

IDENTIFYING THE CULTURAL FACTORS AFFECTING THE ACCEPTANCE OF IT CULTURE AMONG THE PERSONNEL WORKING IN INDUSTRIES ACCOMMODATED IN THE TECHNOLOGY & INDUSTRY PARK IN EAST AZERBAIJAN PROVINCE- TABRIZ

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ABSTRACT

The function of new technologies is considered as a key factor in the development of the companies in recent years that emphasizes the importance of studying the factors affecting the acceptance of IT culture. The present study has been done with the aim of identifying the factors affecting the acceptance of IT in companies accommodated in Science & Technology Park in East Azerbaijan and raises the question that what factors can have key roles in the process of IT acceptance. The model that can study the individual acceptance of IT is named TAM. The method of the research is survey research with functional approach. This model has been designed especially for modelling the acceptance of IT by the users and has been used widely in applied researches on information systems. The developed kind of the mentioned model is consolidated acceptance theory and usage of UTAUT technology. The necessity and importance of the present study is that acculturation and use of IT promote the quality level of services, reduce the expenses, and cause immediate communication with all audiences; ultimately, the development of the industry and the optimization of the production through appropriate management methods will be the results. Enhancing the profitability and proficiency resulting from the effect of information systems will be by itself so important that it can be positively important in the future of the companies choosing this strategy. It must be concluded that the profitability of the usage, the ease of use, and the mental norms influence on the IT acceptance through the behavioral intention variable; on the other hand, age and gender as moderator variables are effective on the behavioral intention of the users.

Key words: Information Technology, Consolidated Acceptance of Technology Model, Science & Technology Park

INTRODUCTION

Accessing to IT, dominating on communication and information technology and using it in various ways are among the important components of power in present age which shouldn't be ignored. Nowadays the companies' structures and culture have been changed in such a way that all people throughout the world in each age, way of thinking, political, social, and cultural class can use information technology. This subject needs the cooperation and investment of the private and state sections. In addition, in this field, appropriate acculturation must be achieved which

while explaining the importance of considering the areas of creating the culture of IT acceptance, it justifies the goals of this research. Also, due to the technical and practical development, increase of complications and organizations' inside and outside changes, the organizations have to ask for help from IT to survive; so, it is the responsibility of the companies' management systems to become aware of the ability of the effectiveness of IT on all functions and dimensions and do their bests to direct it toward organizational objectives (Fatemi Harandi, 2005).

This research aims to explain how culture affects the IT acceptance. The individuals should be familiar with IT by acculturation and cultural support so that they can accept responsibility in different fields and jobs; so, cultural support is vital in this field. There is no doubt that in moving towards the information society, some factors undertake structural changes inevitably. On the other hand, by providing software and hardware facilities, there will be the opportunity to create the area to develop the talents.

The necessity and importance of the present study is that acculturation and use of IT promote the quality level of services, reduce the expenses, and cause immediate communication with all audiences; ultimately, the development of the industry and the optimization of the production through appropriate management methods will be the results. Enhancing the profitability and proficiency resulting from the effect of information systems will be by itself so important that it can be positively important in the future of the companies choosing this strategy.

BACKGROUND OF THE STUDY

Theoretical Background

IT acceptance means the explainable and provable satisfaction to use IT for supporting the tasks for which IT has been designed (Dillon, 1996). This subject has been often used in longitudinal studies done on new IT (Venkatesh, 2000), or where IT has not been practiced yet but, the trend and the intention of using IT has been measured in form of a variable. The researches in which the word 'acceptance' has been used tend to be directed toward the IT Acceptance Model (TAM) theoretically (Davis, 1989). The studies using the term "acceptance" often use TAM as a theoretical event. TAM has been a common topic in researches on IT, there have been theoretical aspects to understand its determinant factors the most important of which in past years were the users' satisfaction and the system's function. Although it has been a lot to mix these two research flows, the flow of discovering the system's function has been common in recent years. Lots of models have been developed to predict the system's function. These models have discovered many aspects to affect IT acceptance which have concentrated on the way of forming beliefs, organizational functions such as the effects of IT acceptance, and the differences among the individuals in the process of IT acceptance. These theoretical events are similar in explaining about the variables that lead to the use of IT in wide scopes (Lai, 2005). In the studies related to the IT acceptance there have been some drawbacks including; the lack of evidences related to the factors affecting IT acceptance by experts and the lack of enough studies related to IT acceptance; however, lots of theoretical views have been formed to realize the factors affecting the users' decisions to accept IT; the logic behind the research trends is that the users should accept the system if they want to benefits resulting from the investment on IT. Of course, this problem cannot be solved easily and although lots of researches have been done, unknown factors relating to the factors affecting the users' decision to accept IT still remain (Johnson, 2005). Due to the low acceptance of IT in undeveloped and developing countries, it seems that,

there is a relationship between the concept of electronic readiness and IT acceptance. To study the IT acceptance, various methods have been designed, for example, Innovation Diffusion Theory, Theory of Reasoned Action, and Theory of Planned Behavior. The IT Acceptance Model is one of the most important and usable models in the field of IT acceptance. The applied studies have shown that TAM explains about the difference between the behavior intentions and actual use. Despite this wide research trend, there are still some unanswered questions and although the studies on TAM have studied information systems in each and every possible group due to the topic, the capacity of TAM to describe the IT acceptance in impossible places has not been proved (Lee, 2003; Straub, Keil & Brenner, 1997; Chen, 2007). Moreover, most of the researches have been done in America and in Asia, a few studies have been done.

