Factors Affecting the Creation and Establishment of E-Commerce in Small and Large Industrial Companies of Tehran Using Structural Equation During the Period 2015-2016

Mojtaba Esfini Farahani, Mehrdad Maeen, Sara Najafzadeh

Department of Computer Engineering, Yadegar-e-Imam Khomeini (RAH), Shahre Rey Branch, Islamic Azad University, Tehran, Iran

Abstract

To succeed in the electronic world, the first and most important step is to identify barriers of using e-commerce. Various factors affect the use of e-commerce that can be categorized from a financial, technical, cultural, organizational and environmental point of view. The objective of this study was to investigate the factors affecting the deploying, use and admission of e-commerce in the small and large industrial enterprises of Tehran province using structural equations in 2014-2015. At first, we tried to highlight the issue and importance of factors affecting the deploying of e-commerce in small and large industrial companies, and then, with regard to the research objectives, we developed several hypotheses. The research method used in this descriptive survey is survey type and is a correlation type. The statistical society consisted of members of the board of small and large industrial enterprises, among which 300 were selected as samples. Measurement tools include a questionnaire. In order to analyze the data, descriptive and inferential statistical methods have been used. At descriptive level, mean, frequency tables and charts and at inferential level, one-sample t tests and regression analysis and structural equation model were used using SPSS 17 software and LISREL 8.5. Friedman test was used to assess the priority of each factor in terms of respondents. The result of Friedman's test showed that while all aspects related to the implementation of e-commerce should be considered, cultural factors, technological factors and cost factors have the highest priority among the factors under investigation and have the greatest impact on the deploying of e-commerce.

Key words: Implementation and Deploying of E-Commerce, Structural Equations, E-Commerce at Industrial Enterprises

INTRODUCTION

The world is constantly evolving, a fast wave of unprecedented change is transforming all aspects of human life, and old methods and classifications are rapidly becoming obsolete.

Today, many economists and experts believe that the entry of information and communication technology (ICT) into the economy and business has led to a revolutionary

Access this article online



Month of Submission: 07-2017
Month of Peer Review: 07-2017
Month of Acceptance: 08-2017
Month of Publishing: 08-2017

formation called e-commerce, and the backwardness of this evolution will result to isolation in the realm of world economy. Because e-commerce has brought benefits such as improving productivity, lowering costs, saving costs, and changing the size and structure of the market (Salmani, 2005), as well as removing intermediaries and allowing manufacturers to access final consumers (to Kamal, 2005). The competitive environment has changed the business. ICT can also be effective in many industry-related sectors, but for success in the electronic world, the first and most important step is to plan to identify barriers to using e-commerce. There are many factors in the use of e-commerce that can be categorized from one dimension to financial, technical, cultural, organizational and environmental factors.

Today, the importance of e-commerce is not overlooked, and in Iran there is a lot of emphasis on this issue, but

Corresponding Author: Mehrdad Maeen, Department of Computer Engineering, Yadegar-e-Imam Khomeini (RAH), Shahre Rey Branch, Islamic Azad University, Tehran, Iran. E-mail: M.Maeen@iausr.ac.ir

in terms of the extent of enjoyment of this type of business in the global arena, it is not as satisfactory and the development of e-commerce in Iran with barriers and there are several challenges facing each other; therefore, it must strive to advance itself with other developed countries. (Ghorbani et al., 2009)

Considering the importance of e-commerce and understanding the benefits of its development by the authorities, the rules of the Third and Fourth Development Plans reflect the strategies and policies that are currently underway to develop e-commerce in Iran, we determined that the factors affecting the deploying, use and adoptation of E-commerce in the small and large industrial companies of Tehran province using structural equations in the period 2014-2015.

