T.C.
VAN YUZUNCU YIL UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS

ANALYZING THE OBSTACLES OF ELECTRONIC COMMERCE: A STUDY OF SAMPLE COMPANIES OPERATING IN SULAYMANIYAH CITY

MASTER THESIS

PREPARED BY: Roshna Abdulla NADIR

SUPERVISOR : Doç .Dr.M.Akif ARVAS

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Yedek Üye : Dr. Öğr. Üye. Fatma Fehime AYDIN İktisat Anabilim Dalı, Van Yüzüncü Yıl Üniversitesi Bu tezin, kapsam ve kalite olarak Yüksek Lisans Tezi olduğunu onaylıyorum/onaylamıyorum	.....
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All information presented in the thesis obtained in the frame of ethical behavior and academic rules. In addition, all kinds of information that does not belong to me have been cited appropriately in the thesis prepared by the thesis writing rules.

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ABSTRACT

ANALYZING THE OBSTACLES OF ELECTRONIC COMMERCE: A STUDY OF SAMPLE COMPANIES OPERATING IN SULAYMANIYAH CITY

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The spread of e-commerce in the global borders particularly in the western countries reached a significant level. Thus, e-commerce becomes a capable engine for stimulating the economic activities among the various parties including businesses, institutions, and different economic sectors, that provides an opening to the creation of large markets in which products and services of organizations are exposed. Therefore, this is a prospect for those seeking to find the most profitable ways to promote and search for new clients and markets, over electronic means based on new payment and payment systems. Consequently, the main purpose of this study was to analyze the obstacles to e-commerce.

The results revealed that there were financial obstacles to electronic commerce at a significant level in Sulaymaniyah city. Also, there is a human obstacle in front of operating e-commerce applications. Mainly there was a lack of awareness among employees on e-commerce applications. The study also confirmed that there was a lack of knowledge among managers of the importance of electronic commerce. Further, the consumer culture in the region about electronic commerce is limited.

There are the technological obstacles to e-commerce operations, particularly the weakness of electronic infrastructure, and weakness of the culture and electronic awareness in the region. Besides, many companies in the Sulaimaniyah city and the region faced the problem of slow internet. The results found the legal obstacles, so, there was a lack or not enough laws to clarify the nature and scope of electronic commerce. The results also confirmed that there were no critical political or governmental obstacles to electronic commerce.

Keywords: Economy, E-commerce, and Obstacles of Electronic Commerce

ÖZET

ELEKTRONİK TİCARETİN HÜKÜMLERİNİN ANALİZİ: SULAYMANIYAH ŞEHİRDE ÇALIŞAN ÖRNEK ŞİRKETLER BİR ÇALIŞMASI

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E-ticaretin özellikle batı ülkelerinde küresel sınırlarda yayılması önemli bir düzeye ulaştı. Böylece, e-ticaret, işletmelerin, kurumların ve departmanların da dahil olduğu çeşitli taraflar arasında ekonomik faaliyetlerin teşvik edilmesi için yeterli bir motor haline gelir ve bu, kuruluşların ürünlerinin maruz kaldığı büyük pazarlar yaratma açıklığı verir. Dolayısıyla bu, tanıtım kanallarıyla en kârlı yolları bulmak ve modern ödeme ve ödeme sistemlerine güvenerek, elektronik yollarla müşteri ve yeni pazarları aramak isteyenler için bir fırsat. Dolayısıyla bu çalışmanın amacı elektronik ticaretin önündeki engelleri analiz etmektir.

Sonuçlar, Süleymaniye şehrinde elektronik ticarette önemli bir engelin olduğunu ortaya koydu. Ayrıca, Süleymaniye şehrinde e-ticaret uygulamalarının yapılmasının önünde insani engel var. Temel olarak e-ticaret uygulamalarında çalışanlar arasında farkındalık eksikliği vardı. Çalışma ayrıca yöneticiler arasında elektronik ticaretin önemine dair bilgi eksikliği olduğunu da doğruladı. Ayrıca, bölgedeki elektronik ticaretle ilgili tüketici kültürü sınırlıdır.

E-ticaret işlemlerinin teknolojik engelleri, özellikle elektronik altyapının zayıflığı ve bölgedeki kültür ve elektronik bilincinin zayıflığı var. Ayrıca, Süleymaniye kentinde ve bölgedeki birçok şirket yavaş internet problemi ile karşı karşıya kaldı. Sonuçlar yasal engelleri buldu, bu yüzden elektronik ticaretin doğasını ve kapsamını netleştiren bir eksiklik vardı ya da yeterince yasa yoktu. Sonuçlar ayrıca, elektronik ticarette kritik bir siyasi veya hükümet engelinin olmadığını da doğruladı.

Anahtar Kelimeler: Ekonomi, E-Ticaret ve Elektronik Ticaretin Engelleri

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DEDICATION

I honored to dedicate this master thesis to my husband and my beloved kids, as well as to my father and my adored mother, so, your life teachings and continuous sustenance always respected.

I also dedicated to my sisters and brothers; you are the supports that I will constantly lean on, thanks for your beautiful and lovely presence, thank you for giving meaning to life. Also, I dedicated to my colleague and friend Yadgar Ahmed.

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SYMBOLS AND ABBREVIATIONS

Some symbols and abbreviations used in this study are presented below, along with descriptions

Abbreviations	Explanation
EDI	Electronic Data Interchange
EFT	Electronic Funds Transfer
PDA	Personal Digital Assistant
B2C	Business to Consumer
C2C	Consumer to Consumer
B2B	Business to Business
B2G	Business to Government
G2B	Government to Consumer
DS	Descriptive Analysis
F	ANOVA Test
DF	Degree of Freedom

CHAPTER ONE
AN INTRODUCTION TO THE STUDY

1.1. General Introduction

The world today is in rapid changes, whereas the growth of modern technologies has become the penetration of communications in some economic sectors. Such as the finance, banking as well as the trade sectors, so that a large part of the transactions trade through. The internet and covered the last large areas of the world of trade and contributed significantly to change the nature of commercial transactions from the traditional form to the electronic form accelerated and thus transformed the traditional trade to electronic commerce, which led to a shift from the traditional methods of contract-making, business, and communication to the use of the digital method that depends on the use of electronic tools that are managed in digital information technology; hence it is no longer limited to information processing only has provided new ways for companies to differentiate their products and services.

Hence, it can be said that e-commerce is a new concept, the process of buying or trading products, services, and information over the Internet portal, that can be described as the optimal use of all types of communication technology available business development of enterprises. E-commerce is also a form of new business dealings, which is based on the interaction of electronic exchange parties rather than the appropriate traditional trade among organizations in global markets and has customer expectations provided by various organizations that rethink the implementation of their business.

However, e-commerce is one of the areas of growth information and communication technology. Besides, the widespread use of the Internet, in particular, had adopted new methods of sale and agents and services and exchange of data and information not previously known and characterized by speed and ease of use in the digital age that uses spread widely online. Accordingly, the concept of electronic commerce, which comprises many concepts according to many international organizations, widespread in many forms and applications and has many advantages and

disadvantages and risks as well as the effects on various parties and the economy as a whole. Trade using the technologies providing by the information revolution and the Internet by the electronic exchange of data and information EDI has surpassed time and space to include many sectors of retailers to financial intermediaries and establishes new rules for sales, registration, storage, and delivery.

So, many nations pursue to maximize the role of e-commerce, particularly in light of global changes and new challenges. Its role is expected to increase soon due to the impact of this trade. In markets and organizations, competitiveness, where it is expected that e-commerce can predominate trade between organizations and individuals around the world, in this context, e-commerce activity is increased through the adoption of new means of communication between companies. As well as the global level, and this has led to the emergence of the electronic exchange, mainly through the Internet and formed between e-marketing, which is within the business of e-commerce. Although e-marketing benefits many, it is easy to connect and deal among businesses globally and reduce the effort, time and speed in executing operations and communications. Yet, this area comprises some problems, security-related obstacles, and confidence in online transactions through electronic commerce. Then marketing for commercial fraud and misconduct or non-fulfillment of obligations by some companies, which calls for the development of laws, legislation to regulate contracts, transactions on the Internet, and give guarantees to protect companies and customers from fraud, fraud and improve e-marketing activity.

Consequently, it is necessary to transform from traditional commerce to electronic commerce, keeping abreast of the technological development in the telecommunications world, and developing and paying attention to this sector because it represents its infrastructure. Electronic commerce requires a legal framework within which to work efficiently and also electronic means of protection that protect its operations in order to overcome all its risks, the theft of secret numbers of accounts and the penetration of sites or destroyed by viruses. Electronic commerce affects all sectors of the economy as it leads to broadening the scope of markets and reduce costs to companies and gain a competitive advantage. It also facilitates product promotion and advertising, and e-commerce supports fully competitive markets, supports foreign trade and exports and provides jobs.

1.1.1. The Study Background

E-commerce is a broad topic for study. While current studies have interested in obstacles such as political, financial, human, technological, and legal obstacles effects on e-commerce. Further studies focused more on the differences between personal computer and mobile access and their consequence on purchase choice, to clarify the variances among e-commerce and mobile commerce. However, there are other studies discussed products and services features and appropriateness for the internet environment, trying to reveal the heterogeneity between different sorts in e-commerce.

Badawahi (2017), this research aims to identify the obstacles faced by companies operating in the field of electronic commerce and ways of activating them in Erbil city. So, this research has reached some findings, including political, financial, human, technological and legal obstacles that illustrate changes in e-commerce. The study concluded some suggestions, including the training of employees in companies engaged in the application of electronic commerce in KRI. As well as work on a law defining the nature and scope of e-commerce in the region. It is the responsibility of the region's government to promote and develop the information technology infrastructure, to support e-commerce technology in the region.

Yuan and Fernandez (2011), the researchers in this study examined patterns of e-commerce business applications and consumers. While according to them e-commerce was one of the most critical web applications. Users here are a set of models that describe shopping carts, product catalogs, customer accounts, shipping, and billing. However, customers or users combine them in the form of compound patterns, which in turn form a model for e-commerce business and consumers. Also, it mentions that customers or users also show how to add security restrictions to this model. Therefore, this domain model can use as a stand-alone model for a calculation that can produce specific applications using a model-driven model architecture.

Yousif and Aziz (2012), observed the obstacles to e-commerce applied in the captive industry sector. This study aims to classify the obstacles facing the application of electronic commerce in the general business for the manufacture of medicines and medical supplies in Mosul. Moreover, increasing the level of awareness in the company's management of the importance of e-commerce application. While introduces

the theoretical framework of the research and implement it through a sample individual decision maker using a questionnaire, however, the premise of e-commerce infrastructure in business achieved by collecting data analyzed using the Minitab program and compiling percentages, arithmetic mean, and standard deviation.

Mirescu (2010), examined the features and growth of e-commerce, so, argued that the success of information technology has had an effect in the business world since the late 1980s when the internet began to enter the lives of millions of users around the world. The e-commerce concept at current has initiated its place and applicability within the global economy easily, knowing that it promotes the rapid growth rate of development, as well as the usual average growth rate of the traditional economy as models and e-commerce researcher related to trade in goods and services through electronic media. The use of e-commerce has been growing, generating new prospects for a business person to improve existing ways of doing business and influence the growth of a competitive marketing strategy.

Sharma et al. (2015), in this research, analyzed the development of e-commerce in India; as an exclusive marketing strategy. This research reveals the slight use of the concept of e-commerce because of its great benefits, while the reimbursements will receive from those companies that are willing to change organizations and business processes to exploit the opportunities offered by e-commerce entirely. However, the concept of e-commerce encompasses a wide range of business activities, ranging from providing simple web-based information or advertising products and services that remain physical and ordered.

Nanehkaran (2013), this research is about to provide an introduction to e-commerce. The researcher also pointed out recent expansions in the fields of internet technology and information have led to renewed interest in the e-commerce community. While, it is e-commerce support for customers, providing services and supplies, part of business information, manages business transactions and maintains a link between sellers, customers, and suppliers with telecommunication network devices. It also thought that in the new global business enterprises and institutions that provide goods and services, synchronized form with the development of the world in the field of e-commerce is sufficient to change their logical and physical structure organized in this area.

Ohidujjaman et al. (2013), this study is about to consider the challenges of e-commerce, solutions, and the success from Bangladesh perspective. The researchers mentioned the reason why information technology is growing around the world has an active part of the business that has already turned into an online store. So, online business refers to e-commerce that has recently moved to developed countries such as Bangladesh while this research describes the current status of e-commerce sites in Bangladesh, as well as the study of traditional trade for the development of online business. The questionnaire is a fruitful survey of the consumer site, the provider of e-commerce services related to the parties, and the banking sector gives a comprehensive assessment of the existing electronic infrastructure in Bangladesh and its future organizational structure. The research result displays how to access digital in Bangladesh. Besides the comparative analysis of different e-commerce sites is an analytical initiative. Hence, comparing the search of local e-commerce sites with e-commerce brand sites is common to make a practical solution to e-commerce in Bangladesh.

Adalikwu (2012), examines the tasks and opportunities in the e-commerce application. As mentioned by the researcher, this research is a statistical indication of the various problems in the implementation of e-commerce solutions in business organizations in Nigeria. Analysis The classification of problems is statistically significant in the application of e-commerce in Nigeria and identifies policy options that can be considered in this country in developing policies to stimulate, support and maximize the impact of e-commerce on what economies.

Raghunath and Panga (2013), consider the problem and prospects of e-commerce, while e-commerce as anything comprises an online transaction. Thus, e-commerce offers multiple benefits to consumers or users in the form of accessibility of goods at lower costs, reference to the time of choice and offers more extensive as different researchers this opportunity review of e-commerce economy and the development of countries. Lastly, various businesses, organizations, and communities in India have begun to take advantage of the possibilities of e-commerce; there are still critical challenges to overcome before e-commerce becomes an asset for knowledgeable people.

Shukri and Sahib (2009), investigated the e-commerce and its economic dimensions, reality, and challenges. While, the researchers argued that the revolution of information and communications technology had created a qualitative leap in the invention of the most effective methods of promoting products and services, opening the door to free competition in a world dominated only by self-confidence. First, this rapid development began the way for the countries of the world to compete for marketing their products, which strives to achieve progress in raising economic growth rates and raising productive efficiency by creating new jobs. The new world order is gradually becoming an electronic world, whether we like it or not so that e-commerce is one of the most successful methods for economic development and growth.

Pennanen et al. (2006), in their research they analysis the concepts, faith, hazard, confidentiality, and security, these are commonly used in several studies done through various disciplines, besides they are frequently erroneously referred to almost as synonyms as they mentioned that this research aims to explain the concepts from the user or consumer perspective in e-commerce. The findings of the research recommended some relationships among these four concepts and served as building blocks for further research.

Mazhar et al. (2012), in this research they are trying to study customer confidence in e-commerce: Looking for customer insights in Pakistan. While this cross-sectional survey aims to discover factors that govern customer confidence in online purchases, use data from 311 staff members in several institutions. As a result, this research shows that all the elements covered in the study largely determine customer confidence, as well as oral generation. Hence, the unique role of this study is significant in the sense that it attempted to establish how the moderate verbal approach seeks to link the activation of factors and the oral generation: the managerial implications and future directions of research at the end of the study.

1.1.2. The Problem Statement and Hypotheses

The commercial activities are considered as the backbone of any country, knowing its strong role and its success in dealing with the new business environment and trying to solve the problems associated with this role. While harmony will

contribute to the strengthening of the economy by introducing the appropriate and confidence in dealing with the new commercial environment of e-commerce. In addition to the economic importance of free trade zones, which is one of the stages of the regional blocs among countries, through which it seeks to remove the customs barriers and liberalize its foreign trade, that achieves through its reliance on modern technologies.

Through the reliance on the Internet and the adoption of electronic commerce, so, the study problem is the existence of a large number of political, financial, human, technological, and legal obstacles to the e-commerce activities in Suliamaniyah city. The current study hypotheses are based on the significance of e-commerce activities in providing enormous financial revenues to the national economy and economic growth, but facing the political, financial, human, technological, and legal obstacles.

1.1.3. The Study Purposes

The purpose of the study is to analysis the obstacles of electronic commerce, as a study of sample companies operating in Sulaimaniyah city, through identifying the obstacles may facing the company when implementing e-commerce in their economic activities. However, to develop an awareness of the importance of e-commerce in the company in the request and specifically, the individuals working in it in order to increase the knowledge of e-commerce as well as convince the companies to execute its operations through the internet.

1.1.4. Importance of the Study

This study is important because of the position of e-commerce and the role they play in the business environment if it became a factor in the growth of the economies and promoting foreign trade. It has become an essential means of increasing the competitiveness of marketing products, providing information and services on the spot to customers in addition to empowering the consumer wherever immediate demand for goods and services. Hence, the developed countries and other countries to prepare their economies and environments and institutions for the transition to the digital economy

by applying electronic commerce via the Internet and work on making the most of the Internet. This study has also been of scientific significant, although it touches on some critical economic areas. About e-commerce in the era of information technology, which abolished the limits and restrictions on access to commercial markets, thanks to which the world has become an open market for consumers regardless of the location of the seller or buyer.

1.2. The Study Method and Design

In order to analyze the obstacles of electronic commerce in the companies operating in Sulaymaniyah city, the study measures the main obstacles faced by companies those effort to implement e-commerce in their operations. The quantitative method and design employed in the study are to define, and measures study main variables, namely, political obstacles, financial, human, technological, and legal obstacles. The method also used to collect data and testing the hypothesis. The quantitative method is more suitable as it permits the survey contributors to offer their proper information to the questions, through questionnaire-scale, which is designed for data collection. Further, the quantitative method is easier for interpreting numerical data than any other method.

1.2.1. The Data Collection

As displayed in Table 1, the questionnaire formed based on literature related to the study topic and employed to measure main variables, besides, to collect data from companies operating in Sulaymaniyah city. The study depends on the questionnaire since its applicability for the study method and design. However, the questionnaire is dispersed into two sections. Section one contains four demographic information. Besides, section two include questions on political obstacles, financial, human, technological, and legal obstacles that could measure the variables, as presented in Table 1, also see the appendix 1.

Table 1. Questionnaire Structure

Variables	Components	No. of items	Scale Character	Sources
First: General information	Gender, Age, Overall Job Experience, and Level of Education	4		The researcher
Second: Obstacles of Electronic Commerce	Political Obstacles	4	Q1-Q4	Badawahi, (2017)
	Financial Obstacles	5	Q5-Q9	
	Human Obstacles	6	Q10-Q15	
	Technological Obstacles	3	Q16-Q18	
	Legal Obstacles	3	Q19-Q21	

1.2.2. Scale

It can be seen in the above table that the questionnaire divided into two sections. Firstly, the demographic information that as gender, age, overall job experience, and level of education. Second section obstacles of electronic commerce components which have 21 questions that are adapted from the survey questionnaires Badawahi, (2017). Accordingly, all obstacles of electronic commerce questions or indicators are measured through a five-point Likert scale reaching from "Strongly Disagree "1 to "Strongly Agree" 5.

1.2.3. Population and Sampling

As shown in Table 2, the population for this study comprises 32 companies operating in Sulaimaniyah city. So, commercial, industrial, agricultural, tourism, services, and some other companies are selected as the study population. Company general managers, deputy managers, and administrative staff are selected to answering the questionnaire questions since they have information about the e-commerce activities. Also, they know the obstacles to electronic commerce in Sulaimaniyah city.