LITERATURE REVIEW

Due to the increase of the organizations' investment in the field of using IT in recent decades, one of the concerns is that whether the huge expenses spent have been able to meet the benefits expected by the organizations' managers? At least a part of these concerns is related to the IT acceptance by the users. The experts in the field of human resources management are interested in realizing the factors affecting IT acceptance by the users based on which design a model to reduce the users' resistance (Dillon, 2001). Identifying the factors affecting new technology acceptance can help the management of change in organizations and increase of IT acceptability from the viewpoint of the users.

For some decades, IT acceptance by the users has been considered by the researchers and it seems that recognizing the way the users decide to accept IT has been one of the most important challenges to implement the plans and their management issues (King, 2006). It should be mentioned that, the factors affecting different IT acceptance are different based on the technology, users, and existing conditions. Reviewing the related literature it can be noticed that various theories have been suggested on IT acceptance among them Roger's Innovation Diffusion Theory is the most important. This theory studies the technology acceptance along the societies and comments less on individual process. The model that can study individual IT acceptance is named TAM which is specially designed for modeling the information system acceptance by the users and has been used widely in applied researches on information systems (Legris, 2003), this model is the basic model for the studies on the acceptance of the systems such as mobiles, internet, and electronic services. Various studies done using TAM have increased the validity of this model (Moon, 2001).

(Davis & Bagozi, 1989) in their research have introduced the Technology Acceptance Model (TAM) and Theory of Reasoned Action first and then they have studied the factors affecting the acceptability and use of a word processing software using TAM among 107 students. The results show that students' interpretation of the usability of the technology has had significant effects on the decision to use it, while, the students' interpretation of the ease of using this technology has had less significant effect on their decision. The result of this research has suggested the capability of simple but powerful function of the models determining the factors of acceptance (Davis, 1989).

(Pan, Sivo & Brophy, 2003) have studied the effects of five variables independent from the interpretation of usefulness, interpretation of the ease of use, attitude toward the use, mental norms and self-belief in the field of computer on the dependent variable of using web system, and the existence of cause and effect relationship between them. The result of the research showed that TAM showed weak use capability in the university the study was done and only

some of its factors affected the system acceptance (Pan, 2003). There wasn't any causal relationship among the variables 'interpretation of usefulness', 'interpretation of the ease of use', 'attitude toward the use of system' and the students' attitudes toward using this system and their mental norm have been identified as determining factors for using the system.

(Algahtani, 2001) did research using TAM with the aim of studying the capability of using TAM in other cultures rather than American culture and factors affecting IT acceptance using this model. The results proved the capability of using this model in England and showed that personal attitudes, interpretation of the ease of use, interpretation of usefulness were the most efficient factors in accepting IT (Sheikh Shojaii, 2003).

Another research done by (Reeta Raito Harju, 2007) on IT acceptance in Finland Health Center, the research Variables were tested using TAM. In this research the literature review has been studied extensively. According to her the researches using the word 'acceptance' are directed toward Davis's Technology Acceptance Model theoretically, but the word 'Adoption' is often used in researches in which IT is used and implemented, this term is usually used in researches whose theoretical basis is TRA or Theory of Reasoned Action. These two terms are different; with the term adoption, the user is in a more stable situation toward the subject and his. Her attitude is formed by practical use of IT. The term diffusion refers to the flow of IT and its generalization in specific areas. This term is used in researches that use Innovation Diffusion Theory and study IT extensively. All the studied have focused on the way beliefs are shaped, how organizational measures such as education affect IT, how individual differences affect IT acceptance process. The result of research is as following:

1. Supporting the individuals for using IT increases understanding of the simplicity of IT use (weak).
2. Teaching individuals IT increases understanding of the simplicity of IT use (strong).
3. Teaching individuals IT increases understanding of the profitability of IT use (unproved).
4. Supporting the individuals for using IT increases understanding of the profitability of IT use (unproved).
5. The relationship between understanding of the simplicity and profitability of IT use is positive, the simpler the audience knows the IT use, the more their understanding is toward its profitability (proved and strong).
6. The relationship between understanding of the profitability of IT and its use is positive (proved and very weak).
7. The relationship between understanding of the simplicity of IT and its use is positive (proved and weak).

(Rose & Strop, 1998) have compared the models related to Innovation Diffusion Theory rooted in developed countries with the situations in developing countries; especially the use of TAM in Arab world, the result showed TAM was valid in two groups of countries. In fact, in Arab countries there has been emphasis on logical factors such as profitability and simplicity of use of a new system has led to better acceptance and use of it (Sheikh Shamaii, 2004).

RESEARCH HYPOTHESES

Major Hypothesis:

H1: Cultural Factors on IT acceptance in the staff working in Science & Technology Park in East Azerbaijan have significant positive effects.

Minor Hypotheses:

H2: The profitability of IT acceptance has positive significant effect on the user's intention.

H3: The simplicity of IT acceptance has positive significant effect on the user's behavioral intention.

H4: Mental norms to use IT have positive significant effect on the user's behavioral intention.

H5: Facilitating conditions to use IT has positive significant effect on the IT acceptance.

H6: The user's behavioral intention to use IT has positive significant effect on IT acceptance.

H7: Gender is a moderator of relationship between profitability of using IT and the user's behavioral intention.

H8: Age is a moderator of relationship between profitability of using IT and the user's behavioral intention.

H9: Gender is a moderator of relationship between simplicity of using IT and the user's behavioral intention.

H10: Age - Age is a moderator of relationship between simplicity of using IT and the user's behavioral intention.

H11: Experience is a moderator of relationship between simplicity of using IT and the user's behavioral intention.

H12: Gender is a moderator of relationship between mental norms and the user's behavioral intention.

H13: Age is a moderator of relationship between mental norms and the user's behavioral intention.

H14: Experience is a moderator of relationship between mental norms and the user's behavioral intention.

