BARRIERS AND OPPORTUNITIES FOR E-COMMERCE IN IRAQ: PERCEPTION OF CITIZENS

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BARRIERS AND OPPORTUNITIES FOR E-COMMERCE IN IRAQ: PERCEPTION OF CITIZENS

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ABSTRACT

Barriers and Opportunities for E-Commerce in Iraq: Perception of Citizens

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The internet is a fashionable medium that both changes our lives and impact the behavior of Labor and consumer in both business and commerce. Several studies of e-commerce in developing countries have emphasized the barriers and opportunities of e-commerce associated with Information and communication Technology (ICT), regulatory environment, economic infrastructure and culture as most important factors of successful e-commerce. ICT has transformed the approach of many companies to conduct business around the globe, currently business is conducted online wider than traditional methods. Majority of the developing countries face limitations on the development of e-commerce, a numerous studies categorize the factors of e-commerce adoption in developing countries into two factors as external and internal factors. These factors are the main barriers for e-commerce adoption. While Middle-East is a fast growing and evolving region for e-commerce, e-commerce is still in its infancy in Iraq. Iraq's economy mostly relies on oil revenues and it is essential to diversify economic activity, e-commerce is one of the ways to realize this. Within this frame, the main aim of this research is to understand the barriers and opportunities of e-commerce and adoption level of e-commerce in Iraq as a developing country. In order to understand the main perceptional barriers of Iraqi citizens, a research was conducted with 110 participants. The findings of the research indicate that the most important barrier for e-commerce adoption in Iraq is related with Organizational, Governmental/ Legal and Financial Barriers. Due to the lack of comprehensive research for e-commerce in Iraq, this study will contribute to the literature with its findings related with barriers which form opportunities for e-commerce development.

Keywords: e-commerce; e-commerce barriers; e-commerce in Iraq

ÖZ

Irak'da E-Ticaret için Engeller ve Fırsatlar: Vatandaşların Algıları

Alaa Rishek HOSHI

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İnternet hem hayatımızı değiştiren hem de iş ve ticaret alanında çalışanları ve tüketicileri etkileyen revaçta olan bir ortamdır. Gelişmekte olan ülkelerde, e-ticaret ile ilgili yapılan pek çok çalışmada, e-ticaretin başarılı olması ile ilişkili engellerin ve fırsatların oluşmasında, bilgi ve iletişim teknolojileri, yasal çevre, ekonomik alt yapı ve kültürün önemli etkileri olduğu üzerinde durulmaktadır. Bilgi ve iletişim teknolojileri, birçok şirketin dünya genelinde iş yapma usullerine yaklaşımlarını değiştirmiştir, günümüzde iş dünyasında artık geleneksel yöntemlerden çok çevrim içi yöntemler uygulanmaktadır. Gelişmekte olan ülkelerin çoğunluğu, e-ticaretin gelişimiyle ilgili sınırlılıklarla karşılaşmaktadır, birçok çalışmada gelişmekte olan ülkelerde e-ticaretin benimsenmesi ile ilgili etkenler iç ve dış etkenler olarak sınıflandırılmıştır. Bu engeller, e-ticaretin benimsenmesi önündeki temel etkenlerdir. Orta Doğu, e-ticaret için hızla gelişen ve büyüyen bir bölge konumundadır, buna rağmen Irak'da e-ticaret hâlâ başlangıç durumundadır. Irak ekonomisi çoğunlukla petrolden elde edilen gelire dayanmaktadır, bu nedenle ekonomik faaliyetlerin çeşitlendirilmesi önemlidir; bunu gerçekleştirmenin bir yolu da e-ticarettir. Bu çerçevede, bu araştırmanın temel amacı, gelişmekte olan bir ülke olan Irak'da e-ticaretin benimsenmesi ile ilgili engellerin ve fırsatların anlaşılmasıdır. Irak vatandaşlarının algıladığı en temel engelleri anlamak amacıyla, 110 katılımcı ile bir araştırma yapılmıştır. Araştırma bulgularına göre, Irak'da e-ticaretin benimsenmesi önündeki en önemli engeller, örgüt, devlet/yasal ve finans ile ilgili engellerdir. Irak'da e-ticaretin durumu ile ilgili kapsamlı araştırmaların olmaması nedeniyle, bu çalışma e-ticaretin gelişimi için fırsat oluşturan e-ticaretin önündeki engeller ile ilgili bulguları ile literatüre katkı sağlayacaktır.

Anahtar Kelimeler: e-ticaret; e-ticaret engelleri; Irak'da e-ticaret

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I ask God for them all the best and love.

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LIST OF ABBREVIATIONS

B2B	Business to Business
B2B2C	Business to Business to Customer
B2C	Business to Consumer
B2E	Business to Employee
C2B	Consumer to Business
C2C	Consumer to Consumer
C2G	Consumer to Government
CBI	Central Bank of Iraq
CMC	Communications and Media Commission
CRM	Customer Relationship Management
DSL	Digital Subscriber Line
E-Banking	Electronic banking
E-Business	Electronic-business
E- Commerce	Electronic commerce
EFT	Electronic Fund Transfer
E-Mail	Electronic mail
E-Trust	Electronic Trust
EU	European Union
FTTH	Fiber to the home
G20	Group of Twenty
G2B	Government to Business
G2C	Government to Consumer
GDP	Gross Domestic Product
ICT	Information and Communications Technology
IMF	International Monetary Fund
IT	Information Technology

ITA	Information Technology Agreement
MoC	Ministry of Communications
OECD	Organization for Economic Co-operation and Development
P2P	Peer to Peer Commerce
SCIS	State Company for Internet Services
SCM	Supply chain management
SMEs	Small and Medium Sized Enterprises
UAE	United Arab Emirates
UNO	United Nations Organization
VSAT	Very small aperture terminal
Wifi	Wireless fidelity
WTO	World Trade Organization

CHAPTER 1

INTRODUCTION

1.1 Introduction

Information and communication technology (ICT) continues to provide new services and this would be exponentially larger in the future, it can play cumulative role in culture and therefore the quantity of knowledge will produce exponentially, our knowledge could be double each five years periodically [1], e-commerce operatives ought to target its offering services with a lot of and additional new services specifically within the future. Aanen 2015 [2] has observed that the web should change towards an additional planned structure, useful usage, and valuable services; in addition, it is including additional expecting information. This homogenous knowledge ought to be more standardized to be visibly understood by the consumer and the employer.

Many companies these days will conduct trade in the worldwide and therefore the world commerce is being created, many factors can be a barrier of this commerce, such as geographical, cultural, political, technological and economical barriers. Thus, such barriers can limit or expand the commerce in different directions.

Once the companies desire to attract worldwide consumers, the sensitiveness and consideration of those barriers are vital and creates success on the Web world, and therefore it can overcome the challenging competition. Web is an innovative model of opportunities, within the long-term investment, perhaps it will become as a conventional place for performing any kind of native business. This helps to expand the consumer base and products accessing from anywhere in the world or what we can call trade globalization [1].

E-commerce have speedily taken place on opening web markets and the traditional commerce transferred to be online market since the start of the web revolution. Traditional commerce is affected by major variations. Success of commerce is less related to physical trading, e-commerce permits consumers to take advantage of having goods and services or both, directly from a vendor over the web, they just need a skill enough to deal with some Information Communication Technology (ICT) application. This evolution produces several new difficulties such as, allocation of commerce to be web oriented and how to reinforce E-business. Typically, any goods and services and in any traditional business transferred have to be constrained to match the e-commerce needs.

Several related works and literature review recently has been listed clearly that e-commerce business has a big potential growth chance in the entire world and e-commerce is growing at high speed globally, since the start of the web revolution. Notwithstanding the fact that the construct of it, it continues to become comparatively young. However, most of the literature indicates that e-commerce business can improve and develop in the upcoming future and this will reflect to our life. Therefore, the field of online merchandising needs an investigation, since in the business world; e-commerce will increase its importance in the future.

E-business and e-commerce can achieve core advantages by using different models offered by supply chains and may have different objectives, such as realization of high speed delivery, which is a vital issue, whereas another objective is predicted on cost efficient services. Moreover, e-commerce ought to take into consideration the chance of returns in their channel, another key to be considered in e-commerce business is the security and payment problems. The web is full of with completely different viruses and harmful software is whose task is to assemble data for criminal functions. Online business and e-commerce offers major opportunities to learn additional information regarding the client behavior. With the assistance of refined electronic customer relationship management, cultural variations may take a higher consideration.

Therefore, e-commerce can take additional acceptance among completely different customer segments and cultures. In the future, e-commerce websites may be designed additional viewpoint of attractions to boost imperialism and the use of social media to connect the e-business.

Accordingly, e-business should consider the circumstances and operate actively against harmful actions. Typically the malware software's have an interest in customer's information's, user data, and social welfare. Companies using e-commerce ought to perceive their business operations comprehensively, so they will operate effectively enough. E-business model helps to form companies' competencies to deliver high value services to the customer. The most consideration of the company's activities is to know the means of key resources and key activities.

To have a greater understanding of the subject of this research, related researches of different authors are reviewed as it relates to consumer attitude and behavior in developing countries.

1.2 Research Objectives

Middle East is a fast developing and emerging region for revenues in e-commerce. Iraq is one of the important countries of Middle-East region, in terms of its resources and its location for traditional trade. The country and especially the capital Baghdad city, was an important part of the Silk-Road and therefore traditional trade developed since old times. However, today e-commerce is still in its early stages in Iraq. Iraq's economy is mostly dependent on oil revenues; therefore, it is essential to expand the economic activity, to ensure continuity in the future. Most developing economies have many limitations in terms of service deliveries, connectivity, willingness for online purchases, and lack of an efficient banking system, in addition to the economic and political barriers [3], these limitations are valid for e-commerce development in Iraq.

Moreover, ICT possibly mind a big challenge for developing countries. As an example, some developing countries, such as India, Egypt, Iran and Pakistan, Have capitalized more revenues in ICT infrastructure than other developing countries and they gain a significant benefit form that, while other developing countries like Iraq is still trying [4].

Within this frame, this study aims to examine the underdevelopment of e-commerce by identifying the barriers from the perceptions of Iraq citizens, in addition opportunities for e-commerce adoption is also discussed. Accordingly, investigating Iraq as a case study, this research will try to answer the following question:

What are the most important barriers of e-commerce in Iraq, as a developing country?

