The Relation between Information Technology and Electronic Commerce

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Abstract—The Internet and information and communication technology ¹ play an important role in human’s life. Indicators relating to ICT are considered as an important indicator of the level of development of each country. The highest index, indicate the infrastructure, good planning and compliance rates, technological progress and changes that are inevitable in a country. This survey is about accessing to the Internet, using information technology ² and its impacts on many fields like agriculture, engineering, business trading and the others like them. Necessity of accessing to the Internet as a first step to achieve new knowledge and have the effective communication with other people around the world is considered. Having the IT knowledge will increase productivity in most business processes. Also electronic commerce in developing countries can constitute a major part of its economy and can be very profitable for the country and may have a positive effect in every country’s business cycle. Results of this paper suggest that not have any access to the Internet will prevent many people to participate in electronic marketplace and benefit from new IT knowledge. So, they miss a big opportunity to compete with new ideas of great companies and increase quality of their goods, standardize their products and decrease the intermediation cost.

Keywords— Information and communication technology, Indicator, Internet, Business-cycle, Electronic commerce.

1. Introduction

There are significant advantages of the Internet that connect companies around the world and make a global competition. World Wide Web breaks down traditional barriers and makes it possible to have international commerce. Innovative firms can use it to disregard location of their company in the world and participate in a global electronic marketplace.

Although competing in this new environment has its own problems and managers should be aware of business rules without borders [1][2]. Network enables us to replace communication instead of transportation; It is easy in developed nations but rural people may not have any access to the internet. Computer networks also have positive impacts in our lives and can improve developing nation societies [3]. The rise in knowledge of economic activities and the possibility of doing business on the Internet in electronic commerce ³ form and stand in a great competitive environment, force many managers to increase their products quality [4]. There are many team workers that they work in the virtual groups on the Internet and can coordinate their activities and communicate with each other using IT [5]. With devoting the main part of ICT to the Internet the way in which people communicate, think, do business, and interact culturally was changed [6]. Many firms eliminate market barriers preventing growth of developing country exports [9]. Also they can use e-commerce for their business and ignore transaction costs, consumers will have access to many lower-priced goods. Problem which is illustrated in figure1 [8] shows that many organizations and industries value-added chains are involved in producing, distributing, and selling set of products from raw material to the consumer [7].

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¹ Information and Communication Technology (ICT)
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One of the other benefits of e-commerce is the potential to increase the scope for international market [10]. In this paper our research is about studies of virtual companies that use computers and networks to link themselves with other companies successfully. Where it is important for firms along with excellent quality to have a perfect design of their goods when they want to show their products in the Virtual market [11]. Optimal size of firms that work together can create a global market and increase their exports [12]. E-commerce has the capacity to assist distributing, and selling set of products from raw material to the consumer [7].

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2- Impact of Electronic Commerce on Firms Relation

The production has many various stages since it uses raw material to become a final product. Which is used by the ultimate consumer. Each step may be adding a new value to a production [14]. Software industry is one of the most important and profitable industry not only in developed countries but also in Iran as a country that wants to be among these countries. Software industry is considered to be one of the major revenue sources that is growing very fast and it will play more important role in the future than now. By being able to sell products to many customers in the e-market, a producer acquire experience and level of knowledge to competition with other producers, all of these items lead to more efficient production. In e-commerce there is a same situation for all commodities to competition for the best price and quality and the consumers were not affected by only one seller to choose a special product, robbery occurs in the open market and coordination costs can be high priced and purchase through e-commerce can save more money and time in searching best goods [15]. The cost of advertising by suppliers that produce goods and services to potential customers will be reduced [16]. According to [16] inter organize electronic networks can better coordination between companies. Examples of using international electronic networks to reduce search costs through an electronic market are airline reservation system, which allows consumers to

![Figure - 1. Value-added chains in the shirt industry](image_url)
search for and compare ticket prices and availability before ordering, hotel reservation system is another example works in this way, real estate agent system which allows real estate agents and customers to visit online houses and their features by only some clicks, without any spending much more time and energy. These services connect buyers and sellers around the world through a shared information resource.

3- Importance of Network as a Way to Access to the World Market

One of the most important network attribute is public protocol uses which can allow easy communication between customers and suppliers or other entity over the network. Big firms take advantage of innovations by using IT through Internet access [17]. Researchers agree that business through e-commerce is growing very fast and that it constitutes between 80%-90% of total electronic commerce transactions [18]. Advances in cost efficiency of data storage and data transmission bandwidth are related to the rise of e-commerce [19]. The data convergence processing lead to integration information in internal organized network [20]. Internet-based trading exchanges become the most appropriate platform for developing country producers [21]. Although e-commerce plays an important role in reduction of trading costs but it is not sufficient condition to reduce the transaction costs in international markets. There are many different reasons for not access to the Internet. One of these reasons may be the high cost of using Internet preventing many people to access to the Internet easily. Other reasons are some places have not a proper position for accessing to the Internet or lack of enough related knowledge and skill for using Internet [22]. Also many people in rural areas can not benefit from Internet in their daily life. So, people in rural areas cannot become acquainted with innovative ways of using ICT and its services. With accessing to the Internet rural people browse websites to look up information for doing many things like repairing their agricultural machinery, ways of farming and news about the weather reports. In addition, they can communicate with other people and exchange their knowledge together. Because of not accessing to the internet in rural areas development will be faced with the difficult in these areas.

4. Conclusion and Recommendation

Internet enables people to have the up to date information by accessing to the IT and benefit from new knowledge. People can have an effective communication with other people around the world. As a result IT industry in developing countries will grow and it can make a major contribution to the country’s economic cycle. With disposability of the internet across all parts of the country all people can take part in the big open market competition and trade in liberalized environment and introduce their new ideas. In some cases growth of country virtual market depends on linking to the global international market. This matter can improve the position of firms or nations in international trade networks. Relevant organizations with restructuring themselves and make accessing to the internet possible for everyone in any area of the country can promote efficiency. Also by giving the necessary training and sufficient knowledge to the people for using Internet they can encourage them to use the Internet properly and efficiently and deploy their potential for using IT to create new innovations.

References