Table 2: Population and Sampling

Population		Sampling	
Surveyed Companies		**Distributed Forms**	**Sample size**
Commerce	11	50	44
Industry	4	20	16
Agriculture	2	5	4
Tourism	8	32	28
Service	4	30	29
Other	3	20	17
Total Sample	32	157	138

Nevertheless, the companies operating in Sulaimaniyah are the thorough target population and sampling, this study pursues to discover the managers' methods and opinions on their electronic commerce activities; consequently, they can provide the critical data to sustenance the study purpose and answers to its questions. Hence, these two reasons confirm the variety of the population of the study.

As a sampling, 157 managers, deputy managers, and company administrative staff participated in the survey by answering to the questionnaire forms, those distributed in the companies to the managers who willingly accept the request to participate. Consequently, the reply rate is 87.8 percent. However, 19 whether not obtained back or responses out the scale, because invalid and are disqualified. The total valid answers are 138 which launch a study sample, as displayed in Table 2.

CHAPTER TWO
ELECTRONIC COMMERCE AS A MANIFESTATION OF THE KNOWLEDGE ECONOMY

This chapter aims to provide literature on electronic commerce as a manifestation of the knowledge economy, through the conceptual framework of the knowledge economy. Then it discusses electronic commerce which contains: concept, evolution, requirements, types, stages, benefits, and risks. This chapter also focusses on obstacles, effects, and successful experiences in the knowledge economy.

2.1. The Concept and Definitions of Knowledge Economy

In relation to the knowledge-based economy, Thomas et al., (2001: 20), argued that it has various synonyms such as the digital economy, the new economy, the internet economy, as well as the virtual economy, the e-economy, and the e-economy. Therefore, all the synonyms of this reference to the knowledge-based economy are often used interchangeably. As defined by Oxford Dictionaries (2017), the knowledge-based economy is a sort of economy in which growth depends on the value and quantity of information available and the ability to access it.

According to Begg (2003), if the economics is a science of scarcity or the science that studies the goods in the world of scarcity, the knowledge economy is in its most distinctive characteristics, especially under the digital technology one of its models is the economy of abundance. The principle of scarcity or the principle of free food based on materialism or tangible. While various researchers in the field of knowledge point to a new economy developing in the knowledge economy, this new economy is developing rapidly and widely as its characteristics expand and its principles become rooted in the face of the traditional economy, its characteristics and its fundamental principles (Malharta, 2003). In this context, Parken (2000: 440), defines the knowledge

economy as studying and understanding the process of knowledge accumulation and individual incentives to discover knowledge, and get what others know.

However, Abed (2011: 5), indicated that the study of the economics of scarce resources and their role in achieving needs, such as the economy known to search for how or appropriate means to benefit from resources and exploitation. Yet, according to the pattern that suits local communities and needs, the economy is intensive to find the best alternatives to address scarce resources and seeks to interpret economic phenomena, predict events affecting the future of the economy.

Najm (2008: 187), defines the knowledge economy in the context of the broad concept of knowledge that includes explicit knowledge that includes databases, information, and software. Besides the implicit knowledge that individuals represent by their experiences, relationships and contextual interactions. As the economy that creates wealth through knowledge processes and services, also creation, improvement, sharing, learning, application, and use of knowledge in its forms in different sectors of the community. While, Khadr (2016), defines the knowledge economy as a kind of new economic sector, which depends on the application of personal skills, or technology in financial or non-financial transactions within the economy. However, knowledge economy based on manufacturing, circulation, and evaluation of knowledge, where labor costs are less important, and traditional concepts of economy, such as scarcity of resources, are not used.

Al-Awaini (2016: 9), argued that knowledge economy created on the production, contribution, employment and innovation of knowledge, to improve the quality of life in all its fields by generating new ideas using the expertise and information technology used in the university and its institutes besides employing practical research for building a knowledge society. Thus, from this we can say that the knowledge economy has various concepts and includes the following elements:

a) A new sector of economic sectors.
b) Adoption of information technology.
c) Lower production costs.
d) Use of human capital.
e) Improving the quality of production and thus improving human life.

Consequently, it is clear that the knowledge economy means a new sector of economic sectors, relying on the use of information technology and intellectual capital, which will lead to lower production costs. Therefore, increase production and quality, thus improving the quality of life of the country's population.

2.1.1. The Development of the Knowledge Economy

Frederick Hayek wrote the first sign of knowledge as a term in the expressions of economics in 1945 titled (The Use of Knowledge in Society). The study attempted to count knowledge as a commodity. While, knowledge as a commodity came from (Fritz Machlup), mentioned in the book titled (The Production and Distribution of Knowledge in the US). However, the fundamental theory of knowledge by Bhekuzulu Khumalo, who argued that knowledge is originally a commodity, knowing that knowledge analysis as a commodity must be determined, a knowledge unit called Know-how, with its identification, attempted to measure knowledge. Moreover, he showed that the theories that attempted to measure knowledge in the late 1990s were wrong because they based on erroneous assumptions (Alyan, 2010: 48).

According to Khadr (2016), the concept of the knowledge economy dates back to the twentieth century. The first was the concept of the knowledge economy in 1969 in a book by the American administrator and philosopher Peter Drucker, based on the application of a series of studies on the agricultural economy and the labor economy, Khadr further argued knowledge, and its role in supporting production in various economic sectors. In early 2000, also the knowledge economy played an important role in supporting economic decisions, especially in industrial firms, which began relying on the presence of a computer department to provide support services to employees, whether in the quality of products or in the preparation of financial and accounting accounts easily, which led to the development of this economic sector significantly

The information revolution has transformed knowledge into a significant source of economic resources. Investing in information and technology has become a factor in production. It increases productivity and increases employment opportunities. Information and knowledge have become the driving force behind the development of economic development in various countries of the world (Darwish, 2000: 49). As a

result, societies have become information societies where their economy and the well-being of their people depend heavily on information technology. So, this reflected in the adoption by various economic sectors of information technologies that provide fast access to information and accuracy. The essential product of information technology was the emergence of global information banks and information services networks that brought together human knowledge and the product of human thought and made it accessible to scientists and scholars (Hashimi, and Azzawi, 2007: 16).

Thus, it believes that the global economy is becoming a significant shift to a new system based mainly on human knowledge. After it based on physical strength, industrial machinery, and raw materials, it is today driven by the knowledge machine. In the past, it believed that work was the basis of value. It was necessary to formulate a new theory that defined knowledge as the basis of value.

2.1.2. The Characteristics of a Knowledge Economy

The knowledge economy is the most significant factor of production and the most important among other traditional factors of production as labors, raw materials, and capital. So, this confirms that knowledge is more important than physical capital. According to the economic thinker Drucker, in the last century, the contribution of management was to increase the productivity of manual labor, but the most important was to increase the productivity of knowledge work (Boungeras, 2006). While according to David (2003: 89), and Bader (2004: 32), the knowledge economy has its many characteristics as follows:

1. Super flexibility and the ability to adapt to the changes and developments of life, which is an accelerated rate of change and intensifies the size of its impact.
2. The ability to innovate, and generate new intellectual, cognitive and non - knowledge products previously unknown to the market, and then helps to create products, unprecedented and more to the consumer, distributor, and to satisfy the satisfaction of consumers and dealers.
3. The fields of creating value added in it are diverse, varied, extended, renewable and of synchronous nature, although they are proportionate to content, at the

same time precious almost infinite, and give their stimulating effect on all areas of this economy.

4. The knowledge economy is based on itself and based on its relations with other economies.
5. Investing in human resources as the intellectual and knowledge capital by relying on the qualified and specialized forces and the employment of information technology and communications with high efficiency and contracts of work are more flexible and temporary and linked to the task and high income for knowledge makers by their qualifications and experience and efficiency.
6. The transition from mass production to specific production (privatization), shifting from stereotyping to diversity in production processes, reducing product life cycle, competitive acceleration and the trend towards fragmentation rather than centralization, from central companies to stocking companies.
7. The transfer of economic activity from the production and manufacture of goods to the production and manufacture of services.
8. A full employment economy, there is no surplus, no idle, and stagnant stock where knowledge is produced, marketed and consumed at the same time.
9. The availability of supportive community infrastructure to facilitate effective communication regarding a society free of information illiteracy and the internet and the establishment of an economic and institutional system that provides incentives to use existing and new knowledge.

2.1.3. The Comparison of the Traditional Economy and the Knowledge Economy

According to Rahman (2005: 6), the knowledge economy differs from the traditional economy by a competition often dominated by bureaucracy, while the knowledge economy characterized by dynamic markets operating in competitive conditions within an international network of high potential. Although, Rahman further argues that the knowledge economy is an economy of abundance rather than scarcity. Besides because resources can deplete by consumption and consumption as knowledge of learning, practice and use increases and so do participation.

In the same context, Ismail (2004: 42), mentioned that traditional economy aims at the full employment of the labor force without identifying specific skills for the performance of the work while the knowledge-based economy aims to establish real value for wages and to expand the use of highly skilled labor force that interacts with education and continuous training. However, in the knowledge economy, information and knowledge can be shared and can grow when used.

Nevertheless, in contrast to the traditional economy has eroded the importance of geography in the knowledge economy. Use appropriate technology and appropriate means, virtual markets can create virtual organizations that provide delivery around the clock, anywhere in the world. Knowledge itself is also on a different value for different people at different times. Human capital is the most significant component of value in knowledge-based organizations (Saleh, 2010).

Table 3. The Comparison of the Traditional and the Knowledge Economy

Traditional Economy	Knowledge Economy
• Patriotism.	• International.
• Stable.	• Instability
• Low / Average.	• High.
• Processing: the structure of the tight, commercial policies, industries useful.	• Guidance: Privatization, WTO accession, regional blocs, a partnership with the private sector.
• Competitive.	• Joint
• Specific skills by function.	• Comprehensive learning.
• Tasks determine it.	• Constant lifelong learning.
• Creating employment opportunities.	• Learn by practice.
• Adventure / independent risk.	• High wages/incomes.
• Economic blocs.	• Union and cooperation.
• Machine.	• Renewal, superiority, and quality.
• Factor inputs (labor, capital)	• Numerical.

Source: Saleh, M. A. (2010). ***Guidelines for Industrial Development in the New Economy***, First Annual Conference of the World Economic Association, Muscat.

2.1.4. The Significance and Benefits of the Knowledge Economy

The new knowledge economy has become a tangible reality, although it seems to some that it is still under formation and that this economy is growing at a rapid rate and

that it surpasses all other economies in an unprecedented manner, both quantitatively. Alternatively, regarding actual quality and that the motive of concrete achievement of living and its features are tangible and measured in developed countries (Kathryn and Badamshina, 2004). However, according to Hashimi and Azzawi (2007: 28), knowledge economy has most significant benefits as follows:

1) The institutions are forced to innovate.
2) The dissemination of knowledge, employment, and production.
3) Achieving electronic exchange.
4) Achieving desired and essential educational outputs and outputs.
5) The consumer has greater confidence and broader choices.

2.1.5. The Knowledge Economy Indicators

According to Tutilian (2006: 21-22), the most important indicators of the knowledge economy are as follows:

R & D indicators: Research and development data are the primary indicators of the knowledge economy. So, two primary indicators have been used as research and development expenditure and research besides development teams. These researches have long been structured and standardized for dynamic analysis in international comparisons.

Education and Training: Human resources are of great importance in the work, development, and growth of economic activities, especially in the knowledge economy and its advanced technologies. However, study this dimension of the knowledge economy is still slight due to the lack of empirical work in this field, on the other hand, it is difficult to measure the competencies of outputs and the indicators of resources.

Information and Communication Technology (ICT) Indicator: The (ICT) index is particularly crucial as events coincide. The knowledge-based economy has met a suitable technological base, which has led to the joint promotion of concentrated activities in knowledge, production, and deployment of new technology.

Computer Infrastructure Index: This index includes all processes related to computers, particularly when it comes to the number of computer hardware in every thousand inhabitants of the population and users of the network.

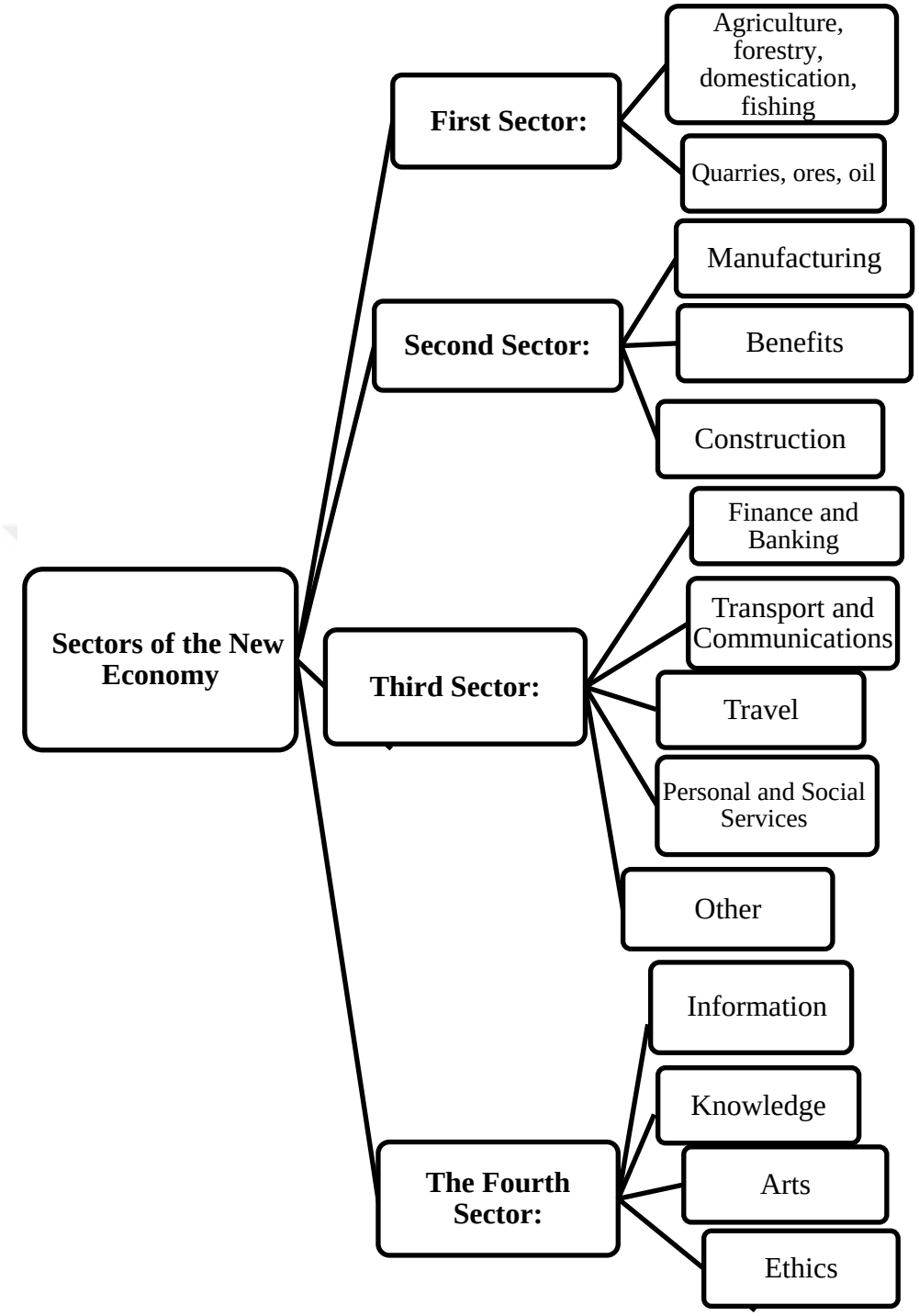
2.1.6. The Manifestations of Knowledge Economy

According to Hamad (2014: 8), electronic commerce considered is the manifestations of Knowledge, while economy electronic commerce comprises, as a general concept, any form of a commercial transaction in which the parties interact electronically rather than through financial transactions or direct financial contracts. E-Government: is a group of units that use technology in the provision of services and information to the government and individuals and the business sector faster, better and less complicated

While, Saleh (2010), stating that the commercial bank services in the additional manifestation of the knowledge economy are the set of activities and processes with useful content inherent in physical elements providing by the bank recognized by the beneficiaries through attributes and utilitarian values, which a source for their needs and their needs current and future financial and investment.

2.1.7. The Knowledge Economy Position in Economic Sectors

According to Hashimi and Azzawi (2007: 30), during continued economic development, the change in the main factor of production was the most critical determinant of this development. However, in the agricultural economy, land was the main factor of production. So, in the industrial economy, capital and its representative model was the main factor of production and the main production factor in the new economy, as the figure below illustrates more about knowledge economy in economic sectors.



Fighter 1. The Knowledge Economy in Economic Sectors

Source: Al-Azzawi, H. Abdulrahman, (2011). ***Winner, Curriculum and Knowledge Economy,*** 1st Edition, Dar Al-Masirah for Publication, Distribution and Printing, Amman, Jordan.

2.2. Electronic Commerce

2.2.1. The Concept and Definitions of E-Commerce

According to Nanehkaran (2013), electronic commerce is an essential and practical concept that the current foundation of human life has changed. E-commerce is an important principle for the ICT revolution in the economy. Hence, this type of movement because of the immense benefits of man has spread rapidly. There is no doubt that e-commerce can call off many restrictions on traditional business. Despite that Hamad (2014: 13), believe e-commerce is the concept of doing business and economy through the use of modern communication technologies, namely, the Internet, networks, electronic methods, and telecommuting mechanisms such as telephone, fax, and communication systems are members of specific areas.

As indicated by Tian and Stewart (2008), Electronic commerce refers to the process of transaction of goods and services through electronic communications. In addition, the public becoming familiar with e-commerce but in the past decade. However, e-commerce has been around for more than 30 years. Yet, electronic commerce has enabled the development of electronic data interchange (EDI) to exchange business documents from one PC to another in a standardized format. However, EDI was invented in the mid-1960s, when she was trying to companies in certain retail and transport industries create a paperless office.

As mentioned by Al-Jadayah and Khalaf (2009: 24), electronic commerce is the steps taken by the sale, purchase besides the exchange of goods, services, and information across computer networks. E-commerce is a selling and buying process between consumers and producers or some companies, using ICT (Abdelkhaliq, 2006: 34). These comprise transactions among businesses and their currencies, counting companies and governments. These also include foreign and domestic trade. Electronic commerce can carry out new functions in trade, including advertising, marketing, negotiations, and settlement. Payments and accounts, opening concessions and licenses and issuing orders for the sale, purchase, and exchange of certain services and services (Hamed, 2003: 11). E-commerce is a system that allows the Internet to buy and sell circulation information, and also allows e-activities that support revenue generation

such as enhanced demand for those goods, services, and information, besides e-commerce provides support for online sales and customer service operations (Nanehkaran, 2013).

However, according to Saber (2004: 490), electronic commerce is the type of sales and purchase between consumer producers or between companies and some of them in modern ICT. Alternatively, it is a form of trade exchange using the network of communications among corporations and some companies and their currencies or among businesses and public administration.

2.2.2. The Development of E-Commerce

As indicated by Wigand, (1996), electronic commerce is the comparatively new concept that has crept into business terminology during the 1970s. Representing e-commerce that will make the Internet a decisive tone for doing business by the year 2000. Therefore, this participation addresses the issues of definition, theory, content counting nature, drivers, assistants and the volume of e-commerce. In this regard, Turban et al. (2005), argued that e-commerce idea began in the early 1970s. During this time, electronic commerce means commercial transactions managed automatically, using technology such as electronic transfer (EFT). So, this technology allows businesses to send business documents such as purchase orders or invoices electronically. Outstanding e-commerce growth mainly to advances in computer and telecommunications technology shared with the fast-low-cost digital network. The book, though, most of them ignore the crucial role of infrastructure for electronic commerce and development, and that the disparity in infrastructure will lead to a digital divide (Iyer et al., 2002).