Subsequently, this research is important because it tries to highlight the difficulties and provide a way to enable e-commerce in Iraq in the future. As far as to our knowledge, there is no such research addressing the e-commerce barriers in Iraq, thus this research is important being the first in this research stream.

1.3 Thesis Outline

This research is separated into five chapters, chapter one allocates for motivations, while the rest of the chapters have following structure: In Chapter 2, e-business and e-commerce are presented, foremost, e-commerce processes and its functionality will be defined and the discussion proceeds from the wide-ranging theory to an extra exact clarification. Moreover, this chapter also includes a literature review regarding our research area. Chapter 3, a case study of Iraq will be presented. Chapter 4 includes the discussion of the findings and analysis based on the barriers of e-commerce in developing countries, while Chapter 5 provides conclusions and future work.

CHAPTER 2

BACKGROUND

2.1 E-Business and E-commerce

Electronic-business or shortly known as ‘e-business’ states the extensive explanation of e-commerce. Electronic business can be defined as the application of information and communication technologies in support of all going-ons of business. While e-commerce is one of the significant elements of E-business, nevertheless it is not a vital part of it, it is not just selling or buying of goods and services, but likewise it includes collaborating with business partners, electronic transactions within an organization and customer servicing. According to Lou Gerstner (2001), CEO of IBM, e-business is all about globalization, time cycle, enhanced productivity, and speed, knowledge sharing, and getting new customers and opening new markets, it can be defined as the type of business, which is done through the assistance of internet or electronic data exchange.

E-commerce has grown in excess of many years and it will keep growing in the future. Electronic commerce or e–commerce is a commercialism of businesses which are trying to sell or purchase a set of products, services or transmittal of the knowledge or funds via networks, channels or web as a medium for these transactions are mostly used networks. E–commerce operations are acting normally in accordance with constant laws and regulations, conjointly exceptions are often found, and for example, some e-commerce operators could sell electronic newspapers, magazines or books while it is not the right to return. Edges of e-commerce business are round the clock accessibility, there exists a wider choice of goods and services and they benefit from international accessibility.

On the other hand, there are many limitations that should be considered in e–commerce, which include the following: time to deliver goods and services, limited customer service, the desire to buy things that are not concrete, payment methods, security issues and many others [4].

There are three main welfares provided by e-commerce that should be considered. First, once a company is performing progressively in E-business, the value chain will adjust radically. After-sales services and distribution channels will decrease the costs at the identical time progress of productivity. What is more, the web covers new market openings and provides price opportunities for existing consumers. E-business could also promote new technological innovations and entrepreneurial initiatives, moreover, knowledge can be accessed from anywhere which develops faster interaction, cheaper ways for suppliers, and more secure way for partners and customers [5]. As a whole, management will act in response instantly by creating changes since Internet creates a potential environment, the business ought to take changes in operations and plan action for consideration. In addition, companies could benefit from these changes. As discussed, e-business and e-commerce is different from each other, the main differences are shown in Table-1.

	E-BUSINESS	**E-COMMERCE**
Definition	Business Administration using the internet is known as e-business.	Trading of stock, over the internet is known as e-commerce.
Is it restricted	No	Yes
What they carry out	Business connections	Commercial connections
Method	Balanced	Extroverted
Needs	Website, CRM, ERP, etc.	Website
Which system is used	Internet, Intranet and Extranet.	Internet

Table 1 Main differences between E-Business and E-commerce [6].

2.2 Classification of E-commerce

There are diverse formula of groupings that cast-off to group e-commerce processes subjected to the parameters that was used by the researchers, listed below are some of the groupings that are used, according to United Nations (2004) shown in Table-2.

Classification	Group
Buyer /Seller	Consumer, Business, Government, etc.
Activity and Product	Online commerce, Search engine, etc.
Revenue sources	Fees from referrals, Advertising revenues etc.
Company duties	Investment, Shopping, Banking etc.
ICT	Internet application framework, Internet infrastructure, etc.

Table 2 E-commerce Classification [7]

Despite the fact that diverse classifications of e-commerce are listed above, the foremost one is a buyer/ seller classification. This is often the outline of the various parties concerned with dealings, that makes relations to the person or party that has created the order for the goods or services to be sold and who is that the marketer or the dealer of the goods or services for this style of dealing that has been done [7].

Another e-commerce classification is outlined by Turban et al (2008) [8], which is listed below:

1. **Business to Consumer (B2C):** This is a category of e-commerce that involves businesses and customers during which the companies sells directly to the purchaser. The policy for these kind of e-commerce dealings may well be the functions of transaction or the relationship between businesses and customers, with the most purpose ever-changing client perspective by obtaining additional patronage for the goods and services. At this point, the client can match the costs before creating a deal and additionally the business will relate directly with the consumer without any need for any type of intermediaries.

2. **Consumer to Consumer (C2C):** This is a category of e-commerce, which provides a direct connection between two entities that is trying to avoid any type of intermediary. It tries to use a platform as an intermediary; these platforms are used for advertisement, sales, online expertise, personal services and auctions. MSN.com, eBay, Facebook and other social networking are good examples of this category.
3. **Business to Business (B2B):** This is a category of e-commerce that can be considered as the main form of e-commerce transaction based on value of sellers, buyers and business organizations with the exemption of individual consumers from such transactions.
4. **Consumer to Business (C2B):** This type of e-commerce businesses, or what can be called demand pools, is shown when consumer sells goods or services through the web to other consumers and groups. This permits bidding such as price labels and available services, for example the consumer post in web his/her requirements by putting price; businesses creates bids constructed on these requirements, after that the client can review these bids and creates selections.
5. **Business to Employee (B2E):** This type of e-commerce businesses are mostly used by system of government or some organizations that has portable workforce and/or have a main office and multiple branch offices. Services, information, and goods are delivered to employees over this intermediate.
6. **Business to Business to Customer (B2B2C):** This type of e-commerce businesses starts when a commercial owner offers a goods and services that was obtained from another business for its consumer without adding additional cost. In such e-commerce transactions, consumer turns to be an intermediate.

E- Government can be defined as the digital interactions between a citizen and their government; there are many types of e-government interactions out-lined by Gebrezigabiher (2001) [9] and Turban et al (2008) [8], they define the part of government transaction among many other segments of the economy, it can be considered as another face of e-commerce which are listed below:

1- **Consumer to Government (C2G) and Government to Consumer (G2C):** This type of e- government occurs when a government body creates a platform for feedbacks from individuals and groups. It permits the people to create appreciated participations and pay their own proportion to government.
2- **Government to Business (G2B):** In this type of business, the government owns some institutions dealing with collecting payments such as legal regulations, levies, taxes, etc.

Additional categorizations defined by Turban et al (2008) [8] contain the following:

A. **Mobile Commerce:** This is another kind of e-commerce business prepared in order to the increase usage of a smart and mobile device which have web enabled features, it permits many consumers to be linked with business environment using only smart device or mobile device.
B. **Peer to Peer Commerce (P2P):** This type of e-commerce businesses permits many consumers to share their own resources, information and services without the need of a service host. Sharing of digital files, music and video are examples.
C. **Electronic Learning:** This type of e-commerce businesses is used by business organizations, universities, or schools to offer online educational trainings as a service.

Other e-commerce classification may include an Intra Business e-commerce, which focuses on internal activities within an organization, Collaborative e-commerce where groups or individuals come across the web for designing manufactured goods or prediction or any other commitments. Exchange-to-Exchange e-commerce is the way where buyers and sellers linked together and exchange information, goods or services between them by using any type of e-commerce platform. According to Turban et al (2008) [8], this e-commerce categorization are supposed to be more frequently used, and it can be a conventional form, nevertheless other classifications for e-commerce are also in force and can be suitably used for other classification purposes.

2.3 E-commerce Platforms

E-commerce essentially functions using digital machinery for its transactions and activities, which is absolutely built based on ICT. This technology contains internet, intranet, extranet, digital media such as smart devices and mobile devices, E-mail system, satellites and television and many other aspects of technology [8].

Despite the fact that all these e-commerce platforms' operations using the ICT as basic tools for its activity, it is important for us to understand the status of the ICT as it is a vital tool used in all of the e-commerce activity. This is because of that ICT has been an identical tool for different transactions done in a timely manner, and it covers a wide geographical area without limits or restrictions.

There are many different categories on which e-commerce platforms are based on, depending on its designs and features [10], which are as follows:

1- Brand Building e-commerce web sites.
2- Service-oriented e-commerce web sites.
3- Portal or Media Sites e-commerce web sites.
4- Transactional e-commerce web sites.

Internet is important for facilitating e-commerce. The web-enabled economy consists of all events from the conception and procedure of services; and internet networks, from telecommunications, internet activities, and code services, to instrumentality and hardware [11]. The total income in the web economy across the G-20 economies accounted for 41% of their gross domestic product, representing $2.3 trillion in 2010 [12]. The internet is a dynamic method that is used to manage information, make payments, have a tendency to train and learn. Also, it has the method of interactions, exchange of ideas and searching. It is basically totally different from the previous 5 years, in addition to a couple of decades according to European Commission [12]. This can develop new web-based business models across the world [13].

Manyika (2013) [14] state that a powerful web scheme, build on a comprehensive web infrastructure, develops human capital, encourages innovation, and fosters competition, all of these will allow a nation to imprisonment of the most values of using this technical conversion offered e-commerce, and primarily most commerce nowadays, is turning into deeply unmoving within the business, voters and lives of customers is similar through enhanced web property (European Commission) [12].

2.4 Effect of Globalization on E-commerce

Ashford and Hall, 2011 [15], declare that economic process has an effect on four specific areas necessary to property growth; services, production of products, the quality of information and data movement of labor and human resources. Capital mobility of these area unites are artificial by the increased flow of information and experiences across boundaries, geographical, political, national, or the power-assisted by large advances in information and communication technology.

The Information and Technology Agreement (ITA) has contended a crucial role in spreading information and communication technology infrastructure, and product round the world [16], ITA dedicated contributors to erase a customs duty and alternative controls on ICT to prefer the manner for lowered barriers and easy access to network and mobile connected societies [17].This validates the explanation for the World Trade Organization, the International monetary fund, the World Bank and different trilateral economic organizations, to make the globalized trade with less restriction, and more free trade [18]. Globalization, in conjunction with enlarged trade, has made-up the manner for online commerce and also the trade conducted online these days. With no doubt foreign policy these days is vastly influenced by the World Trade Organization (WTO), the economic process has increased trade considerably, mostly supported global division of industry, in massive half thanks to the international unfold of technology and data, enhanced transportation and communication, in addition to liberalization of investment and trade [19]. A lot of today’s trade is basically supported based on World Trade Organization (WTO), and therefore General Agreement on Tariffs and Trade (GATT), multidimensional trade negotiations [19].

