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## **Study Communicate of Information technology in The Export of Agricultural Products of Karbala Province**

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### **ABSTRACT**

One of the most important consequences of globalization is increased competition at the international level of economics. Because in these circumstances, we will always face reduced transportation costs, the astonishing growth of information technology and increasing expansion of e-commerce and minimization of geographical constraints and growth of competition, which will increase the efficiency of the international economy. Among these, it can be said that the most important consequence of globalization on the economies of countries is the growth of e-commerce. The agricultural sector in most developing countries, including Iran, plays an important role in the trading system, GDP and job creation. The use of e-commerce in this major part of the national economy will bring great benefits, so to use this new technology, it is necessary to provide a feasibility study for the development of e-commerce in the export of agricultural products in this study. The present research method is descriptive-survey and is also applied in terms of the type of research because its results can be useful for the development of e-commerce in the export of agricultural products in the cities of Karbala province. In this study, employees and export specialists of the Commercial Organization, Agricultural Jihad, Chamber of Commerce and Industries and Deputy, brokers and natural and legal persons are engaged in agricultural exports and farmers of Karbala province as a statistical community. The method of random



sampling was simple that after determining the sample size, the samples were randomly selected from the study population and finally 170 questionnaires were distributed among the statistical population. Both descriptive and inferential statistical methods were used to test and analyze the processed information and were based on the SPSS software package. The results showed that technically, economically, legally, operationally and temporally, the possibility of developing e-commerce in the export of agricultural products There is Karbala province and the importance and role of these factors in the development of e-commerce in the export of agricultural products in the cities of Karbala province is not the same. This means that the technical factor in the development of e-commerce is most important in the export of agricultural products in the cities of Karbala province, then the economic factor, then the time factor, then the operational factor and finally the legal factor.

## **Introduction**

As we enter the third millennium, we are witnessing intense competition between governments and economic hubs in the world, especially in the commercial sector. Each holder of economic power, including corporations and countries, regional unions and organizations as micro-economic actors, and countries, unions and regional organizations as macroeconomic powers strive to gain a greater share of Earn the benefits, facilities and opportunities available in the global trade area. But the advancement of science and technology has brought the situation to a stage where those in power have not been content with the existing opportunities and are creating new facilities and opportunities by creating the necessary conditions. One of the most important opportunities for business facilitation and increasing global competitiveness is the use of new information and communication technology. E-commerce as the most important product and the product of these new technologies can provide a good opportunity for countries in domestic and international exchanges. Today, with the increasing development and dramatic growth of modern



communication tools and technologies, and the replacement of many traditional activities, in the trade sector, the movement from traditional trade to modern (electronic) trade, and its share of %25-20 of total international trade and it's a forecast of an annual growth rate of about %54 is proof of this claim. In the meantime, more countries have been able to take full advantage of this opportunity, which has been the creator and promoter of new technologies and believes in the principle of competitiveness to enter the markets.

With the various problems that the Iraqi economy suffers from, special strategies have been proposed for the development of the country; One of them is the export leap strategy, which balances the country's relative share of the world population with its relative share of world trade, and e-commerce is one of the tools that can help the country and companies in this regard. According to the mentioned cases, e-commerce should be taken seriously in the country and in the agricultural sector.

### **Information Technology**

In the late 1950s, new technology entered organizations that rapidly penetrated all aspects of the organization, especially at the management level, despite its unknown nature. The technology did not have a specific name and was first referred to as "information technology" by Weiser Veloit. According to these two IT researchers, it consisted of three parts: The first part included techniques for processing large amounts of information that were done through a computer. The second part concerned the application of statistical and mathematical methods to decision-making through techniques such as mathematical planning and operations research, and the third part involved the simulation of complex problems through computer programs that used related programs. It was done Information technology can be considered as the point of electronic convergence and information processing. This two-dimensional convergence provides human beings with new tools for collecting, storing, processing, organizing, transmitting and displaying information. The development of the most efficient tools is undergoing profound changes in the information technology sector.(Mohammadiani et al., 2017).

This fact can be well understood from the growing variety of products and the emergence of new forms of competition and alliance between computer hardware



manufacturers and data transfer on the one hand and service providers on the other. The IT sector is an evolving industry that is desperately looking for bigger marketing, in order to attract more investment and generate more revenue.

