business and the importance of the new development, and do not exercise an effective role in this framework, and

this is a big problem if the banks represent the basic structure of e-commerce.

From all of the above, we can find that for Arab banks to succeed in meeting market needs through production and marketing operations for financial services and other services in light of the various environmental developments, it is necessary to prepare and develop strategies that enable the banks to continually adapt to these changes and influence environmental changes as much as possible in order to better using e-commerce.

G. The obstacles to implementing e-commerce in the Libyan commercial banks:

Although there are many Arab countries that began the use of the internet since the beginning of the nineties, including Libya, there are many challenges facing the telecommunications market in these countries, and Arab sites still lack of the technical aspects that make them more attractive and easy to use. There are also many problems related to banking systems and credit cards that are used via the internet in a secure manner, and these obstacles can be summarized in the following points [25, 26, 18]:

- Financial constraints: Libya still lacks a culture of credit cards, which is one of the main factors in the use of e-commerce.
- Social constraints: These constraints are mainly the absence of awareness among most consumers about the benefits and advantages of using electronic communication networks as they still prefer direct cash dealing, which is due to the lack of awareness of the security rules on the internet as well as the spread of illiteracy between clients.
- Technical constraints: The infrastructure in Libya still faces many problems, such as the high price of technical equipment's, which represents a major problem because most companies do not have the financial capabilities to purchase a large area of technical equipment's, which increases the internet slow and makes it impractical.
- Linguistic and cultural barriers: These challenges appear mainly in the presence of many international languages that can be written on websites, which leads to confusion when using the language through which the e-commerce business and transactions will be carried out, in addition to the shortcomings in banking culture, especially those used for technology and refraining from dealing with a bank located in certain countries differ from other countries.
- Governmental constraints: Countries continue to control a large proportion of the economy and the consequences of this situation are serious and threaten the potential of new e-commerce and deny the private sector widespread appreciation and the absence of a national strategy to advance communications technology, which is a major obstacle to progress in this area. In addition to that, the absence of coordination between the

various government agencies, and the absence of clear commercial laws.

- Legal obstacles: There is an urgent need to issue appropriate and specialized legislation to regulate the work of e-commerce in addition to the urgent need to train a number of the judiciary and lawyers to deal with many issues related to e-commerce.
- Security constraints: Achieving full and complete protection of data and information circulating and used in e-commerce is considered difficult because some professional people hack the security systems of networks, especially the internet.

H. The components of the application of e-commerce in the Libyan commercial banks:

The use of e-commerce systems requires the availability of a set of components to ensure optimal application and achieve efficiency and effectiveness in the application and handling process, and requires the facility, institution or bank to have all the programs and tools necessary to operate its site. The need for equipment and programs depends on the size of the facility or the bank and according to the number of clients expected to deal with them and the size of the bank as well [2] and all of this depends on the following:

- Availability of the basic infrastructure, which helps in switching to e-commerce systems to provide a suitable infrastructure for their application, and the infrastructure of facilities should be developed before starting to deal through e-commerce systems, and it is necessary to prepare local and international networks with high efficiency. Arab countries differ in terms of the progress they have made in developing the structure of telecommunications. However, investments in the telecommunications sector in many Arab countries are still far below their rates. Globally, the prices of telecommunications and information services in most Arab countries have increased above the global averages [27].
- Preparing human teams in banks. The application of E-commerce requires the availability of human teams trained in the applications of e-commerce, especially in the field of financial products. This is done through regular training courses and experts specialized in the application of e-commerce in commercial banks to take advantage of modern technology and to improve communication systems.
- Providing the appropriate legislative and legal environment. e-commerce application requires the provision of rules and laws compatible with the requirements of its applications such as payment and payment laws, laws to protect information security and maintain confidentiality and the laws of tax and advertising, among others.
- Protecting intellectual property, spreading the culture of the internet, and activating participation

between the private sector and the government through the participation of the private sector in preparing the systems and procedures necessary to implement e-commerce in banks.

- There must be an administrative system that coordinates and monitors the process of electronic cash payments, which is one of the basic elements of E-commerce, whether it is done by credit cards, visa cards or computers designated for the performance of banks that have secret numbers or cash numbers to get rid of online.
- There must be safe methods that maintain the confidentiality of transactions and the access of e-commerce customers to their rights.

III. RESEARCH METHODOLOGY

The study used the descriptive analytical procedures, as it suitable for nature of research through the use of secondary sources, where the literature contained in books, references, specialized magazines and internet sites in this field was referred to, and the primary sources are to design and distribute questionnaires to the community, dealing with issues crucial to the research topic. The researchers selected four commercial banks in Libya within the borders of the Tripoli region, and questionnaires were distributed to the branches of these banks in the period from (the May, 2013) to (Sep, 2013).

