Studying Impact of Organizational Factors in Information Technology Acceptance in Accounting Occupation by Use of TAM Model (Iranian Case Study)

1 Akbar Allahyari, 2 Morteza Ramazani
1 Faculty Member, Department of Management and Accounting, Payame Noor University,
P.O BOX 19395-3697 Tehran, Iran
2 Management and Accounting Department, Zanjan Branch, Islamic Azad University, Zanjan, Iran
2 E-mail: mortezaramazani@yahoo.com

ABSTRACT

Nowadays, information technology attitudes as the beneficial part of industry, economic and culture. Accounting posits as profession that provide information for decision-making of users and in the complex world, organizations must use information technology to present information for users in time. This research is by purpose of studying impact of organizational factors in information technology acceptance by use of TAM model in study descriptive-surveying method that researcher has used to reach research objectives of descriptive and inferential statistics and research results is indicated lack of perceived ease of use by accountants.

Keywords: system usage, perceived usefulness, perceived ease of use, organizational factors and Iranian accountants, Iran

1. INTRODUCTION

What factor or factors because that one person accept new technology? Is this factors simply dependant on its technology features? Or people characteristic impact on acceptance? If each one of these factors is important how and with what method they effect on technology acceptance? With regard to rapid growth use of computer in organizations, in recent decades, information technology almost has connected with all aspects of our life. Almost each person and organization attaches special importance for skill and benefit of computers.

Computer in wide-spread range of districts such as education, business, entertainment, communication and daily life is used, for example, in district training computer, internet, multimedia tools and computer networks, and educational institutions and their instruction use technology tools for improvement of their quality performance. Overall, organizational use information technology for increasing job efficient, influential and improvement quality and mainly for his reason tend to use it that believe information technology could provide beneficial opportunity for organization and the fact that could have important role to help organization for increasing productivity and performance (Nunn and Quinet, 2002).

Of course, an always organization doesn’t enjoy mentioned benefits in lieu of use of information technology because to obtain this benefit is relative to effective use of information technology system. Beradly and Rashel organizations haven’t use computer systems appropriately. Although organization use financial sources for baying and placing computer system for improvement performance and its affection, but always their successes isn’t guarantee. As people resist use of technology, objective benefits haven’t obtained, organizations, therefore lose their money, time and other source (Nunn, 2001) we have studied in this research with pattern of men articles (Hyo- Jeong kim, Micheal Mannino and Robert, Nieschwietz, 2009) effective organizational factors in information technology acceptance between Iranian accountants. Organizational factors in this research are divided there bunches: support, education and management support that includes main variables of research.

1.1 Technology Acceptance Model

Technology Acceptance Model (TAM) is most influential model of testing information system. TAM posits that perceived usefulness and perceived ease of use technology (Davis et al.1989; Venkatesh and Morris 2000; Venkatesh, Morris and Davis 2003) determine an individual's intention to use a system with intention to use serving as a mediator of actual system use. TAM model is shown in Figure 1. Perceived usefulness is also seen as being directly impacted by perceived ease of use. Perceived usefulness is the extent to individual believes that using an information system will enhance his/her productivity. Perceived ease of use technology is the extend to individual perceived that using an information system is free of effort (Davis et al. 1989). Moon and Kim (2001) stated perceived playfulness is the extent to an individual perceives attentions which are related on the interaction within information system.
The use of computers in certification in (2002) reported that trainees had an overall positive perception of accounting as a subject. Peterson and Reider learning technology has negatively affected the trainees’ undergraduates in the UK and found that computer-aided interactive television on learning. Mahoney and Welch found that only 17% of the trainees would take another interactive television course when examining the impact of computer aided learning on performance of accounting undergraduates in the UK and found that computer-aided learning technology has negatively affected the trainees’ perception of accounting as a subject. Peterson and Reider (2002) reported that trainees had an overall positive experience for the use of computers in certification in financial management. Crandall and Philips (2002) found that hypertext learning could be used in accounting classes to enhance case based instruction. Rudolph et al (2002) reported that 96% of their accounting trainees sample indicated that the use of PC movies was very beneficial. These findings indicate that there is a variety of reactions towards the use of advanced and different information and communication technologies in teaching in general and in specific disciplines in particular.

The sample of accounting trainees studied by McCourt and Radcliff (2000) reported that computer based instruction made the material more interesting and stimulating from trainees in the UK. Moreover, Green, Reinstein, and McWilliams (2000) found that trainees’ interest in accounting increased in the interactive courseware group when compared with the traditional lecture problem solving group and that trainees generally found the interactive courseware to be easy to use and as effective as the traditional methods. Most of the research was conducted in developed nations. No present evidence indicates that such research and results can be applied to developing nations, especially with the varying environments and the role of different cultures that affects the introduction, diffusion and use of information and communication technology. The Technology Acceptance Model-TAM (Davis, 1989) is suitable for testing the application of information technology in accounting education in developing nations since it has shown robustness across the spectrum of information technology applications, has been well researched, and gives easily interpretable results (Rose and Straub, 1998). In other terms, TAM has been reported to be a consistently good predictor of the use of information technology in developed countries (Kamel and Assem, 2003, Rose and Straub 1998, Adams et al, 1992, Davis, 1989 and 1985). Straub and Sevcik (2000) offer two main reasons why the transfer of information technology to developing nations is difficult and that relate to a) the cultural differences affecting systems development and implementation and b) the prevailing government policies and regulations that influence information technology transfer. Within the context of testing the effectiveness and reliability of using information and communication technology in teaching accounting, it is important to assess the role of culture in the technology transfer in light of the arguments made by Loch et al (2000). The impact of the role of culture represents a milestone in the successful diffusion of information technology since it varies from one nation to another and is bound to a number of complex definitions and shared values amongst other aspects (Straub et al, 2002). It is important to note that research has proved in many contexts that culture impacts the acceptance of technology. Respectively, it is important to understand the impacts and role of culture to be able to project the likelihood of the success of the introduction of information technology (Loch et al, 2000). However, the role of culture is more or less localized and that is why it is important to study the role of culture within the environment of implementation because although the role of culture is powerful, cross cultural conflicts between different nations affects the information technology systems and processes (Straub e al, 2001).

