The Role of E-Commerce on the Reduction of Poverty and Increase of Welfare

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ABSTRACT

The emergence of information technology has brought about new hopes of development for poor economies. Today, e-commerce as a new branch of IT has made crucial revolutions in business. E-Commerce has had some important results for financial activists; moreover, it is very influential on financial and commercial sections and makes some advantages. In fact, in developed countries, e-commerce is the main axis of financial developments and it could reduce costs, increase productivity, and finally increase the financial growth. Today, it is a belief that e-commerce could improve life quality more than industrializing process. This research will study the role of e-commerce on the reduction of poverty and increase of families’ welfare; therefore, it studies challenges and barriers of e-commerce development in Iran.

KEYWORDS: e-commerce, Welfare, development, communication technology, poverty.

1. INTRODUCTION

In 90 decade, two vital revolutions happened. First, globalization revolution, and second, information and communication revolution and the result of these two revolutions were the phenomena of e-commerce. In fact, E-commerce made a better opportunity for companies and industries to increase their productivity. Products and services also found a better chance to emerge, and then the result was that productivity arrived at an increasing process in finance and it decreased poverty in societies and increased welfare for families.

E-commerce has had an evolutionary process: its incipient stages were in the form of data electronic transaction, but its quality was not at the same level of recent transactions. Modern e-commerce includes two subjects, one is EBD and the other is Internet. Nowadays e-commerce is not limited to data electronic transaction, it has a greater realm, and the emergence of internet has had a crucial effect on its development.

New principles of economy has been created, then it has been linked to global economy through which international transactions of goods, services and properties increased and then it has been linked to information and communication revolution as well. Therefore, in this new economy, just learning is not enough. It must find new data and have creativity to keep its superiority. The goodness of this period is that inventions and creativities are not monopolistic then in a short period this new economy could change the whole global economy and lead to its improvement, and consequently it increases productivity in macroeconomic and microeconomic measurements. It increases the welfare for all people as well.

Therefore, in the communication age, it is no doubt that all countries have noticed the role of information and communication to improve productivity, increase welfare and decrease poverty in all domains. Today, e-commerce is the main axis of financial developments and it could reduce costs, increase productivity, and finally increase financial growth. During the recent years, the effect of information technology on industrialized countries and even recently industrialized countries is obvious. A revolution based on information and communication technology has been shaped and with the passage of time it will accelerate the process of development in most of the countries, therefore, in this new period, new information and communication technology has influenced all aspects of mankind’s life.

Background

Lots of researches have been carried out on the issue of barriers to development of e-commerce in developed countries; however, in Iran this issue as a scientific research has been neglected.

Based on a research, one of the major barriers to e-commerce in Iran is that in an enterprise different mechanized systems are separated from each other. For instance, it may have a mechanized production section, but it prints the information and gives it to the accounting section or to the warehouse. Then the accounting section or the warehouse needs to enter the information to its system with spending time and possibility of making errors, because there is no corporation or integration among the sections. In such a case, the existence of separate mechanized sections in an enterprise makes no development (Taqavi Nematalah, 1381).

Another matter mentioned in this research was about the culture of using credit cards in Iran which is based on absolute trust between the exporter and user of the credit card. For instance, if a card owner claims that someone has
abused his card and has purchased some goods and services without his awareness, the card exporter will accept his claim without suspecting him. Anyhow, the card exporter charges the users for offering him the services. In a newspaper it was also mentioned that there is no reason to move toward e-commerce or any other electronic phenomenon in Iran, until companies and individuals start bargaining for buying a good and time has the least value for them (Alavi Elham, 1381).

The first international conference on information and knowledge technology was held in IRIB conference saloon with the support and efforts of IT and computer engineering department of industrial university of Amir Kabir. In this conference this matter was mentioned that in our country the development of e-commerce technology does happen very slowly and the reasons is lack of juridical fields for using e-commerce, such as lack of electronic documents and signatures, lack of systems of electronic funds transitions, lack of central e-commerce network and relevant hardware and software in Iran, lack of awareness of firms of e-commerce, and finally lack of culture and knowledge about using internet and e-commerce. It was also mentioned that if law of e-commerce was approved soon, there would be hope to develop e-commerce, foreign trade and the fourth development plan dependent on exports in Iran.

EID in 2000 has ranked 60 countries from the viewpoint of electronic commerce development. This ranking shows the degree and the easiness of accessibility to e-commerce in the countries. Two indicators of business environment and communication have been used in this ranking. Business environment has 70 criteria, including economic extensity, political stability, controlling environment, tax policies and the amount of business and investment freedom, based on this indicator the grade of Iran is 3 out of 10, and its rank is 59. The scientific educational journal (Tadbir) in No. 145 says” Communication is another indicator of this ranking and it includes the telephone network extensity, the accessibility to internet which depends on connection costs, literacy level, and so forth. Based on this indicator Iran’s grade is 3 out of 10 and its rank is 56. Then based on two of the indicators, Iran’s rank among other countries is 58 out of 60.”