As Mirescu (2010), argued that familiarizing companies around the world with technological reality forced them to take into account trying to enter the online market and redraw and transform the entire economic process that not experienced any significant jumps before the operator of the phenomenon. Technology also means access to information, avoidance and adaptation of new technologies available can have substantial long-term effects, most often severe unpleasant to competitors within the economic race.

Today the e-commerce range is a completely new business with a set of rules and features. Accordingly, customers or users can access, every mouse click, to the enormous diversity of goods and services available to them international, with specific payment terms. As the boundaries of any country are not connected to the Internet, the e-commerce market is more likely; and around the world, so no matter where companies or clients in the world have the potential to come in contact with each other over the Internet. Furthermore, the performance of more new translation services, such as Google translation, has become the status of even language barriers aside (Wang et al., 2000: 374).

2.2.3. The Electronic Commerce Requirements

According to Karima (2011), Maamoun (2011), and Bouziane (2012), the spread of e-commerce in any society requires the electronic infrastructure, legislation and regulations for electronic commerce, and availability of human resources, as follows:

The electronic infrastructure comprises checks for wireless and wired communication such as fax, telephone, internet, computers, application, and operating software, technical support services, and human capital. So, this infrastructure helps to grow and develop e-commerce. While, the electronic infrastructure helps to spread the use of the internet, which in turn is the electronic market through which the exchange and trade (Karima, 2011: 3).

Legislation and regulations for electronic commerce which dealing with the legal framework that ensures the continuity of electronic commerce, the protection of the rights of the parties and finds the legal tools that fit and electronic transactions such as contracting via the Internet or e-mail. Also the necessary settings and e-commerce disputes, whether within the community or whether different countries (Maamoun, 2011: 21).

Availability of human resources so, this aspect is a component of e-commerce in any society, counting the human resources specialists in the sector of information technology and communications networks and applications related to Internet commerce. Desire to use and practice online trading. Besides increases readiness for any community to improve the quality of education systems. In addition to expanding

opportunities for community members utilize them until they become a society with a culture of technology by adding the availability of opportunities for educational institutions and schools to use ICT and adapt education curricula with knowledge network technology (Bouziane, 2012: 18).

2.2.4. The Types of E-Commerce

2.2.4.1. Business to Consumer B2C

Business to the consumer B2C is for transactions among business and consumers in the end and even produces electronic store interfaces that provide information, goods, and services between the business and consumer retail or online transactions, the online trading model refer to a financial transaction or online sale between business and consumers (Nanehkaran, 2013). Amazon is a classic example of this type of e-commerce. Although the Amazon B2C, the abbreviation for the code is referred to as it sells its products through retail sale to the consumer.

2.2.4.2. Consumer and Consumer C2C

Consumer to consumer (C2C) is the most important form of commerce which helped in great part by sites that contribute to free classified ads, auctions, forums, and individual pages to start projects. Define C2C e-commerce consumers form, used by, the Internet (Daily, 2001). Lately, C2C has gone over incredible changes in technology as well as increased market size and revenues from one year to another. Given the rapid growth, increased market size and revenues, there is a need to investigate the recent issue of C2C to determine how useful the growth is going to customers (Dan, 2014).

Moreover, the process of buying and selling in this type occurred between the consumers C2C and referred to the short code and consumer last, besides there is no need for any intervention from the organization of destination. Further, this type is widespread among users because the provision of some sites competent for such kind of trade of extensive facilities to ease users in their dealings, examples of this type are auction sites such as a website (Khalid, 2014:203), as revels in Figure 2 below.

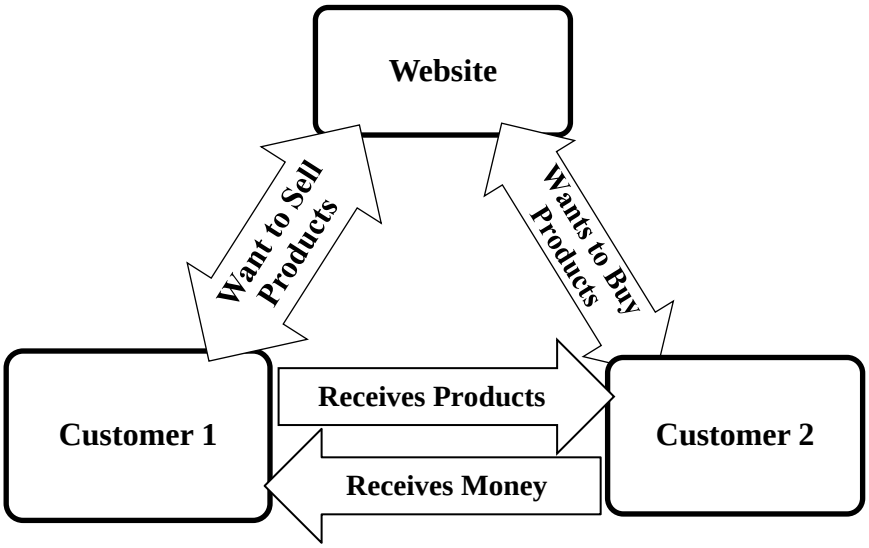


Figure 2. E-Commerce Between Consumer to Consumer C2C

Source: Dan, Cudjoe, (2014). Consumer-To-Consumer (C2C) Electronic Commerce: The Recent Picture, ***International Journal of Networks and Communications,*** Vol. (4), No. (2), pp.29.

2.2.4.3. Business to Business B2B

The business to business is a sort of trade transaction that exists between industries or transactions that occur among a business and another business for the transfer of products and services. Possible explanations for this might include wholesale online businesses that sell companies materials, products, and services to other companies on websites (Yang and Ding, 2009).

E-commerce has started as an inter-organization for years, especially in the field of remittances between large financial institutions, and then spread between the various business and trading sectors of the company. It is well-known fields and extends to various business workshops to promote links and frontal relationships, such as marketing, to businesses, such as raw material suppliers (Dayle, 2001).

2.2.4.4. Business to Government B2G

Business to government and government to business (B2G/G2B) characterizes how business transactions conducted between businesses and the public sector. In the first case, businesses undertake activities for the public sector (obtaining agreements,

auctions) while over G2B the public mainly informs the private sector foundations about the framework opportunities or legal cooperation with them (Mirescu, 2010).

While this type of trade is obtaining growing attention from many governments, and many acute to conduct and modernize performance on different business sectors, with increased reliance on electronic means to obtain goods and services produced or presented by sectors (Dayle, 2001). In the context of government and consumer G2B this type of interest of governments and various government departments to develop the provision of services to the owners with little credit, both regarding access to information and data, or meet some of the demands. Such as airport services, and the issuance of car licenses, nevertheless even the payment of salaries and pensions (Abdelkhaliq, 2006: 47).

2.2.4.5. E-Commerce Within a Single Company

According to Khalid (2014), e-commerce within a single company includes internal activities and processes in the organization that comprise the exchange of products, services, and information between the branches of the organization. These activities may include training for institutional staff. While trade with employees consider as e-commerce within a single company where the company provides inter-business services, this type of information can consider as part of the information and products of its employees only.

2.2.4.6. Mobile Commerce

According to Sandhu (2012), mobile commerce or m-commerce refers to the uses of wireless e-commerce to do business or business by a user device such as a cell phone, PDA, smartphone or other emerging mobile equipment such as dashtop laptops. Therefore, mobile commerce defined as any transaction, counting the transfer of ownership or rights to use goods and services, which commenced or was completed using mobile access to computer networks with the assistance of an electronic device.

By the mobile commerce, the user can do any transaction counting buying and selling goods, asking any of the services, transfer of ownership or rights, conducting

transactions and transferring funds by accessing the same wireless internet service (Turban et al., 2005). Mobile commerce is e-commerce activity, and applications can implement by wireless devices such as mobile phones where the user can conduct banking operations through this device, and has recently emerged as a service and is within (location-based commerce) mobile location positioning that provides the ability to locate the user (Abdelkhaliq, 2006).

2.2.5. The Stages of Electronic Commerce

First: The First Supply Promise, at this stage, the producer or the exhibitor will display the item or service that the user wishes to sell to any user of the various electronic means of display, after determining the market conditions according to the feasibility studies the process of presentation accompanied by the use of electronic means to advertise. Moreover, promote the product comfortably and transparently that consumers can understand, in order to convince them of the goods or service, and urged them to buy the items (Abdelkhaliq, 2006: 35). However, customers at this stage have the option of efficiently retrieving information on the product of interest, viewing commercials, as well as reading the stipulations, finding out pricing, packaging and delivery conditions, besides staying up to date with product launches (Wang et al., 2000).

Second: Admission, if the other party satisfy it may decide to accept the offer, i.e., the bidder meets the bidder's acceptance. The contract is concluded at this stage by the purchaser requesting more information and data about the product of any kind, function, and specifications, and also using electronic means as well (Abdelkhaliq, 2006: 36). The buyer is a user of the same means, after ensuring that it secured by sophisticated means to maintain the integrity of the data on the one hand and secured on the other. Here, the means of establishing trust and credibility usually used by third parties. Data authentication and investigation of the party the other included in the contract shall be, without prejudice or piracy on the fourth (Kotler et al., 2008). While, Meta pursuit machines permit quick searches for opponents' products and customer evaluations thus, allowing customers to make comparisons and make informed decisions (Wang et al., 2000).

Third: Implementation, this stage shall mean the status of the corresponding obligations in effect. The bidder shall provide the goods, prepare them and for delivery in the form and manner agreed between them. Delivery of the item, the agreed condition governs delivery on the one hand, and the nature of the commodity on the other, such as: is it a material commodity that needs to deliver in a material form and a direct form or is an intangible commodity that can convert into files and numbers. From electronic means, such as books, and tickets. The product may be the subject of service dealings, such as legal or medical consultations, educational audios, and government service (Abdelkhaliq, 2006: 36).

2.2.6. The Benefits of E-Commerce

According to Mirescu (2010), the development of new telecommunication networks and modern online devices has caused in new business. Electronic commerce has become one of the most common activities on the websites. E-commerce shaped various benefits for businesses, customers or users While, Iyer et al. (2002) mentioned the lower transaction costs as the benefit of e-commerce, besides claims that if the customer or user buy from an online store, will spend low-cost operational, while customers have better quality of services, and can reduce unnecessary losses a lot. For instance, if the services downloadable, customers or users will have transport costs entirely cancel.

Nonetheless running an efficient business, so, do not need customers in e-commerce, hardware company genuine, or there are no crowds to deal with. Besides users or customers can buy from a comfortable home; users can easily choose goods from various actions without moving physically (Wang et al., 2000). In this context, Khalid (2014), indicated that the most important benefits of e-commerce functions can present as follows:

1. Time and effort: Open the electronic markets throughout the day and without any holiday) Moreover, customers do not need to travel or wait in line to buy a particular product. Besides they do not have to move this product to the house, does not require the purchase of a product more than clicking on the product, About Credit Card There are many payment systems such as e-money.

2. Freedom of choice: Providing e-commerce an excellent opportunity to visit different types of shops on the Internet, moreover, it provides customers with full information about the products, and all, without any pressure from sellers.
3. Reducing prices: Many companies sell goods at lower prices compared to traditional shops because shopping on the Internet provides many items at lower costs than in regular shopping, which is in the interest of customers.
4. Customer satisfaction: The Internet provides direct interactive communication, allowing companies to take advantage of these features to answer the (e-market) in the e-market customer inquiries quickly. Which provides low business expenses, primarily if the site was implemented deliberately to receive orders from customers automatically, as this reduces the costs of orders and customer service expenses after the end of the purchase.
5. More effective marketing, and more profits: The implementation of online businesses in marketing, allows companies to demonstrate their services and products around the world without interruption throughout the day besides every day of the year, giving these companies a greater opportunity to profit, from customers.
6. Reduce the expenses of companies: The process for the preparation and maintenance of e-commerce sites more economical than building a retail or office upkeep. Also, companies do not need to spend heavily on promotional things, installing expensive equipment used in customer service, there seems no need to use several employees to do business and inventory management.
7. Effective communication with partners and customers: Electronic commerce comprises reserve and cross-border, providing an operative way to share information with partners. E-commerce also offers an excellent opportunity for corporations to benefit from goods and services provided by other businesses.

2.2.7. The Risks of E-Commerce

During the past years, the Internet gained an important role in our daily lives as well as in the business environment. Therefore, this movement online as well in the way companies collaborate with their customers using the Internet, stages or in the form of

electronic trading. Besides the ease of customer demand for products from home, online shopping involves many risks. However, most of the risks related to the lack of information about businesses that sell online or uncertainty required products (Pelau and Bena, 2010). Yet, according to Hamad (2014: 2), some believe that the risks related to e-commerce are reasonable within two main sorts. First, the risk can discover and intended, besides there are particular specialists have able to catch some advances in their systems and deal with them, and the most famous of these advances:

a) Identified viruses, the presence of a suitable protection system, the company's system can catch these viruses already known and eliminated.
b) Hackers on the Internet, so the hackers in the company's system on the information and symbols specific to access, in the case of more than one user of the company's system may be able to access the hacker. Furthermore, access to the system memory that the information and use, where the company uses it to change the periodic codes scanning the memory of its experts will limit the penetration.

The second risk cannot detect, and is intended here, that some advances may take place without previous knowledge, moreover to the corporation's ignorance or ignorance, stemming from the following reasons:

a) Unfamiliar viruses, though there are systems of protection against viruses on the systems of the corporation, there are still unidentified viruses of the system may be able to enter the net system and cause substantial damage without feeling it until it is too late
b) Internet hackers with high practice, so, this is one of the most significant complications confronted by businesses, Internet hackers are not always unprofessional, some of them with a kind of experience and skill far exceeds the custom, enabling them and often penetrate the systems of the company without being touched, Without being detected
c) Technological rushing, it is often challenging to keep pace with technological acceleration on a public network and on e-commerce in particular, which makes the technology used by the corporation olden, and the problem is not knowing the statute of limitations promptly.

According to Mirescu (2010), e-commerce disadvantages are inevitable in any business, and in this context, they primarily associated with security issues related to transaction operations, lack of necessary infrastructure. Nevertheless, the nature of the specific relationship among trust and risk is incomprehensible, and it escaped technical detail. While the field has made significant progress in defining confidence and perception of faith from different theoretical perspectives, future research has examined the role of risk and faith in the context of consumer-based e-commerce (Cheung and Lee, 2006).

CHAPTER THREE
ELECTRONIC COMMERCE AND ITS RELATION TO OTHER CONCEPTS

E-commerce is part of traditional commerce, while both traditional and modern trade is part of the economic actives. Indeed, e-commerce effect by what is happening in the local and global economy, besides the theories of the micro and macroeconomics must be taken into account in e-commerce and its transactions. In other words, e-commerce may consider whatever that comprises an online transaction. So, this can range from ordering online, over the online transfer of paid satisfied, to financial transactions such as transaction of money among bank accounts (Raghunath and Panga 2013: 59).

As argued by Goldsmith et al. (2000), electronic commerce also called e-finance such as; mobile and internet banking, online funding, debit cards, smart cards, banking machines ATM, insurance, financial services, as well as online mortgages. Hence, electronic commerce affects the national economy, businesses, and consumers. The infrastructure of electronic commerce consists of internet networks and computer software, all of which fall under the science of computer and consequently there is a close connection among computer science and electronic commerce (Saleh and Al-Jadayah, 2009).

In this regard, Wang et al. (2000), mentioned that the commercial bank plays an important role in the success of operations of the electronic commerce, because electronic financial transactions, which are carried out using the internet, require economic financing, which covers commercial banks. Banks must develop their services to comply with e-commerce. Meanwhile, e-commerce transaction requires laws to clarify more like privacy and ownership idea, in order to deal with cybercrime, such as hacking sites.

3.1. Electronic Commerce Obstacles

According to Yousif and Aziz (2012:33), electronic commerce is facing some obstacles that prevented its spread and development in spite of its many advantages. Obstacles to e-commerce application can be divided into two kinds: (i) technical hurdles and (ii) untechnical obstacles to electronic commerce applications; however, there are various technical obstacles facing organizations when they try to build e-commerce applications, that can be clarified as follows:

As studied by Burhan and Khattab (2010: 17), the problems related to reliability, online protection, and security still need universally recognized standards. Besides, the speed of communication is still insufficient to implement electronic commerce in countries like Iraq. However, using the internet in dealing with organizations are different around the world, but the means of communication alone are not enough, nevertheless, there is the problem of the environment from country to country, as well as the different customs, traditions and consumer behavior in cultural purchase and language (Awad, 2007: 17).

In the same regard, Mohammed (2009: 42), stated the problem related to confidence's low level in credit cards or online transactions as a way to make payments, because of online attacks by internet hackers in the credit cards uses, seize their number and use them for no valid purposes. Consequently, the method of electronic commerce needs a sophisticated infrastructure at the level of telecommunications networks that some e-commerce software may be incompatible with definite hardware and equipment or may conflict with specific operating components or systems (Unold, 2008: 17). However, according to Al-Jadaya and Khalaf (2009: 40), there are obstacles that not technical faced by e-commerce applications. Such as clients constant need for confidentiality in the sale and purchase. Although, there are clients or customers who refuse to change from traditional commerce to e-commerce, while others prefer to trace the product before accept or buy it. Besides customers still, refuse to switch to paper transactions and electronic contracts.

Nevertheless, as indicated by Yousif and Aziz (2012), e-commerce applications implementation may require to re-engineer the internal work design and may require new practical training for the working staffs. Thus, some governments still have laws

that prevent and reduce opportunities for international cooperation. In the context, Badawahi, (2017), identified the obstacles faced by trades working in the field of e-commerce and ways of activating them in Iraq and particularly in Erbil city. So, the results confirm the same obstacles including political, financial, human, technological and legal obstacles that illustrate changes in e-commerce.

3.1.1. The Economics Effects of Electronic Commerce

3.1.1.1. At the Consumer Level

Regarding the economic effect of electronic commerce on the consumer level, Adalikwu (2012), maintained that the advantages or benefits of different government institutions and businesses using electronic commerce; customers or users also share trade, so, if a consumer online. The consumer has a broader range of online shopping, around the clock, any day he/she wants, in addition to any place on Earth. Thus, anyone with a computer connected to the Internet, and can become a global consumer, and not have to deal with network's buttons, opening surfs through e-commerce sites via the Internet. Cheung and Lee (2006), also referred to electronic commerce and offers various options to the consumer as an outcome of access to products and shopping centers was not available near the consumer. Therefore, e-commerce is an opportunity to search for their favorite commodity or to search through online trading sites. While in the case of traditional marketing, consumer products have only shown in traditional markets.

Burhan and Khattab (2010: 18), claimed that in the interpretation of the variety and multiplicity of products in e-commerce sites, the consumer will be looking for the best quality product with low price, through comparing costs and conditions for products quickly and easily, giving the consumer choose the best deals in the end. Nonetheless, in the traditional trade, it is difficult as it requires visiting each location to compare prices and quality products.

Also, Dayle (2001), reported that the e-commerce commodity prices lower than in traditional trade due to reduced administrative costs are borne by producers. So, this will decrease the prices of products offered on the Internet. On the other hand, online consumer feature quickly obtains his/her product and purchase order electronically,

especially if the service or products convertible into digital products such as books and journals, computer software, sound, photographs and other materials (Yousif and Aziz, 2012).