H15: Age is a moderator of relationship between facilitating conditions and IT acceptance.

H16: Experience is a moderator of relationship between facilitating conditions and IT acceptance.

RESEARCH METHOD

As this research measures the cultural factors on IT acceptance among the staff working in Science & Technology Park in East Azerbaijan is correlational methodologically and applied research from the goal viewpoint, the population consists of 72 participants accommodating in Science & Technology Park in East Azerbaijan-Tabriz, the data collected through a census. Data analysis and interpretation was conducted using SPSS. Questionnaire was approved by the experts. To measure the questionnaire's reliability Alpha Cronbach and since the correlation

coefficient was higher than 0.7, it was reliable. To analyze and interpret the data descriptive statistics (percentage, frequency, mean) and to accept or reject of the research variables inferential statistics (correlation coefficient) were used.

THE RESEARCH FINDINGS

Testing Normality Assumption

The results of measuring 6 variables showed in Table 1

Variables	Colmograf Smirnof Z	Sig	Normality	The Used Tests
Profitability	1.08	0.025	Normal	Parametric
Easiness	1.51	0.068	Normal	Parametric
Mental Norms	0.998	0.035	Normal	Parametric
Facilitating Conditions	1.865	0.057	Normal	Parametric
Behavioral Intention	1.11	0.062	Normal	Parametric
Behavior of Using Computer	1.105	0.058	Normal	Parametric

Source: The researcher's findings

It shows that all variables are normal in 7% and parametric tests are used to study their conditions.

Testing Research Hypotheses

Minor Hypothesis 1

The profitability of IT acceptance has positive significant effect on the user's intention. Pearson's correlation test results on the 1st hypothesis variables showed in Table 2.

Indices. variables	Pearson's correlation	R2- squared	Significance level	SEM	Number
Profitability of use & behavioral intention	0.533	0.284	0.000	0.01	61

Source: SPSS

The results show that Pearson's correlation coefficient of 0.533 is significant with $0.000 < 0.05$ and SEM of 0.01 and 99% confidence, it can be said that there is correlation between the variables; the first null hypothesis is rejected and the first directional hypothesis is supported. Since the correlation coefficient is positive, it can be said that the profitability of using IT has positive correlation with the user's intention.

Minor Hypothesis 2

The simplicity of IT use has positive significant effect on the user's behavioral intention. Pearson's correlation test results on the 2nd hypothesis variables showed in Table 3.

Table 3 PEARSON'S CORRELATION TEST RESULTS ON THE 2 ND HYPOTHESIS VARIABLES					
Indices. variables	Pearson's correlation	R2- squared	Significant level	SEM	Number
Simplicity of use & behavioral intention	0.546	0.298	0.000	0.01	61

Source: SPSS

The results show that Pearson's correlation coefficient of 0.546 is significant with $0.000 < 0.01$ and %99 confidence, it can be said that there is correlation between the variables; the first null hypothesis is rejected but the first directional hypothesis is supported. Since the correlation coefficient is positive, it can be said that the simplicity of using IT use has positive correlation with the user's intention.

Minor Hypothesis 3

Mental norms to use IT have positive significant effect on the user's behavioral intention. To investigate this hypothesis Pearson's correlation coefficient was used. Pearson's correlation test results on the 3rd hypothesis variables showed in Table 4.

Table 4 PEARSON'S CORRELATION TEST RESULTS ON THE 3 RD HYPOTHESIS VARIABLES					
Indices. variables	Pearson's correlation	R2- squared	Significant level	SEM	Number
Mental norms with behavioral intention	0.341	0.116	0.000	0.01	61

Source: SPSS

The results show that Pearson's correlation coefficient of 0.341 is significant with $0.000 < 0.01$ and %99 confidence, it can be said that there is correlation between the variables; the first null hypothesis is rejected but the first directional hypothesis is supported. Since the correlation coefficient is positive, it can be said that the mental norms with behavioral intention of using IT use have positive correlation.

Minor Hypothesis 4

Facilitating conditions to use IT has positive significant effect on the IT acceptance. To investigate this hypothesis Pearson's correlation coefficient was used. Pearson's correlation test results on the 4rd hypothesis variables showed in Table 5.

Table 5 PEARSON'S CORRELATION TEST RESULTS ON THE 4TH HYPOTHESIS VARIABLES				
Indices. variables	Pearson's correlation	Significant level	SEM	Number
Facilitating conditions with behavior of use of computer	0.097	0.138	0.05	61

Source: SPSS

The results show that Pearson's correlation coefficient of 0.097 is significant with $05.0 < 138.0$ and %95 confidence, it can be said that there is no correlation between the variables; the first null hypothesis is not rejected but the first directional hypothesis is rejected. It can be said that there is not a positive correlation between facilitating conditions and behavior of computer use.

Minor Hypothesis 5

The user's behavioral intention to use IT has positive significant effect on IT acceptance. To investigate this hypothesis Pearson's correlation coefficient was used. Pearson's correlation test results on the 5th hypothesis variables showed in Table 6.

Table 6 PEARSON'S CORRELATION TEST RESULTS ON THE 5TH HYPOTHESIS VARIABLES					
Indices. variables	Pearson's correlation	R2- squared	Significant level	SEM	Number
Behavioral intention with behavior of computer use	0.229	0.052	0.04	0.05	61

Source: SPSS

The results show that Pearson's correlation coefficient of 0.229 is significant with $5.0 > 04.05$ and %95 confidence, it can be said that there is no correlation between the variables; the first null hypothesis is rejected and the first directional hypothesis is supported. Since the correlation coefficient is positive, it can be said that behavioral intention to use IT has positive correlation with behavior of its use.