**Main body**

In Iran, information and communication technology has direct influence on decreasing costs, improving people’s lives, improving employment condition, increasing welfare for all and increasing job opportunities, therefore, development of this technology and providing basic needs for developing financial growth of country are necessary. This issue has been studied in the fourth development plan of the government; moreover it has been studied by Islamic parliament as an important criterion of financial development in the fifth plan. Although in most of the countries the amount of usage of this technology is a vital criterion of development, in Iran, because of some challenges, this technology has not been grown as much as possible. Now the question is whether the fifth development plan will provide a good condition to decrease poverty among people and increase families’ welfare as well via information and communication technology.

Many of economists use two elements of wealth and income to divide countries into rich countries and poor countries. But today, there is the third element for this division, the element of information and communication. Therefore, countries with less information are in the lower ranks. The planners of Iran pay attention to this element. They try to make a proper developmental plan to arrive at a strategy for information and communication technology, deputy minister of communication and planning of Iran also said that in the fifth development plan which has been represented to the Islamic parliament, there were 23 articles to develop information and communication technology. The study of this plan reveals the government attempts to develop e-commerce, decrease paper documents and offer electronic services. Therefore, in the fifth development plan, electronic services have been predicted and until the end of this plan, 70 percent of government services to people would be offered to customers electronically.

E-commerce as a branch of information technology has made crucial changes in business. Development of e-commerce has important consequences for financial activists and it has been very influential on the financial and commercial domains, it has also decreased poverty and increased welfare for all people. Therefore, the growth of business markets, decrease of costs, improvement of supply chain, omission of local and temporal limitations, providing new models for employment, increasing the quick access to market and finally the increase of welfare and financial and social development are all the results of e-commerce. Many problems of traditional marketing have been solved and new opportunities for employment have been revealed. Unfortunately, because of changes in the world, always predictions about potential of e-commerce has been less than the real capacity of it, and certainly with increase of awareness of financial activists, the speed of e-commerce development will also increase. The development of e-commerce capacity, the usage of it by companies and financial Sections, and its gradual acceptance by customers demonstrates its potential to develop commerce and economy of Iran. Then, it is vital to try hard to use it in financial activities. (Sanaye Ali, 2002)

**Electronic commerce**

Different definitions have been offered for electronic commerce and most of them has been based on previous experiences about e-commerce uses. In 1997, European commission represented a definition of e-commerce which declares that e-commerce is based on processing and transferring electronic data including text, sound and image. E-commerce includes different activities such as electronic transactions of goods and services, instant delivery of digital demands, electronic funds transfer, electronic trading transactions, electronic bill of loading, commercial designs, direct marketing and offering services after sale.

Based on definition of Ministry of Industry and Trade of Japan, e-commerce is not limited to several companies anymore, now it includes many of customers, moreover, it is not only transferring data related to taking or giving orders, it
also includes public commercial activities such as advertising, negotiations, contracts and settlement of credits. In other words, e-commerce is commerce without paper. In a nutshell, e-commerce encompasses goods, services and information transactions via computer networks especially internet. (Naghshineh, 2007)

Electronic commerce means doing all activities of individuals and companies in an electronic environment, so that, all activities or part of them would be done through computer networks, especially internet.

Tourban is one of the experts in the field of e-commerce; In 2004 he represented his definition of e-commerce which includes concepts such as direct marketing, job search, on line banking, auctions, e-government, and mobile commerce. Tourban believes that this sort of commerce includes commercial partners in electronic markets, supportive services, marketing, advertising, and government policies on taxes, regulations and technical standards. In fact, e-commerce could be defined from different viewpoints, such as communication perspective which includes goods delivery, information or services, or paying via computer networks, cell phones or even TVs.

From processing viewpoint, e-commerce means electronically doing working processes via network, and replacing physical processes with information. From services viewpoint, it is a means to announce demands of government, companies, customers, and managers along with reduction of costs in presenting services, increasing speed of services and improving services quality. From training perspective it means providing on line education opportunities and education opportunities at high schools, universities and organizations, and finally from the perspective of society, e-commerce provides this opportunity for members of a society to learn better and work together. Therefore, e-commerce includes a variety range of concepts and applications.

The position of e-commerce in Iran

Iran is a young country in the field of electronic business and it has a long way to arrive at a satisfactory level of success in this field. The emergence of this new technology reveals new needs for processing and transacting data, tools and so forth. To meet these needs Iran has some plans.

In Iran, usually universties use internet to do research activities, in cities its usage is limited and users take advantage of internet for accessing the remote telephone or similar usages.