As indicated by Al-Jidah and Khalaf (2009: 41), the products are gained in seconds after clients purchase from the site, however obtaining a non-digital product is faster if the request made with traditional methods because the process of requesting payment and sufficient information concerning the application electronically, you can send the product to order quickly and easily to the buyer, while taking weeks and perhaps months if it has been the traditional application. The Internet also delivers the ability to exchange information and views on consumer services and products over online communities like forums and others. To provide data and information in cities on economic consequences, and raise the level of culture and consumer consciousness between consumers, and while it may be impossible, or requires more time and effort in the world of conventional trade (Mirescu, 2010).

3.1.1.2. At the Business Level

Electronic commerce effort to expand the domestic market, as well as access to international markets, and create new markets that could not find in traditional trade framework, which allowing small and medium-sized enterprises to gain access to local and international markets. Consequently, consumers or users are empowered to choose products from the direct benefits of electronic commerce natural and effective way to reach domestic and international markets for companies, allowing anyone on the Internet at low cost (Abdali, 2005:15).

According to Suleiman (2001: 7), in this regard there are many savings which can achieve through the use of electronic commerce, the most important is reduction in the cost of labor related to the operation of the data, as a result of relying on low staff than the required number in the case of the manual process of the data. As well as a decrease in administrative costs, shipping, and advertising, besides design and manufacturing information — the cost of checking and correcting erroneous data, nevertheless, the low cost of maintaining liquid funds, as the payment and collection process is quick as a result of the electronic transfer of money (Abdali, 2005: 16).

Saving of communication costs through e-mail is much lower in the case of telephone or fax. As the electronic marketing based on the systems of the calculation that begins by knowing the desire of the consumer and its requirements, and then use the method of production on time and thus reduce the stock to the minimum possible (Yousif and Aziz, 2012).

In addition, electronic commerce effort to decrease distances among consumers and producers, which allows electronic presence between the seller and the buyer of the level and quality of the product by pre-sales. Also, after-sales services and provide information about the nature of the products, their prices and producers in the markets, as well as in response to market demands, leading to improved competitiveness in the electronic markets (Boutros, 2000: 189).

3.1.1.3. Macroeconomic Effects

Electronic commerce application also effects on macroeconomic variables and growth rates. So, e-commerce leads to higher earnings, higher living standards, the restructuring of markets and increase marketing and increase exports and therefore increased production and increased growth rates. Accordingly, using modern technological means states trade increases the strength of the economy and growth in these countries and also the social benefits and the health and education sectors through the use of modern technology in its dealings. Moreover, in light of e-commerce, we can produce a new reputation compliant electronic nature, increase sales, and increase business profits (Jibril, 2012: 107).

As studied by Boutros (2000: 189), electronic commerce offers a suitable climate for growing production efficacy, supporting computer and software industries. Moreover, supporting the production process through the technology industry and other related industries technology, such as e-storage media and communication networks, these industries are electronic commerce infrastructure. While the proliferation of electronic commerce requires more and more of these.

In addition, the practice of electronic means of trade growths the level of management and organization within the enterprise, the development of existing production activities and the development of new production activities, such as online

research on new sources of financing abroad, and the production of new types of goods that fit the nature of e-commerce, Economies of countries (Abdelkhaliq, 2006: 200).

Nevertheless, according to Jibril (2012: 106), e-commerce assistances to rise foreign trade and increase exports by facilitating access to international markets throughout the world, and the ability to conduct business transactions easily and quickly without any administrative and commercial constraints. In addition, to respond to changes in customer demand and marketing of local products. Hence, the growing e-commerce services trade between the countries. Although this sector represents 60% of total world production, with the advent of modern information and communications technology and e-commerce facilitates the process of rapprochement among consumers and producers of geographical distances. E-commerce makes new chances for investment, especially in information and communication technology, and plays a vital role in e-commerce infrastructure. The spread of e-commerce requests to growing production in this sector, leading capital to invest in the development of trade support. As a result, increased investment in the technology and communications sector, which works to support the national economy (Allam, 2010: 164).

Electronic commerce provides new-fangled chances for work. Allows the creation of small and medium-size individuals and linking them to international markets with minimal investment costs, particularly trade in services that provide e-commerce where specific staff to provide their services at the regional and global levels without having to move the area for them to go for free In the business (Burhan and Khatab, 2010).

Arafa (2009), claimed that e-commerce provides employment opportunities in various areas linked to e-commerce applications, such as e-commerce, creators, employees, officials, and technicians in e-shops, as well as opportunities in the ICT sector. In this sector, e-commerce relies on network and software engineers for e-commerce and other applications. Nevertheless, Arafa notes that the use of e-commerce will lead to the replacement of traditional jobs and the replacement of new skill positions, requiring attention to train workers to use technology to enter the arena of competition and win jobs. Therefore, this means that e-commerce damages manual tasks and unqualified workers. Yet, it has a positive impact on trained technical workers as jobs can be quickly created.

E-commerce helps in the decrease of the unemployment problem through creating new jobs opportunities, especially in the field of IT, communications and knowledge industries CKI, as well as works, to facilitate small and individual businesses, work from home, and rising employment opportunities for people with special needs. Job opportunity also for women from home without having to work abroad, nonetheless specialized technical workers and trainers who are able to handle applications such as computer engineers and web designers (Mohsen, 2005: 7).

The e-commerce projects or applications are the significant factor in economic development and lack the necessary financial resources to reach international markets. Hence, e-commerce is one of the tools that makes these projects able to participate in international trade effectively and efficiently because of what which provides a reduction in the cost of marketing, advertising. Besides, given the time and place necessary to achieve transactions trade, besides this is reproduced positively on stimulating the activities of these points, which drives the development of economic (Arafa, 2009).

E-commerce also facilitates little ways of success for small and medium-sized enterprises. It reduces the cost of construction, administrative costs, staff costs, advertising costs, advertising and other operating expenses that undermine the work of those projects without significant funding sources. On the success of these projects, and e-commerce enables these projects to market products beyond the borders of international, and access to distant markets. Besides, find new suppliers abroad, and to provide new products commensurate with the size of these projects' financial ability, giving them a higher chance of survival and contribute in its success (Jibril, 2012: 106).

3.1.1.4. Effects on Capital Market

Capital market, such as product markets, is influenced by technological progress, e-commerce publishers have a role in this effect. The exchange between surplus units on the capital market, investors (savings units), the issuance of long-term stocks and bonds, which play an essential role in stimulating investment and economic growth (Mohsen, 2005). Electronic commerce is working to increase the efficiency of stock exchanges as the purchase and sale contract for securities traded on the stock exchange is concluded.

E-commerce offers great flexibility through the availability of contracts or orders for sale or purchase, through e-mail, a modern used in trading, and provide quick information about the market for investors, cannot Brokers offer this information about securities traded in the exchange at times and quickly (Ramadan, 2003: 33).

The emergence and use of e-commerce in capital market transactions have led to the introduction of the e-financial report on corporate disclosure as a supplement to the traditional financial disclosure report, which published at the lowest cost through electronic websites and the communication of a large number of investors at the same time. Nevertheless, stock and economic bonds from traditional means to trading online and therefore e-commerce is profoundly affected the capital market, and the use of modern technology in the process of trading as part of it, electronic trading It provides fast selling, buying and closing of contracts and transactions, providing adequate market information. That enables investors to make a buying and selling decision from anywhere they located, providing a high level of transparency required by capital markets (Jibril, 2012: 104).

3.1.2. Electronic Money

The concept of electronic money or e-money is frequently used to refer to a wide range of e-payment systems, and could mean diverse things to different researchers. Basically, the e-money cash valued stored on an electronic device that can be used to make payments. Yet, this definition is still very general and could comprise a wide range of electronic payment products (Fung et al., 2014). Electronic money is a tool of payment that is accepted by third parties (corporations and individuals) than the source. So, it means that the electronic money should be able to use to buy goods and services from a wide range of people in different locations (Sandhu, 2012). The electronic money is progressively replacing cash and checks, particularly in advanced economies. The development process in the e-money request can be clarified commonly by the distribution of incomes and the increasing public right property essential in e-money accounts. While some believe that e-money creation linked to the internet, because it was created to meet the needs of customers through the internet company, as an appropriate means to settle small value payments, by a Dutch company called, the

company launched the money the same name relative to, and then launched, Digi Cash (Turban et al., 2005). In this context, Lanskoy (2000: 30), e-money stored in a distinct, often on the hard drive once the PC, which can be transmitted from one device to another using communications lines and other electronic media. Economical is ' electronic money ' payment tool, which, depending on the application of the plan, the cash has the traditional characteristics and traditional payment instruments, credit cards and checks.

In this regard, Hespeler (2008: 5), mentioned that the electronic money is divided into two sorts: first cash card based and the second one is network-based money. In turn, the first and second in the anonymous system, allowing to perform operations without identifying the user. The unknown system, requiring mandatory identification system participants. While according to Fung et al. (2014), the authors analysis current advances in retail payments in Canada and elsewhere, with a focus on e-money products, and assess their potential policy implications, especially their studies how these developments affect the demand for banknotes, the Central Bank's balance sheet and expand their income.

Moreover, as a result, it can affect the ability of the central bank to implement and manage monetary policy and enhance financial stability. However, the rapid technological development and the increasing use of this type of money is trying to wait for the arrival of dealing with electronic money for a stage in which it can stand on the controls of legal. Moreover, monetary and economic was the position of jurists on the identification of electronic money is necessary to set the legal rules governing the procedures. Besides operations of all electronic money, it is beginning with the issue and through trading, ending with the return to the source and converting them into restricted funds in a given account (Freedman, 2000). So, the process of circulation and issuance of electronic money has become more accessible, and faster than before, it has become possible for anyone to make payments exceeding the value of a thousand dollars and converted into electronic money in an electronic portfolio, and circulation of value or hand it to whomever (Turban et al., 2005). According to Fung et al. (2014), there are electronic money systems operating in some European states for up to 15 to 20 years. These systems usually include anonymous prepaid card works without an Internet connection. Banking unions operate in general such financial systems. Basic uses of

small transactions such as public transport and parking and vending machines and public telephones.

3.1.3. Advantages and Disadvantages of Electronic Money

3.1.3.1. Advantages of Electronic Money

The electronic money substitute is useful and provide maximum flexibility in the application of small quantity bulk payments. For instance, it might be used in transport, movies industry, sports clubs, and payment of any fines, taxes, and court orders. It is principally natural to make controls on the internet when buying traditional and electronic products (Miller et al., 2002: 51). Yet, as indicated by (Sova, 2013) the process of payment by electronic money is quicker, as well as there are no mutual problems such as the outmoded queue, the need to issue change. However, electronic money is very similar to traditional cash.

3.1.3.2. Disadvantages of Electronic Money

As mentioned above e-money and its replacement have various important advantages over cash. Nevertheless, some disadvantages may occur as well. Central banks in several countries concern about the development of e-money, so, they perceive the main drawback is uncontrolled emissions, as well as potential abuse risk (Hespeler, 2008). Although e-cash is likely to provide a lot of encouraging effects, such as privacy and convenience, less fees-related, potential new business-community and the transfer of financial and economic activity on the Internet, there are many controversial issues regarding e-money (Sova, 2013). Creating an e-money raises some additional issues associated to taxes and money laundering procedures. Governments also care about the problem of confidentiality and leakage of personal data to citizens as possible (Woda, 2006).

However, e-money has negative impacts on macroeconomic policies mainly those related to exchange rate variations, and the lack of real cash guarantees may rise through the use of electronic money. Further there is an opportunity that the virtual

number of funds at a certain point may exceed the original amount (Lancoy, 2000). Also, problems with the use of electronic money may occur because of their liquidity as well as the result of their obligations to the issuer, such as the same problems that occur when using securities (Athanassiou and MasGuix, 2008).

CHAPTER FOUR
THE OBSTACLES OF ELECTRONIC COMMERCE

This chapter purposes to tests the obstacles of electronic commerce; thus, the chapter organized into two sections: First one, discuss the statistical tools employed in the study. While second one analysis and presenting the results of the electronic commerce obstacles. As previously mentioned, the survey questionnaire is the method employed to collect data and information — nevertheless, the questionnaire designed to collect data from companies operating in Sulaymaniyah city.

4.1. Statistical Tools Used in the Study

The general component of statistics created nearby the idea that the researcher has the large data set, besides needs to study that set regarding the relations among the different facts in that set of data. Although, the researchers may go to look at a few of the methods that can do on a set of data, and what they tell about the data itself (Grice, 2001). In this context, the main statistical tools and tests used in the study are to analyze the obstacles of electronic commerce, from sample companies operating in Sulaymaniyah city as follows:

4.1.1. Factor Analysis

Regarding the conduct of factor analysis, for instance, if the detected variables like X1, X2, X3……Xn, besides the common factors are F1, F2, F3…..Fm then the individual factors are U1, U2 … Un, consequently, the variables might express as linear factors function as follow:

$$X_1 = a_{11}F_1 + a_{12}F_2 + a_{13}F_3 + \ldots\ldots + a_{1m}F_m + a_1U_1$$

$$X_2 = a_{21}F_1 + a_{22}F_2 + a_{23}F_3 + \ldots\ldots + a_{2m}F_m + a_2U_2$$

$$X_3 = a_{31}F_1 + a_{32}F_2 + a_{33}F_3 + \ldots\ldots + a_{3m}F_m + a_3U_3$$

$$X_n = a_{n1}F_1 + a_{n2}F_2 + a_{n3}F_3 + \ldots\ldots + a_{nm}F_m + a_nU_n$$

According to Fabrigar et al. (1999), factor analysis is a test for examining whether some variables of attention for examlpe Y1, Y2, Y3,……Yn, is linearly linked to a smaller number of unobservable factors F1, F2, F3,…..Fk. While factoring analysis efforts to signify a set of observed variables. X1, F2, F3, …….Xn about some common factors in addition to a factor which is sole to each variable. The common factors also called latent variables that explain how and why some variables connected with each other, so, since they have one or more factors in common.

Steps in run factor analysis tests:

- Step one: determining a *k* by *k* interrelation ground, accordingly, defining the factorability of the matrix, testing over Bartlett's Test of Sphericity and (KMO).
- Step two: extracting the primary explanation, for study variables.
- Step three: From the first explanation, we choose the suitable number of factors to be extracted in the final clarification.
- Step four: If needed, we conduct factor rotation to reveal the factored form to interpret the nature of the factors better to determine the produced factors among survey questions.
- Step five: Dependent upon succeeding requests estimate a factor mark for each subject on each factor.

4.1.1.1. Factorability of an Interrelation Matrix

Two Tests

- Bartlett's Test of Sphericity
- Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)

According to Steven (2008), Bartlett's Test of Sphericity: In matrix algebra, the determinate of an identity matrix is equal to 1.0. For instance:

$$1 = \begin{pmatrix} 1.0 & 0.0 \\ 0.0 & 1.0 \end{pmatrix}$$

$$|1| = \begin{pmatrix} 1.0 & 0.0 \\ 0.0 & 1.0 \end{pmatrix}$$

$$|1| = (1.0 * 1.0) - (0.0 * 0.0) = 1.0$$

In the context of factors analysis Steven (2008), argued that the estimates of the sums products matrix determinate and cross-products (S) from which the correlation matrix is derived. The component of the matrix S is transformed to a chi-square statistic and confirmed for significance. Steven further argued that the null hypothesis is that the correlation matrix arises from a population in which the variables are noncollinear (i.e., an identity matrix) and that the non-zero relations in the sample matrix are because of error in sampling.

4.1.1.2. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)

Regarding the KMO test, if two variables take a common factor with other variables, their partial relationship (aij) will be small, demonstrating the individual variance they share, as revealed through the equation below.

$$a_{ij} = \left(a_{ij.1,2,3,\ldots,k}\right)$$

$$KMO = \frac{\left(\sum\sum r_{ij}^2\right)}{\left(\sum\sum r_{ij}^2 + \sum\sum a_{ij}^2\right)}$$

$$If\ a_{ij} \cong 0.0$$

When the variables are calculating a common factor, and KMO ≅1.0

If a_{ij} ≅1.0

Nevertheless, when the variables are not calculating a common factor, and KMO ≅0.0

Chi-square

$$\boldsymbol{\chi^2 = -\left[(n-1) - \left(\frac{1}{6}\right)\left(2p + 1 + \frac{2}{p}\right)\right]\left[ln|S| + pln(1/p)\sum l_j\right]}$$

P= number of variables, k= number of components, l_j=j^{th} eigenvalue of S

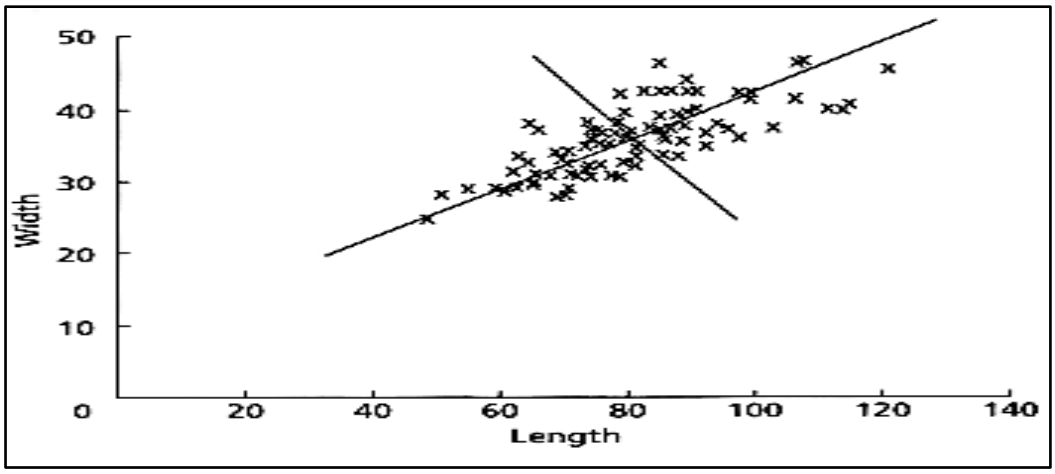
Df =(p-1) (p-2)/2.

As indicated by Grice (2001), the procedures for extracting factor analysis, is a variety of approaches which develop to extract factors from an interrelation matrix. SPSS provides the following methods:

- The method of principle component.
- The method of maximum likelihood.
- Principal of common factor analysis.
- Unweighted least-squares method
- Generalized least squares method
- Alpha method
- Image factoring.

According to Lindsay (2002), in the cases defining two variables, length, and width, and plotted them as presented below. Both variables have almost the same variance, and they are highly interrelated with one another. So, we could pass a vector by the long axis of the cloud of points and a second vector at right angles to the first, with both vectors passing through the centroid of the data, as shown in Figure.

Figure 3. Principle Component Methods



Source: Lindsay, Smith I. (2002). A Tutorial on Principal Component Analysis.

According to Grice (2001), eigenvalues are strictly correlated to eigenvectors, so we can comprehend that eigenvectors and eigenvalues always come in pairs. When the

researcher attained an elaborate programming library to estimate eigenvectors, so, regularly attain the eigenvalues as well.

As indicated by Steven (2008), the researchers may reproduce two matrices together, providing their compatible sizes. So, eigenvectors are a specific case of this; it is also the nature of the alteration that the eigenvectors arise from. Imagine an alteration matrix that, when reproduced on the left, reflected vectors in the line y = x. Besides researchers can realize that if there were a vector that lay on the line y = x, it is reflection it. So, this vector would be an eigenvector of that transformation matrix.

***Factor Loading*:** according to Lindsay (2002), a factor loading is a link between a variable and a factor that has extracted from the data.