Thus, information technology, which encourages the internationalization of production and markets, doubles the dynamism and flexibility of services and monetary and financial flows, and sets the stage for the globalization of the economy. Therefore, information systems are used to increase the productivity, quality and efficiency of financial management, banking, insurance in the private and public sectors. (Aznoli et al., 2017)

In general, the advances in the field of information technology can be considered as a direct result of the recent advances in microelectronics knowledge. Because the scientific and technological results obtained in the field of transistors, semiconductors and integrated circuits have been such that today it affects all branches of the economy; Advances in this technology have resulted in significant cost reductions and tremendous improvements in technical performance in the electronics industry and other industries (ibid.).

The main difference between the introduction of information technology and other technologies is that, in principle, information technology changes the principles that govern the industry and the economy, and different sectors of the economy are not equally affected by information technology. Some sections Economists are quick to absorb information technology, and in some economic sectors, this acceptance is slow. The development of information technology and especially the World Wide Web has created a new channel for selling products and offering new products. (Asghari and Azadi, 2017)

Today's technology for realizing the idea of direct democracy includes satellite connections, telephone databases, cable televisions, networks, and computer systems, each of which is part of the process of realizing democracy in the new information age. The telephone is a person-to-person conversation. But it transmits a very limited amount of information. Mass media such as radio and television publish more information and reach more people. But it is inherently a one-way communication between the individual and the collective. That is, it actively and unilaterally addresses countless people in a passive way. But in modern information



technology, two-way communication has been implemented in the form of group to group, person to group, group to person and person to person. The development of new information technology completely affects the indirect status of the legislature due to its unique capabilities, such as virtual presence, colloquialism, large data transfer, power and data processing speed (ibid.).

## **Digital Marketing**

Digital marketing is the component of marketing that uses internet and online based digital technologies such as desktop computers, mobile phones and other digital media and platforms to promote products and services. Its development during the 1990s and 2000s changed the way brands and businesses use technology for marketing. As digital platforms became increasingly incorporated into marketing plans and everyday life, and as people increasingly use digital devices instead of visiting physical shops, digital marketing campaigns have become prevalent, employing combinations of search engine optimization (SEO), search engine marketing (SEM), content marketing, influencer marketing, content automation, campaign marketing, data-driven marketing, e-commerce marketing, social media marketing, social media optimization, e-mail direct marketing, display advertising, e-books, and optical disks and games have become commonplace. Digital marketing extends to non-Internet channels that provide digital media, such as television, mobile phones (SMS and MMS), callback, and on-hold mobile ring tones. The extension to non-Internet channels differentiates digital marketing from online marketing.

## **Digital Marketing Aims**

Part of the internet marketing plan should determine what your website should offer to visitors or what are your expectations from the website? What place will your site occupy in the minds of customers? What are your goals on the website? Why did you launch this site? What are your business and economic goals?

Of course, the goals of each business are unique. For example, the goal of an antique jewelry seller is different from a heavy equipment seller who uses an extensive

distribution network. The goals of the website should be in line with the company's marketing plan and mission. The following are goals for some businesses

#### 1- Only online presence

Some companies believe that their sales compared to competitors have decreased and because of this, they mention that competitors have a website but they do not have a website. These companies do not care about the quality (appearance and content) of the website, they just want to have a website so that they are not relatively behind the competitors in this regard. According to Professor Cutler, companies can be present on the Internet in three ways (Kotler.2001).

#### 2- Using the services of presentation companies' Online business service provider

This method includes renting space on an online service provider site or creating links in the virtual stores of these sites. For example, Jc penny retailer ([www.jcpenny.com](http://www.jcpenny.com)) links to Prodigy. America online sites. In this method, the service provider company receives a fixed amount annually and a percentage of online sales.

#### 3- Sales through other sites

Amazon has revolutionized marketing by creating e-stores. Manufacturers and retailers can sell their products in these stores. For less than \$ 10 a month and a small percentage of online revenue, businesses of all sizes can reach Amazon customers (over 12 million).

#### 4- Launching your own sites

Companies can design and launch a website for themselves. They can put information about the history, mission, goods and services and addresses of their stores on their website. They can also display news about the latest events, financial performance data and job opportunities on their site.

#### 5- Answering common customers' questions

Some companies say that customers who see our ads (in magazines, radio and television), contact us by phone or e-mail and ask for more information about our products. According to these companies, this is done through the website, easier and



at a lower cost, because customers can view information about the company, its goods or services on the company's website or the information they need to request. Therefore, through the website, it is possible to reduce the time when employees of the customer service department spend time answering repetitive customer questions, and this means reducing administrative and personnel costs.

