

STUDY OF FACTORS INFLUENCING THE ADOPTION OF E-COMMERCE BY COMPANIES

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ABSTRACT: This paper, through in-depth review of library and field study of factors affecting the adoption of e-commerce by companies from Iran, aimed to examine the significance of this issue. E-commerce is growing globally, and considered one of the modes and methods of business. Using this new innovation by firms, thereby creating numerous benefits and these benefits incentives encourage companies to this phenomenon. The results of different studies that have been done in this area shows many benefits of e-commerce to businesses in a variety of ways, such as providing better services for consumers, find new suppliers and consumers, and improve business process efficiency. The advantage of the benefits of this technology requires the knowledge of the benefits of e-commerce application, developed by corporate managers and the increased awareness through workshops, seminars, and training courses - promotion of e-commerce can be obtained. The population of this study was to Sepehr Electric Co., which has 90 of its workers, for example we select, through questionnaires, data collection and we found it by using path analysis we analyzed using the LISREL software. The results suggest that the variables contributing to strategic decisions, management efficiency, ease of use, and external pressures did not impact on the adoption of e-business and operational variables, strategic advantage, perceived complexity, and organizational readiness has a positive impact. The researcher proposes to adopt the technology that it is first necessary to prepare the infrastructure, and the creation of trust in terms of security.

Keywords: e-commerce, e-business benefits, Iran

INTRODUCTION

Today, a prerequisite for survival in a competitive economy, and the environment is dynamic, functional smarter, harder and wider than ever before. Log in information technology, significant changes in business activities, especially activities related to marketing, communications and distribution has resulted. Along with globalization and information and communication technology, the most important change agents in the developed economies and developing economies are considered. E-commerce is one of the manifestations of the objective, the ICT revolution in the field of economics. Volume of commerce in the world, in 2009, estimated at about 8,758 billion dollars. While the same figure for 2002, in 1995, the equivalent of \$ 327 billion was forecast. The economic company's role in the growth and development of countries around the world has known. Companies for the economies of all countries, including developing countries are crucial. In terms of economic development programs, social and cultural measures and procedures required for the development of e-commerce platform to facilitate and increase the efficiency of the export of goods and services, it has been emphasized, however, the implementation of e-commerce, and exploit its competitive advantages in the country with

many obstacles infrastructure is faced. As a result, economic unit the country each year, according to their readiness to use e-commerce, and rated on a scale of 1 to 10, the country in 2008, with the 3.08 had Top Rated (SEVENTY) in the world, while, in 2005, the countries of Asia and Africa in the seventh, and the whole world was in class 59.

THEORETICAL FRAMEWORK E-COMMERCE

Before the definition of e-commerce, information technology and trade refer to a brief definition. IT is a collection of hardware, software, and information theory that somehow, in various forms to collect, store, retrieve, process and transmit, shed (Castells, 2001). And a business to exchange goods and services on a large scale is called. In the past, trade in the form of face-to-face contact was made between the two parties. During recent decades, the business has expanded greatly, so a large number of transactions are not the other face to face and by phone and by mail and using their credit cards are done. New forms of money and payment methods that exist today, such as the check electronic, smart credit cards and other forms not only led to major changes in the buying process, but they also allow enterprises to produce money, which until now was only

available to governments, have made possible. Therefore, we can e-commerce, the buying and selling of goods and services through the Internet, especially the World Wide is defined. This type of trading, as one of the most important, and the increased value of information and communication technology applications, a special role in the various countries in the networked economy has played. Although e-commerce, mainly in the areas of trade and commerce, is known to barter services, and financial transactions, it is an integral part, a tiny marginal effects and impact

on other areas including will have such as the areas of social, cultural and political of communities.

BENEFITS OF E-COMMERCE

Doctor Sanayai and Rajabion enumerated the benefits of e-commerce as follows: (for the details of it see Table 2)

- Market Development
- Increased efficiency of sales and promotions
- Facilitate access
- Reduce Costs

Table 1. advantages of using e-commerce by companies

| row | advantages | factors |
|-----|--|---|
| 1 | Market Development | Create new opportunities for business |
| | | Obtain more efficient services of suppliers |
| | | Collecting information in the area of potential markets |
| | | Get epidemic the subjective image of organization |
| | | Create a global brand |
| | | Improving for provide service to customers |
| 2 | Increased efficiency of sales and promotions | Doing sale and other actions in online form |
| | | Monitor on the actions of competitors |
| | | Reduce the cost of promotions |
| | | Increasing sale |
| | | Increasing efficiency and effective of promotions |
| 3 | Facilitate access | Reduce the cost of communications |
| | | Access in 24hours |
| | | Easy access to potential customers |
| | | Facilitate access to international markets |
| 4 | Reduce Costs | Reduce time and cost of shuttle of staffs of sales department |
| | | Saving the account of phone |

ELECTRONIC COMMERCE IN IRAN

In the past two decades, there are significant developments in the field of information technology and communication systems in the world. This change has caused some less developed countries, like Iran to understand the context of new comprehensive plan to apply to the appropriate use of these opportunities to achieve growth spurt, and to increase economic and social development not only your distance, with less developed countries, but also, if possible, in order to compete with them. In the meantime, e-commerce is an important place, and Iran inevitably is joining the field (Abas Nejad, 2003).

