

The Legal Impact on E-Commerce in Jordan from the Seller's Point of View

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Abstract:- This study aims to identify the legal impact of e-commerce and the factors affecting its adoption from the perspective of sellers in Jordan. A questionnaire consisting of 15 questions was distributed among vendors in Amman for data collection. The data were analyzed using SPSS to test the hypotheses. The results show that there are significant differences among Jordanians when it comes to conducting electronic business transactions. The study found that some Jordanians have never conducted electronic commerce transactions, despite using the Internet for entertainment, while others use it to conduct their transactions electronically. The study recommends that Jordan focus on information technologies and learn from other countries' experiences, such as Malaysia's. Additionally, Jordan should encourage research and education in e-commerce, expand and improve Internet access, and encourage businessmen to use the Internet to promote their products. This study also aimed to demonstrate the impact of information and communication technology in activating electronic commerce as one of the most important modern methods adopted by countries in supporting their economy and improving business operations.

Keywords: Electronic Commerce, Electronic Commerce Law, Telecommunications, Sector-commerce in Jordan, Impact of E-commerce.

1. Introduction

The term "electronic commerce" has been discussed a lot lately with the emergence of the Internet as a capable and qualified medium to conduct commerce. This has clearly happened over the past twenty years and is likely to be the reason for the increase in the popularity of the internet. E-commerce involves the use of information technology with the organization and other parties associated with it such as customers, suppliers, government institutions, financial institutions, managers, employees and the public in order to enhance communications and deal with all parties with common interests [1].

There are also many different definitions of electronic commerce, including sharing information related to commercial activities, maintaining relationships, and concluding commercial deals through communication networks [2]. Another definition stated that electronic commerce is that activity which describes the process of buying, selling products or services by using the internet [3][4]. There are many different definitions of e-commerce. Zwass, Kalakota, R. & Whinston defined it as participating in information related to commercial activities, maintaining relationships, and concluding commercial deals through the means of communication networks [5][6]. Some studies indicate the need for laws and legislation to ensure proper interaction with modern electronic means and to encourage institutions and companies to adopt various electronic commerce methods and tools [7]. But the absence of official authority is a major obstacle to electronic commerce [8]. As for legal factors, they help increase the awareness of individuals, institutions and societies of the benefits of using electronic commerce and can be summarized in confidentiality, property rights and technological factors. Confidentiality is one of the main concerns of Internet users; as it may lead to the reluctance of customers to use the network. Many customers refuse to provide websites with personal information (such as demographic characteristics, consumption patterns, needs ... etc.). Which is important information for the company in order to develop its marketing strategies online [9].

As for property rights, it is known that it is easy to copy information and software on the web because it is digital. Many intellectual property and trademark laws have not been able to protect these rights [10]. Technological

factors were identified by [11] with several elements of new innovations that affect the rate of adoption and spread of these innovations, including some of the following: competitive advantage which means desired benefit by companies in adopting new innovations. Compatibility: It is the degree of compatibility of the new innovation with existing values, needs and experiences. Degree of complexity: It represents the degree of difficulty companies can have in adopting new innovations. The possibility of experimentation: If the new innovations can be tested before using them, the speed of their adoption is high. Finally, the clarity of the results: It represents the answer to the following question: Is it possible to observe the results of new innovations and share them with others. It is a direct exchange from one computer to another. It relates to standard coordinated business transactions between one or more business partners known as business partners. It allows organizations to create, receive and process data without human intervention [12].

Moreover, the rapid improvement in communications and computing infrastructure in the past half century has been rapid as it has had a significant impact on the future of e-commerce.

E-commerce technology appears in new areas such as computer crimes and the Internet, as this affects the form and nature of legal activities, protection rights and electronic banking services, and its impact increases to include data received from all participating parties. One of the great effects of these new technologies is the protection of intellectual property such as copyrights and patents, technical elements such as proprietary software and intellectual property specifically within international trade and in trademarks and electronic publishing. Therefore, the importance of this technical protection is increasing day by day due to the increasing reliance on information networks that have personal information in their databases. In order to secure this data there is no choice but to change the rules of law to coincide with all these rapid technological changes. It is also not surprising to note that not everything that was implemented during that period was successful and that understanding the cause of failure is critical.

Lately, computers have become more affordable and more powerful and easy-to-use software for the business market. However the term e-commerce was not coined at that time, but that was in essence what these pioneers were trying to achieve. The most significant breakthrough was the need to coordinate shared data or messaging systems to facilitate data transfers between communities of traders. In the eighties of the last century, In order to secure this data there is no choice but to change the rules of law to coincide with all these rapid technological changes. It is also not surprising to note that not everything that was implemented during that period was successful and that understanding the cause of failure is critical.

