

Investigate the Impact of Education Factor and Activity Status of Internet Users in Iran on Benefiting from Information Technology

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ABSTRACT

Present study aims to investigate how some important factors such as education and activity status can influence on behavior of using the Internet and benefiting from information technology through accessing to the Internet in Iran. It is obvious that there is a strong relation between information technology and have a successful electronic commerce by accessing to the Internet. Information and communication technology have an undeniable impress on developing of many industries in each country and transform them to a profitable one. The potential of the Internet and communication technology is to create connections between firms which are far from each other on the world. Many people trade in various forms like wholesaling and retailing and can use new technology to raise quantity and quality levels of their products and participate in global electronic marketplace. Electronic commerce in developing countries can constitute a major economy part of each country and can be very profitable for the country and may have a positive effect in every country's economic cycle. The Internet provides a new way to trade goods and services with decreasing transition costs. Data collection from total households in Iran was done by Statistical Center of Iran in 2012, whereas Excel software was used to display data on the graphs. Results of this paper suggest that more than half of the Internet users in Iran that they have over 6 years old have academic degree. According to the statistics increase in the level of educational degree have a direct effect on using the Internet in Iran and the largest group of Internet users are students. So, government with rising levels of education in country can increased use of information technology through world wide web and make a conscious and entrepreneur nation and make a chance for people to compete with new ideas of great companies and standardize their products.

Keywords: Information and Communication Technology, Internet, Economic cycle, Electronic commerce

1. INTRODUCTION

There are a lot of significant advantages of the Internet that connect companies around the world and make a global competition. Innovative firms can use Internet to disregard location of their companies around 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], network enables us to replace communication instead of transportation; It is easy to use the Internet in many parts of developed countries. Computer networks have many positive impacts in our life and can improve the situation of developing countries' nation [2]. Rising in knowledge of economic activities and the possibility of doing business through the Internet in electronic commerce form and standing in a great competitive environment, force many managers to increase the quality of their products [3]. 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 by using information technology [4]. With devoting the main part of information and communication technology by having access to the Internet, the way that people communicate, think, doing business, and interact culturally has been changed [5]. Firms with using electronic commerce for their business can eliminate market barriers that preventing growth of developing in exports of every country [6] and they ignore transaction cost. So, consumers will access to the many lower-priced goods.

One of the other benefits of using electronic commerce is the development in scope of international market [7]. It is an important factor for goods of manufacturing companies to have an excellent situation in a global market place because of the quality and a perfect design of their goods when they want to sell their products in the virtual market [8]. Electronic commerce has the capacity to assist small firms around the world to deal with other companies more comfortable and faster than any previous time. It is necessary for firms to become coordinated with form of virtual network to gain benefits of acquiring better services from specialized producers.

This paper is organized as follows. Section 2 provides a review of the literature examining the internal network effects on the way that firms coordinate with each other and the decrement in coordination costs by virtual network that make differences between the ways that firms select and maintain trading relationship, adapted from [9]. Section 3 is devoted to explain the importance of accessing to the network as a first step to benefit from information technology and electronic commerce. The case study and results of this paper that are provided at the section 4, is an abbreviated version of a study about the results of the survey on Internet users in Iran which indicate us how education factor and activity status of Internet users in Iran impact on benefiting from information technology through using the Internet, which was collected by statistical center of Iran. Finally in section 5 the paper is concluded.

2. ADVANTAGES OF USING ELECTRONIC MARKET

A production has many various stages since it uses raw materials until it becomes a final product, which is used by the ultimate consumer. Each step may be adding a new value to the product [10]. By being able to sell products to many customers through electronic market, a producer acquires a lot of experiences and a level of knowledge to competition with other producers. All of these items lead to prepare more efficient production. In electronic commerce there is a same situation for all commodities to competition to attract consumers. Consumers were not affected by only one seller to choose a special product, number of robberies that occur in many open markets will be decreased as well as coordination costs through using electronic commerce and purchase in this way can save more money and time for searching best goods [11]. The cost of advertising by suppliers that present services to potential customers will be reduced [12]. According to [12] inter organized electronic networks can have better coordination between companies. Examples of using international electronic networks to reduce searching costs through an electronic market are airline reservation system, which allows consumers to search and compare ticket prices and availability before ordering, hotel reservation system is another example that works in this way, real estate agent system which allows real estate agents and customers to visit houses and their features online and only by some clicks, without any spending much more times and energies. Electronic market connects buyers and sellers around the world through a shared information resource.