2.5 Effect of Information, Communication Technology on E-commerce

Technology can be described as *"anything that was not around when you were growing up as a kid"*[20], In the previous 20 years ICT has changed the international business over and above customer's behaviors. Meyer (2009) [21] indicate that with the lack of technologies that is received from the Internet, computers and mobile phone; the development of economic globalization would not have occupied the place of what we know in current times; simultaneously the usage of these technologies have donated a new realization, and shaped a new life vision.

The influence of technical development terminated in the previous few years is massive. ICT is even similar to the way the manufacturing revolutions transformed former societies (European Commission, 2010) [12]. Since individuals are so altered to usage, improved new technology, techniques and tools, can bring incredible alteration to the social status-quo [20]. This can have huge implications for all elements of society, whether or not it's a labor fact. On the other hand, the government sector is run environmental impacts that shifting the economies and even dynamical business. This will lead ICT to create many things such as- new ways of statement, new ways to analyze, manipulate, store information, new sorts of amusement and a replacement method of steering commerce [20].

Another study by Ashford and Hall [15], cite Joseph Schumpeter's "winds of creative destruction", they state that after addressing the technical variations which are currently happening, radical or observing into the troublesome, invention may transport a change in recognized companies, ideas and institutions. For example, this can be performed by increasing use of ICT in online international trade and commerce.

2.6 Effect of E-commerce in Small and Medium Sized Enterprises

The characterization of Small and Medium Sized Enterprises (SME) varies in line with region, country, listed versus non-listed companies in the stock-market, and whether SMEs ought to be categorized in line with market capitalization, turnover, staff, and also with several different factors. The SMEs defined by the United States, as the enterprises that have no less than five hundred staff [22], this inclines to be honestly giant during a world common sense, different countries and areas have tracked totally different categorizations. SMEs also defined by the EU, as a business with fewer than two hundred fifty workers, moreover, the tiny class as fewer than fifty workers, and also the small sized business as less than ten workers. SMEs, particularly web-based significantly adopt to provide the product by serving specific functional markets, boundless of geographic situation [23].

In a fresh experimental study on the task creation of SMEs, it was absolutely found that in low financial gain countries SMEs account for eightieth of formal trades. Additionally SMEs account for common fractions of all occupations in Organization for Economic Co-operation and Development (OECD) countries [23]. Giant companies and international companies have each promoted significantly for the internet enabled and industrial revolution, however upstart entrepreneurs and individual customers, have additionally been a number of the best recipients of the Internet direction.

In another study by eBay Inc, and Lendle et al, 2012 [24], it is stated that online trade decreased data frictions and simplified trade crossways the borders. Particularly for minor companies, information uniform points to the online trade flexibility throughout the drop in trade which was observed in 2009. Lendle et al [24], estimated that the entire transfers of eBay companies were much developed than their off-line counterparts. Moreover, McKinsey [25] led a review of 4800 SMEs, their findings state that these enterprises using web-technologies produced extra double as fast as those companies with the presence of negligible web-technologies, this was detained factual crosswise all areas, particularly in commerce.

The increased market reach of SMEs leading business over online open market, the arrival of business, technological intersections and sustainability concerns, are complicated in the attraction of the online open market in expressions of sustainability [24].

2.7 E-commerce in Developing Countries

Despite the fact that e-commerce has transformed and affect commerce internationally, and it's also permitting a market penetration anywhere in the businesses world. In fact, there are some challenges and barriers facing this type of trade around the world. In order to better understand these constraints, we need to know the differences of e-commerce usage between developing nations and developed nations. Kiarash Abbaszadeh (2015) [26], clarifies that developing countries such as Iran, deeply concerned within the distribution of the economic process, they aim to reduce the accumulation of urban populations, and they have a tendency to focus a lot on simplification of the economic process throughout associate rising economies. The author mentions that developing ICT and improving the value chain process will help developing countries to turn into the more flexible economy. Whereas cumulative high profits, Drives them progressively into turning into a serious a part of their countries' and economic process, increased growth, job creation, the dispersal of economic growth and increased turnover, are all physical characteristics of developing countries conducting business online.

The term of 'developing country' doesn't actually take a common definition and it has many numerous standings like less urban countries, evolving markets, non-industrialized countries, third world nations and underdeveloped nations, all of these terms are used in diverse time periods to mention such nations or 'developing country' [27]. We should know that more than 150 countries considered as 'developing country', these countries are varied in religion, economic activities, geography, political structure and culture; most of these countries are distributed among Middle East, Africa, Latin America and Asia. Correspondingly, there are many different world organizations such World Trade Organization (WTO), World Bank, United Nations Organization (UNO), International Monetary Fund (IMF) and others. These Organizations have some limitations and conditions under which many countries have been put into these categories, so all of these categories are not identical with each other, i.e. some of these countries are classified as developing countries, while the others are not.

Even though the above categories may not be a comprehensive category list, it covers the best characteristics of 'developing country' or developing economies crosswise the all world. There is also another fact that the economy in some developing countries grows faster than other countries due to the presence of some barriers [27]. From the economic point of view, developing countries are considered as the group of countries with a high risk in economic investment, the cost of business is high, and there exist infrastructure constraints, environmental constraints, political barriers and many other barriers. All of these barriers make trade and e-commerce in particular, face many challenges to find a suitable work environment for business [28].

2.8 E-commerce Benefits and Drawbacks

Although there are many benefits expected from activating the role of e-commerce, there are many negative factors that may be associated with this process, it's beneficial to review the pros and cons with a brief explanation of each of these factors.

2.8.1 E-commerce Benefits

There are various benefits of e-commerce, three groups are listed below.

A. **Low-cost and efficiency:** E-commerce can offer products at a lower price because of the lack of resources that need it to view this product, reduces overall marketing costs and costs of market research, also the speed in the offering of the products are the positive factors in electronic commerce. A company uses e-commerce to share information effectively across the entire supply chain subsequent in better forecasting accuracy and reduced costs [29].

B. **International prospects:** The use of e-commerce would open all closed doors without geographical limitations where it is possible now to offer the products globally using this concept [30].

C. **Others benefit**, may include following: more goods and services, information availability, supply chain improvements, customization, improved customer relations and participation in auctions [31].

2.8.2 E-commerce Drawbacks

Although e-commerce has important benefits, it also has some drawbacks. Technical, payment, security and privacy drawbacks are discussed below.

A. **Technical drawbacks:** Knowledge in how to use the technology may be one of those barriers that affect both parties, seller and buyer, and the cost of the use of this technology, also the products displayed through the internet is not a perfect way to offer the products, in some cases most buyers prefer to buy tangible things [32].
B. **Lack of payment methods:** In most developing countries, there is a banking system, but the system lacks transparency and a systematic method of work, so most of these banks do not provide credit cards; hence this produces another problem in how to pay for these products through the Internet [33].
C. **Security and Privacy:** It might be the consumers perception of security and privacy, one of the most non-blockbuster consumers trust e-commerce [34].

2.9 E-commerce Barriers in Developing Countries

E-commerce barriers can be termed as those factors that constrain e-commerce, these factors include, individual, technological, environmental, and organizational factors, a detailed explanation of all of these factors are described in this section.

2.9.1 Individual Barriers

Most companies are directed by executive managers who are typically an owner of the organization [35]. There are many questions about individual managers and how they are performing their functions, it’s a vital side of enabling e-commerce in any organization. The following sub-sections, label managerial performance and individual characteristics of the manager that can affect e-commerce.

2.9.1.1 Managerial Characteristics

Managerial aspects are actually related to decision-making and selections of what the company should do, what financial commitments are required regarding the general direction of the company, whether the company going to gain new e-commerce infrastructure, whether or not the company should think about e-commerce, does the company have appreciation or non-appreciation of new technological and ICT developments. This may be predictable by the manager as he/she is responsible of all business activities within the company [36].

2.9.1.2 Level of Education

The educational level of the manager and staff may be one of those factors that affect the company to accept the concept of e-commerce or not, this may be a key factor in disrupting this role [37].

2.9.1.3 ICT and E-commerce Knowledge

These barriers may include the level of understanding of the manager and the staff of the nature of ICT and the concept of e-commerce. Improvement of the manager’s cultural level of the rapid development of information technology may contribute effectively towards the activation of e-commerce [38].

2.9.1.4 Cultural and Social Concerns

Some studies have indicated the existence of some barriers when moving from developing countries environment to developed countries, these barriers may be related to the traditions or social barriers of the managers themselves [38].

Amin Daneshmand (2012) [39], show that, among cultural and social factors in country like Iran, the priority of e-commerce implementation isn't identical due to the case in developing and undeveloped countries. IT skill takes very poor score and e-trust is also at the last row, therefore the government and also the companies operating within the business activities have to invest in special coaching programs. Finally, a modification of the law toward supporting e-commerce activities may be a key to increase e-trust.

Qianying Ding et. al (2012) [40], investigate people who used web for purchasing products and/or services within three months and perceiving the barriers as a result of this period, these barriers include and not limit to following, web skills, PC skills, and level of web usage.

In accordance with the results of correlation analysis, there is a correlation between the proportion of people that bought a good/ service over the net over the three months and the level of people with low level of using web skills, PC skills and the level of web usage, over twelve months. This analysis confirms that purchasing over the web in EU countries is subjective by the extent of individuals skills and therefore the level of perceived barriers.

2.9.2 Organizational Barriers

There are many factors that can be distinct from the environment and represent the organization itself. Typically what makes the company unique within the border of an organization, a set of these factors can motivate e-commerce which are highlighted in the following sub subsections.

2.9.2.1 Privacy and Security Concerns

Concerns such as privacy, security and trust are midst of the most serious issues that effect the success of e-commerce around the world [41]. According to Choudhury 2008 [42], privacy and security can be defined in two groups, guard of transactional data of the consumers and privacy of consumer information through the web. In various developing countries, privacy and security have the greatest influence on the activation of e-commerce in many companies [41].

2.9.2.2 Cost Implications and Financial Ability

Cost Implications and Financial Ability are the most important factors affecting e-commerce. Cost of technological service (ICT for e-commerce implementation) and consultancy services in addition to labor costs of experts, training fees, maintenance costs and payment for sustainability of such services and ICT, developed in line with the market need, are some of the examples. All of these factors are affecting the development of e-commerce [43].