Based on the aims of the study, the study population was determined by the Libyan commercial banks operating inside Libya (14 banks). The sample of the study consists of four Libyan commercial banks (Jumhouria Bank, Aman Bank, Al-Wahda Bank, National Commercial Bank). The sampling unit was determined by directors of departments, heads of departments and managers of the main departments of the commercial banks and they are 560 individuals. Table I) shows the sample distribution.

TABLE I. SHOWS A DESCRIPTION OF THE STUDY POPULATION AND SAMPLE

Bank	Number of individuals	Sample	Perenatg
Jumhouria Bank	197	50	25.38%
Aman Bank	95	25	26.31%
Al-Wahda Bank	128	35	27.34%
National Commercial Bank	140	36	25.71%
Total	560	146	26.071

A. The reliability and reliability of the questionnaires:

The questionnaires were distributed to several arbitrators from the professors at Libyan universities and to some specialists in the field of banking marketing to investigate the accuracy of the questionnaires and the degree of their suitability to the objectives of the study. The researchers reconsidered

in some questionnaires in accordance to amendments made by the arbitrators. To measure the accuracy and validity of the study results, the Cronbach's alpha factor was used. It is clear from data analysis that the alpha value for all axes was more than (60%) and this ratio exceeds the statistically acceptable percentage for the alpha factor according to [28, 29, 30]. It also means that there is an acceptable degree of consistency and validity of the respondents' answers, and thus achieving acceptable consistency and accuracy for the purpose of scientific research as in the Table II.

TABLE II. RESULTS OF THE ALPHA TEST FOR THE VALIDITY AND RELIABILITY OF THE STUDY

Study tracks	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Contribution of e-commerce in improving the quality of services	24.05	5.53	0.54	0.66
The extent of management's awareness of the importance of e-commerce	24.48	5.25	0.49	0.67
Availability of material and human requirements	24.46	5.53	0.46	0.68
The e-commerce application	23.87	5.97	0.36	0.70
Obstacles to the application of e-commerce	24.15	5.72	0.54	0.67
The advantages of applying e-commerce	23.83	5.23	0.61	0.64
Alpha value for the scale	0.932			

From Table II, it is clear that the alpha value for the scale is 0.932, and this shows that the correlation between the answers was high and statistically acceptable, and with regard to the stability of the sample, it is noted from table 2 that most of the individual alpha coefficients related to the individual were less than the general alpha test value. This indicates that most of the items found in this group is important and any changes or elimination in any item will negatively affect the stability and reliability of the sample, and then it is possible to rely on the entire group without elimination to reach satisfactory results in this research.

B. Analysis of data and hypothesis test:

First hypothesis test: The application of e-commerce methods improves the performance of commercial banks, and the use of percentages to compare the answers of the respondents to determine whether the answers differ between them (i.e. test the independence of the answers) in terms of the degree of impact. Table III shows the mean, the standard deviation, and the percentage of the responses to the study sample in descending order. It was noticed through the percentages and the mean that the respondents' answers indicate approval of using e-commerce in the banks, which equals " 3.87 ".

TABLE III.
 MEAN, STANDARD DEVIATION AND PERCENTAGE OF THE E-COMMERCE CONTRIBUTION IN IMPROVING THE QUALITY OF SERVICES

No	Assumptions	Mean	Standard deviation	Percentage
1	E-commerce is a tool to improve the quality of banking services.	4.29	0.79	85.89
2	E-commerce offers additional benefits	4.29	0.80	85.89
3	E-commerce is working to quickly obtain banking service.	4.21	0.81	84.25
4	E-commerce contributes to the speed, quality and service of documentary credits.	3.82	0.91	76.30
5	E-commerce achieves higher	3.78	1.08	75.62

	profit rates through customer satisfaction			
6	Various methods are available for signing documents and electronic documents.	3.71	1.03	74.11
7	E-commerce contributes to obtaining suitable competitive position	3.67	1.02	73.42
8	E-commerce suits most customers.	3.54	1.15	70.82
9 ^M	E-commerce reduces the burden on the manager.	3.48	1.10	69.59
10	The extent of the contribution of e-commerce to increase the performance and quality of services	3.87	0.57	77.30

Table IV shows the values of (χ^2) of the survey to compare the participants' answers with each other to evaluate the independence of their answers, as it is compared between the observed frequencies and the expected frequencies. It states that there are no statistically significant differences between the iterations of the answers and the expected iterations, i.e. there are significant differences in favor of the most frequent answer, which is "agree".

Therefore, the first hypothesis has been achieved "The application of e-commerce methods will improve the performance of the commercial banks."

TABLE IV.