Now the capability of e-commerce in Iran is about 2/7 percent of Gross Domestic Product. These interactions are usually related to electronic education, electronic tickets, payment of governmental services, purchase of goods and services by consumers, and documents transactions. In order to improve awareness of real leaders of e-commerce activities, commercial ministry has offered training packages to managers of big and small companies, governmental managers, media, managers and experts of private companies of all cities of Iran. It has been said that the amount of on line car sales in September of 2010 equals the whole car sale of 2007. Moreover, evidences show a developmental process in the usage of e-commerce in Iran, it is because of development of activities such as using fuel cards, paying government employees’ salaries via bank cards which have familiarized people with e-commerce applications and then these activities have brought about welfare for families.(Feizi Kamran, 1999)

E-commerce and new economy versus traditional economy

Two important revolutions, globalization and information technology led to formalization with a new phenomenon called new economy or electric economy or digital economy in 1990. In fact, the result of development of two revolutions has been digital economy. On one hand, information technology provides this opportunity for financial institutions to have more productivity, and consequently to increase the whole financial productivity and welfare. On the other hand, globalization idea has made measurements and more development in production factors and finance. The result was that, the process of financial activities got easier and they found increasing flourishing.

In traditional economy, “centralization” was an important issue and it was considered as a good criterion, while in new economy it is not so, then they have different economic effects. In traditional economy, the economic efficiency is constant, while in new economy it is increasing. In traditional economy, prices increase, but in new economy prices decline. In traditional economy,” firm” is the basis of value maximization, while in new economy net works are the basis of it. Traditional economy has linear growth, and is based on machines; however, new technology has exponential growth and it is focused on humans. In other words, market has been replaced with virtual networks. In this economy with these characteristics we need to find a “core”, which acts automatically and organizes the transactions across the networks. In other words, in the body of electronic economy there is a central part, if we focus on it, we can invest in it and develop it to see its effective results as well.

E-commerce services

Researches show that the opportunity to represent 27000 electronic services to Iranian people is available, while in developed states of the world 154000 electronic services are offered to civilians. However, the majority of Iranians still do not have information about development of information and communication technology (ICT). The experts of this field believe that people’s lack of knowledge and lack of investment in e-commerce are the real barriers to the development of e-commerce.

The role of e-commerce in gross product of many countries reveals the importance of e-commerce. Nowadays it is a necessity for families. Since the aim of information technology is to provide managing information and needed knowledge for doing works, then its role it meeting these needs must be clarified for the planners and managers of Iran. The
Information technology has increased the information both theoretically and practically, through providing public facilities, it also has decreased limitations of e-commerce. It is reasonable to say that e-commerce has facilitated the opportunity to have interactions and it has decreased the prices of goods and services. A person is able to buy a good through e-commerce, while he can see all the characteristics, advantages, and price of that good. Moreover, he can compare it with other goods; the result is that he would be satisfied with his purchase. With the passage of time, e-commerce will be clarified and provide families’ welfare and also will be one of the needed conditions for perfect competition. In the economics, perfect completion is the best kind of marketing, and e-commerce is taking traditional markets toward this perfect competition. This is the best advantage of e-commerce; therefore, it will take e-commerce toward perfection. (Sahebi Barat Ali, 2004)

Now the question is whether e-commerce and financial growth along with information and communication technology could decrease poverty? Based on researches done on the reasons of poverty, it has been shown that poverty depends on factors such as illiteracy, and property ownership. Information and communication technology is a solution for decreasing poverty and injustice in high levels, moreover, based on statistical information of Birdsall institution in 2000, digital economy is able to fight against poverty, especially in countries suffering from organized poverty, generally these countries cannot take advantage of e-commerce. A research done on the effects of information and communication technology on poverty in Vietnam has shown that e-commerce has had financial advantages for Vietnam and it has also decreased poverty. (Thoburn, 2002)

In fact, poverty is the result of inequality in the property ownership in order to keep the power and benefits guaranteed for one group. Commercial centers are able to play tricks not to let poverty disappear; they can also support the rich and prosperous groups in order to fight against the indigent group. In international levels and even in local levels, an elite group may take the monopoly of e-commerce benefits for themselves and then distribute them in supportive net works. Lack of management and proper governorship and fault legislations may reinforce poverty in the countries. (Kelles, Viitanen, 1999)

Through technology, e-commerce is able to increase activities which decrease poverty and to activate the creativity of the poor. Information and communication technology could help poor workers or farmers through decreasing transaction costs and increasing the opportunity to access market information.

Poor people are not usually aware of their rights and salary, and they do not have access to government plans and informative services, then via cell phones or newstands they can gain information about market prices or services. The workers can also get aware of the least salaries and information related to the available jobs. The time for selling products is very crucial, but other supportive factors such as access to roads, facilities, storing products and competition in the market could be very influential on a successful sale. Information and communication technology could increase the access to these sorts of services. (Leyshon Thrift, 1997)

E-commerce needs to pay attention to informative needs of societies to be successful. Information related to agricultural production prices, laws of territorial documents, computer training, certificates of social classification of India aristocracy nobility, online services, solving general complaints, online healthcare services, electronic post, marriages, electronic auctions, information related to children, online employment, online job exchanges, weather reports and so forth. It is also necessary to pay attention to female farmers through information and communication technology. (Nahavandian, Mohammad, 2002)

Digital Poverty

Demand is defined as the amount of goods and services that people are willing to buy at a certain price. Therefore, demand is influenced by purchasing power, without which there may be many needs but no demands. Consumers preferences for special goods influences purchasing power or demand, therefore, definition of goods and the study of how consumers prefer a good to another one is vital. In order to shape people’s preferences, it is necessary to define goods. Definition of good means specifying the good and its usage and also related costs of its consumption, in a nutshell, its definition means knowing all consumptive benefits of that certain good.