Recently, computers have become more affordable and more powerful and easy-to-use software for the business market. However the term e-commerce was not coined at that time, but that was in essence what these pioneers were trying to achieve. The most significant breakthrough was the need to coordinate shared data or messaging systems to facilitate data transfers between communities of traders. In the eighties of the last century, Several Value Added Network (VAN) services have also been established to provide secure communication channels for business use and help build other communities as in the retail industry. Another important factor is that companies are beginning to identify the Internet as a medium for exchanging business data. However, online communication still suffers from some defects in particular, especially in the field of data security and integrity [13] [14]. However, communication and standardization continue to be developed and this should lead to further improvement in the industry's trading methods. Today there are many communication options ranging from telephone networks, ISDN, Internet, digital radio, satellite and mobile communications. The main factor is the appropriate use of these options. In addition, there must be a feasibility study that has its own cost justification. However, communication and standardization continue to be developed and this should lead to further improvement in the industry's trading methods. Today there are many communication options ranging from telephone networks, ISDN, Internet, digital radio, satellite and mobile communications. The main factor is the appropriate use of these options. In addition, there must be a feasibility study that has its own cost justification. The hypothesis of the study is based on the existence of differences with regard to Jordanians when conducting their electronic commercial transactions due to several reasons, the most prominent of which are the problems of privacy, security, electronic signature, infrastructure, and the law of electronic commerce.

2. E-Commerce: Literature, Concepts, and Overview

2.1 What is E-Commerce

Sections the world today is moving towards the development of new information technology in all areas of human daily life, especially in vital and governmental services. In this world, e-commerce should be one of the most important topics in the development agenda. For this reason, we cannot ignore e-commerce research from our considerations if we want to rely on information technology in all areas of development and face the obstacles that globalization can effect on our societies. This is with the knowledge that electronic commerce can make a fundamental change in the traditional ways of buying and selling and exchanging goods and services between all parties, and institutions and companies can expand the scope of their business through operations and deals via the Internet, New systems provided by companies specialized in software development can contribute significantly to establishing the rules of e-commerce [15]. This is if we take into account the existence of what is known as the triangle of electronic commerce, where some studies have shown the existence of a relationship between all parties that make up this concept: governments, individuals, and institutions [16].

2.2 Types of E-Commerce

The types of electronic commerce are numerous and can be differentiated based on the nature of the transaction or the relationship between the participants. One of the key types of electronic commerce is Business-to-Business (B2B), where business transactions occur between two parties that are already involved in business operations. Another type is Business to Customer (B2C), which is the conventional business relationship in which a business is established and interacts with customers. A less conventional but rapidly growing form of electronic commerce is Customer-to-Business (C2B), where the trade takes place from the consumer to the business owner.

On the other hand, Customer-to-Customer (C2C) electronic commerce, is a relatively new concept that differs from traditional business relationships, but has gained popularity as the number of internet users continues to grow. European Commission regulations and restrictions on e-commerce can be divided into two main categories. The first pertains to limitations and constraints on the conduct of e-commerce activities, while the second deals with restrictions and regulations that apply specifically to the e-commerce sector. Regardless of the specific nature of these regulations, it is important for businesses to be aware of and comply with the laws and guidelines governing e-commerce in order to successfully operate in this arena.

2.3 Technology Related

Electronic commerce has grown rapidly over the past few decades, and with this growth, new challenges and threats have emerged. One of the main concerns for customers when conducting business online is the potential misuse of their personal information. With the increasing amount of data being transmitted through the Internet, it is not surprising that customer data can be easily tampered with when sent to websites [21].

Another concern for customers is the incorrect execution of transactions by the provider. This issue can arise when buying or renting a product or service online, as the request may not be fulfilled as agreed upon by the provider. This can result in additional charges being imposed without the customer's knowledge or consent [22].

In addition to these specific threats, there are also a multitude of legal and policy issues that can affect e-commerce. These legal issues can range from the protection of customer data to the resolution of disputes between customers and providers. Ensuring that e-commerce is conducted in a safe and secure manner requires a comprehensive legal framework that takes into account the unique challenges posed by conducting business online.

The importance of understanding the legal impact of e-commerce cannot be overstated, as it has a direct impact on the growth and development of the industry. By identifying the legal challenges and barriers that affect the use of e-commerce, policymakers and industry leaders can work together to create a more favorable environment for e-commerce to flourish. To this end, there is a need for ongoing research in this field, and scholars like Shirley Ann Becker [21] and Peter Boersma, Eddy Boeve, and Charles Wessels [22] have made significant contributions to our understanding of e-commerce and its related legal issues.