PERCENTAGES OF ITERATIONS AND TEST (χ^2) OF THE STUDY TRACKS

Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Chi-Square	Significance level
E-commerce is a tool to improve the quality of banking services.	39.73	56.85	0.00	0.00	3.42	65.19	0.00
E-commerce contributes to obtaining a suitable competitive position.	21.92	38.36	28.77	6.85	4.11	61.53	0.00
E-commerce is speeding up access to banking services.	39.73	45.89	11.64	1.37	1.37	133.11	0.00
E-commerce contributes to the speed, quality and service of documentary credits.	22.60	44.52	27.40	2.74	2.74	91.88	0.00
E-commerce eases the burden on the manager.	15.75	43.84	17.12	19.18	4.11	61.88	0.00
E-commerce suits most customers.	16.44	51.37	8.22	17.81	6.16	97.22	0.00
E-commerce offers additional benefits	43.84	47.26	4.79	2.74	1.37	159.68	0.00
Various methods are available for signing documents and electronic documents.	21.23	45.89	18.49	10.96	3.42	75.23	0.00
E-commerce achieves higher profit rates through customer satisfaction.	23.97	49.32	13.70	6.85	6.16	93.38	0.00

The test of second hypothesis: There is a statistically significant relationship between the administrators' awareness of the commercial banks in terms of the

importance of applying e-commerce methods and the quality of the banking services provided. Hence, the percentages of the answers were used and (χ^2) were

used to compare the responses of the participants to determine whether the answers differed between them (i.e. test the independence of the answers) in terms of the degree of influence at the level of significant significance (0.05). Table V shows the mean, the standard deviation, and the percentage of the answers of the study sample in descending order. It is noticed through the percentages and the mean that the answers of the participants were "I agree" except for the study track (10). It is likely that the disapproval of the study track (10) is due to the lack of interest of the higher management of the Libyan commercial banks to hold scientific conferences and seminars and even participate in such events, and this is due to the lack of awareness among managers of the importance of these events. The overall average of the total of this study track (the extent of management's awareness of the importance of e-commerce) indicates that it is "3.43", and it means full approval of the study sample with a "good" degree as a general evaluation for them.

TABLE V.
MEAN, STANDARD DEVIATION AND PERCENTAGE OF THE MANAGEMENT AWARENESS OF THE IMPORTANCE OF E-COMMERCE

No	Assumptions	Mean	Standard deviation	Percentage
1	There is a full awareness of the importance of e-commerce by senior management.	3.76	1.03	75.21
2	Senior management develops policies that contribute to the e-commerce application.	3.60	0.90	72.05
3	There is a vision for commercial banks on putting the e-commerce application in its priority list.	3.52	0.90	70.41
4	There are plans, programs, procedures and methods to improve banking services through e-commerce.	3.52	0.96	70.41
5	Commercial banks are aware of the importance of implementing	3.51	0.90	70.14

TABLE VI.
STUDY TRACK.

	e-commerce.			
6	The National Payments System project is easily implemented in the bank	3.51	1.03	70.27
7	E-commerce is an important factor in management plans and programs	3.46	0.89	69.18
8	Banks are interested in competition and are working to develop electronic services in the field of banking services.	3.38	1.10	67.67
9	The senior management of the banks seeks to attract the qualified staffs in the field of e-commerce.	3.08	1.13	61.64
10	Banks participate in scientific conferences and symposia in the field of e-commerce inside and outside Libya.	2.99	1.09	59.73
Total	The extent of management's awareness of the importance of e-commerce	3.43	0.70	69.10

Table VI shows the values of such a squared (χ^2) of the questionnaire tracks to compare the participants' answers among them to select the independence of their answers, where a comparison is made between the observed frequencies and the expected repetitions and value of a squared (χ^2) for all questions, which leads to accepting the hypothesis, which states that there are no statistically significant differences between the iterations of the answers of this study track and the expected iterations. From Table VI, it is clear that most of the answers are "I agree". Therefore, the second hypothesis "There is a statistically significant relationship between the administrators' awareness of the commercial banks in terms of the importance of applying e-commerce methods and the quality of the banking services provided" was achieved.

PERCENTAGES OF ITERATIONS AND TEST AS A SQUARE (χ^2) OF THE

Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Chi-Square	Significance level
There is a full awareness of the importance of e-commerce by senior management.	18.49	57.53	11.64	6.16	6.16	136.05	0.00
Senior management develops policies that contribute to accessing the e-commerce application.	13.01	47.95	26.71	10.96	1.37	95.16	0.00

E-commerce is an important factor in management plans and programs.	10.27	40.41	35.62	12.33	1.37	84.75	0.00
Commercial banks are aware of the importance of implementing e-commerce.	9.59	46.58	31.51	9.59	2.74	98.79	0.00
There is a vision for commercial banks on putting the e-commerce application in its priority list.	11.64	43.15	32.19	11.64	1.37	85.51	0.00
There are plans, programs, procedures and methods to improve banking services through e-commerce.	12.33	42.47	35.62	4.11	5.48	92.77	0.00
The senior management of the banks seeks to attract the qualified staffs in the field of e-commerce.	9.59	31.51	23.97	27.40	7.53	34.07	0.00
Banks are interested in competition and are working to develop electronic services in the field of banking services.	15.07	36.99	23.29	20.55	4.11	42.08	0.00
Banks participate in scientific conferences and symposia in the field of e-commerce inside and outside Libya.	6.85	29.45	27.40	28.08	8.22	38.04	0.00