In fact, definition of good means defining all qualities of the good that meet the consumers’ needs. Therefore, demand is shaped based on our knowledge on the good and mental assumption on the costs and benefits of it. When people do not know a good, in fact, they do not have information about it or do not have the purchase opportunity, and then there would be no demand for that good. In other words, when people do not have information about something, means that they do not know it, then they never have demand for it. With this introduction, just as the minimum income is needed for demand, digital poverty wants to understand the least consumption level of information and communication technology. Therefore, digitally poor people, not only are people with minimum income who cannot meet their basic needs, but also they do not have a chance to access and use information and communication technology. (Abasnejad Atousa, 2002)

Therefore, there are several types of poor people. Low-income individuals who do not have the minimum ability to access ICT, and therefore, services are not offered to them and they have supply and ability limitations. Low-income individuals who have the minimum ability needed to use ICT’s services, but services are not offered to them, in fact, they have supply limitations to use ICT. Low-income individuals who have the minimum ability to use ICT, but because of lack of income, they have no demand for ICT services. Therefore, they suffer from demand limitations for taking advantages of ICT. And finally, the fourth group who are individuals who are not economically poor, but they have no
demand for ICT. The reason is that they do not have the required ability. This group reveals the generation gap. Then as a result, low-income people are not the only digitally poor individuals. There are four varieties to define digitally poor people: age, education, infrastructure and functionality. (Barrants, 2005:33-35)

In the variable of age, the assumption of digital poverty for the elderly is more, because they have less daily activities and they do not need to be familiar with computers or modern technology. In variable of education, always high education decreases the probability of digital poverty. The variable of infrastructure includes radio, TV, computer and telephone. The variable of functionality also is about the use of the technology including changing the obtained data to receive information such as electronic purchases, or electronic government.

Thus, severely digitally poor people are those individuals who use technology to receive information; this may be because of lack of knowledge about the use of ICT or the lack of available information services. On the other hand, age of individuals or their low learning ability could be obstacles for using ICT services. Digitally poor people have access to ICT, but they use it just for receiving data, other factors such as high level of illiteracy, low training level, old age, or lack of supply of equipment are also important. Digitally rich individuals are those who have access to ICT and have the ability and required knowledge to receive information and to transfer information and do other useful transactions. In other words, digitally rich individuals are young and highly educated, therefore, a person whose informative requests are not fulfilled is like a person whose basic needs are not met and therefore is known as a digitally poor individual. (Barrants, 2005:33-35)

E-commerce and poverty

Poverty has different definitions, if we consider parameters of time and place, these definitions find more differences. For instance, absolute poverty is a state in which the person is not able to meet his minimal needs, then as a result, the definition of absolute poverty finds diverse meanings in various times and places, moreover, the definition of minimal needs is rather a subjective definition. Relative poverty means inability to arrive at a level of life which society calls usual. This criterion is the result of two social groups and displays income inequality.

It is obvious that independent of whatever the definition of relative poverty is, always a population of society would be considered poor. Rontery’s viewpoint toward poverty is different and divides it into primary and secondary poverty. In primary poverty, the poor have access to required resources to fulfill their needs, however, for different reasons they do not have the ability to use them in order to increase and improve their lives. (Kashi Khodadad and colleges, 2003)

From traditional point of view, poverty means material deprivation which is measured with consumption or income criterion. However, today this issue is studied from different aspects and they know lack of access to hygiene and education as parts of it. Based on World Bank report in 2000-2001, poverty also means material deprivation, education deprivation, health deprivation, vulnerability and shelter less. The poor people do not have basic freedoms in choices and actions; therefore, they look at the future with despair. Lack of food, shelter, education, health are the vital deprivations which do not let them enjoy a pleasurable life. Confronting diseases, financial crisis, natural disasters, they are more vulnerable than others. (World Bank, 1990)

Most of the analysis related to poverty is based on “revenue-based” approach. Revenue-based approach influences the definition of poverty, methods of measuring poverty, and finally social and economic policies related to poverty. If we look at poverty as a subject of capability not a revenue-based issue, then we must look at poverty as a deprivation of capabilities. In other words, poverty means lack of capability to get rid of poverty. If we limit poverty definition to lack of adequate income, then income becomes a means to eliminate poverty through growth oriented policies and maximum redistribution of facilities. Unfortunately, income is not the only reason of poverty among families, and then these policies are not enough to eliminate poverty.” Capability poverty” not only decreases the chance of making money, but also puts the person in danger and disability. Moreover, in this sort of poverty, the fear of future is added to the fear of lack of income. Lack of capabilities may result in losing the little left income of the poor. Imam Ali says” folly is the worst poverty”, (Nahj-Albalagheh). Folly causes loss of information and literacy via “capability poverty”. (Mahmoudi and Samimi, 2005).