Since the US government was obliged to buy goods and services through e-commerce in 1993, traditional paper and trade in the world has declined further. According to the estimates, in traditional trade, about 7% of global trade value is spent only on the purchase and exchange of relevant documents. Estimates show that using e-commerce, instead of traditional paper-based methods, between 21% and 70% of savings in various business activities are achieved. (Baba Goli et al., 2009). Therefore, e-commerce is considered as a cost-cutting and facilitator of the national and regional business. The highest level of Internet income is related to Europe and the lowest income level is for Asian countries, which Iran is among these countries. A research site in this regard has announced Iran's online internet trades nearly 100 dollars in the past few years, while the basis for listing in the global trade list is one million dollars annually. E-commerce has created 8 million jobs around the world, most of which are in Canada, the United States and Australia. Iran, with 60% of the young people seeking employment, with about 2.5 million unemployed people, has been slow to educate and create jobs through the Internet (Baba Goli et al., 2009)

Among the advantages of e-commerce, there can be a lack of broker and dealership, reduced paperwork, reduced costs of mistakes, ease of access to markets, better customer analysis, increased employment and the expansion of new opportunities. The ability to deliver products and services globally and increase the company's competitive ability to reduce the time required for completion of trade transactions, especially the delivery time of the goods up to the receipt of the money. Considering the importance of e-commerce and the perceived benefits of its development by the authorities, the rules of the Third and Fourth Development Plans reflect the strategies and policies that are currently underway to develop e-commerce in Iran, we

sought to answer the question, how is electronic technology in the industry?

What are the factors affecting the deploying, use and admission of e-commerce in small and large industries?

E-commerce as a sub-sector of the information-based economy has had positive outcomes for countries. Though such consequences in different countries vary in degrees and depend on developed or developing societies. Developed countries have benefited greatly from the e-commerce due to their advancement in this field as well as having the appropriate infrastructure, and over time, they are developing new e-commerce capabilities and capabilities and gaining ever-increasing. Developing countries have also benefited greatly from the existing capacities as they have recognized the importance of information technology and especially e-commerce. Nevertheless, it is critical for both groups to be overlooked in all aspects of the arena (Mozhdehi et al., 2007). But for success in the electronic world, the first and most important step is to identify barriers of using e-commerce. Various factors affect the use of e-commerce that can be categorized from a financial, technical, cultural, organizational and environmental point of view. Nowadays, the importance of e-commerce is not overlooked, and in Iran, too much emphasis has been made on this issue, but there are several problems in terms of the extent of enjoyment of this kind of trade in the global arena there is not enough satisfaction and the development of e-commerce in Iran with barriers and challenges; therefore, we should try to advance ourselves to other developed countries. (Ghorbani et al., 2009)

Therefore, considering the importance of e-commerce and the perceived benefits of its development by the authorities, the rules of the fourth and fifth development plans reflect the strategies and policies that are currently underway to develop e-commerce in Iran. We have determined that the factors affecting the creation and deploying, use and admission of e-commerce in the small and large industrial companies of Tehran province during the 2014-2015 using AMOS software.

This study seeks to answer these questions:

- 1. How much do e-commerce factors affect e-commerce in small and large industrial companies?
- 2. How much do e-commerce management factors affect e-commerce in small and large industrial companies?
- 3. How much do e-business factors affect e-commerce in small and large industrial companies?
- 4. How much do e-commerce factors affect e-commerce in small and large industrial companies?
- 5. How do cultural factors affect e-commerce in small and large industrial companies?

- 6. How do eco-factors affect e-commerce in small and large industrial companies?
- 7. How much do e-commerce influences on e-commerce in small and large industrial companies?
- 8. What is the effect of managers' attitudes toward e-commerce on their desirability in small and large industrial companies?
- What is the effect of organizational readiness of small and large industrial companies on the desirability of e-commerce?

CONCEPTUAL MODEL OF RESEARCH

All research studies are based on a conceptual framework that identifies the variables and relationships between them. A documentary on reviewing related subject literature and examining some of the proposed models for e-commerce use and development, we can say that seven factors are effective in developing and improving e-commerce, as presented below. These models include that seven organizational, managerial,

technology, cost, cultural, environmental and market factors affect the deploying of e-commerce in Tehran's industrial companies, and, on the other hand, the deploying of e-commerce in both dimensions of organizational readiness and managers' attitudes towards the deploying of trade Electronics is being reviewed.

RESEARCH METHODOLOGY

This research is in terms of the nature and purpose is applied and investigated the effective factors on the implementation of e-commerce in industrial companies of Tehran province. In terms of data collection method, this is a descriptive survey. A systematic data collection is done from the samples.

Also, this is a cross-section study for information gathering during 2014-2015. It is a type of field research in that it seeks to examine the effective variables of e-commerce in Tehran's industrial companies.