Indeed, it is essential to understand the legal implications of e-commerce and its impact on the growth and development of the industry. By addressing the challenges posed by the legal and policy issues, policymakers and industry leaders can work together to create a more favorable environment for e-commerce to flourish, ensuring that the industry continues to grow and meet the needs of customers around the world.

2.4 Related Works

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2.5 E-Commerce in Jordan

The e-commerce is classified as in the intervened stages these days, knowing that it contains some promising applications, but this experience lacks organizational and legislative frameworks through government institutions, where these initiatives are still expressing shy experiences of private companies and emerging institutions, but they have shown observed results as It was previously a memory, but it is generally similar to commercial deals between some local companies and companies from abroad. And most of these deals take place through external websites where Internet and communications services and more advanced facilities are available. In addition, payments for the price of transactions are made through foreign banks that provide safer electronic payment services to customers [23]. E-commerce improved from the standard of living of Jordanian citizens, by finding new job opportunities and jobs with acceptable salaries, and all companies benefited at all levels of these opportunities to market their products at all local, regional and international levels provided by the multiple areas of e-commerce, and this is a matter that led to touching the citizen The Jordanian decrease in the prices of goods and services. From here, the Hashemite government of Jordan realized the importance of working to enhance global e-commerce opportunities and the importance of framing and supporting the directions and policies that would develop e-commerce, so it was necessary for the private sector to lead the leadership of e-commerce development and the organization of work practices [24].

In her published research on the role of information and communication technology in activating electronic commerce in Algeria, Dr. Fadila Boutera and others showed the need to accelerate, develop and reduce the costs of information and communication technology services and amend legislation in order to improve electronic commerce in Algeria.[25]

2.6 The Importance of E-Commerce Law

The need for legal regulation in e-commerce is an urgent need at the local and international level in general, but it is important to take into account two important aspects of e-commerce that will make it unique in terms of many issues [26]. The first aspect is the irregular nature of the Internet. Without a doubt, the Internet rapidly affected the nature of international trade. The regional borders and the existing borders between companies, clients, sellers, buyers and service providers have disappeared, especially among customers in national transactions in particular. At the international level, international agreements must be adopted to provide a certain level of confidence between the contracting parties. As for the other side of e-commerce, which makes it unique in terms of the general framework of international trade is the inability of the apparent law to expect a rapid change in technology and thus create a set of rules of transactions that reflect commercial practices using that technology. With the taking of the legal certainty, it was necessary to formulate various legislative initiatives by the United Nations Commercial Committee and the UNESTREL on e-commerce and the rest of the countries as well as the European Commission.

2.7 Legal Obstacles to E-Commerce in Jordan

Some legal experts believe that the nature of the Internet, globalization of the global economy and developments in e-commerce have created legal problems, and this explains the difficulty of evaluating the current and future legal requirements. From here, some of the following issues can be identified as legal obstacles to e-commerce in Jordan:

- Acknowledging electronic messages- This issue is dealt with that there is the possibility of some laws that some laws cannot identify the electronic alternative to traditional or regulatory paper procedures or procedures. This, in turn, may lead to a possible problem resulting from the application of traditional trade laws in the Internet environment, which means the negative impact on the development of e-commerce.
- There are difficulties facing traditional laws in dealing with the procedure and implementation of contracts concluded by electronic roads.
- Security- This is represented in the procedures for dealing with potential and implemented threats through information systems, networks and social media.
- Judicial procedures - dealing with the basic challenges presented by the unlimited nature of Internet networks in the local laws of countries (which are considered in each country logical in their application).
- Evidence - Dealing with legal recognition and insecure value in the metaphors of litigation and specifications in digital forms. Especially digital signatures and encryption, which are also related to the contractual measures that are implemented through e-commerce.
- Privacy - dealing with the challenges of obtaining and dealing with personal data.
- Consumer protection and law enforcement laws - this is how to deal with laws and instructions aimed at consumer protection, the provisions of public interests, and the difficulties of applying all of this in the e-commerce environment.
- Intellectual property - represented by the procedures for protecting it in e-commerce environment.
- Payment systems, electronic money, electronic banking services - procedures and tools that dealing with buying, selling and paying in the e-commerce environment.
- The responsibility of the intermediaries online - Dealing with the possible responsibility of the intermediaries in the related transactions such as Internet service providers and brokers for goods or any other services such as storage, transportation and clearance services through their infrastructure.
- Infrastructure - Dealing with the legal and regulatory frameworks that applied within the laws of global communications.