Fichter (2002) [44] explored the property barriers related to ICT, particularly the environmental barriers. They accomplish two kinds of barriers, as first and second order barriers. The primary barriers are direct effects from use of non-renewable resources, venturesome substances, electronic waste, and greenhouse gas emissions [45]. The second group of barriers stems from applying the ICT, transferal regarding positive buyer surplus is the price too valuable for online buyer, or is the services minus any prices related to victimization of those online services, such as the service price of the customers profit derived from having the ability to consume a product or service for a worth, not up to the foremost that they will be willing to pay [46].

2.9.2.3 Organization Size

Organization size can affect the decision of activation of e-commerce within the company itself. Large sized companies have also many amount of resources that can be used positively to enable e-commerce, such as supply chain management (SCM) systems, Customer Relationship Management (CRM) system [47].

2.9.3 Technological Barriers

There is no doubt that ICT has the greatest influence in the process of e-commerce success; and the evolution of these techniques has contributed significantly to this success [48]. Some of the most important factors related with technological barriers are discussed below.

2.9.3.1 Internet Availability

In numerous developing nations, Internet availability importantly effects adoption of e-commerce. Even supposing that the Internet connectivity is available in the country, it is important whether or not it is suffering a lot of problems such as slow internet service and the high cost of service and lack of availability 24/7 days [48]. Another study made by Japhet E. Lawrence and Usman A. Tar (2011) [49], indicate that, in spite of Internet availability in most developing countries, most countries lack the infrastructure for the spread of the Internet widely. Despite the fact that the current Internet service in most developing countries is not appropriate for e-commerce, the Internet is considered an effective tool for e-commerce development.

2.9.3.2 Lack of Dependable Power Supply

Electric power is one of the most important factors in the progress of any nations. Despite the availability of electric power in many developing countries, continuous provide for this service is considered as the biggest barrier and of course this will effect the availability of e-commerce service as well as technical equipment and devices required for these services [48].

2.9.3.3 Technology Complexity

Sometimes the complexity of ICT facilities shift from the use of normal commerce to electronic commerce, this can be one of the reasons that affect the activation of e-commerce in general [50]. These complications of management issues such as transformation of the material, products and paper life to electronic life and the lack of electronic payment methods such as credit cards can be a good example [50].

2.9.4 Environmental Barriers

Internal and external environmental factors also influence some challenges to e-commerce [48], a brief assessment are listed below.

2.9.4.1 Political Instability

The political instability in developing countries, along with the lack of economic stability and in some cases a complete absence of any economic activity can impact factors that generally affect the business and particularly the activity of e-commerce, moreover, other factors related to human rights and trade freedom can also be some determinants in this category [48].

2.9.4.2 Positive Government Role

The government support of economic activity is also an important factor in activating the role of e-commerce and this support includes several forms, including the issuance of special laws for investor protection and the provision of appropriate labor, and provide tempting offers and facilitating policy for the investors [51].

2.9.4.3 Business Partner

An additional issue that effects e-commerce in developing countries is the business partner who are the consumers or suppliers. The presence of international partners has the desire to work or invest in developing markets within the framework of joint work that serve the country's economy, which will contribute significantly to accelerate confidence building and activating the experience, continues to associate the commerce electronic process [51].

2.9.4.4 The Value Chain

In developing countries, the relationship between the buyer and the seller may affect the e-commerce process itself, sometimes they preferred closed market because of the nature of their products such as clothing market [52]. There are also many other factors that may have a positive or negative impact in the e-commerce process, such as external economic pressures, organizational readiness and perceived advantages of the use of technology [51].

CHAPTER 3

IRAQ AS A CASE STUDY FOR E-COMMERCE

3.1 Introduction

The main objective of this study is to understand and evaluate the barriers of e-commerce in a developing country, Republic of Iraq. In addition, customer behavior towards e-commerce is also discussed within a perspective of a developing country. E-commerce materializes a giant of the horizons of tomorrow, and it guarantees to remodel industries and trade in ways that are not unreal, it will have an effect on our lives, for countless consumers, net users, producers and employees [53].

One of the main aim of e-commerce is a significant desirability to have it, it helps businesses in improving their internal management processes, customer relationship management and production. This has made e-commerce turn out to be a necessary part of business strategy also a powerful catalyst for economic development in a country such as Iraq. With rapidly rising of world economy, for developing nations the globalization became important; the worldwide GDP grows in the developed nations, however, customers have suffered from the expansion and development of e-commerce in developing economies [54]. Accordingly, the study of barriers in front of e-commerce in one of the developing countries, Republic of Iraq can help to overcome the difficulties and can be considered as a first step toward enabling advanced e-commerce.

3.2 Republic of Iraq

Republic of Iraq is a country that has deep history which stretches back thousands of years, many civilizations emerged throughout its long history. Geographically, it is a country with two great rivers, Tigris River and Euphrates River. Iraq is surrounded by Kuwait, by Saudi Arabia, and the Arab Gulf to the South; Turkey to the North; Syria and Jordan to the West and Iran to the East. The total population of the foreigners are around 170million, while Iraq has 31 million citizens, with annual inhabitants growing rate of (2.5%), most of the people are young, more than half of the population has age less than 20 years . There are also varying proportions of the population live in the villages and rural areas, but the majority of the population lives in big cities [55]. The map of Iraq is shown in Figure-1.

Figure 1 Map of Iraq [58]

Iraq is rich in natural resources and many of Iraq's resources are oil, sulphur, natural gas, iron, phosphate, bauxite, kaolin, sand, and gravel, and limestone. Iraq is separated into 18 cities. Baghdad is the capital city, also main cities consist of Mosul, Erbil and Basra. The distribution ratio of the population among the four major cities [56] is shown in Table-3.

City	Population in million
Baghdad	6.0
Mosul	1.8
Basrah	1.5
Erbil	1.2

Table 3 Four major cities of Iraq [56]

3.3 The Economy of Iraq

Iraq has a long trading history, deep commercial traditions and natural resources, including the world's largest demonstrated oil funds which place it second in the domain after Saudi Arabia which has conventionally providing about (95%) of external exchange incomes. The World Trade Organization (WTO) agreed in 12/2004 to open membership talks with Iraq. Iraq has been a WTO observer since 2/2004. In 2010, Baghdad signed agreements with both the World Bank and IMF for restricted assistance programs designed to help reinforce Iraq's economic organizations, and the population of the country is enjoying an increase in economic freedom for the first time in many decades.

Figure-2 shows Middle East and North Africa economies ranked in terms of doing Business, while Figure-3 shows how Iraq and comparative economies rank in terms of doing Business [57]. According to these figures, Iraq has a weak economy in performance terms, Iraq was 156 among 189 countries as shown in Figure-2. According to Figure-3, Iraq's score is the lowest when compared with other countries, while regional average is (59.23); Iraq's score is (50.36).

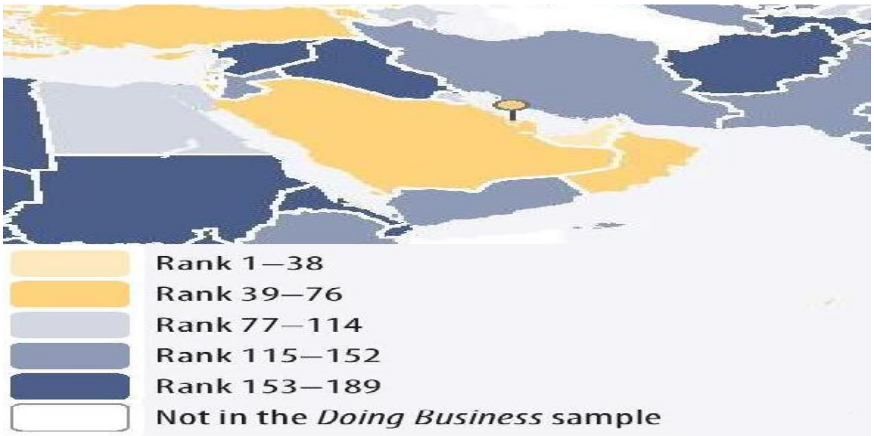

Figure 2 Middle East Economies Rank in terms of doing Business [57]

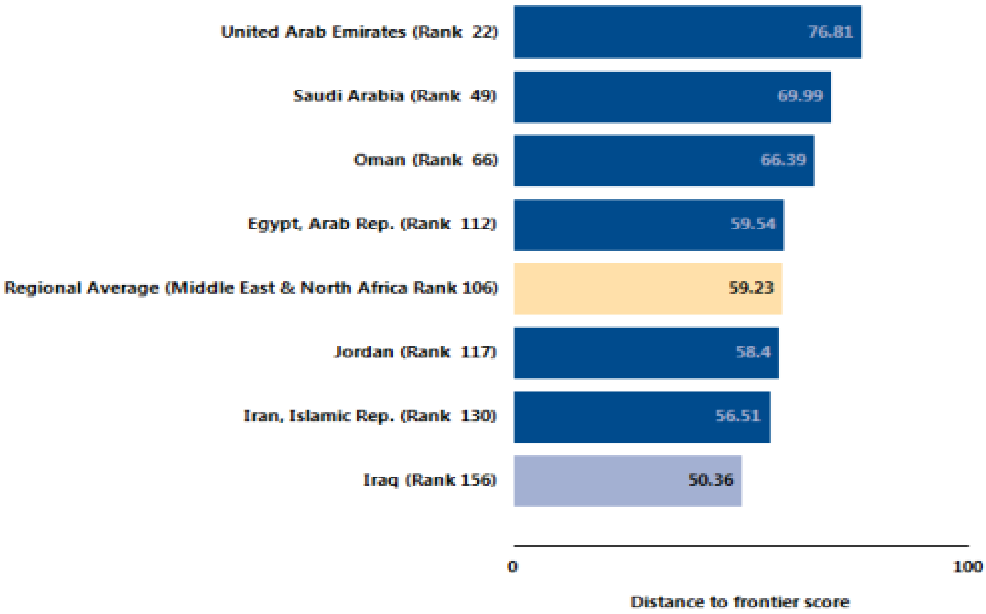

Figure 3 Comparative Economies Rank in terms of doing Business [57]

Figure-4 shows the comparative economies rank of trading across borders in Iraq, while Figure-5, Iraq and comparative economies rank of paying taxes is shown [57].