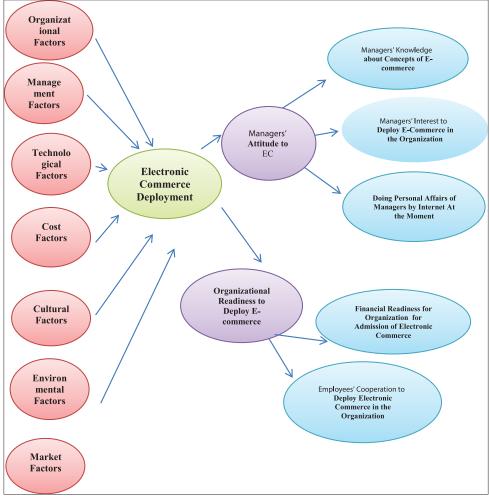


Figure 1: Conceptual model of research

The statistical population of the present study consisted of the managers of industrial and industrial companies operating in Tehran during 2014-2015.

In this study, based on the nature of the subject matter of the research, the statistical population of the study was simple random sampling method with proportional allocation.

DATA COLLECTION METHOD

The data needed for this research are collected in two ways:

- A. Library method: In this method, books, dissertations, articles and databases are used to collect information about the subject literature and the research background.
- B. Field method: In this research, by designing a questionnaire and distributing it, a sample of information was collected about the subject.

Reliability of the Questionnaire

There are several methods for measuring reliability. In this research, Cronbach's alpha technique has been used to measure the reliability of the questionnaire.

The questionnaire consists of two sections of one sevendimensional and two-dimensional with 67 questions. The obtained alpha coefficient for each of the calculated values is more than 0.7, which indicates high reliability of the questionnaire.

Validity of the Questionnaire

There are different methods for checking the validity of the questionmaire, which uses credit assessment methods in this research.

RESEARCH FINDINGS

Descriptive Statistics

Duration of Activity of Company

16.2% of the companies surveyed have less than five years of experience, 24.4% between five and ten years, 38.7% between eleven and fifteen years, and 20.7% have more than fifteen years of experience.

Number of Employees

The number of employees in the company, 69.7% of companies have fewer than fifty workers, and 22.6% between fifty-hundred and only 7.7 of the companies surveyed had more than 100 employees.

Gender of Respondents

26.9% of respondents were women and 71.5% were men and 1.5% did not answer the questionnaire.

Work History of Respondents

41.3% of respondents in the companies had have less than five years of work, 27.2% between five to ten years, 19.2% between eleven and fifteen years, 12.3% have more than 15 years work history.

The Education of Respondents

2.3% of the respondents had the diploma and lower. 21.5% of them had associate degree, 58.5% had bachelor's degree, and 16.9% had masters degree and higher.

Respondents' Job Position

14.6% of the respondents ranked senior managers, 33.8 middle managers, 16.2% of the company's top experts and 33.1% of the company's respondents.

INFERENTIAL STATISTICS AND HYPOTHESES TESTING

Examining the First Hypothesis: Organizational Factors are Effective in Deploying E-Commerce

Organizational factors are not effective in deploying e-commerce. H0: M≤3

Organizational factors are effective in deploying e-commerce. H1: M> 3

To test the above test, one-sample t-test was used which resulted in the table presented.

According to the table, the value of t obtained from the test is 74.88 and since this value is higher than the critical value of \pm 1.96, then the assumption H0 is rejected and the H1 assumption is accepted at confidence level of 99% (Sig: 0.000). The average of the responses provided by the statistical sample about the impact of organizational factors on the deploying of e-commerce based on the Likert scale is 3.53 out of 5. If this average is generalized to the community, the average of responses will range from 3.43 to 3.62. Since the upper limit of this domain 3.6 is more than 3, it can be argued that organizational factors are effective in deploying e-commerce. Therefore, according to the results obtained from the table, our assumption is confirmed at the level of three stars (the significance level of 0.000).

Examining the Second Hypothesis: Managment Factors are Effective in Deploying E-commerce

Management factors are not effective in deploying e-commerce. H0: M≤3

Management factors are effective in deploying e-commerce. H1: M> 3

To test the above test, one-sample t-test was used which resulted in the table presented.