Test the third hypothesis: The availability of the material and human requirements necessary for the application of e-commerce methods affects the increase in the quality of banking services. Percentage of responses was used and the values of (X^2) were also used to compare the participants' answers to determine whether the answers differ between them (i.e. test the independence of the answers) in terms of the degree of influence at the level of significant significance (0.05). Table VII shows through percentages and mean, that the participants' answers were "I agree" The overall mean of the overall this study track (availability of material and human requirements) is equal to "3.45", which means full approval of the study sample on this track with a "good" degree as a general evaluation.

TABLE VII.
MEAN, STANDARD DEVIATION, AND PERCENTAGE OF THE STUDY TRACK FOR AVAILABILITY OF MATERIAL AND HUMAN REQUIREMENTS

No	Assumptions	Mean	Standard deviation	Percentage
1	The use of modern and sophisticated systems in banking.	3.92	0.98	78.36
2	Create bank websites on the international information network.	3.69	0.99	73.84
3	Senior management uses experts in the field of e-commerce to achieve quality	3.66	0.98	73.29
4	There are scientifically qualified human resources exist in e-commerce.	3.49	1.10	69.86
5	Workers have the ability to respond to a	3.44	1.11	68.77

	change towards e-commerce.			
6	There is interest from the communication companies.	3.40	1.11	68.08
7	The availability of the physical conditions surrounding the workers.	3.36	0.91	67.26
8	Training the managers and improving their skills in setting policies that serve the success of the e-commerce program.	3.31	1.15	66.16
9	The employees are chosen according to scientific principles that serve the process of e-commerce, up to the quality of its services.	3.17	0.97	63.42
10	Attractive programs are developed from various sources.	3.10	1.03	61.92
Total	Availability of material and human requirements	3.45	0.63	68.80

Table VIII shows the values of a squared (X^2) for the questionnaire to compare the participants' answers among them to select the independence of their answers. The value of such a squared (χ^2) for all the questions is of moral significance and this level of significance confirms that confidence of 95% at degrees of freedom of 4, which is less than 0.05. This leads to rejecting the alternative hypothesis that there

are no statistically significant differences between the frequencies of the answers to this study track and the expected frequencies i.e. The results indicate that the answers of the most participants were "I agree." Hence, the third hypothesis has been achieved which

states, "The availability of material and human requirements necessary for the application of e-commerce methods affects the increase in the quality of banking services".

TABLE VIII. THE PERCENTAGES OF FREQUENCIES AND TEST OF A SQUARE (X²) FOR THE STUDY TRACK

Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Chi-Square	Significance level
There are scientifically qualified human resources exist in e-commerce.	15.07	47.26	13.70	19.86	4.11	77.36	0.00
Attractive programs are developed from various sources.	6.16	32.19	33.56	21.23	6.85	50.99	0.00
The workers are chosen according to scientific principles that serve the process of electronic commerce, up to the quality of its services.	7.53	30.82	36.30	21.92	3.42	59.62	0.00
Senior management uses experts in the field of e-commerce to achieve quality.	22.60	34.25	31.51	10.27	1.37	57.22	0.00
The availability of the physical conditions surrounding the workers.	10.27	33.56	39.73	15.07	1.37	75.85	0.00
Create bank websites on the international information network.	21.23	42.47	21.92	13.01	1.37	66.12	0.00
There is interest from the communication companies.	19.18	29.45	26.71	21.92	2.74	31.88	0.00
The use of modern and sophisticated systems in banking	32.19	36.99	23.29	5.48	2.05	71.60	0.00
Training the managers and improving their skills in setting policies that serve the success of the e-commerce program.	16.44	28.77	31.51	15.75	7.53	28.86	0.00

The first question: Are there obstacles to the implementation of e-commerce in Libyan banks? What are these obstacles? The percentages of the answers were used and the squared (X²) was also used to compare the responses of the participants to determine whether the answers differ between them or not (i.e. test the independence of the answers) in terms of the degree of influence at the level of significant significance (0.05).

Table IX shows the mean, the standard deviation, and the percentage of the answers of the study sample on this study track in descending order. It is noticed through the percentages and the mean that the participants 'answers were "I agree".

The general average (obstacles facing the application of electronic commerce) is equal to "3.77", which means the full approval of the study sample with a degree "very high" as a general evaluation for them.