Iran has one of the world's populations, as a percentage of the Earth's land area only a financial contribution equal to one-third percent. However, the cost of goods in world trade, about six trillion dollars over the last few years, the growth has been between 89 to 125 percent. Of the global trade volume, about four

trillion dollars annually, it is done through e-commerce, which represents a ratio of 2 to 3, the total e-commerce and global trade, and this is because of the benefits that e-commerce with, so that using it for about a quarter, or \$ 250 billion, and will save you the figure for Iran's foreign trade is about \$ 300 million in estimated. Therefore, according to belong to this high rate of growth in e-commerce and deprived the country of the trade, Iran's share of world trade, of what it is today, it will come down (Nahavandian, 2002).

ECONOMIC FEASIBILITY OF LAUNCH E-COMMERCE IN IRAN

Setting up e-commerce in terms of reducing transaction costs, accelerate exchanges, strengthen its competitive position in the world, taking advantage of fleeting opportunities in the field of exports, and even the purchase of goods from abroad has a significant impact on

reducing inflation and increase exports and jobs and manufacturing.

Table 2. shows the level of saving in electronic light the transactions in the economy:

| Total (A thousand billion) | 2004 | 2003 | 2002 | 2001 | 2000 | 1999 | Year /Description |
|----------------------------------|--------|--------|--------|--------|--------|-------|---------------------------------------|
| - | - | 1126.2 | 923.1 | 602.2 | 508.3 | 416.7 | GDP |
| - | 2252.4 | 1846.2 | 1513.2 | 1240.4 | 1016.6 | 833.4 | Volume of transactions |
| - | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | - | Save percentage |
| 196.6 | 56.3 | 46.1 | 37.8 | 31 | 25.41 | - | The value of saving in the economy |
| 58.98 | 16.89 | 13.83 | 11.34 | 9/3 | 7.62 | - | The value of savings in foreign trade |

Problems and challenges in the implementation of e-commerce in Iran

There are still major challenges in facing our country for the implementation of electronic commerce, some of which in compact are as follows:

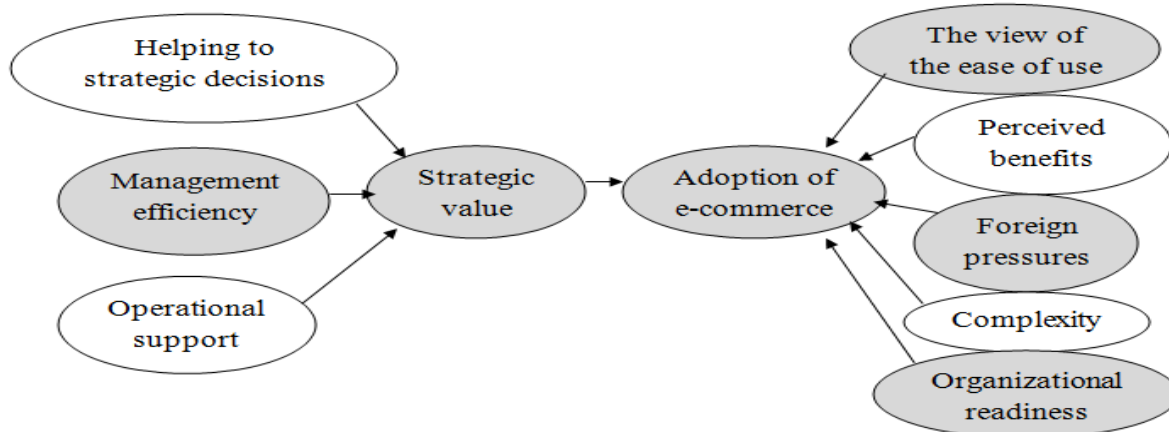
- 1- Incompatibility of the banking system with e-commerce, which destroys it, bringing fundamental change is needed.
- 2- The need to reform trade rules is irrefutable, as in e-commerce, the time and to get the required goods at the lowest possible is important.
- 3-Lack of infrastructure, including transportation, lack of support systems, e-commerce has caught inefficiency. The transfer and pay the money, according to this approach, in the context of the banking system is another obstacle in the way of e-commerce in Iran. So,

until that is, the physical infrastructure of the economy, the business does not develop and will be back of the global economic and trade exchanges accelerated.