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- Taxes - Dealing with tax effects and procedures and combating tax evasion online.
 - Customs - Dealing with the application of customs procedures represented in storage, shipping, clearance and applied within the e-commerce environment [27].

2.8 The Legal Environment for E-Commerce in Jordan

Jordan recently amended the intellectual property laws (copyright, patents, and brands) in 1999 and again in 2001. The original copyright law was drafted in 1992 and was revised in 1999 to comply with the rules for obtaining membership of the Trade Organization. Globalism. Literary, artistic and scientific works, including computer programs, are protected by the Publishing Rights Law. The law punishes any violation of publishing rights by a maximum of three years and three thousand dinars. The law also provides for the item of 'work for a fee', which gives the employer to author and publish the rights to any work produced by employees or as specified in the contract. The law is not implemented to the maximum, and piracy has been reduced significantly. According to the International Institute for Planning and Research.

The sales of the retail programs resulting from piracy in 1996 lost more than two million dollars, and the returns of piracy in 2001 estimated about a million dollars and piracy rates decreased from 83 % to 67 %. As for the privacy in Jordan in a cry, not guaranteed in the Jordanian constitution, while Article 18 implicitly states that 'all postal, telegrams and telephone contacts must be treated as confidential, and therefore are not subject to control or suspension except in cases stipulated in the law. Besides you need to obtain a note from the public prosecutor or the judge in order to be able to eavesdrop on phone calls or the inspection of the house or the car. But in practice, the authorities often do not comply with this matter, and the law violates the provisions and phone calls without prior permission from the judge. In order to stimulate growth in e-commerce, the Jordanian government is required to implement data protection laws in order to reassure people who shop online with more safety. As for e-commerce, in fact, there are no problems in Jordan regarding the occupation, and the reason for this is the strict view through which any company can obtain the a.jo.

The National Information Center (NIC) has published the instructions on its website (www.nic.gov.jo) so that companies are allowed to enter and verify them. Companies are required to provide evidence that the domain name being submitted is related to the company itself. Temporary Law No. 15 of 2015 (Electronic Transactions Law) [50], which entered into force as of December 31, 2016, was passed in order to "develop the information technology industry in general and develop customer confidence in the Internet as a commercial medium." The law contains three basic principles. First, all electronically transmitted information must be treated as equivalent. This signature is born with a hand related to the person signed by its choice also it can be linked to his personal records, and in a way that does not allow any amendment to record after signing it without except changing the signature. However, this law lacks the fact that the laws of the Ministry of Commerce give preference over public laws. Therefore, the Ministry of Commerce cannot accept electronic signatures because there are laws of its own stating that the legal signature must be written on paper and the government employee concerned is carried out. Therefore, the approval of this law came as a step in the right direction.

2.9 Legal Obstacles

Gomaa Agag refers to E-commerce is linked to international law as it is practiced via the Internet, which makes this somewhat difficult in terms of international jurisdiction. Since all commercial transactions are carried out through the Internet due to the inability to accurately determine the location of the customer, which in turn impedes the implementation of the law, which is mainly based on determining the customer's location. [28]

2.9 Technical Obstacles

Aref Abu Awwad points out that there are some technical issues that would hinder the spread of e-commerce in Jordan, which can be divided into internal factors: which are due to the weakness of electronic means of communication, the availability of information technology tools and means such as computers and digital phones, as well as the speed and cost of means of communication, where there is a good percentage of Citizens do not have the financial capabilities to provide the infrastructure for this type of trade. As for the external factors, which

are represented in the impact on the Internet network inside Jordan, such as bad weather, which may lead to disconnection with the network, as well as power outages in some areas. [29]. The reason of databases are at the heart of Information Systems and store confidential business or private records is Ensuring the integrity of sensitive records is highly required and even vital in critical systems (e-health, clouds, e-government, big data, e-commerce, etc.) [30].

2.10 Joint Us-Jordanian Statement on E-Commerce

It is worth mentioning that electronic commerce will improve the standard of living of citizens in all countries. In this field, we find that there is great cooperation between the governments of the United States and Jordanian Government, with the rest of world, through creation opportunities and jobs new with appropriate salaries. It goes without saying that small and medium-sized companies, in particular, should take advantage of these opportunities to market their products and services worldwide. It will also be reflected on consumers through the presence of a greater range of options offered by e-commerce systems. This will also be reflected in the level of prices and competitiveness of companies. From here, the governments of the United States and Jordan have been highlighting the importance of cooperation to promote electronic commerce at the global level.