3. THE IMPACT OF ACCESSING TO THE INTERNET ON ELECTRONIC COMMERCE

One of the most important network's attribute is existence of public protocol that makes easy communication through the network [13]. Researchers agree that existence of many fields such as business depends on accessing to the Internet. Electronic commerce through using the Internet is growing very fast and that it constitutes between 80-90% of total business transactions [14]. Data convergence processing lead to integration information in internal organized network [15]. Information and communication technology have a direct effect on culture of each society in every country. The field of education has been affected by the influence of information technology. Surely, it has impacted on the quality and quantity of teaching, learning and having research in different areas. It also makes opportunities for academic institutions to communicate with others through emails and solve complex mathematical and statistical problems [16].

4. THE CASE STUDY AND RESULTS

To examine how information technology that achieve through using the Internet can effect products to become more efficient before presenting to the consumer, we evaluate that what kind of people in Iran use more Internet than other people and how education factor and activity status can influence on using the Internet. This matter is illustrated in figure 1, figure 2, table 1 and table 2.

• Educational Degree of Internet Users

According to the statistics that were collected in table1 show Internet users in Iran that they have over 6 years old, about 8.4 percent of them have primary and guidance school degree, 31.7 percent of them have secondary school degree, 59.8 percent of them have academic degree and 0.1 percent of them are only literacy and have unofficial degrees or some of them are undeclared. So, we can say that half of the Internet users in Iran that they have over 6 years old have academic degree.

Table 1: Internet users in Iran based on educational degree, 2012

Description	Total	Literacy				Illiterate rate
		Primary and guidance school degree	Secondary school degree	Academic degree	Literacy, unofficial and undeclared	
Number	10992097	926069	3485975	6571733	8320	0
percent	100	8/4	31/7	59/8	0/1	0

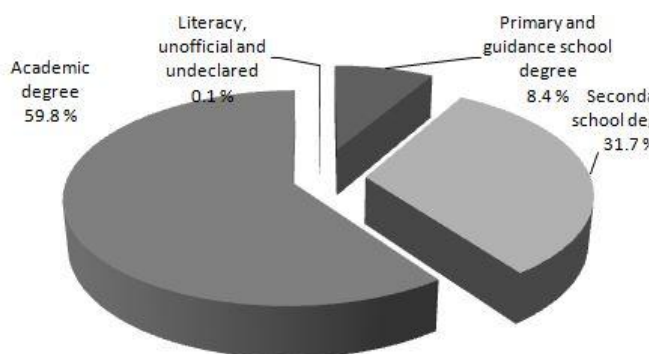


Figure1: Internet users in Iran based on educational degree, 2012

• Activity Status of Internet Users

According to the Table2 we can say about activity status of Internet users in Iran that they have over 10 years old: about 48.2 percent of them are student, 32.1 percent of them are employed, 7.7 percent of them are unemployed and 7.2 percent of them are homemaker. In addition activity status of 4.6 percent of them is others and 0.2 percent is undeclared.