Based on the table, the value of t obtained from the test is 49.389 and since this value is higher than the critical value of \pm 1.96, then the assumption H0 is rejected and the H1 assumption is accepted at confidence level of 99% (Sig. 0.000). The average of the responses provided by the statistical sample about the impact of management factors on the deploying of e-commerce based on the Likert spectrum is 3.31 out of 5. If this average is generalized to the community, the average of responses will be in the range of 3.18 to 3.45. Since the upper limit of this domain is 3.4 is more than 3, it can be argued that managerial factors are effective in deploying e-commerce. Therefore, according to the results obtained from the table, our assumption is confirmed at the level of three stars (the significance level of 0.000).

Examining the Third Hypothesis: Technological Factors are Effective in Deploying E-commerce

Technological factors are not effective in deploying e-commerce. H0: M≤3

Technological factors are effective in deploying e-commerce. H1: M> 3

To test the above test, one-sample t-test was used which resulted in the table presented.

Based on the table, the value of t obtained from the test is 45.98 and since this value is higher than the critical value of \pm 1.96, then the assumption H0 is rejected and the H1 assumption is accepted at confidence level of 99% (Sig: 0.000). mThe average of the responses provided by the statistical sample about the impact of management factors on the deploying of e-commerce is based on Likert's 3.60 out of 5 spectrum. If this average is generalized to the community, the average of responses will range from 3.45 to 3.76. mSince the upper limit of this domain is 3.7 more than the number 3, it can be argued that the technological factors affect the deploying of e-commerce. Therefore, according to the results obtained from the table, our assumption is confirmed at the level of three stars (the significance level of 0.000).

Examining the Fourth Hypothesis: Cost Factors are Effective in Deploying E-commerce

Cost factors are not effective in deploying e-commerce. H0: M≤3

Cost factors are effective in deploying e-commerce. H1: M> 3

Table 1: Result of one-sample T-test to investigate the effect of organizational factors on deploying E-commerce

At confidence level of 95%	Test value=0						
	T value	Freedom degree	Significant level	Average	At confidence level of 95%		
					Maximum	Minimum	
The effect of organizational factors on deploying E-commerce	74.866	296	0.000	3.53221	3.6256	3.4388	

Table 2: Result of one-sample T-test to investigate the effect of management factors on deploying E-commerce

At confidence level of 95%	Test value=0						
_	T value	Freedom degree	Significant level	Average	At confidence I	evel of 95%	
					Maximum	Minimum	
The effect of management factors on deploying E-commerce	49.389	297	0.000	3.31746	3.4504	3.1845	

Resource: Data of research

Resource: Data of research

Table 3: Result of one-sample T-test to investigate the effect of technological factors on deploying E-commerce

At confidence level of 95%	Test value=0						
	T value	Freedom degree	Significant level	Average	At confidence level of 95%		
					Maximum	Minimum	
The effect of technological factors on deploying E-commerce	45.98	298	0.000	3.6051	3.7609	3.45	

Resource: Data of research

To test the above test, one-sample t-test was used which resulted in the table presented.

According to the table, the value of t obtained from the test is 50.319 and because this value is higher than the critical value of \pm 1.96, then the assumption H0 is rejected and the H1 assumption is accepted at confidence level of 99% (Sig: 0.000). The average of the responses provided by the statistical sample about the impact of cost factors on the deploying of e-commerce based on the Likert spectrum is 3.45 out of 5. If this average is generalized to the community, the average of responses will range from 3.32 to 3.59. Since the upper limit of this domain is 3.7 more than the number 3, it can be argued that cost factors are effective in deploying e-commerce. Therefore, according to the results obtained from the table, our assumption is confirmed at the level of three stars (the significance level of 0.000).

Examining the Fifth Hypothesis: Cultural Factors are Effective in Eeploying E-commerce

Cultural factors are not effective in deploying e-commerce. H0: M≤3

Cultural factors are effective in deploying e-commerce. H1: M> 3

To test the above test, one-sample t-test was used which resulted in the table presented.

According to the table, the value of t obtained from the test is 58.048 and since this value is higher than the critical value of \pm 1.96, then the assumption H0 is rejected and the H1 assumption is accepted at confidence level of 99% (Sig: 0.000). The average of the responses provided by the statistical sample to the impact of cultural factors on the deploying of e-commerce based on the Likert spectrum is 3.18 out of 5. If this average is generalized to the community, the average of responses will be in the range of 3.072 to 3.28. Since the upper limit of this domain is 3.289 more than the number 3, it can be argued that cultural factors are effective in deploying e-commerce. Therefore, according to the results obtained from the table, our assumption is confirmed at the level of three stars (the significance level of 0.000).