***Factor Rotation*:** according to Grice (2001), occasionally the factor pattern can be explained by rotating the factors in F-dimensional space. Deliberate the following hypothetical two-factor solution including eight variables, so, various methods can be used in factor rotation

***Varimax Rotation*:** Efforts to achieve loadings of ones and zeros in the columns of the component matrix (1.0 & 0.0), (Grice, 2001).

4.1.2. Descriptive Statistics

Descriptive statistics is the tests that are quantitatively describing the main features of a data or information collected, or the quantitative description itself. Descriptive statistics are very significant since we presented our raw data it would be hard to visualize what the data was display, mainly if there was a lot of it. According to Tabachnick and Fidell (2001), the descriptive statistics of the quantitative variables are the procedure of briefing variables. So, the numerical values have attained that express or define the conditions in the data. (Barakat, 2013) these premises can be a survey of cases through a class variable, or these practices may be a measure of a specific statistical or measured function, such as statistical mean, median or standard deviation.

4.1.3. The Mean

According to Nicholas (2006), when the researchers gaining a set of raw data, statistical mean is one of the most useful ways of short that data is to find an average of that set of data. So, the statistical mean is a measure of the center of the dataset. However, there are three common ways of involving the center of a set of numbers (mean, the median and the mode). Thus, the mean − adds up all the numbers and divide by how many numbers there are:

$$\text{Mean} = \frac{18+23+20+21+24+23+20+20+15+19+24}{11} = 20.64$$

The most familiar sort of descriptive statistics and the most important measure of central tendency would likely be the statistical mean, or average. A population's mean, μ, is found by summing all the data, xi, and dividing by the total number, N.

$$\mu = \frac{x_1 + x_2 + x_3 \ldots + x_n}{N} = \frac{1}{N}\sum_{i=1}^{i=N} x_i$$

We may also estimate what is called a sample mean using only a subset of the population comprising n values from the N possible (The variance among a population and sample statistical property is discussed in more detail and established below.). The sample mean is very similar to Equation (1):

$$\bar{x} = \frac{x_1 + x_2 + x_3 \ldots + x_n}{n} = \frac{1}{n}\sum_{i=1}^{i=n} x_i$$

4.1.4. Standard Deviation

The standard deviation is also a kind of average of these deviations from the statistical mean. Subsequently, this clarified through the following instance. Assume that we have a set of observations obtained from the survey sample, and where there is variability. The observed values would deviate from the statistical mean through fluctuating amounts (Nicholas, 2006).

$$Mean = \frac{Sum\ of\ Observations}{Number\ of\ Observatins} = \frac{34.805}{10} = 3.4805 = \mu.$$

$$Variance = \frac{Sum\ of\ Squared\ Deviations}{Number\ of\ Observatins} = \frac{2.3948}{10} = 0.2395 = \sigma^2.$$

$$Standard\ Deviation = \sqrt{Variance} = \sqrt{0.2395} = 0.4894 = \sigma.$$

In the context of employing necessary tests, we have used the (SPSS-V25) program to construe the concluding outcomes of the survey which has distributed among the company's staffs in Sulaymaniyah city.

Where:

***OEC*=** Obstacles of Electronic Commerce

PO= Political Obstacles

FO= The Financial Obstacles

***HO*=** Human Obstacles

***TO*=** The Technological Obstacles

***LO*=** The Legal Obstacles

N= Sample size which is 138 respondents from companies' staffs in Sulaymaniyah city.

4.2. Data Analysis and Findings

This section of chapter four aims to use the data analysis, that starts with the survey reliability, factor analysis, and demographic information, so, the demographic information comprises frequencies and percentages. However, the second part of this section comprises statistical analysis of the obtained data through testing descriptive statistics, and t-test, the outcomes of these tests showed in Tables and Figures below.

4.2.1. The Survey Reliability

The survey questionnaire data were tested to find out its reliability as a data collection method. Consequently, Cronbach's alpha used to test the reliability of the scale, to stated that how strong the scale statements are measuring, and the values of Cronbach's alpha for the overall obstacles of electronic commerce indicators are (0.857>0.60). Further, the values of Cronbach's alpha for political, financial, human, technological, and legal obstacles are (0.845, 0.731, 0.686, 0.884, and 0.794>0.60). Thus, the survey method used for data collection contained higher reliable, as shown in Table 4, below.

Table 4. Reliability Test

Variables	Cronbach's Alpha	No. of Items	N	%
Political Obstacles	0.845	4	138	100.0
Financial Obstacles	0.731	5	138	100.0
Human Obstacles	0.686	6	138	100.0
Technological Obstacles	0.884	3	138	100.0
Legal Obstacles	0.794	3	138	100.0
Overall	0.857	21	138	100.0

Source: Prepared by Researcher based on SPSS result.

4.2.2. Factor Analysis

As previously mentioned, factor analysis is the technique for reducing components of various variables, also their elements, and observes them into complex variables, while is procedure recognized as factors that make evaluating. Consequently, the political, financial, human, technological, and legal obstacles have total twenty-one statements, that principally compound to take and check the results. Also, to make an additional evaluation and observe more accessible the factor analysis test conducted and the outcomes showed in the following Tables.

4.2.3. The KMO and Bartlett's Test for the Obstacles of Electronic Commerce

The Kaiser-Meyer-Olkin (KMO) test used to examine the weight of factor analysis in this study. According to this test, the high load values are between (1.0 and

0.5); hence, those values recognize that the factor analysis is accurate. Therefore, the loaded values lower than 0.5 means that the factor analysis may not appropriate or apply. The KMO result of obstacles to electronic commerce in Sulaimaniyah city is (0.789), that loaded value high and significant at (p0.000<0.05). The Bartlett's test of sphericity (Approx. Chi-Square) is (971.989) df (210). Consequently, factor analysis applies to the obstacles of electronic commerce in Sulaimaniyah city, as shown in Table 5.

Table 5: The KMO and Bartlett's Test for the Obstacles of Electronic Commerce

KMO and Bartlett's Test	
	Obstacles of Electronic Commerce
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	**0.789**
Bartlett's Test of Sphericity (Approx. Chi-Square)	**971.989**
df	**210**
Sig.	**.000**

Extraction Method: Principal Component Analysis.

4.2.4. Rotated Factors Matrix for the Obstacles of Electronic Commerce

The rotation of factors crucial once factor extraction demonstrate recommends two or more factors. So, the factors rotation reflects to gaining information about how the factors principally extracted vary from each other, also to allocate an accurate explanation of which component loaded on which factor. Nevertheless, the primary purpose of this step is to determine the extracted factors among survey queries. As the outcome, we have formed five factors.

The study variable obstacles of electronic commerce and it is components namely; political, financial, human, technological, and legal obstacles have the factor taking values where the lower value is (0.432) that loaded on the fifth-factor question (4) it means that the results reject the idea that the regional government no provide support for electronic commerce. Besides, the higher value is (0.878) on the first-factor

question (9), so this higher value indicated that the business needs the cost of training staff to operate e-commerce applications, as shown in Table 6, below.

Table 6. Rotated Factors Matrix for the Obstacles of Electronic Commerce

Items	Factors				
	1	2	3	4	5
OEC 9	**0.851**				
OEC 8	**0.819**				
OEC 7	**0.787**				
OEC 6	**0.611**				
OEC 5	**0.564**				
OEC 10		**0.786**			
OEC 14		**0.767**			
OEC 12		**0.762**			
OEC 11		**0.738**			
OEC 15		**0.728**			
OEC 13		**0.613**			
OEC 16			**0.755**		
OEC 18			**0.709**		
OEC 17			**0.706**		
OEC 19				**0.735**	
OEC 21				**0.619**	
OEC 20				**0.618**	
OEC 2					**0.838**
OEC 1					**0.800**
OEC 3					**0.475**
OEC 4					**0.432**

Extraction Method: Principal Component Analysis.

4.2.4.1.Total Variance Explained for the Obstacles of Electronic Commerce

In this step or test the total variance explains, variable with the factors extracted for analysis that starts with the first factor or component which takes as the higher percentage of the total variance and ends with the lowest value component which understands as the less of the percentage of the total difference among the components. As presented in Table 7, and Figure 4, the percentage of primary eigenvalues take as one besides as a value of common factor five factors reproduced. However, the total

percentage of eigenvalues and variance explanations of the obstacles of electronic commerce in Sulaimaniyah city is (57.547%).

The first loaded factor is considered that accounted for the main variance in the dataset. The first factor that has a significance in the explanation of the variable that clarifies (28.89%) from the total variance. The second factor clarifies (8.43%) of the total variance and contains a moral variable. Although we note in the third component that it clarifies (7.73%) of the total variance and also includes moral variable and affecting the dependent variable, furthermore, the fourth and fifth factors clarify (6.58%) and (5.90%) respectively. However, the cumulative variance reached at the end of the factor analysis. Nevertheless, the higher the rate is, the stronger the factor structure of the scale.

Table 7. Total Variance Explained for the Obstacles of Electronic Commerce

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	**12.145**	**28.899**	**28.899**
2	**3.545**	**8.434**	**37.334**
3	**3.248**	**7.730**	**45.063**
4	**2.767**	**6.583**	**51.647**
5	**2.480**	**5.900**	**57.547**
-	-	-	-
21	.397	.945	100.000

Extraction Method: Principal Component Analysis.

a. When analyzing a covariance matrix, the initial eigenvalues are the same across the raw and rescaled solution.

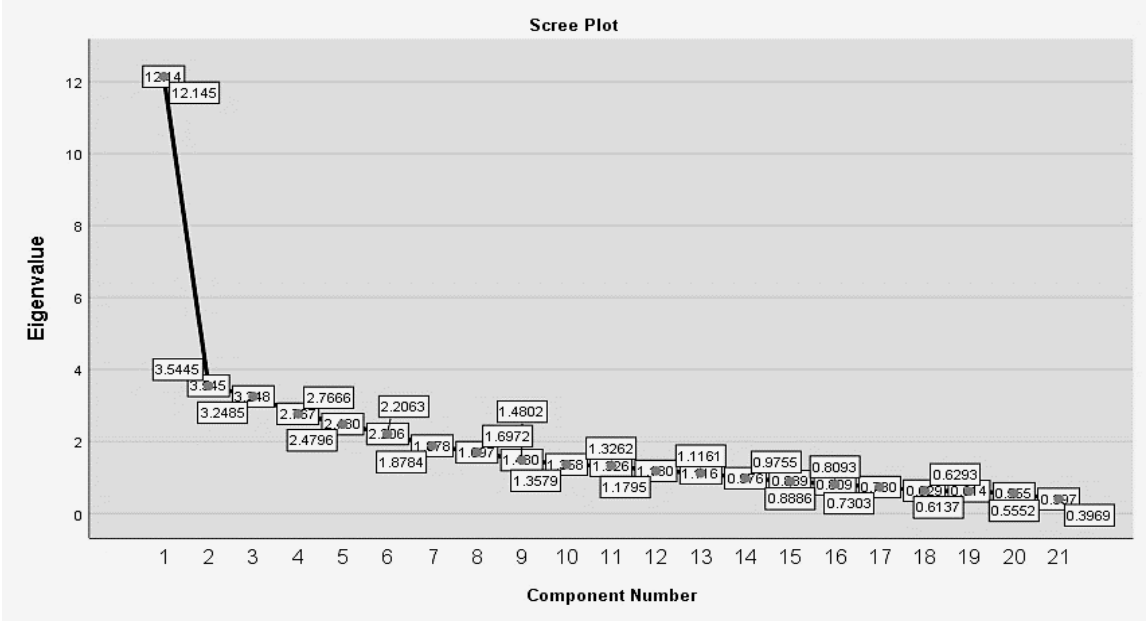


Figure 4. Load Graph for the Component Numbers of the Obstacles of Electronic Commerce

4.2.5. Demographic Information

The demographic information below was collected from companies' staffs in Sulaimaniyah as gender, age, overall job experience, and level of education, as shown in a Table below:

As Table 8, showing the frequencies and percentages of survey sample gender participated in the survey 74.6% or 103 employees are male, who willingly participated to the survey, while 25.4% or 35 employees of total survey respondents are female. As Table 8, presented frequencies and percentages of the participators ages, 40.6% or 56 individuals of the total survey sample aged from 30 to 35 years old. So, 36.2% or 51 employees who work in companies in Sulaimaniyah city aged less than 30 years. Further 13% or 18 employees were aged from 36 to 41 years. Also, 5.1% or 7 employees were aged fall into 46-55 years. As well as the same percentages were aged 48 and above.

Table 8. Demographic Information

Gender		**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	**Male**	103	74.6	74.6	74.6
	Female	35	25.4	25.4	100.0
	Total	**138**	**100.0**	**100.0**	
Age					
Valid	**Less than 30 years**	50	36.2	36.2	36.2
	30–35	56	40.6	40.6	76.8
	36–41	18	13.0	13.0	89.9
	42-47	7	5.1	5.1	94.9
	48 and Above	7	5.1	5.1	100.0
	Total	**138**	**100.0**	**100.0**	
Overall Job Experience					
Valid	**1- 5 years**	48	34.8	34.8	34.8
	6-10	61	44.2	44.2	79.0
	11-15	18	13.0	13.0	92.0
	Over 15 years	11	8.0	8.0	100.0
	Total	**138**	**100.0**	**100.0**	
Level of Education					
Valid	**Diploma**	56	40.6	40.6	40.6
	Bachelor	78	56.5	56.5	97.1

	Master or PhD.	4	2.9	2.9	100.0
	Total	**138**	**100.0**	**100.0**	

From Table 8, we can see that most employees who contributed to the survey their overall job experiences between 6 to10 years by 44.2%. So, the companies' staffs with experience, 1 to 5 years came at 34.8% or 42 employees. Also, 13% experienced a fall in 11 to 15 years. Furthermore, 8% or 11 respondents of the total sample experienced over 15 years. The frequencies and percentages of the survey sample's level of education confirmed that of the total participators: 56.5% or 78 employees are bachelor degrees; while 40.6% or 56 employees in surveyed companies in Sulaimaniyah city are diploma holders. However, those holding master or Ph.D. degrees came by 2.9% or 4 employees, as showed in Table 8.

4.2.6. Descriptive Analysis

As mentioned above the descriptive statistics run mainly through calculating the statistical means and standard deviations, and the weight of agreement for each of the indicators measured to analyze the study data that related to its variables namely; political, financial, human, technological, and legal obstacles, however, the tests run for survey contributors' responses to examine obstacles of electronic commerce based on Likert Scale five-point or choose. However, descriptive statistics also run to define the critical elements of the variables. So, one shows as " strongly disagree", two shows as "disagree", three shows as "neutral", four shows as" agree", and five shows as "strongly agree".

4.2.6.1. Survey Results on Political Obstacles

As Table 9, summaries the results of political obstacles through the statistical mean, and standard deviation values (2.900 and 1.0796) respectively. The weight of agreement came at the rate of 58% of the total survey sample replies, so the results confirm that there were no main political or governmental obstacles to electronic commerce in Sulaymaniyah city.

Table 9. The Results of Political Obstacles

Variables	Indicators	N	Mean	Std. Deviation	Agreement Rate
Political Obstacles	1. *The political situation in the region hinders e-commerce operations.*	138	3.03	1.383	60.6%
	2. *The political situation in the region does not encourage investment in the field of electronic commerce.*	138	3.01	1.447	60.2%
	3. *The political condition in the region delays the existence of technical infrastructure to assist in the applications of electronic commerce.*	138	2.79	1.385	55.8%
	4. *There is no support for electronic commerce by the KRG.*	138	2.78	0.986	55.6%
	Overall	138	2.900	1.0796	58%

Consequently, as the outcomes of the first question "the political situation in the region hinders e-commerce operations," revealed in Table 9, the mean score is (3.03). So, it means that 60.6% only of the survey sample agreed that the political condition in the Sulaimaniyah city and region hinders e-commerce operations. Though, the result confirmed that 22%, 17%, and 19% respectively of the contributors disagreed, strongly disagreed and not sure or neutral while 23% and 19% of them agreed and strongly agreed, see Chart 1, below.

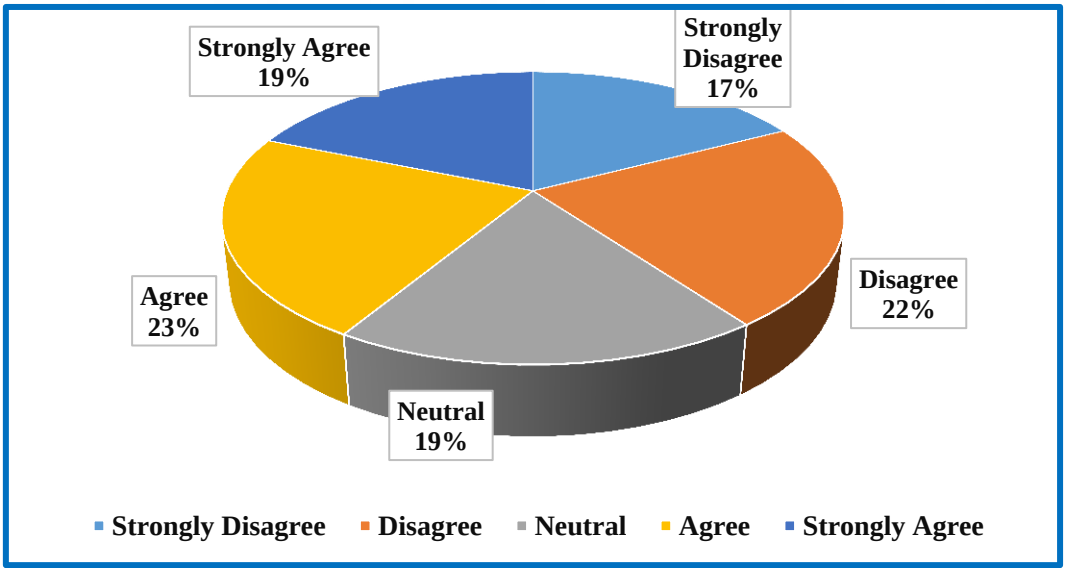


Chart 1. Agreement/Disagreement Rates on First Question

In regard, the political situation in the region that does not encourage investment in the field of electronic commerce. It can find from the same Table 9, that the mean score (3.01), also 60.2% of the respondents agreed that the authorities in the region

would not encourage investment in the field of electronic commerce. Nevertheless, the associated chart revealed that 22%, 21%, and 11% respectively of the contributors disagreed, strongly disagreed, and not sure. The higher ratio between responses that were gained from the survey 27% replies agree, and 19% of the survey sample strongly agrees, as shown in Chart 2.