Therefore, because of different definitions of poverty, it is not possible to define all of them. In a whole, poverty in human societies is synonym of incapability to meet basic needs of life, and poor people are those families and people who do not have the minimum capability and facilities to meet the minimum needs of life such as food, clothing, shelter and health. Lack of education and employment and social corporations also increases the poverty.

Sen, as one of the experts of the issue of poverty, contends that to understand what poverty feels like, one needs to feel it like the heat of fire. We must be in poverty to understand its difficulties and sufferings. Sen believes that all definitions of poverty refer to a kind of deprivation, the definition of deprivation is a relative definition, meaning that in a developed country, it refers to relative deprivation of conditions and facilities of an average life, while in a developing country it refers to deprivation of surviving condition of life. Definition of poverty as a “deprivation of basic capabilities” not just as a “lack of income” is the definition which could be generalized in the whole world. Sen represents some reason to defend the “capability poverty” approach, the reason is that poverty is recognizable based on deprivation caused by lack of capabilities (Elahi Saeed, 2009).

The relation between low income and low capabilities is different among societies, families and even individuals. The role of “capability approach” is that in the analysis of poverty it helps to shift the reasons of poverty from tools to goals that people follow, it also helps to improve the freedoms that give reality to these goals. Deprivations are in close
relation with information demands. Therefore, the importance of “capability-poverty” approach has got clear, and then e-commerce as a result of ICT has been studied, it has been used as a tool to increase people’s capability in the age of knowledge and information to get rid of deprivations. Flor believes that the information will lead to new opportunities, and these new opportunities will lead to new resources. On the other hand, lack of information will lead to lack of supply, and consequently lack of demands, and then it will lead to lack of job opportunities and income opportunities. (Flor, 2001).

Innovation and creativity are the results of increase of knowledge and information in societies, people’s easy access to them and finally increase of public welfare. In fact, the increase of knowledge leads to innovation and creativity of human development which is one of the vital infrastructures of e-commerce development. Today through the usage of e-commerce and facilitation of business, individuals can spend more time on receiving information and knowledge via internet or electronic education. Islam emphasizes the importance of learning new technologies, and especially learning technologies puts emphasis on innovations and creativities, especially when they lead to increase of welfare and financial flourishing in the societies (Shebi Barat Ali, 2005).

The increase of economic justice, decrease of poverty, lack of access of all people to facilities, official bureaucracy, special ranks, difficulties of rights demand and lack of optimization are the reasons to ignore others’ rights in economic domains. Fortunately, IT and e-commerce have paved the way for emergence of economic justice through removing barriers and increasing access to facilities and services for all societies and also providing equal opportunities for all.

The effect of e-commerce and ICT on reduction of poverty could be studied more. The use of ICT could decrease poverty, if it be used in the correct way and with the aim of meeting the poor’s needs. Therefore, e-commerce could lead to mutual effective relations among government, civilians, businessmen and institutions. This process is able to develop a better management environment and also decrease costs of the government. E-commerce could be used to increase productivity, competition, access to markets in order to develop supportive institutions in the society (Shebi Barat Ali, 2004).

ICT and its usage for decreasing poverty with emphasis on increase of people’s access especially the rural people to education, health, financial and governmental services, has made an informative revolution which has changed everything in the world we are living.

ICT can represent solutions to reduce poverty. In fact, by improving the opportunity for rural populations to access health, education, financial and governmental services, ICT is able to reduce poverty. ICT can use e-commerce to make a connection between rural farmers, industrialists and distant markets of other regions. It is obvious that in rural areas such as developed parts of the world, just understanding the potential of ICT to make development is not enough. Non-expensive access to information is a necessity for rural areas and it will lead to success if ICT, however, it is not enough by itself. Even if information were available, it would not be guaranteed that the peasants could take advantage of it. The studies have shown that mobile projects have been specified to develop ICT and internet accessibility for the world rural populations. However, since the peasants do not have enough knowledge and information to use this technology, they try to limit these projects.

E-commerce has the potential to increase social and financial opportunities for the poor and to increase welfare for them through direct and indirect methods. Thus, e-commerce has different capabilities to increase human abilities and finally welfare for the poor. Its direct effects are easy access to information, reduction of transaction costs, making financial opportunities, easier access to education and health, and finally improvement of public intercommunity and productivity of the government.