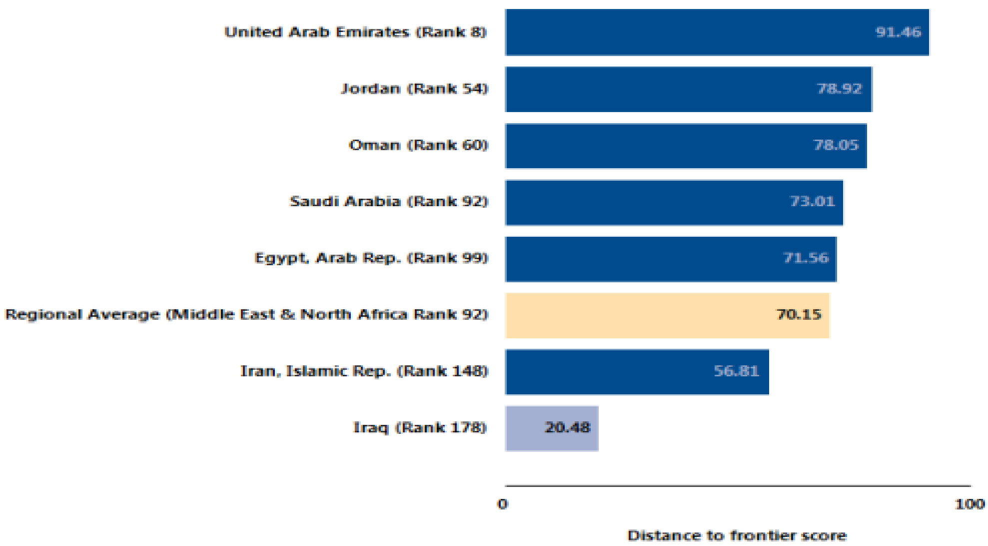

Figure 4 Comparative Economies Rank in terms of Trading Across Borders [57]

According to the above Figure-4, Iraq's score is lower than average when compared with other countries. While regional average is (70.15); Iraq's score is lowest among the comparative (20.48). According to the below Figure-5, Iraq's score for tax payments is higher than average, while regional average is (78.45); Iraq's score is (80.09).

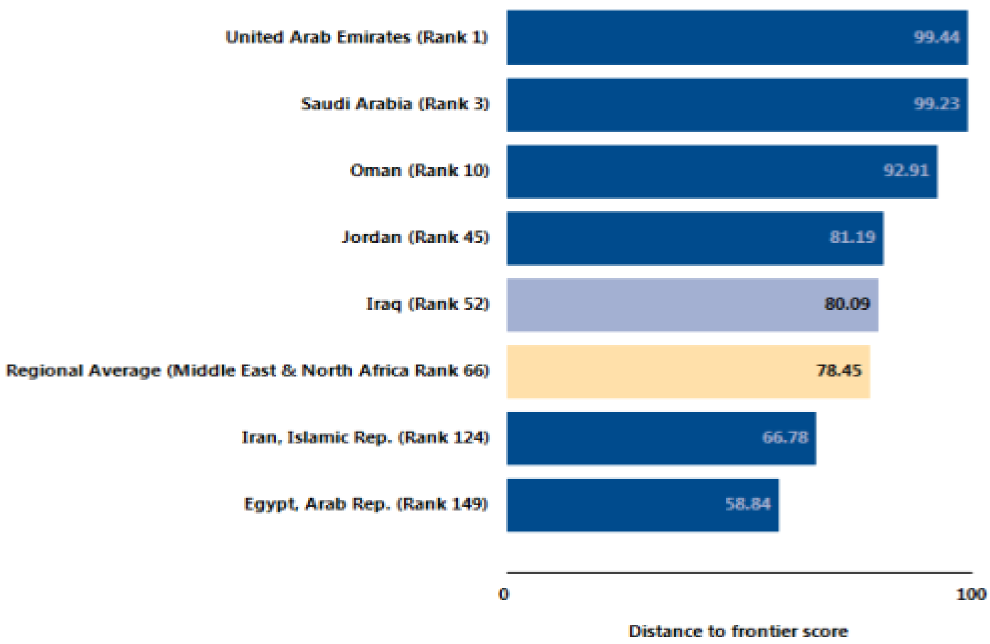

Figure 5 Comparative Economies Rank in terms of Tax Payments [57]

3.3.1 Banking and Finance

Iraq's banking system consists of 43 banks. In addition to the Central Bank, also there are nine Iraq banks with full Electronic Fund Transfer (EFT) service. Banks have almost 200 branches throughout the country, Table-4 shows the EFT Capable Banks, while Table-5 shows bank offer Credit/Debit Cards.

Name Of Bank	Bank website
Commercial Bank of Iraq	www.ahliunited.com
Bank of Baghdad	www.bankofbaghdad.org
Al Warka Investment Bank	www.warka-bank.com
Dar El-Salam Bank	www.desiraq.com
Trade Bank of Iraq	www.tbiraq.com
Ashur International Bank	www.ashurbank.com
Credit Bank of Iraq	www.kubba-group.net/creditbank
Iraqi Middle East Investment Bank	www.imeib.com
Tigris and Euphrates Bank	www.dfdi-bank.com
Commercial Bank of Iraq	www.ahliunited.com

Table 4 EFT Capable Banks [59]

BANK	MASTERCARD	VİSA
Bank of Baghdad	Yes	Yes
Commercial Bank of Iraq	Yes	No
Al Warka Investment Bank	Yes	No
Ashur International Bank	Yes	No
Trade Bank of Iraq	No	JP Morgan Visa

Table 5 Banks offering Credit/Debit Cards [59]

The Central Bank of Iraq (CBI) aims to reduce the use of cash in the country. Table-6 provides information about 5 countries' e-commerce rank. According to this table, Luxembourg ranks the first, while Turkey ranks 38, UAE ranks 66, Jordan ranks 95 and Iraq ranks 104 among 122 countries. As this indicates, e-commerce is poorly developed in Iraq [59].

Economy	Share of Population Have mail Delivery Services	Share of Individuals with credit card	Share of Individuals using Internet	Share of Servers per 1 million people	UNCTAD e-commerce Index Value	Rank
Luxembourg	100	72.4	95	99.3	91.7	1
Turkey	97	34.8	68	79.7	65.4	38
United Arab Emirates	0	30	85	79.8	48.7	66
Jordan	10	3.5	41	63	29.6	95
Iraq	65	1.7	7.1	26.6	25.1	104

Table 6 E-commerce Index [59]

3.3.2 Foreign Direct Investment

Investors who have already taken advantage of the benefit of being first into the market include the companies listed in the below Table-7 [58]. According to this table, most of the foreign investment is in banking, retailing, textiles, services, telecommunications, furniture, electricity generation, building and construction, industries.

Year	Company	Country of Origin	Industry
2003	Zain	Kuwait	Telecommunications
	Mesopotamia	UK	Oil and Gas
	Orascom	Egypt	Construction and Telecommunications
2006	Merchant Bridge (Lux)	Switzerland	Banking and Telecommunications industry
2007	Byblos Bank	Lebanon	Banking
2008	Lafarge Cements	France	Building and Construction
2009	City Centre	Kuwait	Furniture
2010	Home Istanbul	Turkey	Furniture
2011	Mango, DKNY, Timberland, Bossini, Geox, MEXX, Cacharel, Levi's, Springfield, US Polo and YKM	Multinational	Stores

Table 7 Foreign Investments in Iraq

3.3.3 Retail Sales

At the beginning of the year 2012, Carrefour French hypermarket for grocery shopping begin working in Iraq markets, the store begins its first hypermarket in Erbil's Family Mall. The store is the first of many Carrefour hypermarkets to open in partnership with the Erbil-based Darin Group, Majid Al Futtaim Retail's partners in Iraq. New Carrefour hypermarkets in the provinces of Suleimaniyah and Duhok are under construction and will open by 2017. With this store opening, Carrefour has become the second foreign hypermarket chain to enter the lucrative Iraqi markets. In November 2009, Kuwait-based City Centre opened in 13000-square-meter hypermarket at Majidi Mall in Erbil, which is considered first largest and the only foreign hypermarket chain in Iraq markets. In addition to Carrefour hypermarket and Home Istanbul (a Turkish retailer concentrates on home products and instruments), stores at Family Mall include Mango, DKNY, Timberland, Bossini, Geox, MEXX, Cacharel, Levi's, Springfield, US Polo, YKM. Total retail sales in the country are estimated to reach 57$ billion (2014) up from 48.8$ billion in 2011. The growth rate was 15% [57]. Retail sales are mostly base on traditional commerce, while most of those companies have e-commerce in different regions in the world, they do not have this service in Iraq. This is because most Iraqi buyers prefer to deal face-to-face, and there is a lack of efficient delivery system and security satiation.

3.3.4 Banking Industry

As discussed, Iraq's banking industry includes 43 local Banks, among them more than 10 are Islamic Banks, in addition there are 13 foreign banks. There are 9 Iraqi local Banks provide EFT services as mentioned above, while all the foreign banks have EFT services [59], Table-8 show foreign banks in Iraq.

Foreign Banks	Website	EFT Active
T.C Ziraat Bank A.S	www.ziraatbank.com.tr	Yes
Bank Melli Iran	www.bmi.ir	Yes
Byblos Bank	www.byblosbank.com	Yes
Intercontenntl Lebanon	www.ibl.com.lb	Yes
Al-Baraka Turkatilim Bankasi A.S.	www.albaraka.com.tr	Yes
Beirut Bank and Arabic Center	www.bbacbank.com	Yes
Vakif Bank	www.vakifbank.com.tr	Yes
Turkish İş Bank	www.isbank.iq	Yes
Parsian Bank	www.parsian-bank.com	Yes
Credit Libanais	www.creditlibanais.com.lb	Yes
Asia Bank	www.bankasya.com.tr	Yes
Banque Libano Francaise	www.eblf.com	Yes
Middle East and Africa Bank s.a.l	www.meabank.com	Yes

Table 8 Foreign banks operating in Iraq [59]

3.3.5 Telecommunication

There are two government organization that supervises telecommunication licensing in Iraq – the Communications and Media Commission (CMC) and the Ministry of Communications (MoC). Through the State Company for Internet Services (SCIS) (organizations belong to Ministry of Communications), businesses, government, and individuals can access the internet using DSL and dial-up internet.Although wired internet and data subscriptions have been growing in Iraq, a neglected backbone infrastructure has obstruct overgrowth. More frequently, connections are made utilizing Very Small Aperture Terminal (VSAT) satellite technology [60]. Iraq's internet markets still forming in the early stages and they are offering significant chances to provide internet services to Iraqis. This is emerging, since 2003 war. Most Internet users have depended on expensive VSAT, microwave links and Wifi hotspots from private companies, most of which are illegal. Furthermore, some private companies provide Internet services through cables leased from other private companies, but subscriptions are at very high prices and limited in view of to these services. As a result, broadband penetration in Iraq was negligible in 2010 [60]. In year 2011, the Iraq Telecommunications and Post Company, the incumbent fixed operator, announced two bre-to-the-home (FTTH) access network projects in Iraq. There is no current detailed data or recent population census, but according to estimates Internet penetration is around just (5%). The Iraqi government recognizes the importance of telecommunication industry and sees it as a strong growth engine of the Iraqi economy. It is estimated that most Iraqis (80% of the Iraqi population) own mobile phones, but only about (5%) of households have Internet Access. Finally, Iraq installed Fiber cable, approximately 60000 km.This cable is part of a regional cable system that will install to connect all of the countries in the Gulf, Qatar, UAE, Iran, Iraq, Kuwait, Bahrain, Oman and Saudi Arabia with Europe and Asia [60]. Figure-6 shows fiber cable around Iraq.