Since there was significant relationship between profitability of use, the ease of use, mental norm with behavioral intention, Multiple Regression Test was used to measure the amount of effect of each variable; this test studies the share of one or more independent variable to predict dependent variables (Bazargan, 2008). Table 7 of Multiple Regression Test of Behavioral Intention.

Statistical indices	(MR)Correlation coefficient	R2 Adjusted	F value probability	Beta Regression coefficient
Profitability of use				B1=0.422 t=8.29 p<0.001
Ease of use	0.681	0.44	F=66.43 P=0.000	B2=0.44 t=7.84 P<0.001
Mental norm				B3=0.22 t=6.043 P=0.02<0.05

Source: SPSS

Multiple Regression Test's finding shows that $F=66.43$ with significant level of $p<0.001$ is significant, so it can be said that in general, there is a relationship between profitability of use, ease of use, and mental norm with behavioral intention; it means, the dependent variables appropriately predict the behavioral intention. Also, due to Beta coefficient, respectively, the ease of use has the most effect ($B2=0.44$), then, profitability of use ($B1=0.42$) and mental norm ($B3=0.22$) has the least effect.

In this section, the analysis of the effect of moderator variables including gender, age, and experience on major variables has been offered that after changing independent variables (profitability of use, mental norm, and facilitating conditions) into bi-categorical variables in three levels of high, middle, and low, two-directional variance analysis was used to investigate the minor hypotheses. The results of the analysis are offered in order of the hypotheses.

Minor Hypothesis 6

Gender is a moderator of relationship between profitability of using IT and the user's behavioral intention (H1a). Results of two-directional variance of 6th hypothesis showed in Table 8.

Source of changes	Sum of squares	Degree of freedom	Mean of squares	F value	Significance level	Level of error
Profitability of use variable	226.926	2	113.463	36.967	0.000	0.01
Gender variable	7.303	1	7.303	2.38	0.124	
Mutual effect of gender & profitability of use	0.659	2	0.329	0.107	0.898	
Intragroup error	699.795	228	3.069			
Total	35960	223				

Source: SPSS

The results show that the observed F value of 0.107 is not significant to investigate the effect of the relationship of gender and profitability of use with the significance level of $P=0.898>0.05$ is not significant. So, gender is not the moderator of the relationship between profitability of use of IT with the behavioral intention of computer user.

Minor Hypothesis 7

Age is a moderator of relationship between profitability of using IT and the user's behavioral intention (H1b). Results of two-directional variance of 7th hypothesis showed in Table 9.

Table 9 RESULTS OF TWO-DIRECTIONAL VARIANCE OF 7 TH HYPOTHESIS						
Source of changes	Sum of squares	Degree of freedom	Mean of squares	F value	Significance level	Level of error
Profitability of use variable	81.015	2	40.507	13.275	0.000	0.01
Age variable	14.855	3	4.952	1.623	0.185	0.05
Mutual effect of age & profitability of use	5.905	6	0.984	0.323	0.925	
Intragroup error	677.401	222	3.051			
Total	1053.316	233				

Source: SPSS

The results indicate that the observed F value of 0.323 is not significant to investigate the mutual effects of age and profitability of the use with the significant level of $p=0.925>0.05$, it means that age isn't the moderator of relationship between profitability of use with behavioral intention of using internet.

Minor Hypothesis 8

Gender is a moderator of relationship between simplicity of using IT and the user's behavioral intention (H2a). Results of two-directional variance of 8th hypothesis showed in Table 10.

Table 10 RESULTS OF TWO-DIRECTIONAL VARIANCE OF 8 TH HYPOTHESIS						
Source of changes	Sum of squares	Degree of freedom	Mean of squares	F value	Significance level	Level of error
Ease of function	237.305	2	118.653	36.951	0.000	0.01
Gender	4.171	1	4.171	1.299	0.256	0.05
Mutual effect of gender & ease of function	32.472	2	16.236	5.056	0.007	
Intragroup error	732.131	228	3.211			
Total	1053.316	233				

Source: SPSS

The results show that observed F value of 5.056 is significant to investigate the mutual effects of gender & ease of function with significant level of $p=0.007<0.05$, it means that gender is the moderator of the relationship between ease of function with behavioral intention of using computer; it must be concluded that there is significant difference between all low, mid, high levels of ease of use and the moderator variable has effects indirectly on the relationship between the ease of use and behavioral intention of use of computer. Considering the average responses of 32.18 to the variable of ease of use mentioned in descriptive statistics given by the respondents, it is clear that the females get more effects than males in relationship between ease

of use and behavioral intention and the female personnel need more simplicity of use of computer in related works.

Minor Hypothesis 9

Age is a moderator of relationship between simplicity of using IT and the user's behavioral intention (H2b). Results of two-directional variance of 9th hypothesis showed in Table 11.

Table 11						
RESULTS OF TWO-DIRECTIONAL VARIANCE OF 9TH HYPOTHESIS						
Source of changes	Sum of squares	Degree of freedom	Mean of squares	F value	Significance level	Level of error
Ease of function	87.885	2	43.943	13.779	0.000	0.01
Age	45.316	3	15.105	4.736	0.003	0.05
Mutual effect of age& ease of function	15.847	6	2.641	0.825	0.047	
Intragroup error	708.002	222	3.189			
Total	1053.316	233				

Source: SPSS

The results show that observed F value of 0.828 is significant to investigate the mutual effects of age with significance level of $p=0.047 < 0.05$ and age is moderator of the relationship between ease of use with behavioral intention of computer, but due to F value of age variable 4.73 and significance level of $P=0.005$, it can be said that the rate of individuals' age has effects on the behavioral intention directly. Considering the average responses of 33.29 to the variable of ease of use mentioned in descriptive statistics given by the respondents, it is clear that the individuals with the age of 25 and younger get more effects than others in different ages in relationship between ease of use and behavioral intention and this range of age need more ease of use of computer in related works.