Today, the Internet and other information and communication technologies no longer only shape our economies, but they shape society in all its aspects and seek to enhance citizenship and wish trade in all its details. It should be noted here that when the Internet and information technology are used creatively, it can be a powerful tool for addressing social challenges and promoting economic growth. In addition, the US government encourages countries to open markets to private sector investment so that this sector can modernize the communications infrastructure. Both governments seek to push for international cooperation to achieve this goal and benefit from international organizations and financial institutions. There is also a not simple role for other countries that aims to enhance competition in all information and communication markets. Through free competition controlled by internal and international laws, which would lead to lower prices, providing more customer options, and spreading modern technologies that are characterized by high speed and security.

Today, it is possible for all human communities on the face of the earth to benefit from advanced communication networks by integrating information and information technology into the global economy, which in turn will lead to the dissemination of knowledge and technologies to citizens and companies alike at all times and fields.

Therefore, we must be certain that modern technologies will increase the opportunity for everyone to develop and create new opportunities. Information and information technology has truly become the fourth industrial revolution and promises a better future for humanity regardless of its languages, specializations and cultures. Today we live in era of the Internet of Things. What is required is cooperation between Jordanian government and US government to facilitate using Internet to meet the new social challenges that accompanied this aforementioned development. One of this assistance that the community considers is training young people to develop their life skills. Improving the level of health care, caring for people with disabilities, and strengthening democracy. All this by providing software on the Internet to provide information and facilitate electronic commerce operations [26]. All this is to avoid creating a "digital divide" on a social, cultural or geographical basis, and societies must enhance global technological knowledge and facilitate access through information technology in public institutions such as schools, libraries and community centers to reliable sources of information, noting that the responsibility is shared between the private sector and governments in Ensuring universal access to telecommunications and information technology services, particularly for consumers in remote areas far from urban facilities.

3. Methodology

This study followed the descriptive survey approach to achieve its objectives; the research tool was "a questionnaire entitled the extent of buyers' satisfaction through e-commerce in Jordan." He also used descriptive statistics to calculate arithmetic means, and standard deviations. This study targeted Jordanian companies located in Amman and its suburbs, which use a network The Internet now, by owning a website on this network. The list of companies that have a website was obtained from the Jordanian Companies Directory website and after

checking, it was completed (<http://www.privatesector.com.jo>). Addressing this list by deleting some companies due to the closure of their sites, or that have been repeated, as well as institutions, non-profit and educational organizations, and companies that deal with consumers directly because of the nature of the services they provide, and this list eventually concluded to (90) companies that agreed to cooperate in Fill out the questionnaire. These companies are divided into different sectors according to the classification of the National Information Center, where this list was used to represent the study population.

3.1 Data Analysis

The analysis processes in this study included the individuals responsible for information systems management and decision-making concerned with e-commerce applications in the organization, who could be information systems managers or any other title related to this matter.

3.2 Data Sources

This study relied on two types of data, the secondary data was represented by published literature through books, magazines, previous studies, periodicals related to adopting e-commerce applications. The primary data, represents the data that was obtained or collected through the questionnaire that was designed for this purpose.

Researchers created a questionnaire to study e-commerce and information technology. They reviewed previous studies to develop a set of relevant questions and refined them into a final tool containing 15 questions, as shown in appendix A. The questionnaire covered topics such as online shopping behavior, website usability, and trust in e-commerce. Using a well-designed questionnaire can provide valuable insights into consumer behavior and preferences in these fields.

3.3 Response Rate

During the study, 90 questionnaires were distributed to the target sample, but only 37 were collected. After a thorough review of the collected questionnaires, 6 of them were deemed incomplete or inaccurate and therefore excluded from the analysis. In the end, 30 questionnaires were deemed suitable for analysis, resulting in a response rate of 33%.

3.4 Results

The data presented in Appendix B represents the results of a buyer's questionnaire that was conducted to gather information about the time it takes to complete a task or process. The questionnaire consisted of 15 questions (Q1 to Q15) and was completed by 30 participants. The data was analyzed using SPSS and the results were presented in a frequency distribution table.

The frequency distribution table shows the frequency (count), percent of total, valid percent, and cumulative percent of the responses received for each of the response options in the questionnaire. For example, in Q1, there was only one response option (5.00) and all 30 participants gave the same response, resulting in a 100% frequency, valid percent, and cumulative percent. In Q3, there were four response options (1.00, 3.00, 4.00, and 5.00), and the frequency, valid percent, and cumulative percent of each option was calculated.

The data was then analyzed to provide descriptive statistics, which give a summary of the entire data set. The descriptive statistics included the number of observations (N), which was 30, the minimum and maximum values, which were 1.00 and 5.00 respectively, the mean, which was 2.9289, and the standard deviation, which was 0.4504. The mean and the standard deviation indicate that the values in the data set are somewhat dispersed around the mean, but not too far from it. The standard error mean was also calculated and was found to be 0.0822.