Table 2: Internet users in Iran based on activity status, 2012

De	Tot	Em	Une	Stu	Ho	Oth	Und
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scrip tion	al	plo yed	mpl oyed	dent	me mak er	ers	ecla red
Nu mb er	109 490 80	351 223 5	847 108	527 831 6	786 738	508 154	165 29
per ce nt	100	32/ 1	7/7	48/ 2	7/2	4/6	0/2

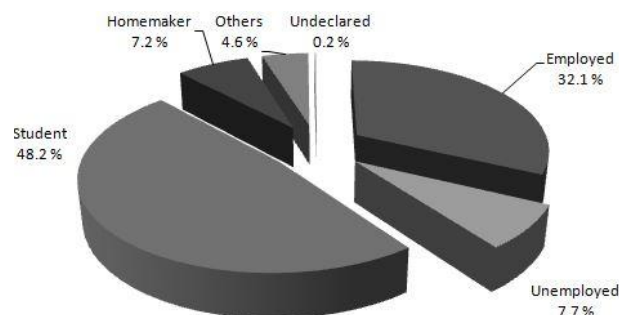


Figure 2: Internet users in Iran based on activity status, 2012

5. CONCLUSION AND RECOMMENDATION

Internet enables people to get their essential information, benefit from using information technology and have an effective communication with other people around the world and they can propose their new ideas. Information technology in many countries have a major contribution of each country's economic cycle. Also, growth of each country's virtual market depends on linking to the global international market. This issue can improve the position of firms and nations in international trade networks. A recommendation that is offered is that relevant organizations with restructuring themselves to achieve the goals of developing a society. Strategies must be pursued in order to build of knowledge and skills in information technology. Government should make the using of information and communication technology as a necessary part of education in all levels and using the information technology in distance learning through using the internet. Also by giving the necessary training and sufficient knowledge to the people for using the Internet we can encourage people to use the Internet in a proper and efficient way and we can employ their potential to create new innovations.

REFERENCES

- [1] Lee, H.G., & Clark, T.H. (1997). Market Process Reengineering Through Electronic Market Systems, Opportunities and Challenges. *Journal of Management Information Systems*, 13(3), 113-136.
- [2] Press, L. (1996). The Role of Computer Networks in Development. *Communications of the ACM*, 39(2), 23-9.
- [3] Beig L., Montazer G. A., Ghavamifar A. (2007). Adoption a proper tool for e-readiness assessment in

developing countries (case study :Iran,Turkey and Malasia). Journal of Knowledge Economy & Knowledge Management ,Volume(2).54-69.

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- [4] Ahuja, ,&Carley, K. M. (1999). Network structure in virtual organizations. *Organization Science*, 10, 741-757.
- [5] Goldstein, A., & O'Connor, D. (2000). *E-Commerce for Development: Prospects*. Paris, OECD Development Center.
- [6] Malone, T.W., &Laubacher, R.J. (1998). The Dawn of the E-Lance Economy. *Harvard BusinessReview*, September-October, 145-152.
- [7] Chircu, A.M., & Kauffman, R.J. (1999). Strategies for Internet Middlemen in the Intermediation/Disintermediation/Reintermediation Cycle. *Electronic Markets*, 9(1/2), 109-117.
- [8] Kraut, R., Steinfield, C., Chan, A.P., Butler, B., & Hoag, A. (1999). Coordination and Virtualization: The Role of Electronic Networks and Personal Relationships. *Organization Science*, 10(6), 722-740.
- [9] Malone, T., Yates, J., & Benjamin, R. (1987). Electronic markets and electronic hierarchies: effects of information technology on market structure and corporate strategies. *Communications of the ACM*, 30 (6), 484-497.
- [10] Porter, M. E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: The Free Press.
- [11] Williamson, O. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: Free Press
- [12] Malone, T. (1987). Modeling Coordination in Organizations and Markets. *Management Science*, 33, 1317-1332.
- [13] Moch, M. & Morse, E. (1977). Size, Sentralization and Organizational Adoption of Innovations. *American Sociological Review*, 42, 716-725.
- [14] Mansell, R. (2001). Digital Opportunities and the Missing Link for Developing Countries. *Oxford Review of Economic Policy*, 17, 282-295.
- [15] Earl, M.J. (1988). *Information Management: The Strategic Dimension*. Oxford: Oxford University Press.
- [16] Garicano, L., & Kaplan, S. (2000). The Effects of Business-to-Business E-Commerce on Transaction Costs. Working Paper No. W8017. Cambridge, Massachusetts: National Bureau of Economic Research 11-12.