Minor Hypothesis 10

Experience is a moderator of relationship between simplicity of using IT and the user's behavioral intention (H2c). Results of two-directional variance of 10th hypothesis showed in Table 12.

Table 12						
RESULTS OF TWO-DIRECTIONAL VARIANCE OF 10TH HYPOTHESIS						
Source of changes	Sum of squares	Degree of freedom	Mean of squares	F value	Significance level	Level of error
Ease of function	95.712	2	47.856	14.941	0.000	0.01
Experience	18.412	3	6.137	1.916	0.128	0.05
Mutual effect of experience& ease of function	38.656	6	6.443	2.011	0.065	
Intragroup error	711.069	222	3.203			
Total	1053.316	233				

Source: SPSS

The results indicate that the observed F value of 2.011 is not significant to investigate the mutual effects of experiment and ease of use with the significant level of $p=0.065>0.05$, it means that experiment isn't the moderator of relationship between ease of use with behavioral intention of using internet.

Minor Hypothesis 11

Gender is a moderator of relationship between mental norms and the user's behavioral intention (H3a). Results of two-directional variance of 11th hypothesis showed in Table 13.

Source of changes	Sum of squares	Degree of freedom	Mean of squares	F value	Significance level	Level of error
Mental norm	71.143	2	35.571	8.492	0.000	0.01
Gender	2.030	1	2.030	0.485	0.487	0.05
Mutual effect of gender & mental norm	1.653	2	0.827	0.197	0.821	
Intragroup error	955.062	228	4.189			
Total	1053.316	233				

Source: SPSS

The results indicate that the observed F value of 0.197 is not significant to investigate the mutual effects of gender and mental norm with the significant level of $p=0.821>0.05$, it means that gender isn't the moderator of relationship between mental norm with behavioral intention of using internet.

Minor Hypothesis 12

Age is a moderator of relationship between mental norms and the user's behavioral intention (H3b). Results of two-directional variance of 12th hypothesis showed in Table 14.

Source of changes	Sum of Squares	Degree of Freedom	Mean of Squares	F value	Significance Level	Level of error
Mental norm	28.739	2	14.370	3.776	0.024	0.05
Age	68.310	3	22.770	5.984	0.001	
Mutual effect of age & mental norm	28.525	6	4.754	1.249	0.282	
Intragroup error	844.775	222	3.805			
Total	1053.316	233				

Source: SPSS

The results show that observed F value of 1.249 is not significant to investigate the mutual effects of age and mental norm with significance level of $p=0.282>0.05$ and age is not moderator of the relationship between mental norm with behavioral intention of using computer, but due to F ratio of age variable 5.984 and significance level of $P=0.001<0.05$, it can be said that the rate of individuals' age has effects on the behavioral intention directly.

Minor Hypothesis 13

Experience is a moderator of relationship between mental norms and the user's behavioral intention (H3c). Results of two-directional variance of 13th hypothesis showed in Table 15.

Table 15 RESULTS OF TWO-DIRECTIONAL VARIANCE OF 13 TH HYPOTHESIS						
Source of changes	Sum of squares	Degree of freedom	Mean of squares	F value	Significance level	Level of error
Mental norm	46.513	2	23.257	5.688	0.004	0.05
Experience	38.461	3	12.820	3.136	0.026	
Mutual effect of experience & mental norm	24.677	6	4.113	1.006	0.422	
Intragroup error	907.673	222	4.089			
Total	1053.316	233				

Source: SPSS

The results show that observed F value of 1.006 is not significant to investigate the mutual effects of experience and mental norm with significance level of $p=0.422>0.05$ and experience is not moderator of the relationship between mental norm with behavioral intention of using computer, but due to F value of experience variable 3.136 and significance level of $P=0.026<0.05$, it can be said that the rate of individuals' experience has effects on the behavioral intention directly.

Minor Hypothesis 14

Age is a moderator of relationship between facilitating conditions and IT acceptance (H4a).

Minor Hypothesis 15

Experience is a moderator of relationship between facilitating conditions and IT acceptance (H4b). Since the 4th minor hypotheses was rejected, the 9th and 10th minor hypotheses which indicate the moderator roles of age and experience on the variable of facilitating conditions, are not studied; because, if there is no relationship between facilitating conditions and mental norm, the study of effects of moderator variables will be useless.

DISCUSSION

1st Minor Hypothesis

It was claimed that the profitability of using IT has positive significant effects on behavioral intention of use, accordingly, the gained results using Pearson correlation coefficient test for profitability of use and behavioral intention prove the relationship between these two variables. The amount of correlation coefficient between two variables of profitability of use and behavioral intention was 0.533 indicating direct relationship between them whose amount shows the amount of significance between two variables. Results indicate that the staff working in

industries accommodated in East Azerbaijan Science & Technology Park believe that IT is useful, they have accepted its function that helps to increase their efficiency. So, the designers of IT- related systems required by these industries are suggested to consider profitability of use with the users' work needs and design systems which are useful and increase profitability and efficiency of the individuals. (Vatkash, 2003) and (Alghahtani, 2007) have discovered a relationship between the profitability of use and behavior intention. Despite proving the positive relationships between the mentioned variables, the relationship between profitability of use and behavioral intention was rejected in Marchoka's research (2007) that did the research in one of the American universities, and didn't find a positive relationship between two variables.