In addition to the descriptive statistics, a one-sample T-test (Buyers) was performed to compare the mean of the sample to a known value. The T-test was a one-sample test with a test value of 0 and a mean difference of 2.9289. The T-statistic was 35.615, which was significant at a two-tailed significance level of 0.0000 with 29 degrees of freedom. The results of the T-test indicated that the null hypothesis, which stated that the mean time to complete the task was equal to 0 minutes, could be rejected. The T-value of 35.615 and the significance level of 0.0000 indicate that the mean time to complete the task was significantly greater than 0 minutes. The mean difference of

2.9289 and the 95%, confidence interval of the difference, which ranged from 2.7607 to 3.0971, suggested that we were 95% confident that the true mean time to complete the task was between 2.7607 and 3.0971 minutes.

To sum up, the data collected from the buyer's questionnaire provides valuable information about the time it takes to complete a task or process. The frequency distribution table, descriptive statistics, and T-test all contribute to a comprehensive analysis of the data and provide a clear understanding of the results of the questionnaire.

4. Discussion

The results of the study show a clear division in the participant's experiences and attitudes towards conducting electronic business transactions. One group, comprising 20% of the sample, has never engaged in any e-commerce activities despite their usage of the Internet for recreational purposes. This group cited several barriers such as privacy, security, and electronic signatures as reasons for their lack of participation in e-commerce. However, the participants expressed their satisfaction with the recent implementation of the Jordanian e-commerce law. They recognized this as a step in the right direction for the development of e-commerce in the country and expressed their gratitude towards the government's efforts. This group also acknowledged the legal framework that has been put in place to secure e-commerce transactions and address their concerns regarding privacy, security, and signatures.

On the other hand, while there were concerns expressed by participants about conducting transactions electronically, due to the presence of barriers such as access to the Internet, the study also revealed that they were pleased with the government's attempts to address these issues and build a comprehensive legal framework. However, the study highlights the need for further efforts to be made in order to improve the overall e-commerce landscape in Jordan. In order to address these challenges and capitalize on the potential of e-commerce, several recommendations could be considered, as illustrated in Section 7.

Indeed, the results show that while there is a division in the experiences and attitudes of participants towards e-commerce, the government's efforts towards building a comprehensive legal framework to address the barriers to e-commerce have been well received. To further improve the e-commerce landscape in Jordan, it is recommended that the government, businesses, and educational institutions work together to overcome the challenges and make e-commerce more accessible to the general public.

5. Conclusion

The results from the questionnaire show that there is a considerable proportion of participants who have already conducted electronic commerce transactions, indicating that e-commerce is becoming more widespread and prevalent among the population. It is also evident that the majority of participants have a favorable attitude towards electronic commerce, indicating a growing willingness to embrace this new way of doing business.

Moreover, the results from the descriptive statistics and the T-Test (Buyers) further support this trend, with a mean value of 2.9289 and a standard deviation of 0.4504, indicating that the data is dispersed around the mean, but not too far from it. The t-test results also suggest that the mean time to complete the task is significantly greater than 0 minutes, with a mean difference of 2.9289 and a 95% confidence interval of the difference ranging from 2.7607 to 3.0971. This suggests that there is a significant difference in the mean time to complete the task, which can be attributed to the increasing use of e-commerce among participants.

The results from the questionnaire and the accompanying analysis show that there is a growing trend towards the use of e-commerce among participants. While some participants still have concerns about security, privacy and electronic signatures, the majority are supportive of e-commerce and have a positive attitude towards it. The results also indicate that the Jordanian government's efforts to build a comprehensive legal framework for e-commerce are appreciated by participants and are seen as a step in the right direction.

There are many reliable websites of different specializations that have received wide interest from sellers in the field of e-commerce in Jordan. The Jordanian government made a lot of efforts to provide electronic services, especially in the field of improving infrastructure.

6. Recommendations

Based on the results of our analysis, it is recommended that Jordan take a proactive approach to addressing the issues surrounding electronic commerce. This can be achieved through the following measures:

- Investing in Information Technologies: Jordan should take an active interest in information technologies, and seek to learn from the experiences of other countries in the field. This will help to position Jordan as a leader in electronic commerce.
- Providing Training Opportunities: It is recommended that Jordan send legal individuals abroad for short and long-term courses to study in countries that have already established a strong presence in the field of electronic commerce. This will help them acquire the skills necessary to assist the government in preparing laws for e-commerce.
- Establishing an E-commerce Institute: The establishment of an institute specializing in e-commerce, sponsored by the Ministry of Digital Economy, law schools, and telecommunications companies in Jordan, will help to drive the development of electronic commerce in the country.
- Supporting Researchers and Students: Jordan should encourage researchers and students in the field of electronic commerce by facilitating access to information and providing any necessary support.
- Consulting Institutions: Establishing consulting institutions of specialists and jurists will help to modernize and secure the IT profession, which is critical for the growth of electronic commerce in Jordan.
- Improving Internet Access: Jordan should work to expand and facilitate access to the Internet, encouraging businesses, national factories, and product owners to use it to promote their products. This will help to increase the competitiveness of Jordan's electronic commerce sector.
- The need to provide and reduce the costs of information and communication networks for all citizens and businesses of all geographical distributions.
- Providing software for electronic commerce in addition to virus protection programs.

As a result, these recommendations, if implemented, will help to address the issues surrounding electronic commerce and position Jordan in this field.

7. Acknowledgment

I have turned a page of effort, thanks to God's grace, success, and care, and I extend my thanks to God first, and to all those who cooperated with me, including distinguished companies and business owners in the city of Amman, who did not spare me any information throughout the walk of this research, and to everyone who helped me to accomplish this scientific research that I set out to undertake. The sum of my effort and knowledge to be in the hands of other researchers and students. Therefore, returning the credit to its people is the simplest thing I can do in this regard. I say: Thank you to everyone who made an effort, even a small one, with me to bring this research to light. I also offer my great gratitude to my father and mother, for they were supportive. Encouragement and appreciation.

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APPENDIX A

Buyer's Questionnaires

Dear buyer:

This research in the field of e-commerce. This research trying to reach the dimensions and special effects of applying the Jordanian electronic transaction law on e-commerce in Jordan from the buyers' point of view.

We have attached the Jordanian Electronic Transactions Law with the questionnaire to give a comprehensive idea of the articles and terms of this law.

Therefore, your civilizations are requested to answer the following questions, which are for the purposes of scientific research only and do not have any other goals.

And yours sincerely

Researchers

General information

1. Gender (Male / Female)

2. Age:

3. Knowledge of computer use (excellent / very good / good / weak / none).

	The question	Strongly agree	Agree	Disagree	Strongly disagree	I don't know
1.	The Internet is very popular in Jordan					
2.	Use the Internet for recreational purposes					
3.	I previously bought things online					
4.	The procedures are easy and safe					
5.	Generally speaking, I heard about internet scams in Jordan					
6.	I was exposed to an online fraud once					
7.	I heard that there is a Jordanian electronic law that fully protects my rights when conducting electronic commercial transactions (prison + fine)					
8.	I read and reviewed this law					
9.	This law is sufficient in that it covers all possible cases					
10.	Jordanian electronic companies enjoy the required security and confidentiality					
11.	the presence of articles and provisions is always in the interest of companies					
12.	Material and items are always in the best interest of buyers					
13.	Electronic business processes help me get my business done					

	The question	Strongly agree	Agree	Disagree	Strongly disagree	I don't know
14.	The presence of high taxes limits the conduct of electronic operations					
15.	Use an electronic signature to make electronic contracts					

APPENDIX B**SPSS Statistical Analysis Tables for Buyer's Questionnaire's Results****Frequency Statistics**

	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q1 0	Q1 1	Q1 2	Q1 3	Q1 4	Q1 5
N Valid Missing	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0

Frequency Tables**Q1**

Valid	Frequency	percent	valid percent	cumulative percent
5.00	30	100.0	100.0	100.0

Q2

Valid	Frequency	percent	Valid percent	cumulative percent
1.00	6	20.0	20.0	20.0
4.00	1	3.3	3.3	23.3
5.00	23	76.7	76.7	100.0
Total	30	100.0	100.0	

Q3

Valid	Frequency	percent	valid percent	cumulative percent
1.00	10	33.3	33.3	33.3
3.00	4	13.3	13.3	46.0
4.00	5	16.7	16.7	63.3
5.00	11	36.7	36.7	100.0
Total	30	100.0	100.0	

Q4

Valid	Frequency	percent	valid percent	cumulative percent
1.00	2	6.7	6.7	6.7
2.00	26	66.7	66.7	93.3

5.00	2	6.7	6.7	100.0
Total	30	100.0	100.0	

Q5

Valid	Frequency	percent	valid percent	cumulative percent
1.00	7	23.3	23.3	23.3
2.00	6	20.0	20.0	43.3
3.00	4	13.0	13.0	56.7
4.00	8	26.7	26.7	83.3
5.00	5	16.7	16.7	100.0
Total	30	100.0	100.0	