6- Increasing the number of website visitors and subscribers of electronic newsletters and increasing the revenue from advertisements (by selling advertising space on websites and newsletters).

7- Compete with companies that provide limited services

Through the website, you can offer a wide range of services related to your field of activity, which most companies do not provide such services.

8- Maintaining a position in the market or a leadership position in a specific market

Some companies operating in a specialized field (for example, in the field of computer services or financial services) try to maintain their position through the website and even expand their markets.

9- Emphasis on activities at the transnational level

If export and import companies try to identify and penetrate new markets via the Internet in order to update their information as well as gain new customers.

10- Save time and educate customers

Some companies offer training and consulting through their website. In this case, in Iraq, we can refer to the Soheil Roaz Institute ([www.soelearning.com](http://www.soelearning.com)), which is in fact an online education complex from elementary school to the entrance exam, in which for each course in each academic year and each level, between one Up to 20 teachers and teachers answer the clients' questions (Vega-Pons et al., 2011).

## **Benefits of Digital Marketing**

### **1- Benefits related to consumers**

According to Professor Philip Cutler (2001), online marketing has three advantages for the Egyptian:

#### **A- Convenience**

Customers can order the products they need 24 hours a day. For example, Land's End Site customers ([www.landsend.com](http://www.landsend.com)) register their bank information and postal address only once, after which their data will automatically appear on the order form every time they make a purchase.

#### **B- Information**

Customers can easily and quickly find competitive information about companies, products, competitors and prices. World Consumer ([www.consumerworld.org](http://www.consumerworld.org)), for example, provides a wealth of information about stores, consumer advocacy sites, and many other online benefits that help shoppers make informed decisions.

#### **C- Less problems**

Customers no longer have to deal with sellers or wait in line to buy the product they need. For example, Autobytel ([www.Autobytel.com](http://www.Autobytel.com)) and similar sites allow you to buy a car online, allowing buyers to talk to sellers (sales force) about the price and capabilities of the product (which Time consuming), avoid.

### **2- Benefits related to marketing managers**

Philip Cutler believes that e-marketing also has benefits for marketers, as follows:

#### **A- Rapid adaptation to market conditions**

Companies can quickly add or remove products to their product list, as well as change the prices and descriptions of their products and services.

#### **B- Lower costs**

With the Internet, companies no longer have to pay the high cost of maintaining stores, they can also produce digital catalogs for their products, which cost far less than printing and sending paper catalogs.

#### **C- Creating mutually beneficial relationships with customers**

Companies are able to have a two-way or so-called interaction with their customers and ask them to receive useful data or free information.

#### **D- Detailed statistical review of contacts**





Marketing managers can count the total number of people who visit their site and the number of people who focus on a specific part of the site to specify.

## **Electronic Commerce**

Export means the sale of goods or services produced from one country to another, one direction of the two-way road, the second direction of which is import. Other goods, and any country that seeks to import needs foreign exchange resources that are provided through exports. On the other hand, any goods or services that are exported from a country are considered as part of the import list from the point of view of the buyer country. This two-way road has been identified in the trade literature as international trade.

From another point of view, it can be said that export means the sale of manufactured goods and services provided by the inhabitants of one country to other countries. In other words, export means the global economy's demand for domestically made goods and services. Internal of It's from other countries. According to economic theories, trade is the engine of economic growth and development of countries. The growth and development of international trade increase the welfare and per capita income of the inhabitants of countries. In other words, to achieve greater economic power in the world market, each country must seek appropriate solutions to increase problems, barriers and internal bottlenecks, increase the welfare and per capita income of its inhabitants. To pursue economics to produce and increase the export volume of its products in the world market. (Subhashini et al., 2021).

The main discussion in international trade theories is the answer to the question of what a country should export or import, what to what amount, or from which country, why and how. In this regard, many theories and theories have been proposed, each of which has somehow tried to answer these questions or some of them.

The Internet is the name given to a vast, global system that includes people, information, and computers. The Internet is so large and complex that it does not fit into one person's comprehension. The Internet is not really a big, single computer network. It is a collection of tens of thousands of networks in the world. This new phenomenon plays a very important role in the economies of the world.



The Internet is a technology with special features that has the ability to change various aspects of competition in many industries and at the same time create new industries. The Internet is a low-cost, high-speed standard of interaction, time adjustment, global access, and a form of distribution channel that reduces information imbalances between exchanges. These attributes greatly affect the five C's: coordination, business, community, content, and communication. The Internet is the largest decentralized computer network in the world, with millions of users scattered around the world. The Internet, or network of networks, is an interconnected system of smaller networks, all of which use the same rules (protocols) to exchange information.