2nd Minor Hypothesis

It was claimed that the ease of using IT has positive significant effects on behavioral intention of use, accordingly, the gained results using Pearson correlation coefficient test for ease of use and behavioral intention prove the relationship between these two variables. The amount of correlation coefficient between two variables of ease of use and behavioral intention was 0.546 indicating direct relationship between them whose amount shows the amount of significance between two variables. As the ease of use affects the intention of users working in industries accommodated in East Azerbaijan Science & Technology Park in using IT, the managers should affect their employees' understanding by using appropriate advertisement and marketing to increase their intention of using it services, they must prepare conditions so that the users can get mastery over using technology related systems and use them easily; however, (Alghahtani, 2007), did a research in Saudi Arabia with different results and the related hypothesis was rejected, the difference in results can be due to the difference in organizational and cultural conditions.

3rd Minor Hypothesis

It was claimed that mental norm for using IT has positive significant positive relationship with behavioral intention of use, accordingly, the gained results using Pearson correlation coefficient test for mental norm and behavioral intention prove the relationship between these two variables. The amount of correlation coefficient of 0.341 with the significant level of $P=0.000<0.01$ is meaningful. So, since the r is positive correlation, it can be said that mental norm and behavioral intention of using computer have positive relationship; so, the managers of industries accommodated in East Azerbaijan Science & Technology Park are recommended to care more about acculturation in the field of IT acceptance, because the results showed that acculturation can affect the amount of IT acceptance and its use through mental norms and the influence of others. (Wills, 2008), proved the relationship between mental norms and behavioral intention through the similar research he did on the amount of medical electronic files' use and acceptance, He found that after profitability of use, mental norm has the most effect on behavioral intention. (Alghahtani, 2007), found a strong relationship between mental norm and behavioral intention among the studied population Saudi in Arabia.

4th Minor Hypothesis

It was claimed that facilitating conditions to use IT has positive significant relationship with IT acceptance, but the findings rejects this relationship; it means that there wasn't any

correlation between facilitating conditions and behavior of use and there isn't any significant relationship between these two variables. The results can be indicator of the point that these conditions are in industries accommodated in East Azerbaijan Science & Technology Park and their unclear effects on IT acceptance is for the lack of employees' care to the facilitating conditions to use computer; however, in this situation, the managers the managers of industries accommodated in East Azerbaijan Science & Technology Park are recommended to study the facilitating conditions carefully. The findings in this research lend support to the results of the study done by (Alghahtani, 2007), in which facilitating conditions was rejected. On the other hand, this theory was proved in a research done by (Jung, 2009) in Taiwan Electronic University which showed that facilitating conditions has major role on IT acceptance.

5th Minor Hypothesis

It was claimed that behavioral intention to use IT and acceptance of culture of technology have positive and significant relationship, the results using Pearson correlation coefficient test for behavioral intention and behavior of use proves the relationship between these two variables. The amount of correlation coefficient of 0.229 with significance level of $P=0.04<0.05$ is significant, so it can be said that the behavioral intention of IT use and IT use have positive relationship. Therefore, the industries accommodated in East Azerbaijan Science & Technology Park should prepare facilities to use IT services, because access to internet is important for using IT that in case of any ignorance, there would be unpleasant results that affect the users' intention to use technology in future. Moreover, if the users understand the value of IT, he. She will use it in future. These results lend support to the finding of the research done by (Pong, 2007) on information cusks according to which behavioral intention has positive effects on the behavior of IT use.

6th Minor Hypothesis

The study of the mutual effect of age and profitability of use using two-directional variance test with observed F ratio of 0.107 and significance level of $P=0.898>0.05$ is not significant. Therefore age is not the moderator of the relationship between profitability of IT use and behavioral intention of using computer, so this hypothesis was rejected and there wasn't any difference between males and females in accessibility of relationship between these two variables.

7th Minor Hypothesis

The observed F ratio of 0.323 by using two-directional variance test for studying mutual effects of age and profitability of using IT with significance level of $p=0.925>0.05$ is not significant, it means that age isn't moderator of the relationship between profitability of using IT and behavioral intention of using computer; so. This hypothesis was rejected. In other words, there wasn't any difference between individuals in different ages in accessibility of relationship between these two variables.

8th Minor Hypothesis

The observed F ratio of 5.056 by using two-directional variance test for studying mutual effects of gender and ease of using IT with significance level of $p=0.007<0.05$ is significant, it

means that gender is moderator of the relationship between ease of using IT and behavioral intention of using computer; so. This hypothesis was supported. It can be indicated that females more than males are aware of the ease of IT use and eager to use information systems of electronic management.

Table16
THE RESULT OF HYPOTHESES

Results	Not Rejected. Rejected	Sig	Hypotheses
There is a positive relationship between profitability of use and behavioral intention	Not rejected	0	There is a positive relationship between profitability of use and behavioral intention
There is a positive relationship between ease of use and behavioral intention	Not rejected	0	There is a positive relationship between ease of use and behavioral intention
There is a positive relationship between mental norm and behavioral intention	Not rejected	0	There is a positive relationship between mental norm and behavioral intention
There is not a positive relationship between facilitating conditions and acceptance of IT culture	rejected	0.138	There is a positive relationship between facilitating conditions and acceptance of IT culture
There is not positive relationship between behavioral intention and acceptance of IT culture	rejected	0.04	There is a positive relationship between behavioral intention and acceptance of IT culture
Gender does not moderate the relationship between the profitability of use and behavioral intention	rejected	0.898	Gender moderates the relationship between the profitability of use and behavioral intention
Age does not moderate the relationship between profitability of use and behavioral intention	rejected	0.925	Age moderates the relationship between profitability of use and behavioral intention
Gender moderates the relationship between ease of use and behavioral intention	Not rejected	0.007	Gender moderates the relationship between ease of use and behavioral intention
Age moderates the relationship between ease of use and behavioral intention	Not rejected	0.047	Age moderates the relationship between ease of use and behavioral intention
experience does not moderate the relationship between ease of use and behavioral intention	rejected	0.065	experience moderates the relationship between ease of use and behavioral intention
Age moderates the relationship between ease of use and behavioral intention	Not rejected	0.047	Age moderates the relationship between ease of use and behavioral intention
experience does not moderate the relationship between ease of use and behavioral intention	rejected	0.065	experience moderates the relationship between ease of use and behavioral intention