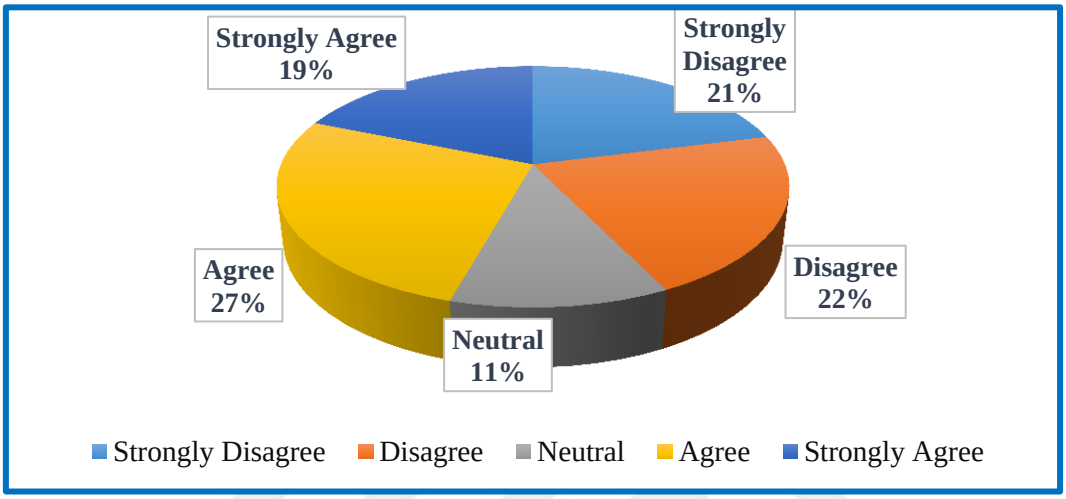


Chart 2. Agreement/Disagreement Rates on Second Question

It can be performed from Table 9, and Chart 3, regarding the political condition in the region, delays the existence of technical infrastructure to assist in the applications of electronic commerce. The measured statistics displayed that 55.8% only of the survey respondents decided that political condition in Sulaimaniyah city and the region delays the existence of technical infrastructure to assist in the applications of electronic commerce.

The chart 3, below undoubtedly tells that disagree and strongly disagree replies gained the high ratio among responses were attained from survey sample, by 29%, disagree and strongly disagree at 21%, while neutral or not sure answers came at the rate of 16%. Thus, the parameter statistics reject that political condition in the region delays the existence of technical infrastructure to assist in the applications of electronic commerce.

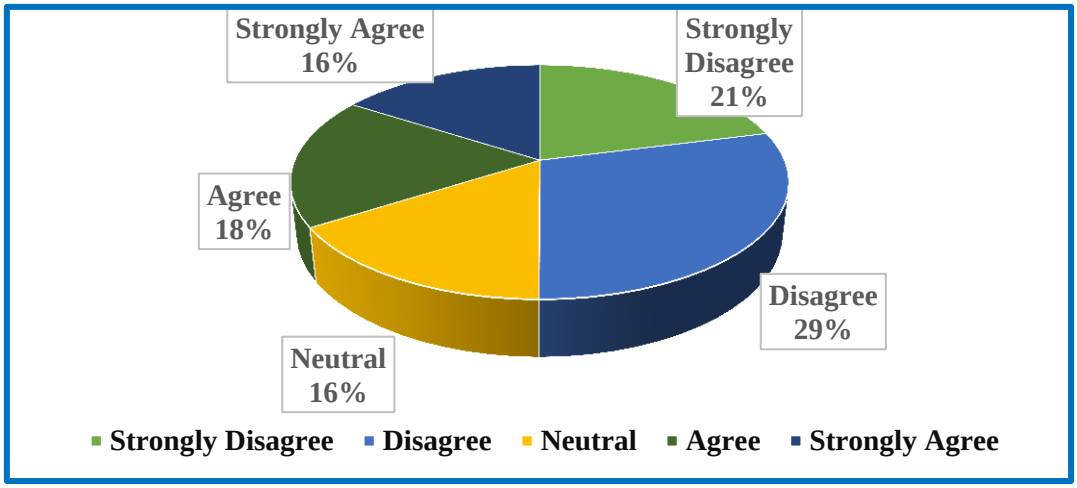


Chart 3. Agreement/Disagreement Rates on Third Question

Accordingly, as the results of the first there is no support for electronic commerce by the KRG, shown in Table 9, and Chart 4, the statistical mean value is (2.78), also, 55.6% only of the overall survey sample agreed that there is no support for electronic commerce in the Sulaimaniyah city. However, the result confirmed that 54% of the contributors strongly disagreed and disagreed, besides not sure or neutral answers by 9%. Although, 21% and 16%, of them, agreed and strongly agreed. Therefore, the results reject the idea that the regional government no provide support for electronic commerce.

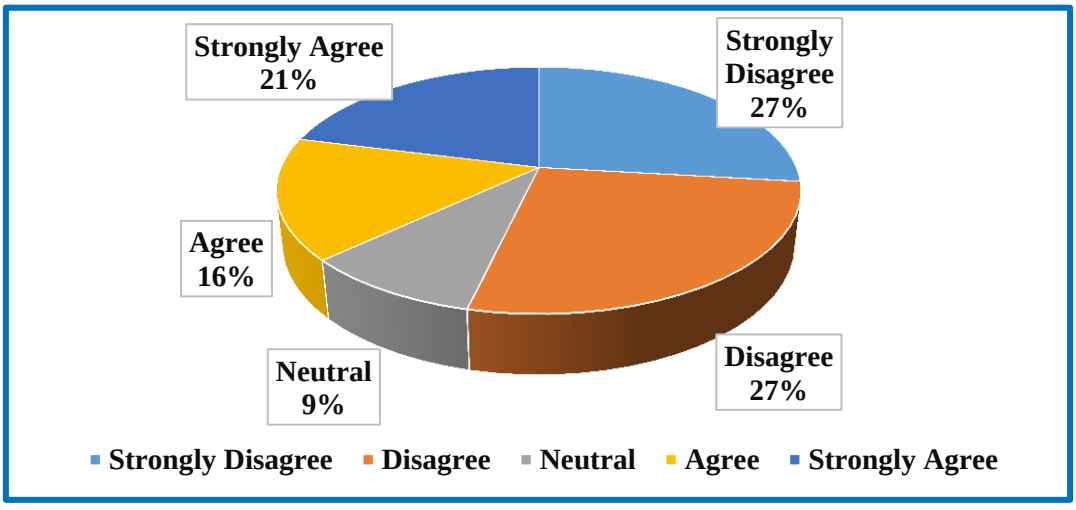


Chart 4. Agreement/Disagreement Rates on Fourth Question

4.2.6.2. Survey Results on Financial Obstacles

To find out whether there are financial obstacles faced by companies who desired to apply e-commerce applications in their activities the descriptive analysis also used. Then the results found that there were financial obstacles to electronic commerce in Sulaymaniyah city. Although, the mean score, and standard deviation are (3.368, and 0.7879) respectively, and 67.36% of the total responses agreed on financial obstacles to electronic commerce in Sulaymaniyah city. as the results summarized in Table 10.

Table 10. The Results of Financial Obstacles

Variables	Indicators	N	Mean	Std. Deviation	Agreement Rate
Financial Obstacles	5. There is a lack of willingness of the business infrastructure to use electronic commerce.	**138**	**3.16**	**1.341**	**63.2%**
	6. The business needs to change its administrative structure.	**138**	**3.30**	**1.310**	**66%**
	7. The company needs to introduce new technology and expensive for its business.	**138**	**3.42**	**1.317**	**68.4%**
	8. The company needs to hire new staff.	**138**	**3.43**	**1.377**	**68.4%**
	9. The business needs the cost of training staff to operate e-commerce applications.	**138**	**3.52**	**0.991**	**70.4%**
	Overall	**138**	**3.3681**	**0.7879**	**67.36%**

As the results of the fifth question regarding the lack of willingness of the business infrastructure to use electronic commerce in Sulaimaniyah city, shown in Table 10, and Chart 5, the statistical mean value is (3.03). Also, 63.2% of the total survey sample agreed that there is a lack of willingness of the business infrastructure to use electronic commerce in Sulaimaniyah city. The result established that 25.4%, and 20.3% respectively of the overall contributors agreed and strongly agreed besides not sure or neutral is 16.7%. Although, 25.4% and 12.3%, of them, disagreed and strongly disagreed.

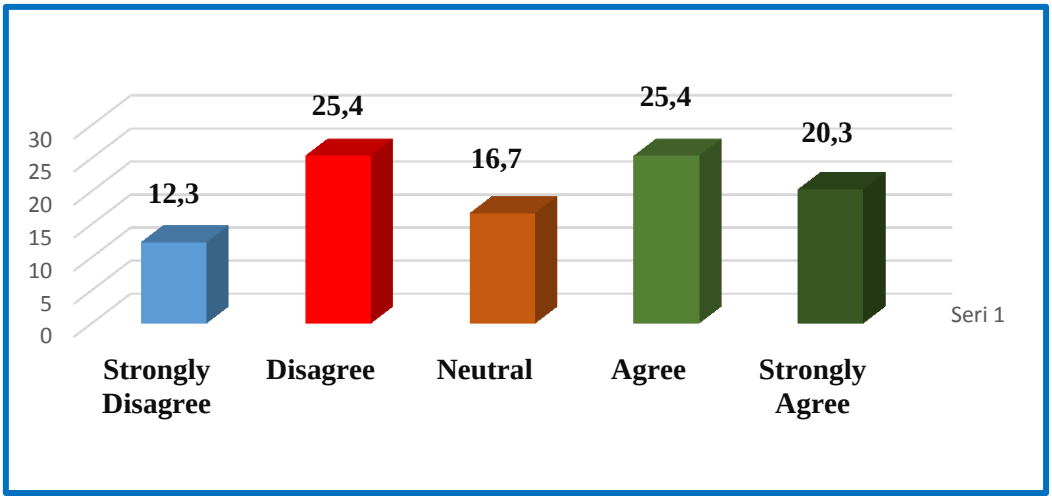


Chart 5. Agreement/Disagreement Rates on Fifth Question

As the results shown in Table 10, the commercial or businesses in Sulaimaniyah city needs to change their administrative structure. The calculated statistical values showed that 66% of the responses agreed that the business in Sulaimaniyah city needs to change their administrative structure, (see Chart 6). Yet, the chart below obviously tells that agree replies reached the high ratio among replies were gained survey sample, by 32.6%, strongly agree at 20.3%, also not sure or neutral is 15.9. While 19.6% and 11.6% of the overall participator answers disagreed and strongly disagreed. Therefore, the parameter statistics demonstrated that the business needs to change their administrative structure.

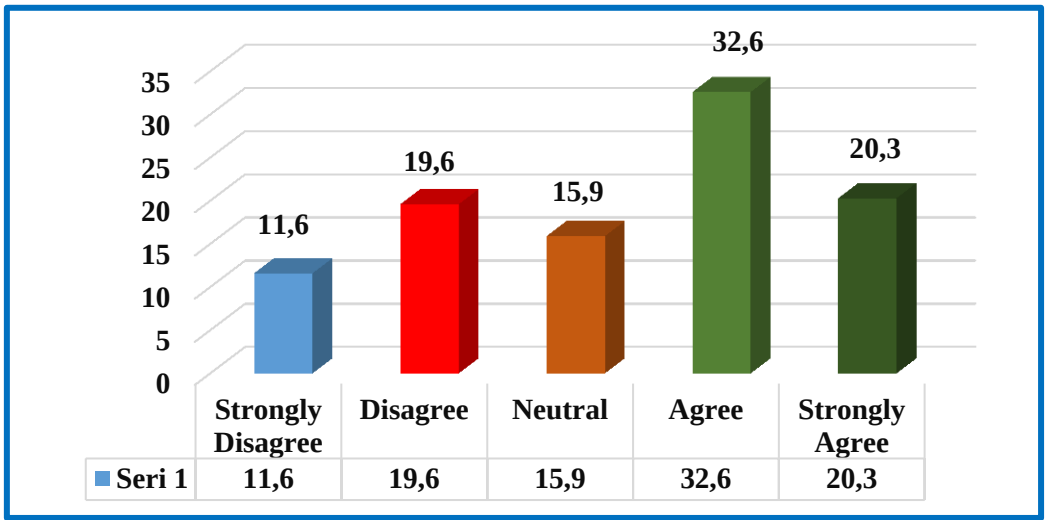


Chart 6. Agreement/Disagreement Rates on Sixth Question

As results presented in Table 10, more than 64% of the survey participators agreed that the companies in Sulaimaniyah city need to introduce new technology and expensive for its business. However, Chart 7, presented that strongly agreed replies obtained the high percentages, by 27.5% and agreed came at the rate of 24.6%. Although 18.8%, of the participants, answered with not sure, besides disagree and strongly disagrees came by 20.3% and 8.7% respectively.

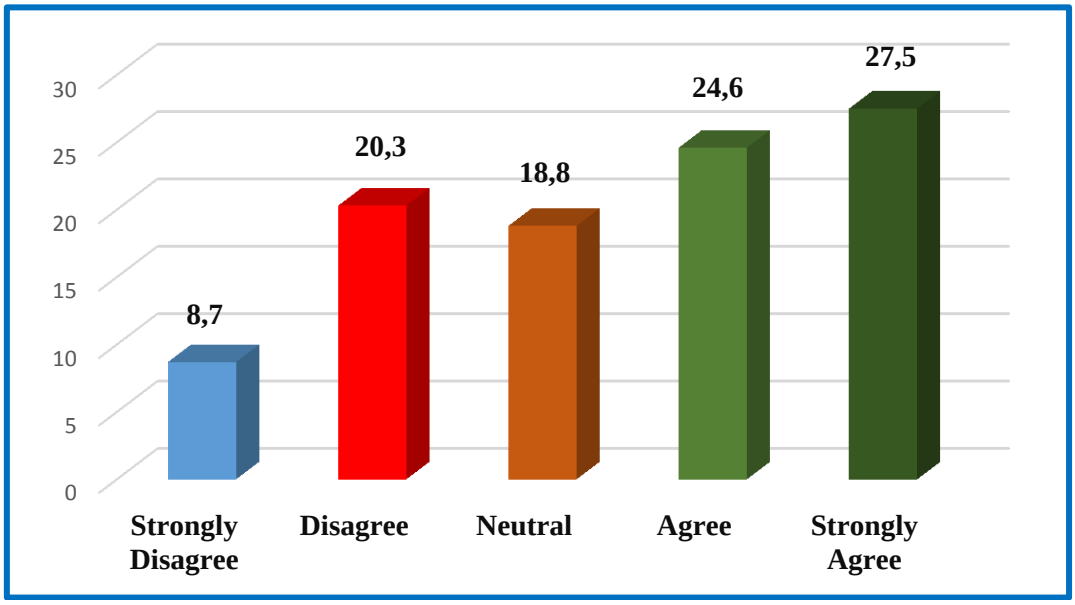


Chart 7. Agreement/Disagreement Rates on Seventh Question

Table 10, displayed that 68.4% of the survey participators agreed that the companies in Sulaimaniyah city need to hire new staff to operate e-commerce applications. Chart 8, also presented that strongly agreed and agreed replies attained the maximum response percentages, by 30.4% and 23.9% respectively. While participators who not sure were 14.5%, however, disagree and strongly disagreed responses came at the rates 21% and 10.1% respectively.

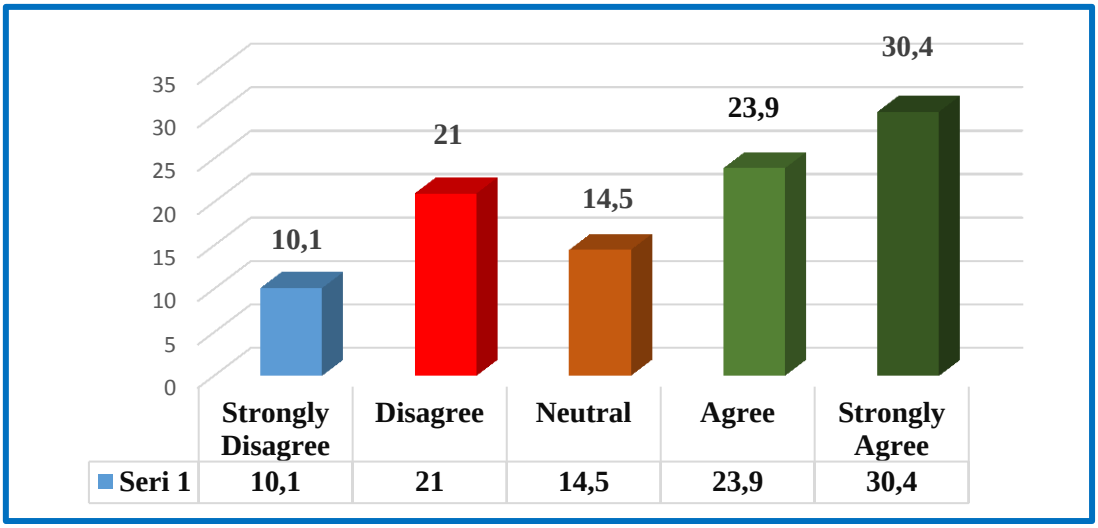


Chart 8. Agreement/Disagreement Rates on Eighth Question

Regarding question nine, the same Table 10, displayed that 70% of the total sample definite that the business needs the cost of training staff to operate e-commerce applications. However, Chart 9, presented that agree and strongly agree replies obtained the maximum percentages among replies, by 34.1% and 27.5% respectively. Furthermore, participators who answered not sure were 13%, accordingly strongly disagree as well as disagreed came at the rates 13.8% and 11.6% respectively.

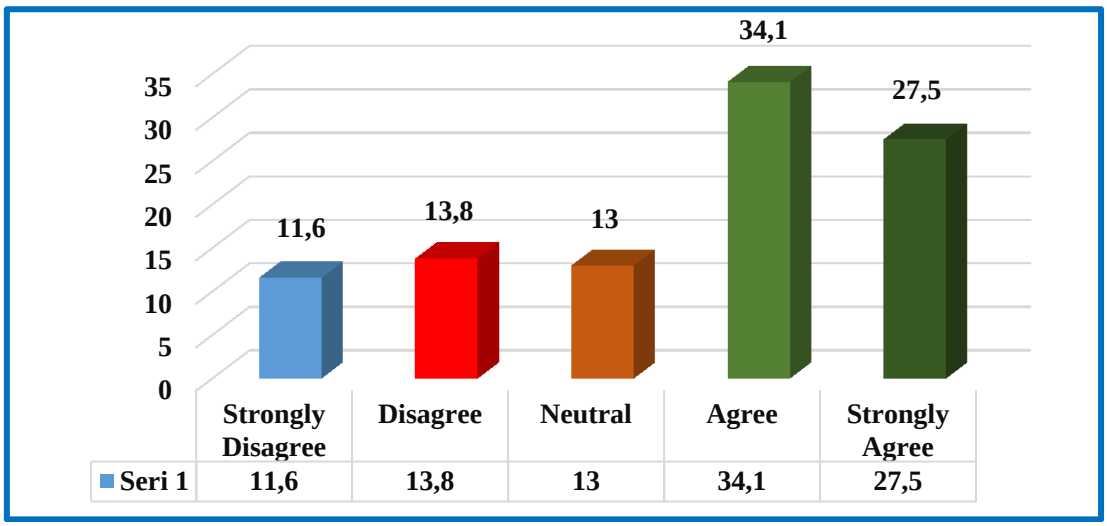


Chart 9. Agreement/Disagreement Rates on Ninth Question

4.2.6.3. Survey Results on Human Obstacles

To examine if there are human obstacles faced by companies who desired to apply e-commerce applications in their activities the descriptive analysis also used. As the survey results regarding the human obstacles revealed in Table 11 below, mean and std. Deviation scores are (3.0399, and 0.8449) respectively, it means that 60.2% of the survey contributors agreed that there were human obstacles in front of operating e-commerce applications in Sulaimaniyah city. Furthermore, they disagreed on the inability of the region's companies to enter the global markets in the field of electronic commerce.