To reduce poverty directly, e-commerce has an important role in the improvement of the poor’s activities and productivity. In order to improve market productivity, e-commerce aims to increase accessibility to information, increase people’s awareness, decrease transaction costs, and solve market problems. Moreover, e-commerce is able to provide job opportunities for poor individuals to produce hardware and software. Since they usually have little skills and education, they can work in the services parts, for instance, one American non-governmental organization has linked poor producers of a city in India (Tamil Nadu) to major markets via internet. The villages of this city are superior in producing cloths and their products is sent to consumers across the world, therefore transaction costs are reduced because of omission of intermediaries. Similar activities have been done by other Indian non-governmental organizations to improve the sale of rural women’s products via internet. Kels says that in Kia a company which produces wooden statues, and earthenware pots does its activates via internet, and so it has increased its income from 10 thousand to more than 2 million during two years (Kels, 2003).

**METHODOLOGY**

The process of the research in each branch of science ends in the research results. Along this, the results of the research include the description of the matters based on the differences and relations. Thus based on the data collection in present paper, through the inferential and descriptive statistics, the observation of the data analysis and hypotheses of the research has been accomplished. The descriptive statistics include the frequency tables and central indices, and statistics tests such as Spearman test, variance analysis test – SPSS version 17 software were used in the inferential statistics.

First section – descriptive statistic
In this part, the descriptive statistics and the tables have been presented. The recognition of the sample characteristics is helpful to observe all characteristics of the statistical society. Furthermore, the recognition of the indices are helpful to expand the results or design the research questions for other statistical societies.

Table 1 – frequency distribution in terms of gender

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Validity percentage</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>110</td>
<td>55%</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>90</td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

The interpretation of the table: As understood from the table, 55% and 45% of the people are male and female, respectively. The mode is equal to one showing the most frequency for the males.

Table 2 – frequency distribution in terms of age

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Validity percentage</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up 20 years old</td>
<td>4</td>
<td>2%</td>
<td>2</td>
</tr>
<tr>
<td>20-30 years old</td>
<td>108</td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>30-40 years old</td>
<td>54</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>40-50 years old</td>
<td>24</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Elder than 50 years</td>
<td>10</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

The interpretation of the table: As understood from the table, 2%, 54%, 27%, 12% and 5% of the individuals participated in the statistical society are Up 20 years old, 20-30 years old, 30-40 years old, 40-50 years old and Elder than 50 years old, respectively. Also, the mean is equal to 2 in this table which this value shows that the participants in this research were Up 20 years old and 20-30 years old, which the other 50% of individuals were elder than 50 years old.
Table 3 – frequency distribution in terms of marital status

<table>
<thead>
<tr>
<th>Variable</th>
<th>frequency</th>
<th>Validity percentage</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>83</td>
<td>41.5%</td>
<td>2</td>
</tr>
<tr>
<td>Married</td>
<td>117</td>
<td>58.5%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

The interpretation of the table: As understood from the table, 41.5% and 58.5% of the participants in the present study are single and married, respectively. Also, the mode is equal to 2 in this table which this value shows the most frequency for the married ones.

Table 4 – frequency distribution in terms of education

<table>
<thead>
<tr>
<th>Variable</th>
<th>frequency</th>
<th>Validity percentage</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>110</td>
<td>55%</td>
<td>2</td>
</tr>
<tr>
<td>Expertise</td>
<td>37</td>
<td>18.5%</td>
<td></td>
</tr>
<tr>
<td>Bachelor</td>
<td>46</td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>Master degree</td>
<td>7</td>
<td>3.5%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
The interpretation of the table: As understood from the table, 55%, 18.5%, 23% and 3.5% of the participants had diploma degree, expertise degree, bachelor degree and master degree, respectively. Also, the mean is equal to 2 in this table which this value shows that the 50% of the participants in this research had diploma degree, whereas other ones had expertise degree.

Table 5 – frequency distribution in terms of Government policies and supports in the field of e-commerce advancement in viewpoint of the participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>frequency</th>
<th>Validity percentage</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>74</td>
<td>37%</td>
<td>2</td>
</tr>
<tr>
<td>Average</td>
<td>74</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>52</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

The interpretation of the table: As understood from the table, 37%, 37% and 26% of the participants believed that Government policies and supports in the field of e-commerce advancement was low, average and high, respectively. Also, the mean is equal to 2 in this table which this value shows that the 50% of the participants believed that Government policies and supports in the field of e-commerce advancement was low and average, whereas the other 50% believed that Government policies and supports in the field of e-commerce advancement was high. As a matter of fact, the mean in perspective of people’s outlook was average.
Table 6 – frequency distribution in terms of Job satisfaction in viewpoint of participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>frequency</th>
<th>Validity percentage</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>31</td>
<td>15.5%</td>
<td>2</td>
</tr>
<tr>
<td>Average</td>
<td>128</td>
<td>46%</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>41</td>
<td>20.5%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

The interpretation of the table: As understood from the table, 15.5%, 46% and 20.5% of the job satisfaction of the participants were low, average and high, respectively. Also, the mode is equal to 2 in this table which this value shows that the 50% of the participants had weak and average job satisfaction, whereas other 50% of the participants had strong job satisfaction.
DISCUSSION

Financial and cultural poverty of the society, lack of awareness of people about ICT, lack of correct culture of confronting e-commerce, the existence of rumors and incorrect thoughts made by unaware people and replacing e-commerce with other irrelevant commercial phenomena such as network-marketing and negative reaction of businessmen of face to face distribution units and even customers to e-commerce are the crucial barriers to the development of e-commerce. Moreover, in Iran even the political elites are not aware of effects of this new revolution on commercial transactions, anyhow they all know that it is inevitable for Iran’s traditional economy to change into a modern economy.