9th Minor Hypothesis

Using two-directional variance test, the observed F ratio of 0.828 for studying the mutual effects of age and significance level of $P=0.047 < 0.05$ is significant and age is moderator of the relationship between ease of IT use and behavioral intention of using computer. But, due to F ratio of 0.4.73 of age and significance level of $P=0.003, 0.05$, it can be said that the age of individuals has direct effects on behavioral intention. The results show that the moderator variable of age has indirect effects on the relationships between ease of use and behavioral intention of using computer. The findings support this hypothesis according to which the average of ease of use in the age groups 31-40 is more than the other age groups indicating that as individuals get older, they understand more about the ease of it use to do their works.

10th Minor Hypothesis

Using two- directional variance test, the observed F value of 2.011 to study the mutual effects of experience and ease of IT use and significance level of $P=0.056>0.05$ is not significant, it means that experience is not the moderator of the relationship between ease of IT use and behavioral intention of using computer, so the hypothesis was rejected. Experience doesn't have any effects on the relationship between ease of IT use and behavioral intention and the amount of experience doesn't have any roles in the ease of IT use.

11th Minor Hypothesis

Using two-directional variance test, the observed F value of 0.197 to study the mutual effects of gender and mental norm and significance level of $P=0.821>0.05$ is not significant, it means that gender is not the moderator of the relationship between mental norm and behavioral intention of using computer, so the hypothesis was rejected.

12th Minor Hypothesis

Using two-directional variance test, the observed F value of 1.249 to study the mutual effects of age and mental norm and significance level of $P=0.282>0.05$ is not significant, it means that age is not the moderator of the relationship between mental norm and behavioral intention of using computer, but, due to the F value of 5.984 of age and significance level of $P=0.001<0.05$ it can be said that the age range of individuals has direct effects on behavioral intention, so, the hypothesis was rejected.

13th Minor Hypothesis

Using two-directional variance test, the observed F value of 1.006 to study the mutual effects of experience and mental norm and significance level of $P=0.422>0.05$ is not significant, it means that experience is not the moderator of the relationship between mental norm and behavioral intention of using computer, but, due to the F value of 3.136 of experience and significance level of $P=0.026<0.05$ it can be said that the amount of experience of individuals has direct effects on behavioral intention, so, the hypothesis was rejected.(Table 16).

THE REFORMED MODEL OF RESEARCH

Since in the first model one major and eight minor hypotheses were rejected, the following model is offered as the final model using basic theories and earlier researches. (Figure 1).

The Modified Model

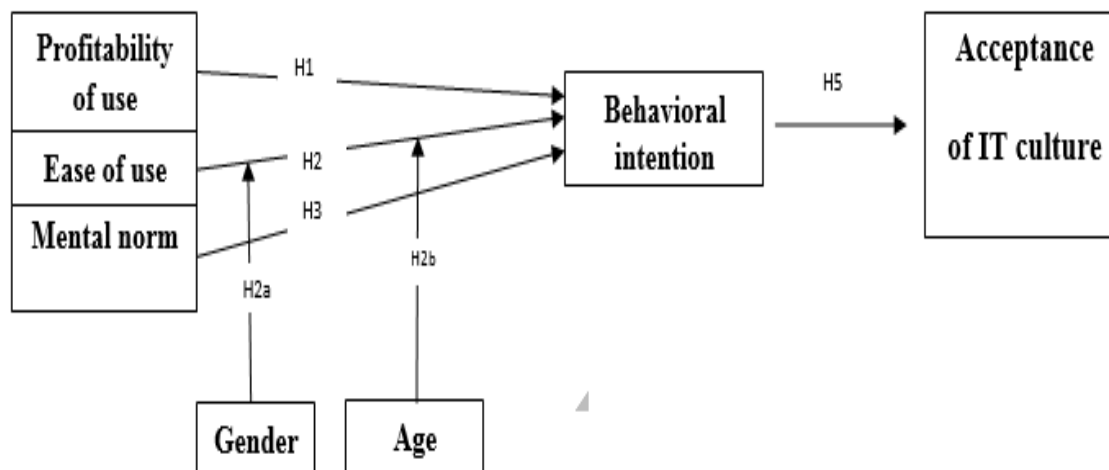


Figure 1
THE MODIFIED MODEL

Source: The researcher's findings

The Applied Suggestions of the Research

1. More attention should be paid to IT and its adjustment to work conditions, because this study showed that ease of using IT has important roles in the amount of IT acceptance by users through IT adjustment with work conditions.

2. The projects related to IT should be supported, because the results of this research showed that the organizations' top executives' support can have positive results on the success of these projects.

3. New ideas to increase IT use should be studied using specialists, because the results showed that users support IT, and its implementation in organizational positions.

4. The way of implementation of IT in organizations should be paid more attention, because due to the findings, the work rules has important effects on the amount of IT acceptance by the users.

5. UTAUT Model is a suitable predictor of IT acceptance and should be considered at the steps of designing and developing technology. The findings show that in comparison with the proponents and analysts, the pioneers of this model put more emphasis on IT acceptance.

6. The organizations' executives should participate in buying IT systems in accordance with the needs of their industries, because, the availability of the staffs' required place and sources has important effects on the amount of IT acceptance.