Examining the Sixth Hypothesis: Research: Environmental Factors are Effective in Deploying E-commerce

Environmental factors are not effective in deploying e-commerce. H0: M≤3

Environmental factors are effective in deploying e-commerce. H1: M> 3

Table 4: Result of one-sample T-test to investigate the effect of cost factors on deploying E-commerce

At confidence level of 95%			Test va	lue=0		
	T value	Freedom degree	edom degree Significant level Average At confidence level of 95		ce level of 95%	
					Maximum	Minimum
The effect of cost factors on deploying E-commerce	50.319	296	0.000	3.4576	3.5936	3.3216

Resource: Data of research

Table 5: Result of one-sample T-test to investigate the effect of cultural factors on deploying E-commerce

<u></u>								
At confidence level of 95%		-	Test value=0					
	T value	Freedom degree	Significant level	Average	At confidence level of 95%			
					Maximum	Minimum		
The effect of cultural factors on deploying	58.048	296	0.000	3.18133	3.2898	3.0729		

Resource: Data of research

Table 6: Result of one-sample T-test to investigate the effect of environmental factors on deploying E-commerce

At confidence level of 95%			Test value=0					
	T value	Freedom degree	Significant level	Average	At confiden	e level of 95%		
					Maximum	Minimum		
The effect of environmental factors on deploying E-commerce	46.602	298	0.000	3.2222	3.3591	3.0845		

Resource: Data of research

Table 7: Result of one-sample T-test to investigate the effect of market factors on deploying E-commerce

At confidence level of 95%			Test valu	e=0					
	T value	Freedom degree	Significant level	Average	At confidence level of 95%				
					Maximum	Minimum			
The effect of market factors on deploying E-commerce	55.510	298	0.000	3.4389	3.5616	3.3163			

Resource: Data of Research

To test the above test, one-sample t-test was used which resulted in the table presented.

According to the table, the value of t obtained from the test is 46.602 and since this value is higher than the critical value of \pm 1.96, then the assumption H0 is rejected and the H1 assumption is accepted at confidence level of 99% (Sig: 0.000). The average of the responses provided by the statistical sample on the impact of environmental factors on the deploying of e-commerce based on the Likert spectrum is 3.22 out of 5. If this average is generalized to the community, the average of responses will be in the range of 3.0854 to 3.359. Since the upper limit of this domain is 3.35 more than the number 3, it can be argued that environmental factors have an impact on the deploying of e-commerce. Therefore, according to the results obtained from the table, our assumption is confirmed at the level of three stars (the significance level of 0.000).

Examining the Seventh Hypothesis: Market Factors are Effective in the Deploying E-commerce

Market factors are not effective in deploying e-commerce. H0: $M \le 3$

Market factors are effective in deploying e-commerce. H1: M> 3

To test the above test, one-sample t-test was used. The result is presented in tabular form.

According to the table, the value of t obtained from the test is 55.510 and because this value is higher than the critical value of ± 1.96 , then the H0 is rejected and the H1 is accepted at confidence level of 99% (Sig: 0.000).

Investigating The Hypothesis Of Determining The Effect Of Managers' Attitude on E-Commerce on The Desirability Of E-Commerce at TehranIndustrial Companies.

Regarding the results of fitting the structural equation model in the following diagram, the effect of managers 'attitude toward e-commerce in desirable e-commerce deploying is 0.92, which shows the high effect of managers' attitude on the desirability of e-commerce in industrial companies of Tehran province.

Investigating The Hypothesis Of Determining The Effect of Organizational Readiness Variable on The Desirability Of E-Commerce at TehranIndustrial Companies.

According to the results of the fitting of the structural equation model in the following diagram, the effect of the variable of organizational readiness of Tehran's industrial companies on the desirable deploying of e-commerce has been 0.85, which shows the high effect of organizational readiness variable on the desirability of e-commerce in industrial enterprises of the province Tehran is It is also concluded from the model that the managers' attitude toward the deploying of e-commerce in Tehran's industrial companies has a greater impact on organizational readiness.

DISCUSSION AND CONCLUSION

Small and large companies in most developing countries, including Iran, play an important role in the business system, GDP and employment. The use of e-commerce in this major part of the national economy will have huge gains.