To provide demand for new technology, it is a must to train consumers about the opportunities and advantages of e-commerce. In fact, it is necessary to train skillful manpower in different sections of e-commerce. Therefore, lack of responsibility of relevant sections of the society to train people on the advantages and uses of e-commerce is a main barrier to develop this technology. The managers should provide practical approaches needed for customers’ training, and offer them via different ways. Financial sanctions have also decreased the development of e-commerce infrastructures. For instance, they have limited the usage of international credit cards such as MasterCard or Visa Card.

Unfortunately, communicative infrastructures like internet and cell phones take too much time and cost. Internet connection bandwidth and easy accessibility to internet as an important way to use e-commerce are not provided easily in Iran. Lack of quick accessibility of users to internet, decreases their interest in participating in commercial transactions.

Based on Iran information technology network, the requirements of e-commerce in Iran have been mentioned here. The requirements are some environmental conditions and some proper features in the structure of organizations activating in this field. To provide the proper environment needed for e-commerce development, correct economic policies for enterprises and private firms are needed, and also to provide structure of organizations with the proper features, enterprises themselves could make some strategic evolutions in the structure of production services or supply structures to achieve desirable standards in order to participate in electronic commerce.
Inferential statistic

- The role of e-commerce on reduction of poverty and increase of welfare

H0: The role of e-commerce on reduction of poverty and increase of welfare is not effective
H1: The role of e-commerce on reduction of poverty and increase of welfare is effective

In this hypothesis, to recognize the relation between variables and correlation intensity the Spearman test is used, thereafter the relation would be analyzed.

Table 7: role of e-commerce on reduction of poverty and increase of welfare based on Spearman test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Spearman coefficient</th>
<th>Significant level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-commerce, reduction of poverty and increase of welfare</td>
<td>0.203</td>
<td>0.004</td>
<td>200</td>
</tr>
</tbody>
</table>

E-commerce has the ability to decrease poverty and increase welfare via decrease of transaction costs, accelerating transaction speed, enhancing competitive position of country in the world and taking advantage of opportunities related to importing and exporting goods. (Sanayei, Ali, 2002)

According to table 7, based on the Spearman coefficient (0.203) and significant level (0.004), the relation between e-commerce, reduction of poverty and increase of welfare is significant at 99% confidence interval. In other words, the hypothesis would be confirmed depending on amount of applying e-commerce. It could be mentioned that, though the relation between e-commerce and the increase of the welfare is significant, the obtained value of the Spearman statistic shows the fact that the relation intensity is low, meaning that only 0.2% of the changes in the increase of welfare approve the advancement of e-commerce.

- The role of government’s policies and supports affect advancement of E-commerce in the society

H0: Government’s policies and supports do not affect advancement of e-commerce in the society
H1: Government’s policies and supports affect advancement of e-commerce in the society

In this hypothesis, to recognize the relation between variables and correlation intensity the Spearman test is used, thereafter the relation would be analyzed.

Table 8: role of government’s policies and supports on advancement of E-commerce in the society based on Spearman test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Spearman coefficient</th>
<th>Significant level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effect of Government’s policies in the advancement of the e-commerce</td>
<td>0.195</td>
<td>0.006</td>
<td>200</td>
</tr>
</tbody>
</table>

There are many policies made by government that affect advancement of e-commerce in the society, one of the policies is reforming condition of banks in the country. In fact, the government aims to improve bank systems and solve available problems in bank systems such as inequality of opportunities, accessibility to bank facilitations and promotions, lack of observation on banks and not controlling cash flow. Achieving these goals is possible via e-commerce, and at the same time, performing this policy affect e-commerce as well and leads to its improvement. (Jafarnejad and colleagues, 2003)

According to table 8, based on the Spearman coefficient (0.195) and significant level (0.006), it could be said that Government’s policies and supports in the advancement of e-commerce is effective in the society, so that the hypothesis would be confirmed. In other words, Government’s policies and supports in advancement of the e-commerce is effective and positive. Nonetheless, the low value of the Spearman statistic shows that the intensity of the relation is low, so based on the point that the relation is positive and significant, but only 0.2% of the changes in the advancement of the e-commerce shows the Government’s policies and supports.