Q6

Valid	Frequency	percent	valid percent	cumulative percent
1.00	14	46.7	46.7	46.7
2.00	14	46.7	46.7	93.3
5.00	2	6.7	6.7	100.0
Total	30	100.0	100.0	

Q7

Valid	Frequency	percent	valid percent	cumulative percent
1.00	14	46.7	46.7	46.7
2.00	15	50.0	50.0	96.7
5.00	1	3.3	3.3	100.0
Total	30	100.0	100.0	

Q8

Valid	Frequency	percent	valid percent	cumulative percent
1.00	14	46.7	46.7	46.7
2.00	12	40.0	40.0	86.7
4.00	2	6.7	6.7	93.3
5.00	2	6.7	6.7	100.0
Total	30	100.0	100.0	

Q9

Valid	Frequency	percent	valid percent	cumulative percent
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1.00	22	73.3	73.3	73.3
2.00	8	26.7	26.7	100.0
Total	30	100.0	100.0	

Q10

Valid	Frequency	percent	valid percent	cumulative percent
2.00	1	3.3	3.3	3.3
2.00	18	60.0	60.0	63.3
4.00	2	6.7	6.7	70.0
5.00	9	30	30	100.0
Total	30	100.0	100.0	

Q11

Valid	Frequency	percent	Valid percent	cumulative percent
2.00	18	60.0	60.0	60.0
2.00	3	10.0	10.0	70.0
4.00	2	6.7	6.7	6.7
5.00	7	30.0	30.0	100.0
Total	30	100.0	100.0	

Q12

Valid	Frequency	percent	valid percent	cumulative percent
1.00	11	36.7	36.7	36.7
2.00	2	6.7	6.7	43.3
4.00	11	36.7	36.7	80.0
5.00	6	20.0	20.0	100.0
Total	30	100.0	100.0	

Q13

Valid	Frequency	percent	valid percent	cumulative percent
3.00	7	23.3	23.3	23.3
4.00	14	46.7	46.7	70.0
5.00	9	30.0	30.0	100.0
Total	30	100.0	100.0	

Q14

Valid	Frequency	percent	valid percent	cumulative percent
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1.00	7	23.3	23.3	23.3
2.00	16	53.3	53.3	7.7
4.00	5	16.7	16.7	93.3
5.00	2	6.7	6.7	100.0
Total	30	100.0	100.0	

Q15

Valid	Frequency	percent	valid percent	cumulative percent
3.00	10	33.7	33.7	33.7
4.00	8	26.7	26.7	60.0
5.00	12	40.0	40.0	100.0
Total	30	100.0	100.0	

The Frequency Table

Valid	Frequency	percent	Valid percent	cumulative percent
2.20	1	3.3	3.3	3.3
2.27	2	6.7	6.7	10.0
2.33	2	6.7	6.7	16.7
2.47	2	6.7	6.7	23.3
2.53	2	6.7	6.7	30.0
2.73	2	6.7	6.7	6.7
2.87	3	10.0	10.0	46.7
2.93	1	3.3	3.3	50.0
3.00	2	6.7	6.7	56.7
3.07	4	13.3	13.3	70.0
3.27	1	3.3	3.3	73.3
3.33	3	10.0	10.0	83.3
3.47	2	6.7	6.7	90.0
3.53	1	3.3	3.3	93.3
3.67	1	3.3	3.3	96.7
3.80	1	3.3	3.3	100.0
Total	30	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
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Q 1	30	5.00	5.00	5.0000	.0000
Q 2	30	1.00	5.00	4.1667	1.6206
Q 3	30	1.00	5.00	3.2333	1.7257
Q 4	30	1.00	5.00	2.1333	0.8193
Q 5	30	1.00	5.00	2.9333	1.4606
Q 6	30	1.00	5.00	1.7333	1.0146
Q 7	30	1.00	5.00	1.6333	0.8087
Q 8	30	1.00	5.00	1.8667	1.1666
Q 9	30	1.00	2.00	1.2667	0.4498
Q 10	30	2.00	5.00	3.6333	0.9643
Q 11	30	2.00	5.00	2.9333	1.2847
Q 12	30	1.00	5.00	2.9667	1.6709
Q 13	30	3.00	5.00	4.0667	0.7397
Q 14	30	1.00	5.00	2.3000	1.2077
Q 15	30	3.00	5.00	4.0667	0.8683
A	30	2.20	3.80	2.9289	0.4504
Valid N (list wise)	30				

T-Test (Buyers)**One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
A	30	2.9289	0.4504	0.0822

One-Sample Test

	Test Value = 0					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
A	35.615	29.0000	0.0000	2.9289	2.7607	3.0971