Apart from the above there are other challenges faced by IT administrators, especially those who are in business. Maintain economic data, which attacked rivals in secret, trying to steal it, is important. Influencers benefiting from private networks handle to a variety of financial and non-financial. The problem with the electronic police cooperation and coordination among professionals, IT managers and users of electronic police simply is resolved.

Conceptual model

Conceptual model of the present study was adapted from the model of Pearson and Grandon in 2004, which was presented as follows:



Research hypotheses based on the proposed model are as follows:

1. Helping to strategic decisions impacts on the strategic values.
2. Management efficiency impacts on the strategic values.
3. Operational support impacts on the strategic values.
4. Strategic values impact on the adoption of e-commerce.

5. The view of the ease of use impacts on the adoption of e-commerce.
6. Perceived benefits impact on the adoption of e-commerce.
7. Foreign pressures impact on the adoption of e-commerce.
8. The complexity of e-commerce impact on the adoption of it.
9. Organizational readiness impact on the adoption of e-commerce.

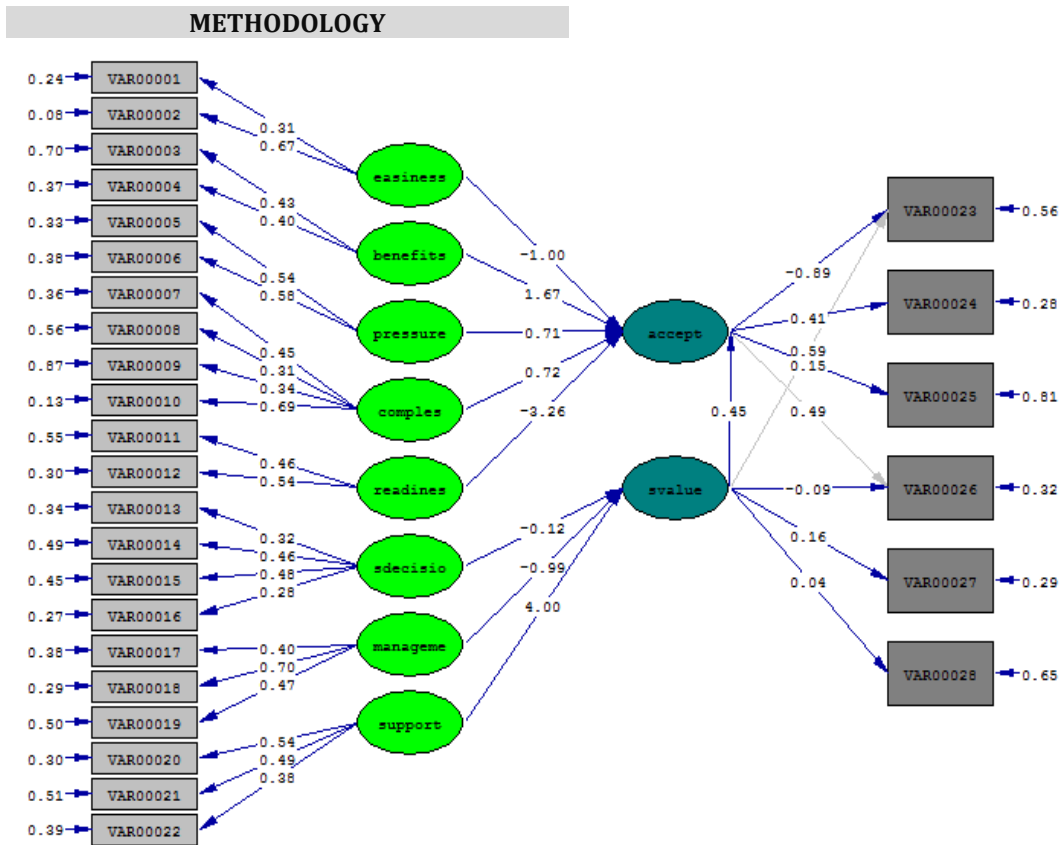


Figure 2-: Estimated standard model for the structural equation

The current study in terms of purpose is functional and in terms of method is descriptive - survey. Also for data collection in order to verify the hypothesis, we used a questionnaire. Therefore, the method of collecting this data is field. This study is conducted in Iran and the population is Iranian companies.