The Internet is a network of computers that connect countries. The Internet is similar to a telephone system in some ways. Just as you can talk to different people on the phone anywhere in the world, as long as you are connected to the Internet, you can communicate with people via computer. The Internet is more than just content; The Internet is a social space where users interact. (Zhang et al., 2020).

The Internet is a vast network formed by the interconnection of personal computer networks around the world through telephone lines, satellites, and other telecommunications systems.

"Internet marketing is the process of establishing and maintaining mutually beneficial relationships with customers through Internet activities to facilitate the exchange of ideas, goods and services in a way that achieves the goals of both parties." (Jain et al., 2020).

## **Internet**

In expanding the business activities of organizations, the Internet has created opportunities by influencing costs and creating new ways of doing business, including marketing research, access to new markets, and better customer service. Rapid distribution of products, solving customer problems, establishing effective communication with business partners and customers. E-marketing, internet marketing, online marketing, network marketing, web-based marketing and digital marketing are all different topics for the same subject, and that is the use of the



Internet and related technologies to conduct marketing activities. (Zaroug et al., 2020).

## **Karbala Agricultural Sector**

In the Al-Hajarah desert, south and west of Iraq's Lake Al-Razzazah and the city of Karbala, the "Karbala Agriculture Project", an area of circular crop fields was established in the middle of the last decade. The first fields appeared in 2013, but the main work started in 2016. More than 300 circular fields are now in operation in the Ayn al-Tamur District, most of them are around 500 m in diameter (ca. 48.5 acres of land), some are even larger. Center pivot irrigation is a very common method of crop irrigation in which equipment rotates around a pivot and crops are watered with sprinklers.

The availability of freshwater is becoming a global concern. Agricultural consumption has been increasing steadily and this in turn can also cause enormous problems (e.g., significant reduction in ground water level, water shortage or salinisation) and conflicts on a regional scale.

## **Research Methods**

The end result of all research is the achievement of the realities of the world around them, with the help of which human beings can make changes in their desired phenomena and smooth the conditions according to their wishes and opinions.

These researches are used in appropriate methods according to the type and subject of the research. In general, scientific research and research methods are divided into three groups based on purpose, applied and practical research, and based on the nature and method are divided into five groups: historical, descriptive, correlational, experimental and causal research (Hafiz Nia, 2003).

Based on the divisions mentioned above, the method of the present research is based on the applied goal because the obtained results are applied immediately after the completion of the work and have practical results. , Objects and patterns are used to develop welfare and comfort and improve the standard of living of human beings and based on the nature of the present research method is descriptive-survey because in descriptive research the researcher can typically assess working conditions, situation,



working methods , Pay attention to demographic ideas and information and, if necessary, examine and identify the relationships between the studied variables (Delavar, 1995).

In survey research, the purpose is to identify behaviors and their motivation among individuals in the community or its constituent groups, which is based on information and survey data and the establishment of relationships between different variables. In this method, we try to study the feasibility of the development of e-commerce in the export of agricultural products in Karbala province.

### **Statistical Population of The Study**

When people talk about society, they think of a set of living things, usually people, while society may be made up of inanimate objects and elements. Thus, society is the largest set of beings at a given time. Our desired and the statistical community of a number of desirable elements that have at least one characteristic trait. A trait is a characteristic that is common to all elements of the statistical community and distinguishes the statistical community from other societies. The statistical population is divided into two groups, limited and unlimited (Adel Azar, 2004).

According to the objectives of the study, this study focuses on the unlimited statistical community that are active in the export of agricultural products in the cities of Karbala, this community consists of:

Employees and export specialists of the Commercial Organization, Agricultural Jihad, Chamber of Commerce and Industries and Deputy, brokers and natural and legal persons are engaged in agricultural export activities and farmers of Karbala province.

### **Sampling Method and Sample Size Estimation**

Sampling is the process of selecting a number of members of the community that expresses the main characteristics of the community, so that examining the sample and understanding the characteristics of the subjects of the sample, we can generalize the characteristics or features to the elements of society.

Characteristics of the community such as (community mean), (community standard deviation) and  $\sigma^2$  (community variance) are considered as community parameters. (Alwani et al., 2004).