TABLE IX. MEAN, STANDARD DEVIATION AND PERCENTAGE FOR THE STUDY TRACK 'THE E-COMMERCE APPLICATION BARRIERS'

No	Assumptions	Mean	Standard deviation	Percentage
1	Weak information infrastructure in Libya	4.29	0.90	85.89
2	Failure to develop e-commerce laws and regulations	4.25	0.90	84.93
3	Insufficient inter-bank communication systems	4.20	0.92	83.97
4	Internet crashes and slows	4.11	0.99	82.19

5	Clients are not accustomed to this type of trade.	4.04	1.23	80.82
6	Lack of use of other payment methods.	4.02	0.88	80.41
7	Low intensity competition between Libyan banks	4.01	1.01	80.14
8	No other payment options other than credit cards.	3.99	1.02	79.73
9	Internet culture deficiencies of most clients	3.90	0.97	78.08
10	The scarcity of Arab websites on the internet	3.88	1.00	77.53
11	Low awareness of the possibility of doing deals electronically.	3.85	0.98	76.99
12	Lack of training in internet programs	3.74	1.00	74.79
13	Computers obsolescence in banks	3.68	1.27	73.56
14	The small number of banking services provided	3.68	1.14	73.56
15	The lack of computers in banks	3.66	1.29	73.15
16	The lack of financial investments	3.60	1.11	72.05

	necessary to implement e-commerce			
17	Libyan banks have not adopted e-commerce support.	3.56	1.07	71.23
18	Insufficient state support to spread the culture of e-commerce.	3.56	1.03	71.23
19	Low level of English for those dealing with the internet	3.53	1.10	70.55
20	The absence of information security and confidentiality systems on the internet	3.53	1.15	70.68
21	E-commerce takes a long time to implement	3.22	1.38	63.56
22	The scarcity of human resources necessary to deal with modern technology	3.18	1.25	63.56
23	The failed e-	3.14	1.42	62.88

	commerce application experience in some Libyan banks			
Total	E-commerce application obstacles	3.77	0.52	74.89

Table X shows the values of a squared (χ^2) for the questionnaire to compare the participants' answers among them to select the independence of their answers, as it is compared between the observed frequencies and the expected repetitions, where the value of such a square (χ^2) for all the questions is of moral significance and this level of significance confirms that confidence of 95% at degrees of freedom of 4, which is less than 0.05. This leads to the rejection of the null hypothesis, which states that there are no statistically significant differences between the frequencies of the answers to this study track and the expected repetitions. The most answers were "I agree," except for items '9,13,14,23' which were strongly agree.

To answer the question: Are there obstacles to the application of e-commerce in Libyan banks, and what are these obstacles? Yes, there are some obstacles as indicated by the participants.

TABLE X. THE PERCENTAGES OF FREQUENCIES AND TEST OF A SQUARE (χ^2) FOR THE STUDY TRACK

Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Chi-Square	Significance level
The lack of computers in banks	30.14	39.04	5.48	17.12	8.22	60.10	0.00
Computers obsolescence in banks	28.77	40.41	10.96	9.59	10.27	56.81	0.00
The scarcity of human resources necessary to deal with technology	13.01	35.62	20.55	17.81	13.01	25.30	0.00
Lack of training in internet programs	21.92	45.21	20.55	9.59	2.74	76.33	0.00
Low level of English for those dealing with the internet	19.86	36.30	25.34	13.70	4.79	41.26	0.00
Lack of financial investments required to implement e-commerce	21.23	41.78	17.12	15.75	4.11	55.10	0.00
E-commerce takes a long time to implement	18.49	37.67	7.53	21.23	15.07	33.22	0.00
The small number of banking services provided	24.66	42.47	14.38	13.01	5.48	59.68	0.00
Insufficient inter-bank communication systems	44.52	38.36	11.64	3.42	2.05	117.15	0.00
Internet culture deficiencies of most clients	26.03	52.05	10.96	8.22	2.74	115.51	0.00
Low intensity competition between Libyan banks	34.25	45.21	10.96	6.16	3.42	101.19	0.00
Failure to develop e-commerce laws and regulations	43.15	46.58	6.16	0.0	4.11	92.63	0.00
Weak information infrastructure in Libya	49.32	37.67	9.59	0.0	3.42	84.96	0.00
Internet crashes and slows	41.78	38.36	10.96	6.85	2.05	101.33	0.00
The failure of applying e-commerce in some banks	21.23	27.40	13.01	21.23	17.12	8.38	0.08
The scarcity of Arab websites on the internet	26.03	51.37	9.59	10.27	2.74	111.05	0.00
The absence of information security and confidentiality systems for the global information network	22.60	33.56	23.29	15.75	4.79	32.90	0.00
Libyan banks have not adopted e-	19.86	39.04	20.55	18.49	2.05	50.16	0.00

commerce support.							
Insufficient state support to spread the culture of e-commerce.	18.49	38.36	26.71	13.70	2.74	52.70	0.00
Low awareness of the possibility of doing deals electronically.	22.60	54.11	13.01	6.16	4.11	121.40	0.00
Lack of use of other payment methods.	28.08	56.16	6.85	7.53	1.37	149.55	0.00
No other payment options other than credit cards.	35.62	41.78	9.59	11.64	1.37	90.78	0.00
Clients are not accustomed to this type of trade.	46.58	33.56	4.79	7.53	7.53	104.55	0.00

The second question: What is the degree of approval of the application of e-commerce?