The use of technology innovations is a kind of change that affects the processes and components of the business system and generally has a positive impact. The study of the factors affecting the use of e-commerce is key, because managers find out which variables in the use of e-commerce are preventing and negatively affecting which variables are facilitating and have a positive effect. This leads to better and more efficient planning for e-commerce, removing obstacles and strengthening facilitators. Organizations that do not use this new tool will be strategically vulnerable.

First Hypothesis of Research: Organizational Factors are Effective in Deploying E-commerce

The findings of this study showed that organizational factors are effective in deploying e-commerce in Tehran's industrial companies.

The results of this study are aligned with Rashid and Karim (2001) as the framework for admission e-commerce technology in small and medium sized organizations that consider organizational factors as factors affecting the use of e-commerce. In addition, Ling (2001) also described the

factors influencing the adoption of e-commerce in small and medium organizations as an organizational factor in the majority of organizational readiness variables, and has been effective in making decisions on the use of e-commerce in organizations. Aceran and Kawai (2000) Zhu and others (2002) Wang and Tayy (2002) Robbins and Coleter (2005) Grundon et al. (2003) (Sydney Kalli and Komb et al. (2005) San Morgan (2001) Thatcher et al. (2006) Chong (2005) Kee Yong Song (2006) Khaled Sulayman and Brin Johns (2004) Philines Johansson and Wagner) And on domestic research, also with the results of Haj Karimi and Azizi's research (2008), entitled "Designing a Pattern of Factors Affecting the Use of E-Commerce in Small Iranian Companies" by examining the use of e-commerce in small companies in 7 specific industries to model Based on three organizational factors, the characteristics of e-commerce and market factors were achieved. Also, Amir Ghahremani et al (2007) Hoorali and Montazeri (2009) Fathiyan and Ebrahimi (2008) Arabi and Saeedi (2009) Elahi and Hassanzadeh (2009).

Second Hypothesis of Research: Management Factors are Effective in Deploying E-commerce

The findings of this study showed that management factors are effective in deploying e-commerce in Tehran's industrial companies.

The results of this study are aligned with the results of foreign research, including Hyung (2003), described the barriers to e-commerce to identify barriers to deploying e-commerce, most worrying about the inadequacy of senior management support and the lack of interest of managers. The implementation of e-commerce has been mentioned, as well as the research by Khaled Sulayman and Brinh Johns (2004) to identify the key factors influencing the decision making of deploying web-based information systems in organizations, which examined nine factors that significantly affect decision-making deploying Webbased information systems among organizations Is. In this regard, top management support based on this research is a key determinant of success and has shown a significant relationship between the level of senior management support and the admission of deploying web-based information systems, and also with the results of Holly's research (2002), Kott and Chan (2001) Rashid and Karim (2001) Aceran and Kavai 2000, Ling (2001) Zoe and others (2002) Robbins and Coulter (2005) Grundong et al. 2003, San Morgan (2001) Chong (2005) Ki Yong Sung (2006) Philines Johansson and Wagner (2003). Concerning internal research with the results of the researches of Haj Karimi and Azizi 1387, Amir Ghahremani et al (2008) Hoorali and Montazeri (2009) Fathiyan and Ebrahimi (2008) Arabi and Sa'idi (2009) and Allah and Hasanzadeh (2009) An investigation into the framework for finding e-commerce admission in Iranian companies has proven that corporate governance and leadership are the appropriate benchmark for admission e-commerce.

Third Hypothesis of Research: Technological Factors are Effective in Deploying E-commerce

The findings of the research showed that technological factors in the deploying of e-commerce in Tehran's industrial enterprises is effective. The results of this study are aligned with the results of foreign research, including Javeli and Ramsay 2001, which have studied the factors influencing e-commerce e-commerce in their research titled "E-commerce Strategic Issues," and listed e-commerce as one of the broader uses of the Internet., And its growth has been attributed to the development of infrastructures such as related information technology and communications, Keynerk et al. (2005), Eid, Truman and Ahmed (2002), Maris Jess Martinson (2001) Industries (2010) Thatcher et al. (2006) Hyung (2003) Holly (2002) Kutta and Chas (2001) Rashid and Karim (2001) Ling (2001) Xu et al. (2002) Wang and Tsi 2002, Robbins and Coleter (2005) Ling (2001) Grundoun et al. (2003 San Morgan, 2001 Chong (2005), Kee Yong Song (2006) Khalid Sulayman and Brin Johns (2004) Philines Johansson and Wagner 2003 have achieved similar results. Concerning internal research with the results of Fathian and Ebrahimi (2008) research, the study of the effects of using e-commerce in small and medium-sized enterprises of the country, impeded the use of e-commerce in companies, security risks and the lack of computer skills and lack of Baba Goli and others, 2009, Fereydouni (2007), Esfidani and Kermani (2004), Haj Karimi and Azizi, 2008, Amir Ghahremani et al. (2007) Hoorali and Montazeri (2009) Arabi and Saeedi 2009, Elahi and Hassan Zadeh (2009).