- The role of e-commerce on the advancement of quality in representation of the services

H0: e-commerce in the advancement of quality in representation of the services is not effective.
H1: e-commerce in the advancement of quality in representation of the services is effective.

In this hypothesis, to recognize the relation between variables and the effects of e-commerce on the advancement of quality in representation of the services, F variance analysis test is used, thereafter the relation between the variables is analyzed.

Table 9: role of e-commerce on the advancement of quality based on F variance analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>F statistic</th>
<th>Freedom degree</th>
<th>Significant level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-commerce and the advancement of quality in representation of the services</td>
<td>0.244</td>
<td>2</td>
<td>0.784</td>
<td>200</td>
</tr>
</tbody>
</table>

In the system of goods distribution, the cost of goods transaction decreases via e-commerce as a result of omission of middlemen, consequently the relation between producer and consumer would be simplified in a virtual environment. In other words, e-commerce partially increases the quality of providing services for consumers via omitting middlemen and
simplifying transaction process, however, it does not increase quality considerably. According to table 9, based on the value of F statistic (0.244), freedom degree (2) and the error level (0.784), it could be said that e-commerce does not significant effect on the advancement of quality in representation of the services. In other words, zero hypothesis would be accepted, and the hypothesis based on the significant effect of e-commerce on the advancement of quality in representation of the services would be rejected.

- there is a significant relation between the e-commerce and the job-satisfaction

H0: there is not a significant relation between e-commerce and the job satisfaction
H1: there is a significant relation between e-commerce and the job satisfaction

In this hypothesis, to recognize the relation between variables and correlation intensity the Spearman test is used, thereafter the relation would be analyzed.

Table10: significance of relation between e-commerce and job-satisfaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Spearman coefficient</th>
<th>Significant level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-commerce and job satisfaction</td>
<td>0.444</td>
<td>0.003</td>
<td>200</td>
</tr>
</tbody>
</table>

According to table 10, based on the Spearman coefficient (0.444) and significant level (0.003) with 99% assurance level, it could be stated that there is a significant relation between e-commerce and the job-satisfaction. Hence, the hypothesis would be accepted. In other words, whatever the usage of the e-commerce is higher among the individuals, in this case the job satisfaction would get higher as well. It could be mentioned that the relation between e-commerce and the increase of welfare is significant, but the value for the Spearman statistic shows that the relation intensity is average, meaning the 0.45% of the changes show the job satisfaction as the factor for advancement of e-commerce.

Conclusion

Most of the economists and experts believe that in the recent years a revolution like the industrial revolution has happened and sent the world into the age of information, and has changed lots of social cultural and financial aspects of human life. One these changes has happened in economic relations, economic relations among individuals, firms, and governments are coming out of traditional state which is basically based on paper documents and evidences and going toward transactions based on electronic information. Because of reducing costs, increasing productivity and speed, and taking advantage of transitory opportunities, e-commerce has made a new field for competition, and those who do not want to welcome this technology will lose their position in universal economic fields. Today, great malls sell their goods easily via internet and firms organize the important financial transactions via internet. Capitalizing, electronic marketing, electronic payments, on line malls, and market auction all are just a small part of the e-commerce.

Unfortunately, because of existence of barriers to the growth and development of e-commerce in Iran, the chasm between Iran and developed countries and even developing countries is getting deeper and deeper, and then it is necessary to know all these barriers in order to remove them.

Awareness and positive attitude of managers to the necessity of emergence of e-commerce in the process of doing activities is crucial, because it makes a proper field for the development of e-commerce in the form of an organized structure. A manager, who wants to develop e-commerce in his firm, needs to provide certain rules and guidelines, then test them and then use them. These guidelines should be based on standards specified by merited official members; these standards are organized and integrative. Each successful manager and organization needs to have conferences with experts of ICT. To have competitive relations in economic fields with other managers, managers need to be aware of ICT services and other information and communication tools in order to take advantage of them. In present paper, four hypotheses related to the advancement of e-commerce were observed, the obtained results are reported as following:

1- First hypothesis- e-commerce puts the most effect on the reduction of poverty and increase of welfare. This hypothesis was assessed through the Spearman test and correlation coefficient, thus based on the obtained statistic the relation was reported significant at 99% assurance level.

2- Second hypothesis: Government’s policies in the advancement of the e-commerce was effective. This hypothesis was assessed through the Spearman test and correlation coefficient, thus based on the obtained statistic the relation was reported significant at 99% assurance level.

3- Third hypothesis: e-commerce puts the most effect on the advancement of quality to represent the services. This hypothesis was assessed through F variance analysis test, which according to the obtained statistic and the error level, no significant relation between the variables was reported.

4- Fourth hypothesis: there is a significant relation between e-commerce and job satisfaction. This hypothesis was assessed through the Spearman test and correlation coefficient, thus based on the obtained statistic the relation was reported significant at 99% assurance level.
REFERENCES

19. “Policy and report of e-commerce represented by Islamic republic of Iran”, site address: WWW.irtp.com