Figure 6 Fiber cable link to Iraq [60]

Because of the geographical location of Iraq, Iraq is a zone linking Asia and Europe, this will contribute to establish a strong ICT infrastructure in the future, which could be used for the benefit of many activities including e-commerce.

CHAPTER 4

RESEARCH RESULTS

4.1 E-commerce Barriers Evaluation for Iraq

In accordance to the research objective, quantitative methodology was used and a questionnaire was prepared, in order to understand the most important barriers of e-commerce in Iraq from the perspective of Iraq citizens. The questionnaire is divided into three main parts, it has an overall of 43 questions. The first part about demographic background of participants includes 5 questions, the second part consists of 12 questions about e-commerce usage and finally the last part is about the perception of e-commerce barriers which includes overall 26 questions. The questionnaire was prepared both online and as a printed copy, printed copies were distributed to the Iraq citizens living in Turkey and the weblink was e-mailed to the other participants living in Iraq (distributors among of all Iraqi provinces), The final sample includes 110 participants. Full version of the questionnaire form is included as Appendix-A. Table-9 show the distribution the number of questions according to different parts.

Question Groups	Number of Questions
Demographic questionnaires	5
E-commerce usage	12
Perception of e-commerce barriers	26
Total	**43**

Table 9 Distribution of Questions

The research sample includes participants with different age segments from different locations and different positions and the participants also have different educational backgrounds.

4.2 Demographic Profile

According to the research findings, the proportion of male participants (68%) is much more than females. Most of the participants are married (%72) and most of them are between 25-45 age, and most of them are full-time employed (57.8%). The participants have a high education level, more than half of the sample (56.4%) has a graduate degree. The demographic profile of the sample is summarized in Table-10.

	Total Partici.	Classifications	Number of Participants	Percentage%
Gender	110	Male	74	67.9
		Female	36	32.1
Marital status	104	Single	29	27.9
		Married	75	72.1
Age	105	Under 18	-	-
		18-25	9	8.6
		25-45	86	81.9
		45 or more	10	9.5
Education	94	PhD	15	16
		Master	38	40.4
		B.Sc.	38	40.4
		High school	3	3.2
		Primary	-	-
		Uneducated	-	-
Employment Status	102	Self employed	7	6.9
		Full time employed	59	57.8
		Part time employed	16	15.7
		Student	16	15.7
		Retired	1	1
		Not-working	2	2
		Other	1	1

Table 10 Demographic Profile of Participants

4.3 E-commerce Usage

E-commerce Usage Questions is an attempt to find out how the sample perceive the concept of e-commerce, and if they use it before, how and through what channel they paid their purchases. The findings indicate participants different interests and diversity of e-commerce knowledge Table-11 shows the results of e-commerce usage. Through the evaluation of the results, most of the participants (57.3%) state that they connected to the internet with e-mail but they did not use e-commerce. However, 36.9% of participants stated that they purchased goods or services via e-commerce. Only 5.8% of participants did not connect to the Internet and they have no e-mail. Also, 59.4% of participants state that they did not use e-commerce before, and 55.8% of them prefer e-banking as the best platform, moreover, most of the participants state that they use e-commerce sometimes (47.7%) and 55.3% of participants agree that e-commerce platforms help to improve the level of business transactions. 70.5% of them find e-commerce can help them to search for a specific product in Iraq, while 51% state that they used e-commerce for purchase of goods and 61% of them used cash to pay for this purchase, in addition, 14.3% of them has a high acceptance level for e-commerce in Iraq, while 43.1% of them state that they trust the service of e-commerce in Iraq.

	Total Partic.	**Selections**	**Num. Partic.**	**Percentage%**
The current e-commerce status	103	Not connected to the Internet, no e-mail.	6	5.8
		Connected to the Internet with e-mail but none e-commerce	59	57.3
		Online selling and purchasing of products and services including customer service	38	36.9
		Other	-	-
Use of e-commerce before	101	No	60	59.4
		Yes	41	40.6
		Other	-	-
Platform	43	E-banking (online banking, fund transfer, ATM service)	24	55.8
		Online Retail Stores Services	9	20.9
		Media Platform (like yahoo business)	6	14
		Other	4	9.3
Use of e-commerce platform	43	Frequently	9	20.5
		Sometimes	21	47.7
		Seldom	2	4.5

	Total Partic.	Selections	Num. Partic.	Percentage%
		Never	1	2.3
		When I don't have a choice	11	25
		Other	-	-
e-commerce platforms help improve the level of business transactions	103	Yes	57	55.3
		No	19	18.4
		No idea	27	26.2
e-commerce can help to search for a specific product in Iraq	105	Yes	74	70.5
		No	15	14.3
		Not sure	16	15.2
Purchase goods from Internet before	104	Yes	53	51
		No	51	49
Payment of the purchase	100	Cash	61	61
		Credit card	30	30
		Cheque	1	1
		Paypal	4	4
		Other Payment options	4	4
Level of acceptance e-commerce in Iraq	105	Strongly Agree	15	14.3
		Strongly Disagree	15	14.3
Trust in the service of e-commerce	102	Yes	44	43.1
		No	6	5.9
		Not sure	52	51

Table 11 Analysis of E-commerce Usage Questions

Two of the research questions were specifically directed to understand the factors that motivated the participants to purchase from e-commerce site and in addition the factors that influence e-commerce development in Iraq. Figure-7 shows the motivational factors that motivate the participants for e-commerce purchase.

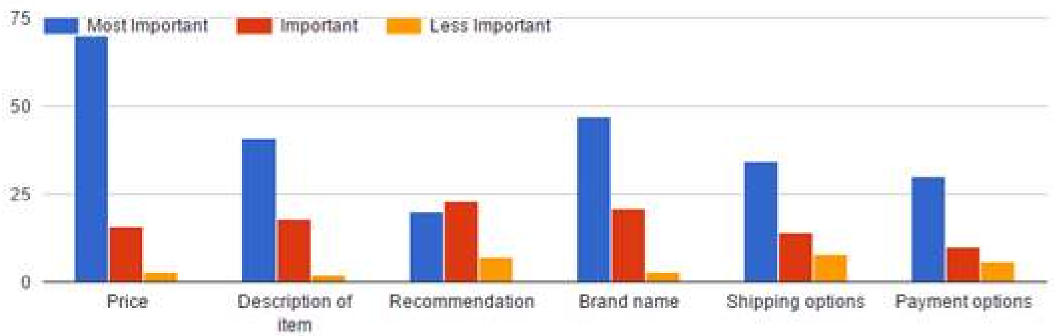

Figure 7 Motivational Factors for e-commerce

The figure above shows a close ratio between the factors for the participants motivation for e-commerce usage. While 75 (68.2%) of participants find the price as the most important factor that motivated them to purchase by e-commerce, less than 30 (27.3%) of participants find payment options as the most important motivational factor. Moreover, regarding the factors that influence e-commerce development in Iraq, more than 60 (54.5%)of participants stated that lack of technology and necessary skills are the most important factors that influence e-commerce development in Iraq, while less than 25 (22.7%) of participants stated that the legal framework is a less important factor that influence e-commerce development in Iraq.

4.4 Perception of E-commerce barriers

The barriers are divided into eight groups according to the subject of the research, a Likert scale was developed from 1 (strongly disagree) to 5 (strongly agree) in order to measure the perceptions of the participants for e-commerce barriers. Participants perceptions of technological barriers related with e-commerce is shown in Table-12.

23.2% of participants was strongly agree with that internet availability have a great impact to e-commerce. 23% of participants stated that they was strongly agree with that quality of internet speed and connectivity can effect the e-commerce, 18.2% of participants was stated that they strongly agree with that internet connection speed is insufficient for e-commerce transactions.

17.2% of the participants stated that they was strongly agree that the prevailing state of IT infrastructure is insufficient, 16.2% of participants strongly agree with that individuals expert knowledge of IT and e-commerce technologies in the labor market are insufficient.14% of participants stated that they was strongly agree with that telecommunication infrastructure is unreliable in Iraq, whereas 8.1% of participants was strongly agree with that there is the a need of to enable of e-commerce applications and services.

Technological Barriers	Total Partic.	Selections	Num. Partic.	Percentage%
Internet availability has a great impact to e-commerce in Iraq	99	Strongly Agree	23	23.2
		Strongly Disagree	9	9.1
Quality of internet speed and connectivity can effect the e-commerce in Iraq	100	Strongly Agree	23	23
		Strongly Disagree	9	9
Internet connection speed is insufficient for e-commerce transactions	99	Strongly Agree	18	18.2
		Strongly Disagree	12	12.1
Prevailing state of IT infrastructure is insufficient	99	Strongly Agree	17	17,2
		Strongly Disagree	11	11,11
Individuals expert knowledge of IT and e-commerce technologies in the labor market is insufficient.	99	Strongly Agree	16	16.2
		Strongly Disagree	5	5.1
Telecommunication infrastructure is unreliable	100	Strongly Agree	14	14
		Strongly Disagree	7	7
E-commerce applications and services are efficient for Iraq	99	Strongly Agree	8	8.1
		Strongly Disagree	6	6.1

Table 12 Technological Barriers for e-commerce

In terms of technological barriers, the results indicate that participants believe that internet availability and quality of internet speed and connectivity are the most two important technological barriers in Iraq Table–13. As shown in Table-13, the perception level of participants technological barriers is slightly above average (3.27).