Fourth Hypothesis of Research: CostFactors are Effective in Deploying E-commerce

The findings of this study showed that cost factors in the deploying of e-commerce in Tehran's industrial enterprises are effective. These results are aligned with results of Elishstrom and Nilsson 2001, San Morogsan (2010) Aceran and Kavai (2000) Maris Jess Martinson (2001) Industries (2010) Thatcher et al. (2006) Hyung (2003) Holly (2002), Kotta and Chun, (2001) Rashid and Karim (2001) Ling (2001) Zoe et al. (2002) Robbins & Coulter 2005, Ling (2001) Grundon et al. (2003) San Migozan (2001), Chong (2005), Ki Yong Song (2006), Philines Johansson and Wagner (2003), and internal research with the results of Baba Goli et al. (2009) Fereidouni (2007) Haj Karimi and Azizi (2008) Ghahremani et al. (2007) Hoorali and Montazeri (2009) Fathiyan and Ebrahimi 2008, Arabi and Saeedi 2009, and Elahi and Hasanzadeh (2009), which in the dimension of organizational factors considered financial resources as a suitable measure for evaluating the admission of e-commerce.

Fifth Hypothesis of Research: Research Findings Showed that Cultural Factors are Effective in Deploying E-commerce in Tehran's Industrial Companies

Results of this study are aligned with the results by Al-Jafari, Ponz and Collins (2007), Maris, JM Martinson (2001) Tacro et al. (2006) Hyung (2003) Kotta and others like 2001, Aceran and Kawai 2000, Ling (2001) Zhu and others (2002) Robbins and Coulter Ling 2001, Grundon et al. (2003) San Morgan (2001) Chong (2005) Kee Yong Song (2006) Khaled Sulayman and Brin Johns (2004) Philines Johansson and Wagner (2003) Concerning internal research with the results of Movahedi and Visi (2007) research, the barriers and cultural problems of deploying e-commerce in Iran that distinguish between cultures, the tendency to face-toface deals, language problems, the diversity of markets, differences in customs and customs One of the barriers to the deploying of e-commerce is the research of Ghoulam Nabi and Feiz Chak, Haj Karimi and Azizi (2008) Amir Ghahramani et al (2008) Hoorali and Montazeri (2009) Fathiyan and Ebrahimi (2008) Arabi and Sa'idi (2009) Elahi and Hassanzadeh (2009).

Sixth Hypothesis of Research: The Findings of this Study Showed that Environmental Factors are Effective in Deploying E-commerce in Tehran's Industrial Companies

The results of this study, with the results are aligned with foreign research, include Javeli and Ramsay (2001), which focus on infrastructures such as social, cultural, commercial, legal, and government as factors affecting e-commerce growth, and Hyung (2003) Holly (2002) San Morgenson (2010) Toucher et al. (2006) Keinerck et al. (2005) Maris Jess Martinson (2001) Industries 2010, Thatcher et al. (2006) Kutta and Chan (2001) Rashid and Karim (2001) Ling 2001, Zhu and others (2002) Robbins & Coulter (2005) Ling (2001) Grundon et al. 2003, Chong (2005) Kay Yong Song (2006) Khaled Sulayman and Brin Johns (2004) by Philines Johansson and Wagner (2003) and on domestic research with the findings of Gholam Nabi Feyz Chak, 2003, entitled Legal and Legal Status of E-Commerce in the World and Iran. Having comprehensive rules and regulations is one of the main requirements of e-commerce implementation in Iran, and Fathihan and Ebrahimi (2008), in the presence of political problems or restrictions, lack of suitable legal environment for e-commerce development and lack of government support from SME companies He also mentioned Fereidouni 2007, Haj Karimi and Azizi (2008) Amir Ghahremani et al. (2007) Hoor Lee and Montazeri (2009) Arabs and Saeedi (2009) Elahi and Hassanzadeh (2009).