The analysis of the data, assumptions and results

Analysis of structural relationships (path analysis), to test the hypothesis

One of the most powerful and the most appropriate methods of analysis in behavioral science research is multivariate analysis. Because of the nature of such issues is multivariate, and can not by means of two variables (each time only one independent variable with a dependent variable is considered) is solved. Hence, in this paper to confirm or reject hypotheses the path analysis is used. Path analysis (structural model) is a technique that shows relationships between variables (independent, mediating and dependent) simultaneously.

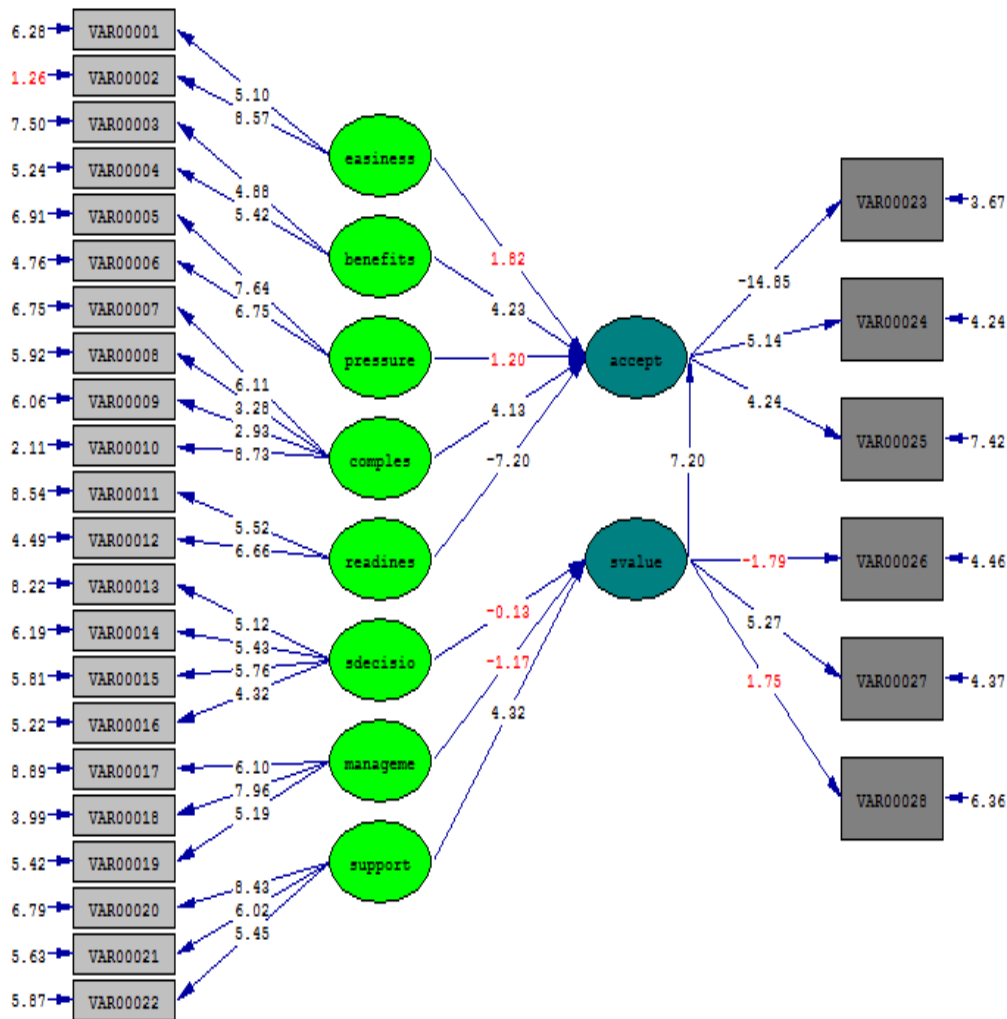


Figure 3: Model T-Value (significant coefficients) for the structural equation

First hypothesis: Helping to strategic decisions has positive impact on the strategic values. Based on the results of the path analysis, the beta coefficient (0.99), and also significantly (-0.12) this relationship is not significant. Since the coefficient significantly is smaller than the absolute value 1.96, so the hypothesis is rejected at the 95% significance level. It can be one of the reasons for the rejection of this hypothesis, states that according to the questions, the employees know helping of the management, as top officials of agencies involved in the decisions they have taken.

Second hypothesis: Management efficiency has positive impact on the strategic values. The effectiveness of management efficiency on strategic values is 4.00 (that statistically, there is a linear relationship), and the significant coefficient is -1.17, considering that a significant

number in this case is smaller than 1.96 so the hypothesis will not be accepted. According to our findings, one of the reasons for rejecting this hypothesis in our subjects is cultural and social difference in the organization of local and foreign.