Table 11. The Results of Human Obstacles

Variables	Indicators	N	Mean	Std. Deviation	Agreement Rate
Human Obstacles	10. There is a lack of awareness among employees of e-commerce applications.	138	3.25	1.324	65%
	11. The presence of a few companies in the region deals with the implementation of electronic commerce.	138	3.05	1.441	61%
	12. There is a lack of knowledge among managers of the importance of electronic commerce.	138	3.15	1.382	63%
	13. The inability of the region's companies to enter the global markets in the field of electronic commerce.	138	2.95	1.363	59%
	14. Consumer culture in the region about electronic commerce is limited.	138	3.17	1.424	63.4%
	15. There is a problem with English because most of the electronic commerce operations conducted in English as an international language.	138	3.01	1.494	60.2%
	Overall	138	3.039	0.8449	60.79%

As a result of question ten displayed in Table 11, almost 65% of the overall survey contributors agreed that there is a lack of consciousness between employees on e-commerce applications in Sulaimaniyah city. The Chart 10, below demonstrates that strongly agree and agree replies obtained the maximum amounts by 24%, and 23% respectively of the total survey participators, additional those answered not sure came by15%, yet disagrees and strongly disagree reached 30% and 8% respectively.

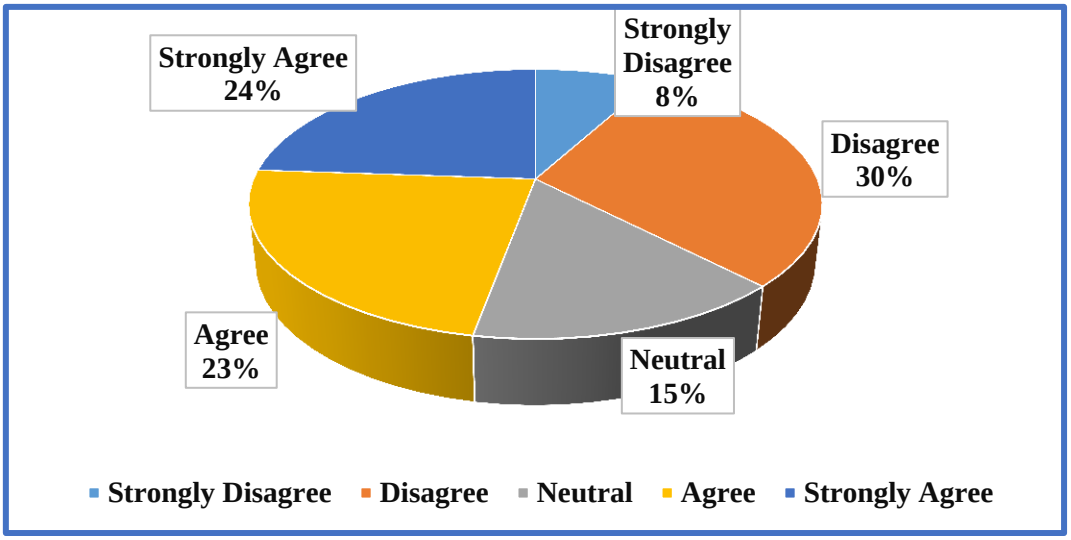


Chart 10. Agreement/Disagreement Rates on Tenth Question

From Table 11, we can attain that 61% of the total survey contributors agreed that few companies in the region deal with the implementation of electronic commerce. Nevertheless, Chart 11, presented that strongly agree and agree accounts attained the main percentages, by 22% for each from the survey sample. Also, not sure responses 15%, whereas, disagrees and strongly disagree reached 22% and 19% respectively.

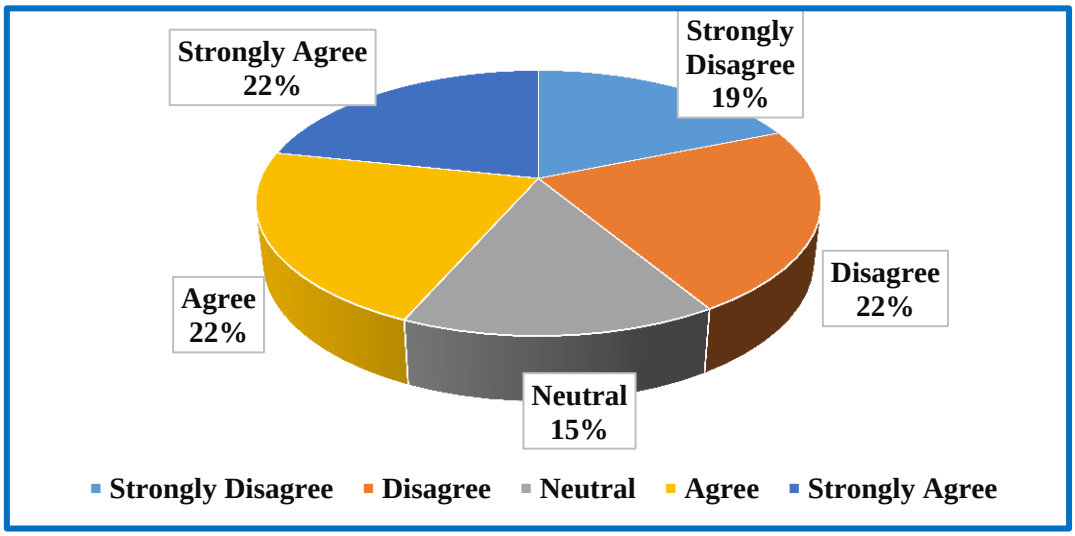


Chart 11. Agreement/Disagreement Rates on Question Eleven

Table 11, and Chart 12, on question twelve, revealed that the calculated statistical values 63% of the total survey participators agreed on a lack of knowledge among managers of the importance of electronic commerce in Sulaimaniyah city. Yet,

the chart below obviously tells that agree answers gained the high percentage between answers were obtained from the survey sample, by 31%, strongly agree at 19%, besides not sure or neutral is 12%. Although, 22% and 22% respectively of the overall answers disagreed and strongly disagreed. Consequently, there is a lack of knowledge among managers of the importance of electronic commerce.

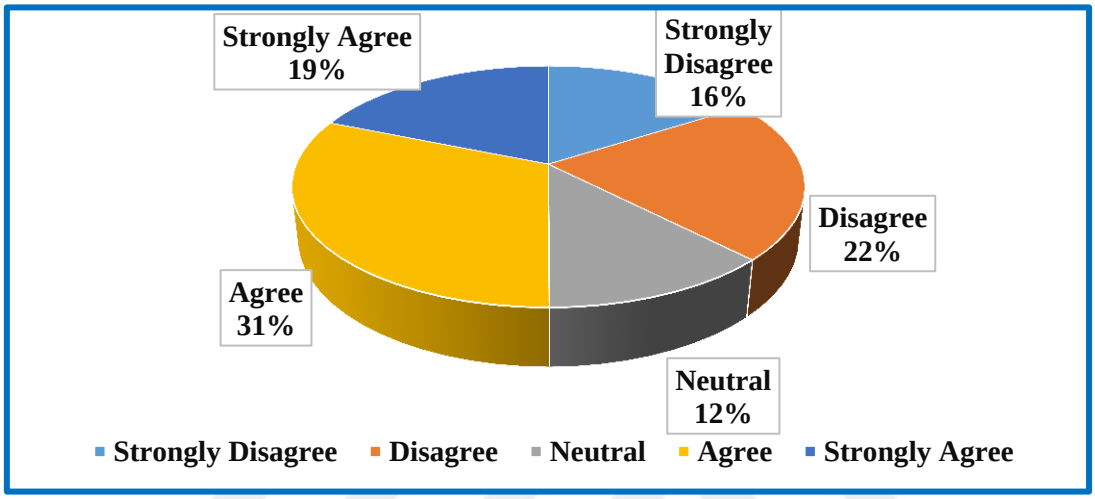


Chart 12. Agreement/Disagreement Rates on Question Twelve

Regarding the question thirteen, Table 11, displayed that 59% of the survey sample agreed on the inability of the region's companies to enter the global markets in the field of electronic commerce. However, Chart 9, showed that agree responses attained the maximum proportion, by 24%, and strongly agrees 15%. Furthermore, those participators who not sure were 22%, so strongly disagree and disagreed came at the rates 20% and 19% respectively.

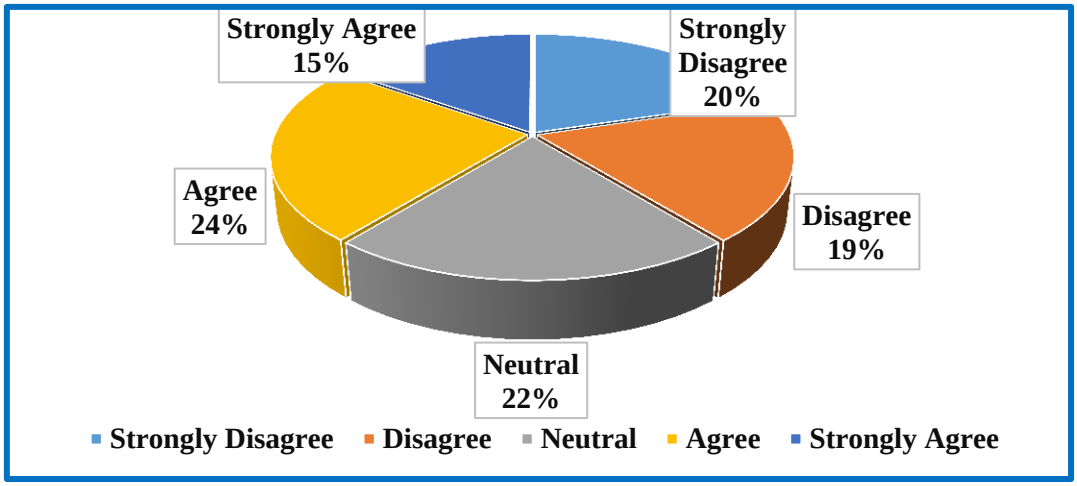


Chart 13. Agreement/Disagreement Rates on Question Thirteen

Depending on Table 11, and Chart 14, demonstrates that the percentage of the replies on the consumer culture in the region about electronic commerce is limited. The outcome of statistical analyzed indicated that mean score (3.17), besides 63.4% of the total survey participators agreed that the consumer culture in the region about electronic commerce is limited particularly in Sulaimaniyah city. The chart below clearly states that agreed and strongly agreed responses gained the main proportions between survey replies, by 25%, and 23% respectively, followed by disagrees and strongly disagrees by 20%, and 17% respectively, also, participators who not sure were 15% only of the overall sample.

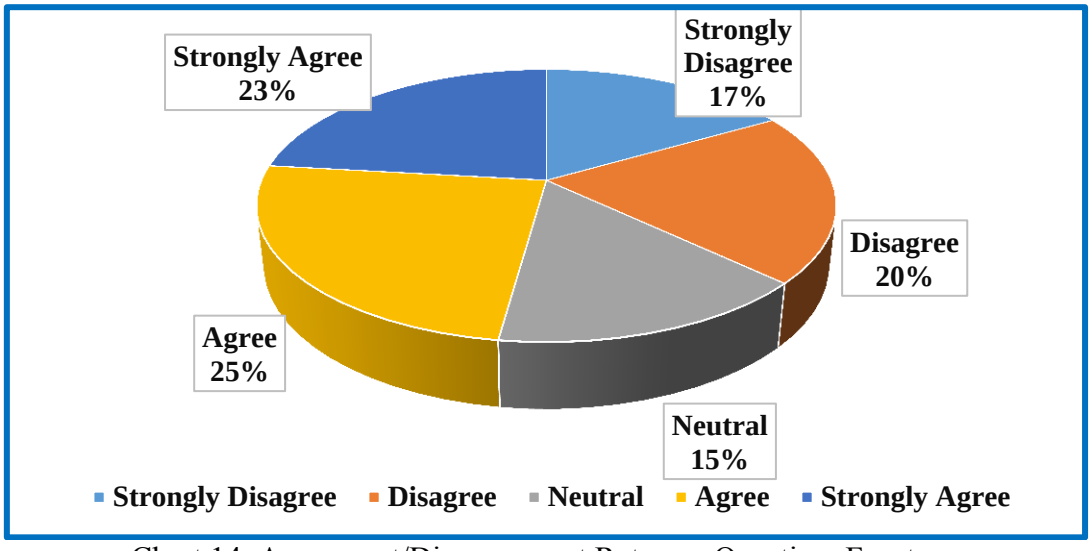


Chart 14. Agreement/Disagreement Rates on Question Fourteen

It can be performed in Table 11, and connected Chart 15, the measured statistical principles presented that 60.2% of the survey participators agreed that there was a problem with English in Sulaimaniyah city because of most of the electronic commerce operations conducted in English as the international language. The same (Chart 15) certainly states that strongly agree answers obtains 25%, agree 18% of the overall survey sample perspectives, besides not sure or neutral is 11%. Yet, 27% and 19% respectively of the overall answers disagreed and strongly disagreed.

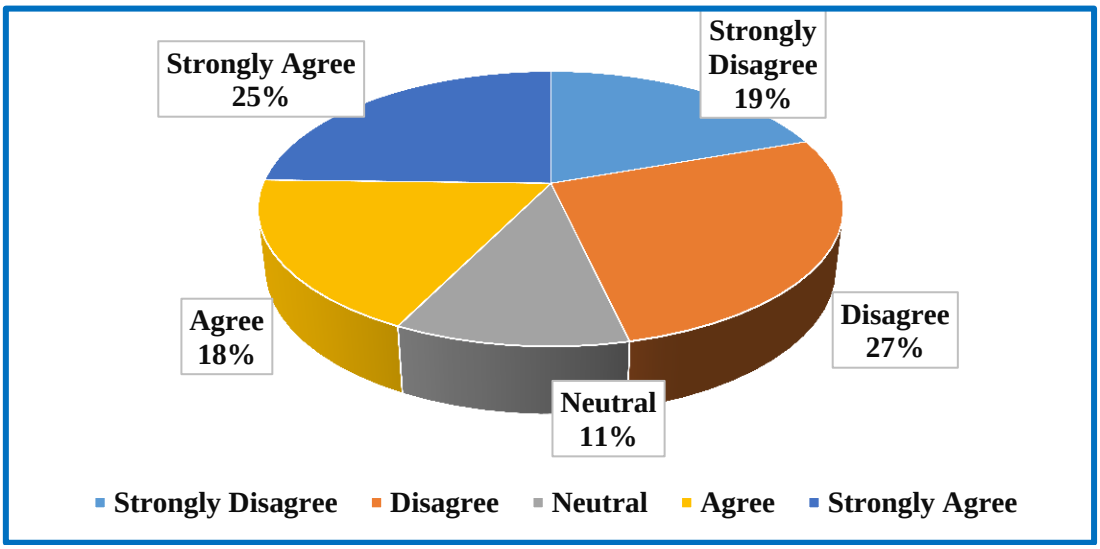


Chart 15. Agreement/Disagreement Rates on Question Fifteen

4.2.6.4. Survey Results on Technological Obstacles

As showed in Table 12, the outcomes of the technological obstacles, the mean score is (2.99), besides 59.80% of the survey participators agreed on the technological obstacles to e-commerce operations in Sulaimaniyah city. Furthermore, the same table and related charts confirmed the weakness of electronic infrastructure in the region and Sulaimaniyah city. The results also proved that there is a whiteness of the culture and electronic consciousness in the region. Besides, many companies in the region faced the problem of slow internet.

Table 12. The Results of Technological Obstacles

Variables	Indicators	N	Mean	Std. Deviation	Agreement Rate
Technological Obstacles	16. There is weak electronic infrastructure in the region.	138	3.12	1.442	62.4%
	17. There is a weakness of the culture and electronic awareness in the region.	138	2.92	1.529	58.4%
	18. Many companies in the region faced the problem of slow internet.	138	2.93	1.536	58.6%
	Overall	138	2.9903	1.2222	59.80%

In regard, the question about the weakness of electronic infrastructure in the region. Table 12, and Chart 16, showed mean score of the responses were (3.12), and 62.4% of the survey participators agreed that the electronic infrastructure in the region is weak. However, the chart states that 27% of the survey participants agreed, which is the peak ratio of answers, yet, 22% of the sample strongly agreed with the question. However, 22% and 18% respectively of the survey sample disagrees and strongly disagreed, besides not sure or neutral is 11%.

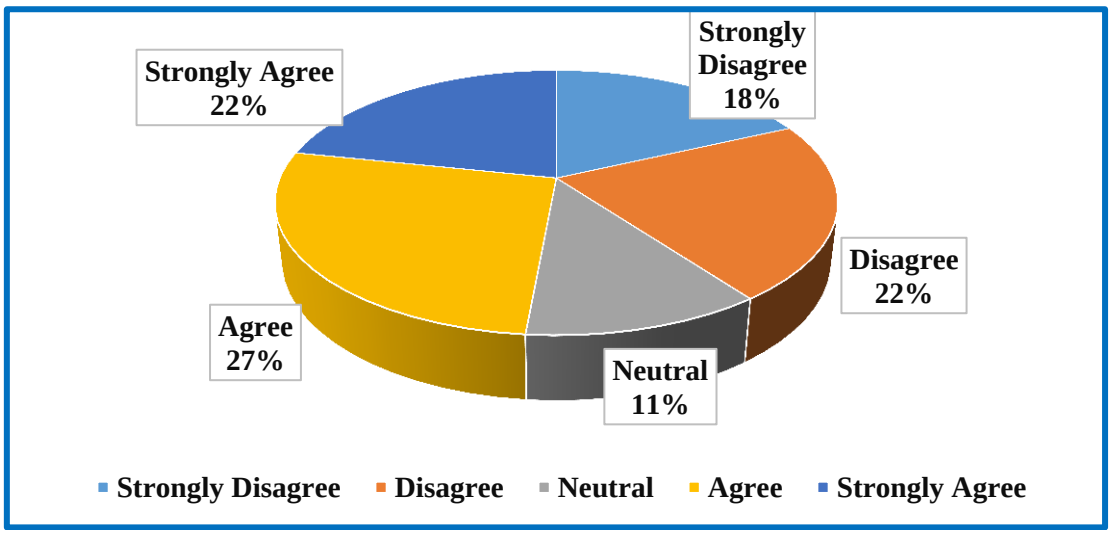


Chart 16. Agreement/Disagreement Rates on Question Sixteen

As the outcomes showed in Table 12, the mean scores for question seventeen regard, the weakness of the culture and electronic awareness in the region, is (2.92), and 58.4% of the survey answers demonstrated that there is on a strong culture and

electronic awareness in the region. Chart 17, showed that strongly agree replies gotten 23% of survey sample answers and agree 18%. Further, 25% and 23% respectively of the survey sample strongly disagreed and disagreed, besides not sure or neutral is 11%.

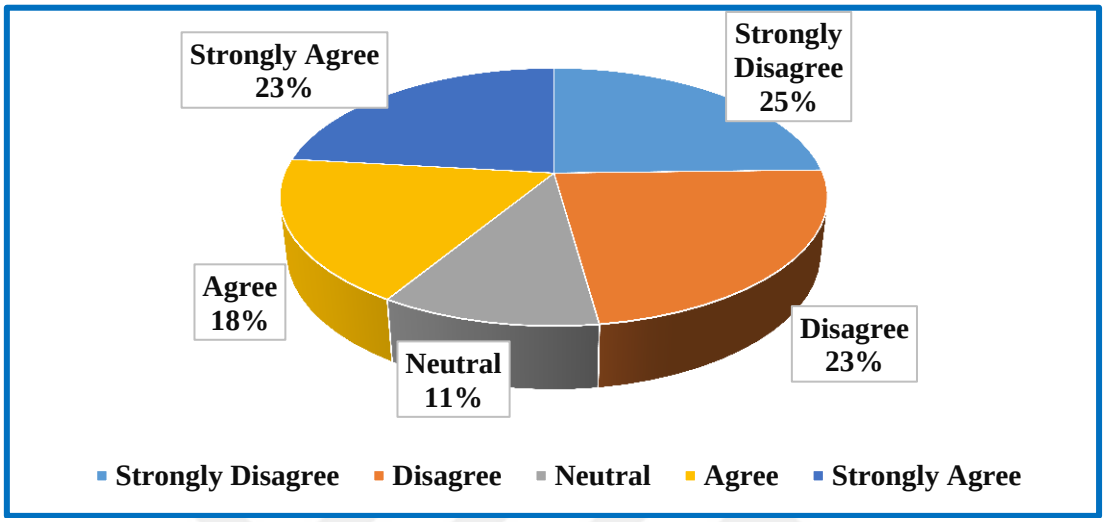


Chart 17. Agreement/Disagreement Rates on Question Seventeen

Regarding question eighteen, it can be attaining from Table 12, and linked Chart 18, the mean scores (2.93), and 58.6% of the total survey participators agreed that many companies in the region faced the problem of slow or very unfortunate internet. The chart is also showing that 25% of the overall contributors agreed, which is the maximum proportion of answers; yet, 15% only of the sample strongly agreed on the same question. So, 25% and 22% respectively of the survey sample strongly disagreed and disagreed, besides not sure or neutral is 13%.