Therefore, when the researcher intends to know the statistical community by studying a sample of it, he must choose a possible or random method for selecting the sample so that the sample is similar to the community and their attributes correspond to each other and the sample represents the community. Therefore, sampling is a set of actions that are taken to select a number of people in the community in a way that represents them, and the results can be generalized to the community. For this purpose, two basic conditions in sampling must be observed, one is that all members of the statistical community have the same chance to be selected as a statistical sample and the other is that a sufficient number of samples are selected. The sampling method in the present study is as follows:

The sampling method in this study was simple random that after determining the sample size, the samples were randomly selected from the study population.

Samples have been taken from the employees and export specialists of the Trade Organization, Jihad Keshavarzi, Chamber of Commerce and Industries, and the deputy, brokers and natural and legal persons engaged in agricultural export activities and farmers of Karbala province.

## **Inferential Analysis**

In the inferential analysis section, we first examine the hypothesis of normality using Kolmogorov-Smirnov test. If the hypothesis of normality is accepted, we will use parametric methods to test the hypotheses, and otherwise non-parametric methods. Then, the research hypotheses were tested using a one-sample t-test. In this test, we have compared the practical and theoretical means. The theoretical average means the average of the codes assigned to the options of each question, which is equal to 3. If the mean of observation (mean of the sample for each hypothesis) is significantly higher than the theoretical mean, it can be accepted that the frequency of very high and high options is significantly higher than the frequency of very low and low options, so the researcher hypothesis is accepted.

## **Kolmogorov-Smirnov test**

Decision: If the probability value, ie P-value, is less than 0.05, the null hypothesis, ie the hypothesis that the distribution of the sample under study is normal, is rejected

at the 5% error level, otherwise the null hypothesis is confirmed, which means that The distribution of the studied sample is normal.

**Table 1 Test table of normality of variables**

Result	Decision	P-value	Z	Number	variables
The distribution is normal	Accept the null hypothesis	0.111	1.202	170	Technical factor
The distribution is normal	Accept the null hypothesis	0.158	1.147	170	Economic factor
The distribution is normal	Accept the null hypothesis	0.485	0.837	170	Legal factor
The distribution is normal	Accept the null hypothesis	0.394	0.899	170	Operating factor
The distribution is normal	Accept the null hypothesis	0.599	0.765	170	Time factor

According to the P-values obtained in the above table, which are all more than 0.05, the null hypothesis, ie the hypothesis of a normal distribution of the variables in question, is accepted at a significance level of 0.05.

One-sample t-test to test hypotheses related to research variables.

### **Test the first hypothesis**

It is technically possible to develop e-commerce in the export of agricultural products in Karbala province.

Hypotheses related to the comparison of practical and theoretical means can be written as follows:

:  $H_0$  the average is equal to 3. (Technically, it is not possible to develop e-commerce in the export of agricultural products in Karbala province)

$H_1$ : The average is greater than 3. (Technically, it is possible to develop e-commerce in the export of agricultural products in Karbala province)

The results of the calculations are recorded in the following table:

n	$\bar{x}$	S	T	d.f	P-value
170	4.0706	0.5866	23.796	169	0.000

According to the values of the above table, especially the value of P-value = 0.000, the null hypothesis is rejected at the 5% error level. That is, the mean of the observations is significantly greater than the number 3. Therefore, it can be claimed that technically it is possible to develop e-commerce in the export of agricultural products in Karbala province.

### **Test of the second hypothesis**

Economically, it is possible to develop e-commerce in the export of agricultural products in Karbala province.

Hypotheses related to the comparison of practical and theoretical means can be written as follows:

H<sub>0</sub>: The average is equal to 3. (Economically, it is not possible to develop e-commerce in the export of agricultural products in Karbala province.)

H<sub>1</sub>: The average is greater than 3. (Economically, it is possible to develop e-commerce in the export of agricultural products in Karbala province.)

The results of the calculations are recorded in the following table:

N	$\bar{x}$	S	t	d.f	P-value
170	4.0912	0.5767	24.669	169	0.000

According to the values of the above table, especially the value of P-value = 0, the null hypothesis is rejected at the level of 5% error. It means that the average of the observations is not equal to 3 and It can be concluded that the average of the observations is significantly higher than 3, in other words, at the level of 5% error of the researcher hypothesis is accepted. Therefore, it can be claimed that there is an economic possibility of developing e-commerce in the export of agricultural products in Karbala province.

### **Test the third hypothesis**

Legally and policy-making, it is possible to develop e-commerce in the export of agricultural products in Karbala province.

Hypotheses related to the comparison of practical and theoretical means can be written as follows:

H<sub>0</sub>: The average is 3. (Legally and policy-making, it is not possible to develop e-commerce in the export of agricultural products in Karbala province.)