Third hypothesis: Operational support has positive impact on the strategic values. The effect of operational support systems on strategic values is 0.45, and a significant coefficient is 4.22, given the fact that a significant number of this relationship is greater than 1.96 therefore the hypothesis is confirmed by the strong correlation.

Fourth hypothesis: The strategic values impact on the adoption of e-commerce. The impact of strategic value on the adoption of e-commerce is 0.45%, and the significant coefficient is 7.20, given the fact that, a

significant number of the equation is greater than 1.96 therefore the hypothesis is confirmed, ie between strategic values and e-commerce there is a positive relationship.

Fifth hypothesis: The view of the ease of use has positive impact on the adoption of e-commerce.

The impact of this factor on the adoption of e-commerce is one, and the significant coefficient is 1.62, which according to the value of this relationship is significant, is smaller than 1.96 and the hypothesis is not confirmed. Our findings show one of the reasons for rejecting this hypothesis is due to the fact that in the minds of the Iranian staffs, the convenience of a thing shows that it is useless or impractical.

Sixth hypothesis: perceived benefits have positive impact on the adoption of e-commerce.

The impact of perceived benefits on the adoption of e-commerce is 1.67, and its significant coefficient is 4.23, which given that, a significant number in this case is greater than 1.96 then the hypothesis is confirmed.

Seventh hypothesis: Foreign pressures have positive impact on the adoption of e-commerce.

The impact of foreign pressures on the acceptance of e-commerce is 71% and significant coefficient is 1.23, which given that, a significant number in this case is smaller than 1.96 then the hypothesis is rejected.

Our findings suggest that it is the employees of the company very faintly imagined the role of government, and especially the customers in the decisions of private companies in Iran.

Eighth hypothesis: complexity has positive impact on the adoption of e-commerce.

The impact of complexity on the acceptance of electronic commerce is 72%, and significant coefficient is 4.12, which given that, a significant number of the equation is greater than 1.96 then the hypothesis is confirmed.

Ninth hypothesis: organizational readiness has positive impact on the adoption of e-commerce.

The impact of organizational readiness on the acceptance of e-commerce is 2.26%, and significant coefficient is -7.20, therefore the hypothesis is confirmed.

Summary of the result for hypotheses is presented in the following table:

| Number | Hypothesis | The impact | Significant | Confirmed or Rejected |
|--------|---|------------|-------------|-----------------------|
| 1 | Helping to strategic decisions has positive impact on the strategic values | 0.12 | - 0.12 | Rejected |
| 2 | Management efficiency has positive impact on the strategic values | 0.99 | -1.17 | Rejected |
| 3 | Operational support has positive impact on the strategic values | 4.00 | 4.22 | Confirmed |
| 4 | The strategic values impact on the adoption of e-commerce | 0.45 | 7.20 | Confirmed |
| 5 | The view of the ease of use has positive impact on the adoption of e-commerce | -1.00 | 1.62 | Confirmed |
| 6 | perceived benefits have positive impact on the adoption of e-commerce | 1.67 | 4.23 | Confirmed |
| 7 | Foreign pressures have positive impact on the adoption of e-commerce | 0.71 | 1.20 | Rejected |
| 8 | complexity has positive impact on the adoption of e-commerce | 0.72 | 4.12 | Confirmed |
| 9 | organizational readiness has positive impact on the adoption of e-commerce | 2.26 | -7.20 | Confirmed |

THE RESULTS OF THE MODEL ARE ACHIEVED AS FOLLOWS

To fit the model examined the chi-square test, DF (degrees of freedom) and GFI. In this research model, the chi-square is 650.32 with 311 degrees of freedom, the chi-square divide with the degrees of freedom then the number will be 2.09, indicating an excellent fit of the model.

Suggestions

- 1- Note that the use of any technology requires infrastructure, it is suggested first, that infrastructure in our country implement, including the infrastructure, in developing countries have problems is speed Internet.
- 2- The other alternative is to reduce the security problems of e-commerce, so that should the clients and companies give this ensures that their information will remain confidential.

3- One can with show the advantages and benefits of using e-commerce, such as the review of the most successful companies in the field of view of managers, rather than using e-commerce changed, and obtain positive views of the technology.

4- For training IT applications and industry staff development skills IT, a project plan is formulated to increase the efficacy of staff in this area.

5- Government with the strategies to create encouragement and motivation, including providing privileges, exemptions and the granting of educational loans and economic system can provide setting for the adoption of e-commerce by companies.

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