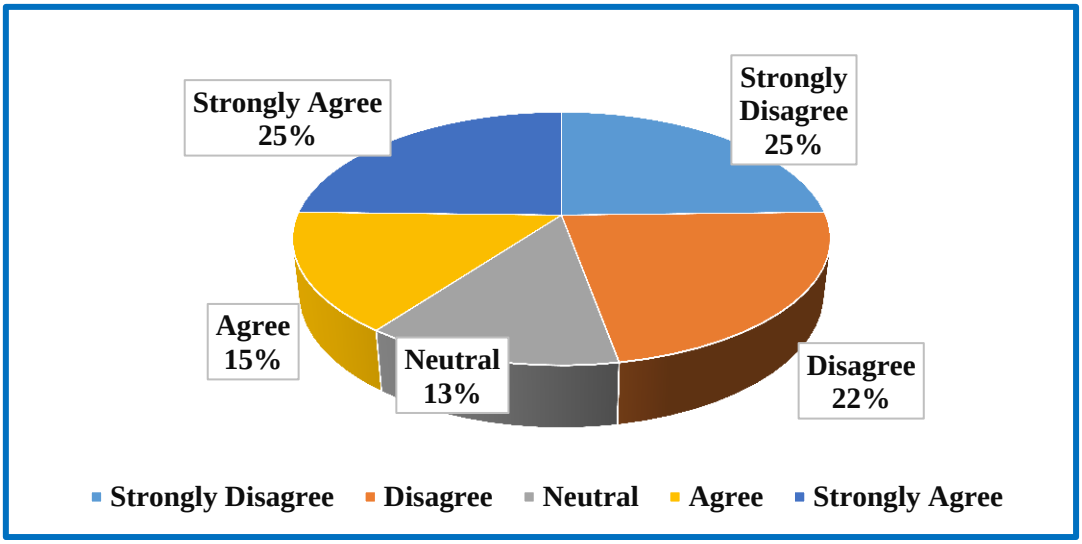


Chart 18. Agreement/Disagreement Rates on Question Eighteen

4.2.6.5. Survey Results on Legal Obstacles

As shown in Table 13, the results of the legal obstacles, the mean score (2.9928), and 59.85% of the survey participators agreed on the legal obstacles to e-commerce operations in Sulaimaniyah city. Furthermore, the same table and related charts established the lack or no laws in the region and Sulaimaniyah city clarifies the nature and scope of electronic commerce. Nevertheless, the results proved that there is no deterrent law for frauds which can be carried out through electronic commerce. Besides, there is the struggle of legal prosecution for many electronic business transactions, such as narcotic drugs through (electronic pharmacy).

Table 13. The Results of Legal Obstacles

Variables	Indicators	N	Mean	Std. Deviation	Agreement Rate
Legal Obstacles	19. There is a lack of, or no laws in the region clarifies the nature and scope of electronic commerce.	138	3.04	1.487	60.8%
	20. There is no deterrent law for frauds which can be carried out through electronic commerce.	138	2.97	1.460	59.4%
	21. There is the struggle of legal prosecution for many electronic business transactions, such as narcotic drugs through (electronic pharmacy).	138	2.97	1.372	59.4%
	Overall	138	2.9928	1.16690	59.85%

As the outcomes are revealed in Table 13, the mean scores for question nineteen regard, the lack or no laws in the region clarifies the nature and scope of electronic commerce is (3.04), and 60.8% of the participators answers confirmed that there is a lack or no laws in Sulaimaniyah clarifies the nature and scope of e-commerce. Chart 19, below showed that agree replies attained the top ratio of sample replies on question nineteen, by 23.2%, and strongly agree at 22.5%. Accordingly, 22.5% and 21% respectively of the survey sample disagreed and strongly disagreed, besides not sure or neutral is 10.9%.

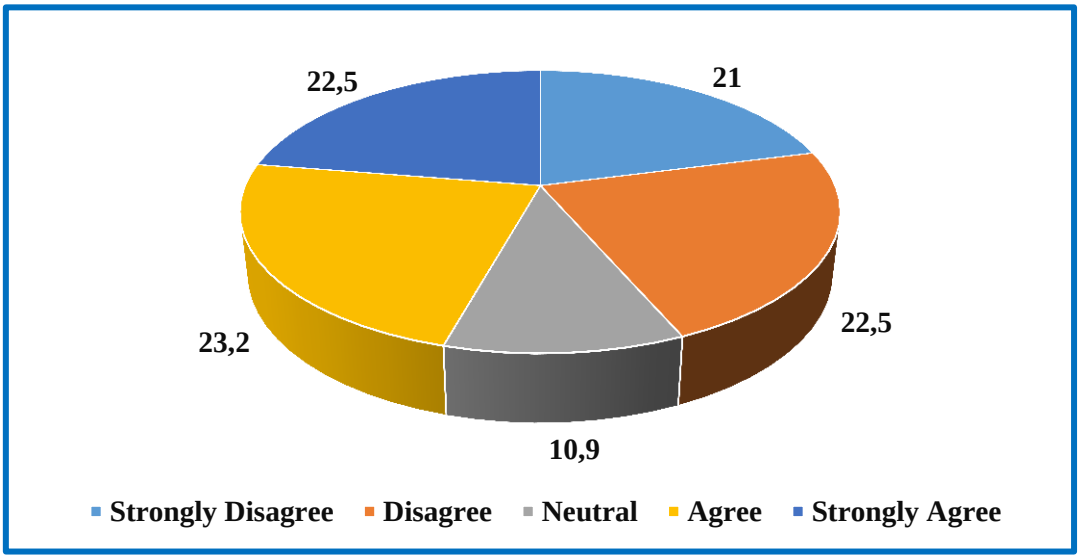


Chart 19. Agreement/Disagreement Rates on Question Nineteen

In regard, the question twenty, it can be determined from Table 13, and Chart 20, that the mean scores (2.97), besides 59.4% of the total survey sample agreed that there is no deterrent law for frauds which can be carried out through electronic commerce. Chart 20, also reveals that 21% of the survey participants agreed; however, 19.6% of strongly agreed with the question. So, 21.7% and 21% respectively of the survey sample strongly disagreed and disagreed; however, 16.7% of the sample whether no sure or neutral.

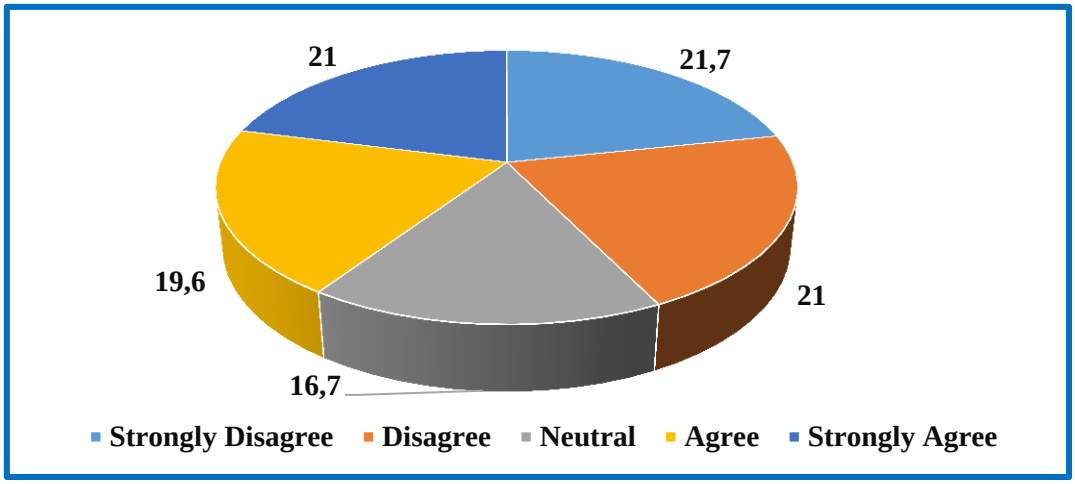


Chart 20. Agreement/Disagreement Rates on Question Twenty

Lastly, as summarized in Table 13, 59% of the total survey contributors agreed that there is the struggle of legal prosecution for many e-business transactions, such as narcotic drugs through e-pharmacy. However, Chart 21, indicated that strongly agree and agree responses reached 20% and 17% respectively. While, participators answer neutral 20% of the total survey participators. So, 27% and 16% respectively disagreed and strongly disagreed.

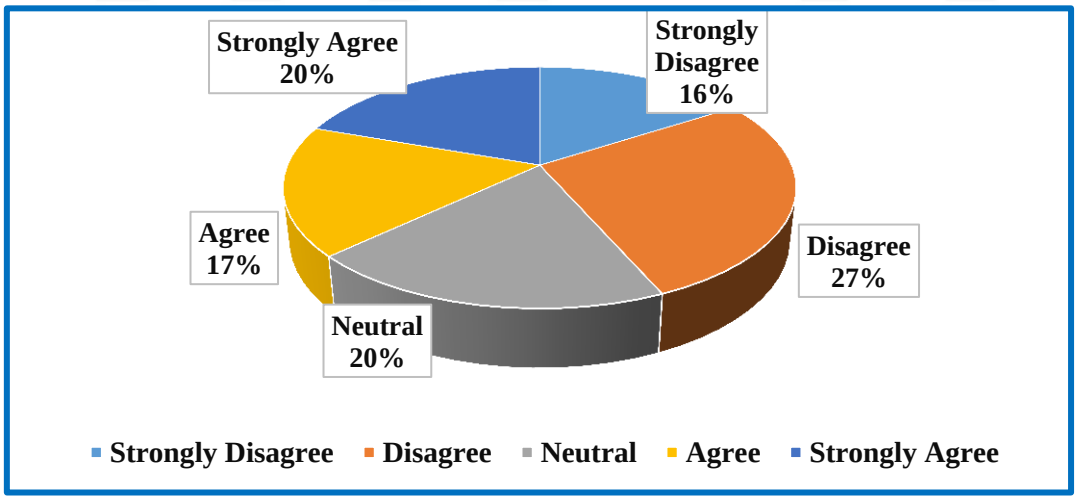


Chart 21. Agreement/Disagreement Rates on Question Twenty-one

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

In this study, we analyzed the electronic commerce's obstacles faced the companies in Sulaimaniyah mostly those desired to implement electronic commerce in their operations. So, the results confirm that there were no critical political or governmental obstacles to electronic commerce. However, in a minor degree, the political condition in Iraq and the Sulaimaniyah city hindered e-commerce operations.

The study found that the authorities in the Sulaimaniyah did not encourage enough investment in the field of electronic commerce while the results rejected the idea that the regional government might not provide support for electronic commerce.

The results revealed that there were financial obstacles to electronic commerce in Sulaymaniyah city. It confirms that there was a lack of willingness of the business infrastructure to use electronic commerce in Sulaimaniyah city. However, businesses need to change their administrative structure. Besides the results found that the companies in Sulaimaniyah need to introduce new technology and expensive for its business as well as they need to provide the cost of training staff to operate e-commerce applications.

The survey contributors agreed that there were human obstacles in front of operating e-commerce applications in Sulaimaniyah city. Mainly there was a lack of awareness among employees on e-commerce applications. The study also confirmed that there was a lack of knowledge among managers of the importance of electronic commerce. Further, the consumer culture in the region about electronic commerce is limited. Accordingly, the study found that there was a problem with English in Sulaimaniyah city since most of the e-commerce operations conducted in English as an international language.

The results presented the technological obstacles to e-commerce operations. Moreover, the result confirmed the weakness of electronic infrastructure in the region and Sulaimaniyah city. However, the results proved that there is a weakness of the

culture and electronic awareness in the region. Besides, many companies in the region faced the problem of slow internet.

The results found the legal obstacles, so, there was a lack, or no enough laws clarify the nature and scope of electronic commerce. Nevertheless, the results proved that there is no deterrent law for frauds which can be carried out through electronic commerce. Besides, there is the struggle of legal prosecution for many electronic business transactions, such as narcotic drugs through (electronic pharmacy).

Recommendations

In the last few decades, globally businesses have conducted their commercial activities electronically through retaining a variety of electronic commerce solutions. After launching the appropriate business relations, most businesses choose the components of their e-commerce system while the cultural dimension is significant to ensure the success of e-commerce applications.

It believes that customers and sellers need to consider e-businesses in the same manner they consider regular ones. Vendors need to improve their customer services and their willingness to ensure client satisfaction even if this was at the expense of accepting returns and refunds.

It is necessary that the authorities in Iraq and regional government need to attempt to open the way to e-commerce and take forward steps to contribute to opening wide horizons for institutions. So, the Iraqi economy to enter international markets, besides Iraq should unite and promote its economy and raise the challenge posed by communication technologies. Finally, in this study, we formulate current e-commerce issues, challenges and their practical solutions regarding Sulaimaniyah city. In the future, the researchers would like to concentrate on secure payment, e-banking, and e-governance.

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APPENDIXES

APPENDIX 1. QUESTIONNAIRE FORM

T.C.
VAN YUZUNCU YIL UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS

Dear all respondent

I am a master student in the department of economics, a graduate school of social sciences, Yuzuncu Yil University, Turkey. My master study titled (**Analyzing the Obstacles of Electronic Commerce: A Study of Sample Companies Operating in Sulaymaniyah City**). As part of the Requirements for the degree of Masters in Economic Science.

Thanks in advance.

Supervisor
Assist. Prof. Dr. M. Akif ARVAS

Researcher
Roshna Abdulla NADIR
Master Student

Please select the option that shows the best alternative, for questions and statements below:

First Section: Respondent's Demographic Information

1. **Gender:** Male ( ), Female ( ).
2. **Age:** Less than 30 years ( ), 30– 35( ), 36–41 ( ), 42-47 ( ), 48 and above ( ).
3. **Overall Job Experience:** 1- 5 years ( ), 6-10 ( ), 11-15 ( ), Over 15 years ( ).
4. **Level of Education:** Diploma ( ), Bachelor ( ), Master or PhD. ( ).

Second Section: The Scale of Electronic Commerce

E-commerce is the process of selling and buying goods and services through the internet. That taking various forms such as the offer of goods and services, electronic marketing, facilitate and manage the flow of information and communication besides cooperation between companies and between different parts of one company. Furthermore, make cash payments with financial cards and other means of payment, and other patterns that can develop.

First Component: Political Obstacles

Q	***Statements***	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Q1	The political situation in the region hinders e-commerce operations.					
Q2	The political situation in the region does not encourage investment in the field of electronic commerce.					
Q3	The political condition in the region delays the existence of technical infrastructure to assist in the applications of electronic commerce.					
Q4	There is no support for electronic commerce by the KRG.					

Second Component: Financial Obstacles

Q	*Statements*	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Q5	There is a lack of willingness of the business infrastructure to use electronic commerce.					
Q6	The business needs to change its administrative structure.					
Q7	The company needs to introduce new technology and					

	expensive for its business.					
Q8	The company needs to hire new staff.					
Q9	The business needs the cost of training staff to operate e-commerce applications.					

Third Component: Human Obstacles

Q	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Q10	There is a lack of awareness among employees of e-commerce applications.					
Q11	The presence of a few companies in the region deals with the implementation of electronic commerce.					
Q12	There is a lack of knowledge among managers of the importance of electronic commerce.					
Q13	The inability of the region's companies to enter the global markets in the field of electronic commerce.					
Q14	Consumer culture in the region about electronic commerce is limited.					
Q15	There is a problem with English because most of the electronic commerce operations conducted in English as an international language.					

Fourth Component: Technological Obstacles

Q	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Q16	There is weak electronic infrastructure in the region.					
Q17	There is a weakness of the culture and electronic awareness in the region.					
Q18	Many companies in the region faced the problem of slow internet.					

Fifth Component: Legal Obstacles

Q	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Q19	There is a lack of, or no laws in the region clarifies the nature and scope of electronic commerce.					
Q20	There is no deterrent law for frauds which can be carried out through electronic commerce.					
Q21	There is the struggle of legal prosecution for many electronic business transactions, such as narcotic drugs through (electronic pharmacy).					

Source: Badawahi, S. Othman, (2017). Analysis of Obstacles to the Application of Electronic Commerce: An applied Study of A Sample of Companies Operating in the City of Erbil. Iraq.

Source: Badawahi, S. Othman, (2017). ***Analysis of Obstacles to the Application of Electronic Commerce: An applied Study of A Sample of Companies Operating in the City of Erbil***. Iraq.

APPENDIX 2. CURRICULUM VITAE

PERSONAL INFORMATION

Name & Surname	Roshna Abdulla NADIR
Date of Birth	1983
Nationality	Iraqi

CONTACT

Place & Address	Halabja, Sulaimany-Iraq
E-mail	roshnarahand1983@yahoo.com
TELEFON	+964750 1132284

EDUCATION LEVEL

Degree	**Field**	**University**	**Year**
Undergraduate	Economics	Salahaddin University- Erbil	2006
Postgraduate	Economics	Van Yuzuncu Yil University Graduate School Of Social Sciences	2017

APPENDIX 3. THESIS ORIGINALITY REPORT

YUZUNCU YIL UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
THESIS ORIGINALITY REPORT

Date: 26/07/2019

Thesis Title: **ANALYZING THE OBSTACLES OF ELECTRONIC COMMERCE: A STUDY OF SAMPLE COMPANIES OPERATING IN SULAYMANIYAH CITY**
The title of the mentioned thesis, above having total 82 pages with cover page, introduction, main parts and conclusion, has been checked for originality by Turnitin computer program on the date of 20/06/2019 and its detected similar rate was 17% according to the following specified filtering

Originality report rules:

- Excluding the Cover page.
- Excluding the Acknowledgment,
- Excluding the Dedication,
- Excluding the Contents,
- Excluding the Symbols and Abbreviations.
- Excluding the References,
- Excluding the Appendixes.

I read the Thesis Originality Report Guidelines of Van Yuzuncu Yil University for Obtaining and Using Similarity Rate for the thesis, and I declare the accuracy of the information I have given above and my thesis does not contain any plagiarism; otherwise I accept legal responsibility for any dispute arising in situations which are likely to be detected.

Sincerely yours.

26 /07 /2019

Name and Surname: **Roshna Abdulla NADIR**
Student ID#: 179202037
Science: Economics
Program:Economics
Statute: M. Sc.

APPROVAL OF SUPERVISOR
SUITABLE

Doç. Dr. M. Akif ARVAS

APPROVAL OF THE INSTITUTE
SUITABLE

Doç. Dr. Bekir KOÇLAR

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