H<sub>1</sub>: The average is greater than 3. (Legally and policy-making it is possible to develop e-commerce in the export of agricultural products in Karbala province.)

The results of the calculations are recorded in the following table:

N	$\bar{x}$	S	t	d.f	P-value
170	3.7894	0.5052	20.372	169	0.000

According to the values of the above table, especially the value of P-value = 0, the null hypothesis is rejected at the level of 5% error. It means that the average of observations is not equal to 3 and It can be concluded that the average of the observations is significantly higher than 3, in other words, at the level of 5% error of the researcher hypothesis is accepted. Therefore, it can be claimed that from a legal and policy point of view, there is a possibility of developing e-commerce in the export of agricultural products in Karbala province.

### **Test of the fourth hypothesis**

From an operational point of view, it is possible to develop e-commerce in the export of agricultural products in Karbala province.

Hypotheses related to the comparison of practical and theoretical means can be written as follows:

H<sub>0</sub>: The average is equal to 3. (Operationally, it is not possible to develop e-commerce in the export of agricultural products in Karbala province.)

H<sub>1</sub>: The average is greater than 3. (Operationally, it is possible to develop e-commerce in the export of agricultural products in Karbala province.)

The results of the calculations are recorded in the following table:

N	$\bar{x}$	s	t	d.f	P-value
170	3.9958	0.4758	27.287	169	0.000

According to the values of the above table, especially the value of P-value = 0, the null hypothesis is rejected at the level of 5% error. It means that the average of



observations is not equal to 3 and It can be concluded that the average of the observations is significantly higher than 3, in other words, at the level of 5% error of the researcher hypothesis is accepted. Therefore, it can be claimed that there is an operational possibility of developing e-commerce in the export of agricultural products in Karbala province.

### **Test of the fifth hypothesis**

In terms of time, it is possible to develop e-commerce in the export of agricultural products in Karbala province.

Hypotheses related to the comparison of practical and theoretical means can be written as follows:

H<sub>0</sub>: The average is equal to 3. (In terms of time, it is not possible to develop e-commerce in the export of agricultural products in Karbala province.)

H<sub>1</sub>: The average is greater than 3. (In terms of time, it is possible to develop e-commerce in the export of agricultural products in Karbala province.)

The results of the calculations are recorded in the following table:

n	$\bar{x}$	s	t	d.f	P-value
170	4.0694	0.4885	28.839	169	0.000

According to the values of the above table, especially the value of P-value = 0, the null hypothesis is rejected at the level of 5% error. It means that the average of the observations is not equal to 3 and It can be concluded that the average of the observations is significantly higher than 3, in other words, at the level of 5% error of the researcher hypothesis is accepted. Therefore, it can be claimed that in terms of time, it is possible to develop e-commerce in the export of agricultural products in Karbala province.

### **Friedman test for ranking research variables**

Friedman test was used to prioritize and determine the importance of each hypothesis. This is used when the statistical data are minimally sequential or can be categorized bilaterally in sequential terms. Friedmann test shows whether among the

factors one factor is more important than other factors or all factors are equal in importance. This test was performed separately for the two study groups.

Hypothesis: The above variables in terms of feasibility are of equal importance in the development of e-commerce in the export of agricultural products in Karbala province.

Hypothesis Zero: The five research variables have the same rank.

Hypothesis one: The five research variables do not have the same rank.

A summary of the results of the Friedman test to determine the priority of the hypotheses is recorded in the following table:

Sample size	Value of test statistics	d.f	P-value	result
170	63.180	4	0.000	Reject the null hypothesis

As can be seen, at the significance level of 5%, the assumption that the variables have the same rank is rejected, so these 5 variables are not of equal importance. In the table below, the rank of the variables is recorded:

Average ranks	Variable
3.37	Technical factor
3.36	Economic factor
2.21	Legal factor
2.97	Operating factor
3.09	Time factor

Prioritization of variables according to the respondents based on Friedman test is as follows, which are:

- 1- Technical factor
- 2- Economic factor
- 3- Time factor
- 4- Operating agent
- 5- Legal agent

## **Conclusion**

The purpose of this study is to investigate the feasibility of technical, economic, temporal, operational, legal development of e-commerce in the export of agricultural products in Karbala province, especially the export of bananas, watermelons, and dates.

The sample size of this research is 167 employees and export specialists of the Commercial Organization, Agricultural Jihad, Chamber of Commerce and Industries and Deputy, brokers and natural and legal persons engaged in agricultural export activities and farmers of Karbala province.