Table XI shows that the general average of the total of this study track is equal to "4.04", which means the full approval of the study sample with a "very high" degree as a general evaluation for them.

TABLE XI. MEAN, STANDARD DEVIATION AND PERCENTAGE FOR THE STUDY TRACK 'THE APPLICATION OF E-COMMERCE'

No	Assumptions	Mean	Standard deviation	Percentage
1	Availability of an information infrastructure in banks.	4.36	0.80	87.26
2	Support senior management of the e-commerce program.	4.35	0.78	86.99
3	Availability of laws and legislations regulating e-commerce.	4.27	0.98	85.34
4	Training workers in e-commerce methods.	4.16	0.89	83.15
5	Availability of physical equipment.	4.15	0.76	83.01
6	An awareness of the importance of e-commerce to customers.	4.12	1.05	82.33
7	State support to spread the culture of e-commerce.	4.10	0.63	81.92
8	Create bank websites on the internet.	4.08	0.95	81.51

9	Availability of experts in the field of e-commerce in banks.	4.01	1.14	80.14
10	Senior management provides the conditions and requirements for financial factors.	3.79	0.87	75.89
11	Customer orientation when designing banking service and delivery systems.	3.63	1.17	72.60
12	The participation of all employees.	3.60	1.15	71.92
Total	The application of the e-commerce	4.04	0.57	80.34

Table XII shows the values of a squared (χ^2) for the questionnaire to compare the participants' answers among them to select the independence of their answers, as it is compared between the observed frequencies and the expected repetitions, where the value of such a square (χ^2) for all the questions is of moral significance and this level of significance confirms that confidence of 95% at degrees of freedom of 4, which is less than 0.05. This leads to the rejection of the null hypothesis, which states that there are no statistically significant differences between the frequencies of the answers to this study track and the expected repetitions. The most answers were "I agree," except for items '9,13,14,23' which were strongly agree.

TABLE XII. THE PERCENTAGES OF FREQUENCIES AND TEST OF A SQUARE (χ^2) FOR THE STUDY TRACK

Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Chi-Square	Significance level
Support senior management of the e-commerce program.	47.95	43.84	4.79	2.05	1.37	164.21	0.00
Availability of an information infrastructure in banks.	51.37	36.99	9.59	0.68	1.37	153.38	0.00
Availability of physical equipment.	32.19	54.79	10.27	1.37	1.37	156.81	0.00
The participation of all employees.	23.97	39.04	12.33	21.92	2.74	53.93	0.00
Senior management provides the conditions and requirements for material factors.	15.75	58.90	17.12	5.48	2.74	149.55	0.00
Create bank websites on the internet.	36.30	45.89	8.22	8.22	1.37	113.93	0.00

An awareness of the importance of e-commerce to customers.	45.89	32.19	12.33	6.85	2.74	98.45	0.00
Availability of experts in the field of e-commerce in banks.	39.73	40.41	6.16	8.22	5.48	98.32	0.00
Training workers in e-commerce methods.	36.30	52.74	4.11	4.11	2.74	156.26	0.00
State support to spread the culture of e-commerce.	23.29	64.38	10.96	1.37	0.0	134.88	0.00
Availability of laws and legislations regulating e-commerce.	53.42	29.45	8.90	6.85	1.37	135.03	0.00
Customer orientation when designing banking service and delivery systems.	23.97	39.73	19.18	9.59	7.53	48.86	0.00

The third question: What are the most important advantages that can be achieved through applying e-commerce in commercial banks?

The percentages of the answers were used and the squared (χ^2) was used to compare the responses of the participants to determine whether the answers differ between them or not (i.e. test the independence of the answers) in terms of the degree of influence at the level of significant significance (0.05). Table XIII shows through percentages and mean, that the participant's answers were "I agree" The mean of the overall this study track (the advantageous of the application of e-commerce) is equal to "4.09", which means full approval of the study sample on this track with a "good" degree as a general evaluation.