7. Holding training courses and preparing conditions for learning the science of IT, they can increase efficiency of the systems; because as the results show the behavior of IT use is affected by the ease of use.

8. The access of the mentioned industries to internet's various facilities is among the important components of IT that any negligence by the companies to provide them brings about unpleasant consequences in users' ease of IT use.

9. Due to the results of the study IT can be compatible with most industrial companies and lead to the fulfillment of their goals. To achieve this goal, some compatible key factors must be evaluated before, during and after each adjustment.

10. The constant evaluation of the functions of computer systems is effective to remove their problems and drawbacks; so, all responsible people related to systems should be ready to get feedbacks and remove the problems; because the supervisors have emphasized the effect of guides in work places to improve the function of system.

11. Reducing the expenses related to learning to use computer by users or holding courses for learning to use IT by the staff are among the effective factors for IT acceptance that reduce time and financial expenses and provide the rapid growth of the system and its acceptance.

REFERENCES

- Alapetite, A., Boje Andersen, H. & Hertzum, M. (2006). "Acceptance of speech recognition by physicians": A survey of expectations, experiences, and social influence. *International Journal of Human-Computer Studies*, 67(1), 36-49.
- Al-Gahtani, S.S., Geoffrey, S. & Jijie Wang, H. (2007). Information Technology (IT) in Saudi Arabia: "Culture and the acceptance and use of IT". *Information & Management*, 44.
- Falah, A. (2005). "Technology basic terms for planning technology development". Cultural research institute: Tehran.
- Fatemi Harandi, H.A. (2005). "The study of the success of IT management systems in Isfahan service & industrial organizations", Isfahan. *Research Magazine of Isfahan University*, 12(2), 123-124.
- Fazeli, N.A. (1982). "Culture & Development: The strategy of anthropology of development". Tehran, the Islamic culture & Guidance Publication.
- Ghazi Zade Fard, S.Z. (1995). "Design and explanation of studying and analyzing of human problems in using management informational systems". PHD thesis, Tehran management university.
- Ghorbani zadeh, V. & Bahramzadeh, M.M. (2007). "The factors affecting the acceptance of electronic services in Tehran Mayoralty". *The 5th international conference of communication & IT management*, 770-782.
- Jong, D. & Tzong-Song, W. (2009). Student Acceptance of Web-based Learning System. *Proceedings of the 2009 International Symposium on Web Information Systems and Applications" (WISA'09), Nanchang: P.R. China*, 533-536.
- Khalil, T. (2004). "Technology management" translated by Mohamad Erabi & Davood Izadi. Cultural researches' Office.
- King, W. & He, R. (2006). "A meta-analysis of the technology acceptance model". *Information and Management*, 43, 740-755.
- Lai, V.S. & Honglei, L. (2005). "Technology acceptance model for internet banking: An invariance analysis", *Information & management*, 42(2), 27-44.
- Manian, A. (2006). "Studying the factors affecting the final users' satisfaction in Iran". PHD thesis, Management Faculty of Tehran University.
- Marchewka, J.T. & Chang, L. (2007). "An application of the UTAUT model for understanding student perceptions". *Using Course Management Software, Communications of the IIMA*, 7(2), 93-104.
- McCoy, S., Everand, A. & Jones, B.M. (2005). "An examination of the technology acceptance model in Uruguay and the US". *Focus on culture. Journal of Global Information Technology Management*, 8(2), 120-127.
- Money, W. & Turner, A. (2004). "Application of the technology acceptance model to knowledge management systems". *Proceedings of 36th Hawaii International Conference System Sciences*, 109-115.
- Mun, Y.Y. & Hwang, Y. (2003). "Predicting the use of web-based information systems: Self-efficacy, enjoyment, learning goal orientation, and the technology acceptance model". *Int. J. Human-Computer Studies*, 59, 431-449.
- Pan, C.C., Sivo, S. & Brophy, J. (2003). Students' attitude in a web-enhanced hybrid course: "A structural equation modeling inquiry". *Journal of Educational Media and Library Sciences*, 41(2), 181-194.
- Reetta, R. (2007). Information technology acceptance in the finish social and healthcare sector: "Exploring the effect of cultural factors". *Publication of Turku School of Economics*, 243-275.
- Rose, G., Gefen, D., Warkentin, M. & Pavlou, P. (2005). "Cultural diversity and trust in IT adoption": A comparison of potential a-voters in the USA and South Africa. *Journal of Global Information Management*, 13(1), 154-178.
- Sagi, J., Carayannis, E., Dasgupta, S. & Thomas, G. (2004). ICT and business in new economy: "Globalization and attitudes towards ecommerce". *Journal of Global Information Management*, 12(3), 144-164.
- Sanayeei, A. & Fathi, S. (2004). "Marketing & online trade". *Collection of papers on international conventions of electronic & online cities in Kish*, 124-129.
- Seyed Javadin, S.R. & Yazdani, S. (2004). "Studying the factors affecting the clients' intention of using online banking services". *Case study of Saman Bank*, 145-162.
- Shaemi Baezaki, A. (2006). "The effect of IT on organizational structure in Isfahan industrial & service institutes, Isfahan University". M.A thesis, official faculty & economy.

- Sheikh Shojaii, F. & Oloomi, T. (2003).” The study of factors affecting IT acceptance by the librarians of the libraries of technical faculties of Tehran state universities”, 124-129.
- Straub, D. (2002). Toward a theory-based measurement of culture. *Journal of Global Information Management*, 10(1), 324-332.
- Zahedi, S.S. (1998). “The role of management information systems & information technology in effective decisions”. *Convention of official system & development*, 14-15.