The measurement tool in this research is a questionnaire. The questionnaire was developed in consultation with researchers and supervisors, consultants, statistics experts and experts whose validity was estimated based on Cronbach's alpha coefficient of 0.839 and descriptive and inferential statistics were used to analyze the data.

## **Summary of Research Findings**

General test of the first hypothesis: It is technically possible to develop e-commerce in the export of agricultural products in Karbala province.

The results of inferential statistics and the results obtained from statistical calculations state that at the error level of 5% the variables are significant and the first hypothesis is confirmed. In general, it is technically possible to develop e-commerce in the export of agricultural products in Karbala province. In this study, the technical factor including technical and technological equipment, technical competencies, knowledge and awareness of specialists and experts of defined implementation methods is considered. General test of the second hypothesis: It is economically possible to develop e-commerce in the export of agricultural products in Karbala province.

The results of inferential statistics and the results of statistical calculations in the fourth chapter show that at the error level of 5% the variables are significant and the second hypothesis is confirmed. In general, it is economically possible to develop e-commerce in the export of agricultural products in Karbala province. In this study, the



economic factor includes adequate equipment and financial resources, enthusiasm for investment, having the necessary economic ability.

General test of the third hypothesis: From a legal and policy point of view, it is possible to develop e-commerce in the export of agricultural products in Karbala province.

The results of statistical calculations show that at the 5% error level the variables are significant and the third hypothesis is confirmed. In general, from a legal and policy point of view, it is possible to develop e-commerce in the export of agricultural products in Karbala province. In this study, the legal factor consists of legal authorities, government executive instructions, flexible rules and regulations for the development of e-commerce.

General test of the fourth hypothesis: From an operational point of view, it is possible to develop e-commerce in the export of agricultural products in Karbala province.

The results of inferential statistics indicate that at the error level of 5% the variables are significant and the fourth hypothesis is confirmed. In general, there is an operational possibility of developing e-commerce in the export of agricultural products in Karbala province. In this study, the operational factor is the appropriate culture and atmosphere, natural and legal persons, processes and policies for the export of agricultural products in Karbala province and the development of e-commerce.

General test of the fifth hypothesis: In terms of time, it is possible to develop e-commerce in the export of agricultural products in Karbala province. The results show that at the error level of 5% the variables are significant and the fifth hypothesis is confirmed. In general, in terms of time, it is possible to develop e-commerce in the export of agricultural products in Karbala province. In this study, the time factor includes short-term feasibility, setting a schedule, possibility of scheduling, e-commerce development calendar and the possibility of prioritization in any of the e-commerce development methods in the export of agricultural products.

General Test of Hypothesis 6: All technical, economic, legal (operational), operational and temporal factors in the development of e-commerce in the export of agricultural products in Karbala province have the same role. The results of inferential statistics and Friedman test in the previous chapter show that at the significance level of 5%, the assumption that the variables are equal, ie the sixth hypothesis, is not confirmed, and therefore these 5 variables are not of equal importance. According to the test of

hypotheses and their analysis, it seems that the development of e-commerce in the export of agricultural products in Karbala province is possible by considering the priorities mentioned above. Develop a strategic plan for the export of agricultural products through e-commerce:

- Investigating the reasons for the success and failure of the export of agricultural products in Karbala province
- Identify the export capabilities of other agricultural products through e-commerce
- Investigating the benefits and advantages of establishing e-commerce in the export of agricultural products
- Investigating the benefits and advantages of establishing electronic marketing strategies to expand the export of agricultural products in Karbala province.

It should be noted that this research was conducted only in the geographical area of Karbala province, and its generalizability for other Iraqi regions and cities should be researched and tested. But the results can be a good solution for researchers and scholars.

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## خویندنی په یوه ندى ته كنه لوجیای زانیاری له هه ناردده كړدنې بهرهمه كشتوكالییه كانی پاریزگای كهره لا