TABLE XIII. MEAN, STANDARD DEVIATION, AND PERCENTAGE FOR THE ADVANTAGES OF THE APPLICATION OF E-COMMERCE

No	Assumptions	Mean	Standard deviation	Percentage
1	Improving the quality of banking services.	4.40	0.71	87.95
2	Abbreviate the business and documentary cycles.	4.27	0.80	85.48
3	Superior speed in customer contact.	4.20	0.99	83.97
4	Increase delivery speed, contract and termination deals.	4.19	0.98	83.84
5	Contributing to the development of Libyan exports.	4.18	0.89	83.56
6	Maintaining existing customers of banks.	4.17	0.91	83.42
7	Attracting new bank customers	4.12	0.97	82.47

8	Increased response speed to customer requirements	4.06	0.94	81.23
9	Improving the competitiveness of the bank.	4.03	0.94	80.55
10	Improving the outcomes of the bank's business	4.03	0.92	80.68
11	Broadening the base of financial services.	3.95	0.89	79.04
12	It is considered a tool to increase transparency	3.87	1.10	77.40
13	Competition with international banks	3.85	1.08	76.99
14	Providing additional job opportunities	3.67	1.31	73.42
Total	The advantages of e-commerce application	4.09	0.61	82.27

Table XIV shows the values of a squared (χ^2) for the questionnaire to compare the participants' answers among them to select the independence of their answers, as it is compared between the observed frequencies and the expected repetitions, where the value of such a square (χ^2) for all the questions is of moral significance and this level of significance confirms that confidence of 95% at degrees of freedom of 4, which is less than 0.05. Through the analysis, the researcher notes that the two items (10, 1) are among the most important advantages achieved by e-commerce in the Libyan commercial banks.

To answer the question: What are the most important advantages that can be achieved when applying e-commerce in commercial banks? The answer is "full approval" of the availability of these benefits, which helps spread the application of the concept of e-commerce.

TABLE XIV. THE PERCENTAGES OF FREQUENCIES AND TEST OF A SQUARE (X²) FOR THE STUDY TRACK

Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Chi-Square	Significance level
Improving the quality of banking services	49.32	44.52	2.74	3.42	0.0	112.90	0.00
Improving the competitiveness of the bank.	32.19	48.63	11.64	4.79	2.74	114.41	0.00
Improving the outcomes of the bank's business	30.14	52.74	11.64	1.37	4.11	134.62	0.00
Providing additional job opportunities	32.19	35.62	8.22	15.07	8.90	49.55	0.00
Competition with international banks	30.82	40.41	15.75	8.90	4.11	67.70	0.00
Maintaining existing customers of banks.	41.78	41.78	9.59	5.48	1.37	117.90	0.00
Attracting new bank customers	39.04	45.89	6.16	6.16	2.74	125.10	0.00
Increased response speed to customer requirements	33.56	50.00	8.22	5.48	2.74	126.40	0.00
It is considered a tool to increase transparency	31.51	41.78	14.38	6.85	5.48	74.62	0.00
Increase delivery speed, contract and termination deals.	45.89	38.36	7.53	5.48	2.74	122.01	0.00
Broadening the base of financial services.	28.77	44.52	21.23	4.11	1.37	93.38	0.00
Abbreviate the business and documentary cycles.	41.10	42.47	11.64	2.74	2.05	171.40	0.00

IV. CONCLUSIONS

This study reached many of the results that were obtained by analyzing and explaining the data collected from the study sample, and the most important results are summarized as follows:

- The application of e-commerce methods is one of the important tools that can increase the performance of Libyan commercial banks.
- There is a direct relationship between administrators' awareness of the importance of e-commerce and the quality of banking services.
- The material and human requirements of the e-commerce application have the greatest influence on the quality of banking services.
- There are requirements that help the spread and application of e-commerce in Libyan banks, the most important requirements are: the availability of an information infrastructure in banks and the support of senior management of the e-commerce program, the development of laws and legislations regulating for e-commerce, and the availability of physical equipment and periodic training for staffs in e-commerce methods, in addition to developing of websites on the international information network.
- There are many obstacles that hinder the application of e-commerce to the Libyan commercial banks. These obstacles are weak

information infrastructure, inadequate communication systems between banks, disruption and slowdown of the international information network, lack of obsolescence of computers in banks, low awareness by customers on the electronic services, the low educational level, especially the weakness of the English language, in addition to the lack of development of the legal structure and the absence of safe and confidential systems for the international information network.

- here are advantages that can be achieved when applying e-commerce in the Libyan commercial banks, including: shortening the commercial cycle, improving the quality of the banking service, and the super speed in completing, contracting and ending deals and contacting customers, increasing the contribution to the development of Libyan exports, maintaining the existing customers of banks, attracting new segments and improving competitiveness between domestic and international banks and expanding the base of financial services.