Technological Barriers	Mean Value
Internet availability	3.42
Quality of internet speed and connectivity	3.40

Technological Barriers	Mean Value
Insufficiency of individuals expert knowledge of IT and e-commerce technologies in the labor market	3.38
Unreliable Telecommunication infrastructure	3.27
Insufficiency of Internet connection speed for e-commerce transactions	3.21
Insufficiency of Prevailing state of IT infrastructure	3.18
Insufficiency of e-commerce applications and services	3.04
Total	**3.27**

Table 13 Average Scores for Technological Barriers

Financial barriers to e-commerce is shown in Table-14. 26.8% of participants was strongly agree that infrastructure provided by financial institutions are not at a standard level of international markets, 26.5% of participants stated that they strongly agree that electronic payment facilities are insufficient. 21.4% of the participants strongly agree that infrastructure provided by financial institutions is insufficient.

Financial Barriers	Total Partic.	Selections	Num. Partic.	Percentage%
Infrastructure provided by financial institutions are not at standard levels of international markets	97	Strongly Agree	26	26.8
		Strongly Disagree	4	4.1
Electronic payment facilities are insufficient	98	Strongly Agree	26	26.5
		Strongly Disagree	3	3.1
Infrastructure provided by financial institutions is insufficient	98	Strongly Agree	21	21.4
		Strongly Disagree	3	3.1

Table 14 Financial Barriers for e-commerce

The results indicate that the perception level of participants financial barriers is more than average (3.59). According to the results, the most important financial barrier is insufficient of electronic payment facilities Table-15.

Financial Barriers	Mean Value
Insufficiency of electronic payment facilities	3.69
Infrastructure provided by financial institutions not to be at a standard level of international markets	3.59
Insufficiency of infrastructure provided by financial institutions	3.51
Total	**3.59**

Table 15 Average Scores for Financial Barriers

There is only one statement regarding the organizational barriers. According to the results, 38% of participants stated that they strongly agree that the level of knowledge among workers in the trade sector will contribute positively to the development of e-commerce Table-16.

Organizational Barriers	Total Partic.	Selections	Num. Partic.	Percentage%
Level of knowledge among workers in the trade sector will contribute positively to the development of e-commerce	99	Strongly Agree	38	38
		Strongly Disagree	1	1

Table 16 Organizational Barrier~~s~~ for e-commerce

Since the mean value for organizational barrier is close to 4, the perceptions of the participants for this barrier are high Table-17.

Organizational Barrier	Mean Value
Positive contribution of the level of knowledge among workers in the trade sector, in the development of e-commerce	3.83

Table 17 Average Score for Organizational Barrier

Perceptions of participants governmental/legal barriers to e-commerce is indicated in Table-18. 48% of participants strongly agree that government does not encourage e-commerce, 37.8% of participants strongly agree that the absence of political stability and security factor has a great impact on e-commerce. 36.5% of participants strongly agree that laws, policies and regulations are insufficient. 35.4% of participants stat that they strongly agree that information about e-commerce laws is not enough, 33.7% was strongly agree that e-commerce privacy is insufficient, and 28.9% was strongly agree with legal protection for internet buying and selling to be inadequate.

Governmental/Legal Barriers	Total Partic.	Selections	Num. Partic.	Percentage%
Government does not encourage e-commerce	98	Strongly Agree	47	48
		Strongly Disagree	5	5.1
The absence of political stability and security factor has a great impact on e-commerce	98	Strongly Agree	37	37.8
		Strongly Disagree	6	6.1
Laws, policies and regulations are insufficient	96	Strongly Agree	35	36.5
		Strongly Disagree	6	6.3
Information about e-commerce laws is not enough.	96	Strongly Agree	34	35.4
		Strongly Disagree	4	4.2
E-commerce privacy is insufficient	95	Strongly Agree	32	33.7
		Strongly Disagree	4	4.2
Legal protection for internet buying and selling is inadequate	97	Strongly Agree	28	28.9
		Strongly Disagree	4	4.1

Table 18 Governmental/Legal Barriers for e-commerce

According to the participants, most important governmental/legal barrier is the non-encouragement of e-commerce by the government; the next important one is the absence of political stability and security factor Table-19. The results indicate that the perception level of participants governmental/legal barriers is more than average (3.68).

Governmental / Legal Barriers	Mean Value
Non- encouragement of e-commerce by the government	3.83
Absence of political stability and security factor	3.76
Not enough information about e-commerce laws	3.65
Insufficient Laws, policies and regulations	3.63
Insufficient e-commerce privacy	3.61
Inadequate legal protection for internet buying and selling	3.59
Total	**3.68**

Table 19 Average Score for Governmental/Legal Barriers

Participants perceptions of Environmental Barriers are shown in Table-20. According to the results, 22.4% of participants strongly agree that the absence of a national product effect e-commerce, while 16.5% of participants strongly agree that the regional competition influence e-commerce in Iraq.

Environmental Barriers	Total Partic.	Selections	Num. Partic.	Percentage%
The absence of the national product effect e-commerce in Iraq	98	Strongly Agree	22	22.4
		Strongly Disagree	6	6.1
The regional competition influence e-commerce in Iraq	97	Strongly Agree	16	16.5
		Strongly Disagree	7	7.2

Table 20 Environmental Barriers for e-commerce

The participant's level of perception of environmental barriers is not too high; it is slightly above average (3.34). According to the results, the most important environmental barrier is the absence of a national product Table-21.

Environmental Barriers	Mean Value
The absence of a national product	3.46
Influence of the regional competition	3.21
Total	**3.34**

Table 21 Average Score for Environmental Barriers

There is only one statement regarding the behavioral barriers. According to the results, 21.4% of participants strongly agree with the need of training programs about e-commerce in Iraq Table-22.

Behavioral Barriers	**Total Partic.**	**Selections**	**Num. Partic.**	**Percentage%**
The need of training programs about e-commerce in Iraq	98	Strongly Agree	21	21.4
		Strongly Disagree	5	5.1

Table 22 Behavioral Barriers for e-commerce

As it is shown in Table-23, the participants perceptions of behavioral barrier are above average (3.42).

Behavioral Barrier	**Mean Value**
Need for Training programs	3.42

Table 23 Average Score for Behavioral Barrier

Participants perceptions of cultural barriers for e-commerce, is shown in Table-24. According to the results, 37.9% of participants strongly agree that customers prefer face-to-face transactions, while 30.2% of participants strongly agree that e-commerce knowledge is less in Iraq. 23.2%of participants strongly agree that customers do not trust e-commerce in Iraq and 19.8% of participants strongly agree in existence of local language websites in Iraq, and 15.8% of participants strongly agree with inadequacy of computer literacy.

Cultural Barriers	**Total Partic.**	**Selections**	**Num. Partic.**	**Percentage%**
Customers prefer face-to-face transactions	95	Strongly Agree	36	37.9
		Strongly Disagree	4	4.2
E-commerce knowledge is less	96	Strongly Agree	29	30.2
		Strongly Disagree	-	-
Customers do not trust e-commerce	95	Strongly Agree	22	23.2

Cultural Barriers	Total Partic.	Selections	Num. Partic.	Percentage%
		Strongly Disagree	2	2.1
In existence of local language websites	96	Strongly Agree	19	19.8
		Strongly Disagree	5	5.2
Computer literacy is not adequate	95	Strongly Agree	15	15.8
		Strongly Disagree	5	5.3

Table 24 Cultural Barriers for e-commerce

According to the participants, two most important cultural barriers are related to less e-commerce knowledge and preference of customer's face-to-face transactions. These two barriers average scores are among the highest scores of all barriers. In addition, the results indicate that the perception level of participants cultural barriers is more than average (3.51). Show in Table-25

Cultural Barriers	Mean Value
E-commerce knowledge is less	3.75
Customers prefer face-to-face transactions	3.71
Customers do not trust e-commerce	3.53
Inexistence of Local language websites	3.35
Computer literacy is not adequate	3.22
Total	**3.51**

Table 25 Average Score for Cultural Barriers

Participants perceptions of logistic barrier for e-commerce is shown in Table-26. 17.7% of participants strongly agree with the need of an efficient delivery system for e-commerce in Iraq.

Logistical Barrier	Total Partic.	Selections	Num. Partic.	Percentage%
The need of efficient delivery system for e-commerce in Iraq	96	Strongly Agree	17	17.7
		Strongly Disagree	4	4.2

Table 26 Logistic Barrier for e-commerce

As it is shown in Table-27, the perceptions of logistic barrier is above average (3.54).

Logistical Barrier	Mean Value
Delivery System	3.54

Table 27 Average Score for Logistic Barrier

With a scale of one to five and after calculation of the mean value the results show the most important barriers perceived by the participants. These barriers are the major reason, which stands in front of the development e-commerce in Iraq. According to the results, the most important barriers facing e-commerce in Iraq are the organizational, governmental/legal and financial barriers. The results also show that technological barriers have the lowest score. Table-28 show the Average Score for e-commerce Barriers.

Barriers	Mean Value
Organizational	3.83
Governmental/Legal Barriers	3.68
Financial	3.59
Logistical Barriers	3.54
Cultural Barriers	3.51
Behavioral Barriers	3.42
Environmental Barriers	3.34
Technological	3.27

Table 28 Average Score for E-commerce Barriers

CHAPTER 5

CONCLUSION AND FUTURE WORK

5.1 Conclusion

Middle-East economic region is a fast emerging region for proceeding of e-commerce, but e-commerce is still in its primary phases in Iraq. Iraq's economy is typically reliant on oil profits and it is necessary to expand the economic activity, to guarantee sustainability in the future. Most developing economies have many barriers for e-commerce in terms of service distributions, connectivity, readiness for online purchases, and lack of well-organized banking system, in addition to the financial and political barriers. In this study, barriers for e-commerce development in Iraq was measured according to the perceptions of Iraq citizens. A questionnaire was developed and 110 people answered the questions via printed copies or through e-mail. The questionnaire consists of three main parts, the first part consists the demographic questions to determine the demographic profile of the participants. The second part is about the participants level of e-commerce usage, and the third part is about their perceptions of e-commerce barriers. According to the results, most of the participants did not use e-commerce before. Among the ones that stated to use e-commerce, most used e banking as e-commerce platform. The ones that stated to use the services of online retail stores are less. Although most of the participants did not use e-commerce before, they believe that e-commerce platforms help to improve the level of business transactions. In addition, most of the participants believe that e-commerce can help to search for a specific product in Iraq. Most of the participants used either cash or credit cards to pay for their online purchase. Most of the participants state that they are not sure to trust to e-commerce services. According to most of the participants, the highest motivational factor for e-commerce purchases is the price; brand name ranks second most important motivational factor.