### پوخته:

مه به سستی سهركى له نه نجامدانى نه م توپژینه وه په ده رځستن و نیشاناندانى گرنكى دونیای نالوگوری زانیاری و بازاری نه لکترنوییه وه له ریڼگای نه نترنیت كه په یوه ندىیه كى باشى دروست بووه له نیوان ته كنولوجیای زانیاری وه توری به ریوه بردنى بازار. ته كنولوجیای زانیاری كارناسانى باشى كړدووه له بواری به بازار كړدن و گواستن وه و ناردنو هینانى جوړها كه ل و په ل،، توپژینه وه كه ی نیستا به دواى لیکولینه وه دایه بو لیکولینه وه له بواری پیشكه و تنى بازارگانى نه لیکترنویى له بواری هه ناردده كړدنې بهرهمه كشتوكالییه كان و بو نه و مه به سته ش، نه و گوړاوانه ی كه بریتین له خویندنی گونجاوى (ته كنولوجیای زانیاری، ته كنىكى، ئابوورى، یاساى كاری). شپوازی نه م توپژینه وه په پووپوپیویه كى وه سفییه و له پرووى جوړى توپژینه وه شه وه كاری پیده كړیت چونكه نه نجامه كانی ده توانیت سوود به خش بیت بو په ره پیدانى بازارگانى نه لیکترنویى له هه ناردده كړدنې بهرهمه كشتوكالییه كان له شارى كهره لا له م توپژینه وه په دا فه زمانه ران و پسپورانى هه ناردده ریڼكخراوى بازارگانى و جیهانى كشتوكالی و ژوورى بازارگانى و پیشه سازى و جیگر و ده لال و كه سانى شاره زا و یاسایى له م ئاماره وه ریڼكخراون وه خه رىكى هه ناردده بهرهمى كشتوكالین و جووتیاری پاریزگای كهره لان. نمونونه كان به هه ره مه كى له ژماره ی دانیشتون هه لېژېردراون و له كو تايدا 170 پرسىار له نیوان دانیشتونى ئاماردا دابه شكران. هه ردو شپوازی ئامارى وه سفیى و زانستى به كارها تون بو تا قیكردنه وه و شیکردنه وه ی زانیاریه پرسه كراوه كان و له سه ر بنه ماى پا كیجى سو ف توپړى س پ پ س بوون. نه نجامه كان ده ریخست له پرووى ته كنىكى و ئابوورى و یاسایى و عمه لى و كاتیه وه نه گه رى په ره پیدانى بازارگانى نه لیکترنویى له هه ناردده كړدنې بهرهمه كشتوكالییه كاندا پاریزگای كهره لا هه په.

## دراسة إتصال تقنية المعلومات في تصدير المنتجات الزراعية لمحافظة كربلاء

### الملخص:

تهدف هذه الدراسة إلى القول إن أهم نتائج العولمة على اقتصاديات الدول هو نمو التجارة الإلكترونية، وعناصرها السوق الإلكتروني، وتبادل البيانات الإلكترونية، والتجارة عبر الإنترنت، مما يدل على العلاقة الوثيقة. بين تقنية المعلومات والتواصل مع عمليات السوق والإدارة. مع استخدام التجارة الإلكترونية كتكنولوجيا جديدة، تسعى الدراسة الحالية إلى التحقيق في دراسة الجدوى لتطوير التجارة الإلكترونية في مجال تصدير المنتجات الزراعية، ولهذا الغرض، المتغيرات بما في ذلك دراسة الجدوى (الفنية والاقتصادية والقانونية والتشغيلية)، المؤقتة) والتجارة الإلكترونية، تم النظر في تصدير المنتجات الزراعية. يعتبر منهج البحث الحالي مسجلاً وصفيًا ويطبق أيضًا من حيث نوع البحث لأن نتائجه يمكن أن تفيد في تطوير التجارة الإلكترونية في تصدير المنتجات الزراعية في محافظة كربلاء. في هذه الدراسة، يعمل موظفو ومختصو التصدير في المنظمة التجارية والجهاد الزراعي وغرفة التجارة والصناعة ووكيلها والسماصرة والأشخاص المتخصصون والاعتباريين في مجال الصادرات الزراعية وفلاحي محافظة كربلاء كمجتمع إحصائي. تم اختيار العينات عشوائياً من مجتمع الدراسة، وأخيراً تم توزيع 170 استبانة على المجتمع الإحصائي. تم استخدام كل من الطرق الإحصائية الوصفية والاستنتاجية لاختبار وتحليل المعلومات المعالجة واستندت إلى حزمة برامج SPSS. وأظهرت النتائج أن من الناحية الفنية والاقتصادية والقانونية والتشغيلية والزمنية، إمكانية تطوير التجارة الإلكترونية في تصدير المنتجات الزراعية هناك محافظة كربلاء وأهمية ودور هذه العوامل في تطوير التجارة الإلكترونية في تصدير المنتجات الزراعية. المنتجات الزراعية في محافظة كربلاء.