REFERENCES

- [1] Al-Sahn, Farid and Tariq Taha, Perceptive Quality Determinants of Internet Banking Services in Banks Operating in Egypt Using Critical Evaluation Method, Journal of the Faculty of Commerce for Scientific Research, First Issue, Forty Volume, Alexandria - Egypt 2003.
- [2] Radwan, Raafat, the world of electronic commerce, the Arab Organization for Administrative Development, "research and studies" Cairo, first edition, 1999.
- [3] Taha, Tariq, Internet Marketing and E-Commerce, published by Monshaat Al-Maarif, Alexandria, 2006.
- [5] Sharawi, Mahmoud Fathi, The Effect of E-Marketing on the Competitiveness of Egyptian Exports (An Applied Study on the Software Sector), Unpublished Master Thesis, Helwan University, Faculty of Commerce, Egypt, 2005.
- [6] Azzam, Zakaria and Abdul Basit, Hassouna and Mustafa, Sheikh, Principles of Modern Marketing (Between Theory and Practice), Dar Al Masirah for Publishing and Distribution, Amman, Jordan.
- [7] Abdel-Khaleq, Samah Ahmed, an analytical study of the problems of reviewing establishments that are dealt with through electronic commerce, unpublished Master Thesis, Cairo University, Faculty of Commerce, 2006.
- [8] Bassiouni, Abdel-Hamid and Abdel-Karim, Abdel-Hamid Bassiouni, electronic commerce, House of Books International for publication and distribution, Abdin - Cairo, 2003.
- [9] Abdel-Al, Hammad Tariq, E-Commerce: Concepts - Experiences - Challenges - Technology, Financial, Marketing and Legal Dimensions, Cairo, University House, 2003.
- [10] Mustafa, Marwa Kamel, "The difficulties facing Arab electronic commerce from the viewpoint of the owners of Arab electronic stores", research published in King Saud magazine, volume fourteenth - Administrative Sciences (2), the scientific publishing house and printing press, King Saud University, Riyadh, Saudi Arabia, 2002.
- [11] Nader, Jamal, Basics and Concepts of E-Commerce, Al-Isra Publishing and Distribution House, Amman, Jordan, First Edition, 2005.
- [12] Khashaba, Mohamed Al-Saeed, Electronic Commerce Technology, Modern Offset Press, Egypt, Cairo, 2003.
- [13] Amen, Asmaa, Al-Sharq Al-Awsat, Al-Arab International Newspaper, "Egypt Prepares New Legislation to Regulate E-Commerce", Issue "8312" Issued on Friday, August 31, 2001.
- [14] Bassiouny, Abdel Hamid, the basics and principles of electronic commerce, Dar Al-Kutub Al-Alameya for Publishing and Distribution, Cairo, 2004
- [15] Qandil, Nahla Ahmed, electronic commerce, (The guide for the modern director "Marketing vision"), Aswis Canal University, 2005.
- [16] Youssef, Amir Faraj, Electronic Commerce, University Press House, Alexandria, 2008.
- [17] Abdel Mohsen, Tawfiq Mohammed, Marketing and the challenges of electronic commerce, Arab thought house, Arab Renaissance house, Egypt, 2005.
- [18] Ghoneim, Ahmed, Marketing and Electronic Commerce, The Modern Library Mansoura, Egypt, 2009.
- [19] Fraser et.al.2000,"The Strategic challenge of electronic commerce, supply chain Management": An International Journal, 5.
- [20] Qasim Khaled Mustafa, "The Role of Electronic Commerce Mechanisms in the Development of Arab Environmental Trade", a study published in the International Journal, Trade and Finance, Faculty of Commerce, Tanta University, second edition, 2006.
- [21] Al-Sairafi, Mohamed, Electronic Commerce, Horus International Foundation for Publishing and Distribution, Alexandria, first edition, 2005.
- [22] Mattoo, A. & Schuknecht, L.,2000,"Trade Policies for Electronic Commerce", World Bank, Washington DC.
- [23] Chou, P. Y.2001,"Inhibitors to EDI adoption in small Businesses: An Empirical Investigation" The Journal of Electronic Commerce Research,2.
- [24] Al-Ali, Maysa, "An Arab and International Economy," Al-Thawra newspaper, political daily, published by Al-Wehda Foundation for Press, Printing and Publishing, Damascus - Syria, the number of one corresponding to 12/7/2009.
- [25] El-Borai, Salwa Zaghoul, The Role of the Internet in Direct Marketing Among Business Enterprises, Applied to the Industrial Sector in the Arab Republic of Egypt, Unpublished Master Thesis, Mansoura University, Faculty of Commerce, Arab Republic of Egypt, 2003.
- [26] Al-Sibsi, Shaaban Ali, Lectures in Marketing and Electronic Commerce, 2008.
- [27] Arab Strategic Report, "Information Technology as an Approach to Arab Development and Integration", Al-Ahram Center for Political and Strategic Studies, 2000.
- [28] Sekaran, U. (2003) Research Methods for Business: A Skill Building Approach, 4th Edition, John Wiley & Sons U.S.A
- [29] Yassin, Saad Ghaleb and Bashir, Abbas Al-Alaqi, Electronic Commerce, Dar Al-Manhaj for Publishing and Distribution, Amman, Jordan, First Edition, 2004.
- [30] Jad, Hisham Mohamed, "E-Commerce and its Impact on Marketing Policies", a field study applying to private business sector companies in the Arab Republic of Egypt, unpublished Master Thesis, Faculty of Commerce in Ismailia, Suez Canal University, Egypt, 2005.