Seventh Hypothesis of Research: Market Factors are Effective in Deploying E-commerce

The findings of the research showed that market factors are effective in deploying e-commerce in Tehran's industrial companies.

The results of this study, with the results of foreign research including Ling (2001), in his study of competitive dynamics as a positive factor affecting companies' eagerness to use e-commerce as well as customer dynamics that influences decision making on e-commerce. Also, the research by Khaled Sulayman and Brin Johns (2004) by Marie G. Martinson, 2001, Holly (2002), Kutty and Rose (2001), Rashid and Karim (2001), Aceran and Kawai (2000), Ling (2001), Zow et al. (2002) Robbins and Coltter 2005) Ling (2001) Grundon et al. (2003) San Morgan (2001) Cheung (2005) Kee-Jung Sung 2006, Philines Johansson and Wagner (2003) Regarding internal research, the results of Haj Karimi and Azizi's researches (2008) that designed the design of the factors affecting the use of e-commerce in small Iranian companies and based on three organizational factors, the characteristics of e-commerce and market agents have achieved As well as Amir Ghahramani et al (2008) Hoorali and Montazeri (2009) Fathiyan and Ebrahimi (2008) Arabi and Saeedi (2009) Elahi and Hassanzadeh (2009) are aligned.

Eighth Hypothesis of Research: Determining the Effect of Managers 'Attitude on E-commerce in its Desirable Deploying in Tehran's Industrial Companies

According to the results of structural equation modeling, the effect of managers' attitude on e-commerce in desirable e-commerce deploying is 0.92. Which shows the high impact of managers' attitude on the desirable deploying of e-commerce in Tehran's industrial enterprises.

Ninth Hypothesis of Research: Determining the Effect of the Variable of Organizational Readiness of Tehran's Industrial Enterprises on the Desirability of E-commerce

Regarding the results of fitting the structural equation model, the effect of variable of organizational readiness of Tehran's industrial enterprises on the desirable deploying of e-commerce is 0.85, which shows the high impact of organizational readiness in the deploying of optimal e-commerce in industrial companies in Tehran province.

It is also concluded from the model that managers' attitudes have a greater impact on deploying of e-commerce in Tehran's industrial companies.

REFERENCES

- Baba Goli, Iman, Khanlarzadeh, Fatemeh (2010), Obstacles to the growth of e-commerce in Iran, The first national conference and the 4th Khavaran Higher Education Institute conference: New Technologies in Engineering Sciences.
- Baba Goli et al. (2009), Challenges and Solutions for E-Commerce Development in Iran, 6th International Conference on Information and Communication Technology Management.
- Ghorbani, Majid, Khaledi, Mohammad; Shokat Fadaei, Mohsen (2009), Examining the Barriers to Using E-Commerce in Industries Affiliated to Mazandaran Province.

Farahani, et al.: Creation and Establishment of E-Commerce in Small and Large Industrial

- Mozhdehi, Nahid, Mehraban, Amir Reza; Jalali, Ali Akbar (2007), Architecture of Electronic Business Models in E-Commerce, Fourth National Electronic Commerce Conference.
- Alexandra Krewinkel (2016), "Concept for automated computer-aided identification and evaluation of potentially non-compliant food products traded via electronic commerce"
- 6. Murugesan, S. (2010), "E-Commerce 2,0 and Emerging Markets 1,0:
- Embracing New Frontiers", E-Commerce in Developing Countries, New Delhi: Elpis Press.
- Macgregor, R.C., Vrazalic, L., (2005), "A Basic Model of Electronic Commerce Adoption Barriers: A Study of Regional Small Businesses. in Sweden and Australia", Journal of Small Business and Enterprise Development, Vol. 12, No. 4, pp. 510 – 527.

How to cite this article: Farahani ME, Maeen M, Najafzadeh S. Factors Affecting the Creation and Establishment of E-Commerce in Small and Large Industrial Companies of Tehran Using Structural Equation During the Period 2015-2016. Int J Sci Stud 2017;5(5):192-201.

Source of Support: Nil, Conflict of Interest: None declared.