As another result of the study, participants' perceptions of barriers for e-commerce is evaluated. According to the results, the highest perceived barrier for e-commerce is related to organizational barriers, whereas governmental/legal barriers ranks second, and financial barriers ranks third among the highest perceived barriers of e-commerce. Therefore, in order to facilitate e-commerce in Iraq, the organizations should educate their employees. On the other hand, government should take actions to encourage e-commerce, necessary laws and regulations should be enacted. In addition, political instability and security is perceived to be an important barrier for the development of e-commerce. With the development of political security in the country, people could be more active in using e-commerce.

The results also show that technological barriers have the lowest score, indicating that the participants do not perceive state of the technology as a barrier for e-commerce. However, this does not mean that this barrier is not important for the activation of e-commerce in Iraq; ICT is changing the face of international business by permitting many companies to create different type of commerce in terms of online commerce. Moreover, it opens a new business, these new capabilities include many activities such as sourcing customer relations and online managing, e-commerce contributions in globalization of business, and it has many benefits in the context of geography problems and time zones. Now, it is imaginable to shape an international business from scratch using e-commerce. Therefore, it is also necessary for companies, which will develop e-commerce to invest in developing technologies. As the results indicate, in order to increase the low-level usage of e-commerce, there are many issues to be undertaken by the companies, by the government and by the financial intermediaries. Overcoming these barriers is a great opportunity for the development of electronic commerce in Iraq.

5.2 Limitation of the Study and Future Research

Although, as far as to our knowledge, this study is the first to address the barriers of e-commerce in Iraq, it has some important limitations. By addressing these limitations in the future research, understanding of the subject will be developed.

The most important limitation of this research is that it only includes the perceptions of 110 people. Therefore, in the future research, the sample should be extended to cover the perceptions of people with different backgrounds. In addition, the research only covers the perceptions of the citizens, in order to have a better understanding future research could be developed to include the views of the managers of the companies and financial institutions and government authorities. On the other hand, comparison of e-commerce usage and barriers of e-commerce with other developing countries, could also be undertaken in the future research.

5.3 Suggestions

ICT is constantly evolving and change rapidly to be better than ever, this will contribute effectively in the development of many other sectors overall of e-commerce. Through this research, the most important barriers that may be the reason for Iraq not to depend on e-commerce are identified. Because of the difficulty of these challenges, some recommendations that may contribute positively to overcome these barriers are provided below:

- Raise up the user confidence in e-commerce through the creation of many outreach programs and many advertising programs.
- More serious steps should be taken in raising educational level of the user.
- The level of knowledge and creation of effective laws must be developed by decision-makers in order to facilitate the acceptance of e-commerce.
- Banking system must be developed to provide more options for consumers in how they can make online payment for purchases.
- Private sector should take more attention in Iraq in order to provide a supportive environment for the e-commerce sector.
- A lot of attention must be considered on the technical infrastructure side and development, in this area should take practical steps in order to provide a suitable environment for e-commerce in Iraq.
- Iraq national products must have more support.

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APPENDIX A

E-COMMERCE BARRIERS EVALUATION FORM

E-commerce barriers evaluation for Iraq

This questionnaire is prepared regarding my Master's Degree project. Answering the questionnaire will only take 5-10 minutes of your time; meanwhile I am sure the results which will be obtained by this questionnaire will have an important positive effect on evaluation E-commerce in Iraq . Since the data obtained from the survey will be used for scientific objectives, there is no need for your identity information. It will be highly appreciated if you answer all the questions without leaving any blanks. Thank you for your contribution.

Department of Information Technology Program Graduate Student Alaa Hoshi
e-mail: alaa_swe@Yahoo.com

1. **Gender**

   Mark only one oval.

   - ◯ Male
   - ◯ Female

2. **Marital status**

   Mark only one oval.

   - ◯ Single
   - ◯ -Married

3. **Age group**

   Mark only one oval.

   - ◯ Under 18
   - ◯ 18 - 25
   - ◯ 25 - 45
   - ◯ 45 or more

4. **Education**

   Mark only one oval.

   - ◯ PhD
   - ◯ Master
   - ◯ B.Sc
   - ◯ High school
   - ◯ Primary
   - ◯ Uneducated

5. **Employment Status**
Mark only one oval.

- Self employed
- Full time employed
- Part time employed
- Student
- Retired
- not-working
- other

E-commerce barriers evaluation for Iraq

6. **Which one of the following best describes your current e-commerce status? Please choose only one option.**
Mark only one oval.

- Not connected to the Internet, no e-mail.
- Connected to the Internet with e-mail but none e-commerce
- Online selling and purchasing of products and services including customer service
- Other: ____________________

7. **Did you use e-commerce before?**
Mark only one oval.

- Yes *Skip to question 8.*
- No *Skip to question 10.*
- Other: ____________________

E-commerce barriers evaluation For Iraq

8. **Which platform do you generally use?**
Mark only one oval.

- E-banking (online banking, fund transfer, ATM service)
- Online Retail Stores Services
- Media Platform (like yahoo business)
- Other: ____________________

9. **How often do you use this e-commerce platform?**
Mark only one oval.

- Frequently
- Sometimes
- Seldom
- Never
- When I don't have a choice
- Other: ____________________

10. **Has e-commerce platforms been able to help improve your level of business transactions?**

Mark only one oval.

- Yes
- No
- No idea

11. **Do you think that e-commerce can help you search for a specific product in Iraq?**

Mark only one oval.

- Yes
- No
- Not sure

12. **Did you purchase goods from Internet before?**

Mark only one oval.

- Yes
- No

13. **How do you pay your purchase?**

Mark only one oval.

- Cash
- Credit card
- Cheque
- Paypal
- Other: ____________________

14. **What factors motivated you to purchase from e-commerce site?(Pleas chose at least three options)**

Mark only one oval per row.

	Most Important	Important	Less Important
Price	◯	◯	◯
Description of item	◯	◯	◯
Recommendation	◯	◯	◯
Brand name	◯	◯	◯
Shipping options	◯	◯	◯
Payment options	◯	◯	◯

15. **What is yours level of acceptance e-commerce in Iraq?**
Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

16. **Did you trust the service of e-commerce ?**
Check all that apply.

- [ ] Yes
- [ ] No
- [ ] Not sure

17. **Which of the below is influence e-commerce development in Iraq ? (Pleas choose at least three options)**
Mark only one oval per row.

	Most Important	Important	Less Important
Lack of Technology and necessary skills	◯	◯	◯
Problematic to receive the ordered goods at home	◯	◯	◯
Worried about giving personal details over the Internet	◯	◯	◯
E-commerce doesn't fit with the way we do business	◯	◯	◯
Absence of mail-culture	◯	◯	◯
Failure to protect consumers by not implementing rules and regulations	◯	◯	◯
The absence of e-commerce shopping culture	◯	◯	◯
Lack of government fund to activate	◯	◯	◯
Financial intuition infrastructure, Plastic money	◯	◯	◯
Legal framework	◯	◯	◯
Other:	◯	◯	◯

What Do you think about below statements

18. **Prevailing state of IT infrastructure is insufficient to encourage and sustain e-commerce growth**
Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

19. **The quality of internet providers in terms of speed and connectivity influence the process**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

20. **Telecommunication infrastructure is unreliable**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

21. **High quality e-commerce applications and services are available at increasingly affordable rates.**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

22. **Current internet connection speed is insufficient for e-commerce transactions**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

23. **Internet connection is available 24 hours each day**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

24. **Individuals with expert knowledge of IT and e-commerce technologies in the labor market is insufficient.**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

25. **Infrastructure (needed for online transactions) provided by financial institutions are insufficient**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

26. **Infrastructure (needed for online transactions) provided by financial institutions are not at standard level of international markets**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

27. **Electronic payment facilities are insufficient**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

28. **Improving the level of knowledge and increase the electronic culture among workers in the trade sector will contribute positively in the development of electronic commerce in Iraq?**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

29. **Government is not taking sufficient steps to encourage e-commerce**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

30. **Laws, policies and regulations in place do not provide security and assistance to online buyers and sellers**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

31. **Legal protection for internet buying and selling is inadequate**
Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

32. **Information about e-commerce privacy and data protection law are insufficient.**
Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

33. **Information about e-commerce laws and regulations from the government and chamber of commerce is not enough.**
Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

34. **The absence of political stability and security factor may reduce the chances of the success of electronic commerce in Iraq?**
Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

35. **The absence of the national product is one of the important factors in the pre-activation of e-commerce?**
Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

36. **The regional competition contributed to the decline in e-commerce in Iraq?**
Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

37. **The provision of promotional offers and training programs on e-commerce will be reflected positively on the users interact?**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	⬭	⬭	⬭	⬭	⬭	Strongly Agree

38. **Customers prefer face-to-face transactions**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	⬭	⬭	⬭	⬭	⬭	Strongly Agree

39. **Computer literacy is not adequate**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	⬭	⬭	⬭	⬭	⬭	Strongly Agree

40. **E-commerce knowledge is less**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	⬭	⬭	⬭	⬭	⬭	Strongly Agree

41. **Customers do not trust e-commerce**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	⬭	⬭	⬭	⬭	⬭	Strongly Agree

42. **In existence of Local language websites**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

43. **Ineffective and unreliable domestic and international delivery system**

Mark only one oval.

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

APPENDIX B

CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name: Alaa Rishek HOSHI

Date and Place of Birth: 05 June 1978, Baghdad

Marital Status: Married

Phone: 0535 432 22 23 Turkey

0770 055 57 77 Iraq

Email: alaa_swe@yahoo.com

EDUCATION

Degree	Institution	Year of Graduation
M.Sc.	Çankaya University, Mathematics and Computer Science Ankara, Turkey	2016
PGD Higher Diploma	Iraqi Commission for Computers & Informatics, Informatics Institute for postgraduate Studies Baghdad , Iraq	2010
B.Sc.	Al-Rafidain Univ., Software Engineering Science Baghdad , Iraq	2001
High School	Sadam High School Baghdad , Iraq	1996

WORK EXPERIENCE

Year	Place	Enrollment
2006- Present	Iraqi Federal Board of Supreme Audit	Assistant programmer

LANGUAGES

Native Arabic, Advanced English, Beginner Turkish

HOBBIES

FootBall, Travel, Swimming, Fitness, Movies