2. RESEARCH OBJECTIVES
His research is followed the amount of impact on the organizational factors on technology acceptance between Iranian accountants, measurement effect on organizational factors cause that firms managers by investment on possibilities and education of employs could have appropriate decision by preparation reliable and in time information therefore this research is followed these objective.

1. Measurement the amount of impact on internal organization factors on technology acceptance.
2. Present appropriate method, for flowing technology acceptance by accountants
3. Beneficial reorganization and perceived ease technology acceptance by accountants
3. RESEARCH HYPOTHESIS

1. Perceived usefulness has positive impact on technology acceptance by Iranian accountants!
2. Perceived ease has positive impact on technology acceptance by Iranian accountants!
3. Perceived ease has positive impact on perceived usefulness!
4. Existence of organizational factors has positive impact on perceived usefulness by Iranian accountants!
5. Existence of organizational factors has positive impact on perceived ease by Iranian accountants!

4. RESEARCH MODEL

This research model on the basis of TAM model and on the base of research that Mrs (Hypo- Jeong Kim, Michael Mannino and Robert, Mieschwietz, 2009) have performance about information technology acceptance in the internal audit profession in American 2009 has been figure.2 following from:

![The model of research](image)

4.1 Conceptual Definition of Organizational Factors

<table>
<thead>
<tr>
<th>Organization Factors</th>
<th>Definition of Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Support</td>
<td>“the technical support by individuals (or group) with computer knowledge who were internal to the small firm” (Igbaria et al., 1997, 288).</td>
</tr>
<tr>
<td>Internal Training</td>
<td>“the amount of training provided other computer users or computer specialists in the company” (Igbaria et al., 1997, 288).</td>
</tr>
<tr>
<td>Management Support</td>
<td>“the perceived level of general support offered by top management in small firms” (Igbaria et al., 1997, 289).</td>
</tr>
</tbody>
</table>

Organizational factors were considered as external variables by Igbaria et al. (1997). They examined intra organizational factors and extra organizational factors. The intra organizational factors include internal support, internal training, and management support. The extra organizational factors include external support and external training. Management and external support have more influence on technology acceptance than internal support and training in small firms (Igbaria et al., 1997). Both organizational factors have positive effects on technology acceptance through perceived usefulness and perceived ease of use (Igbaria et al., 1997). Facilitating conditions were also considered as organizational factors in other research. Thompson et al. (1991) did not find the effect of facilitating condition on PC utilization. Through the UTAUT (Unified Theory of Acceptance and Use of Technology) model, Venkatesh et al. (2003) found the direct effect of facilitating condition on usage behavior, which was moderated by gender, age, experience, and voluntariness. In internal auditing, training is more influential on technology acceptance because auditors strongly feel that additional training would be beneficial for their job (Braun and Davis, 2003), and they do not use technologies if the company lacks qualified staff familiar with software or IT staff (ACL, 2006).

5. RESEARCH METHODOLOGY

In this study, research methodology is descriptive-survey and in applied kind. In the direction of entrance to research district have also used field method. In the direction of gathering required information in research has been also driven profit two data primary and secondary bunches that in direction of secondary data, documents, evidences, books, articles, internet, searching motors and connected sites are collected circles. Techniques of
interview and questionnaire have also used for gathering primary research data at statistical society simultaneously and questionnaire has used by likert five choices spectrums perfectly agree or disagree.

5.1 Statistical Society
Statistical society uses these study active accountants in profession that use information technology whether in case or continuously.

5.2 Method of decomposing and analyzing data
In process of data use method of descriptive and decomposing and analyzing statistic and interpreting information inferential statistics methods in respect testing present variables in research, correlation of independent variables on each other has been used Pearson correlation coefficient method.

5.3 Pearson correlation test
The determination of statistical tools correlation is for determination of sort and grade of quantitative variable with other quantitative variable. Beki’s correlation coefficient is useable criterion in determining correlation of two variables. Correlation coefficient show intensity of connection and type relationship (direct and reverse). This coefficient is between 1 to -1 and is case of lack in existence of relationship between two variable is equal to zero.

Pearson correlation coefficient is counted by following formula:

\[ r = \frac{\sum xy - \bar{x} \bar{y}}{\sqrt{\sum x^2 - \bar{x}^2} \sqrt{\sum y^2 - \bar{y}^2}} \]

6. RESULT AND ANALYZE

6.1 Research Validity and Reliability
With regard to the fact that a good test must has some desirable features such as objectivity, executive ease of use, practicable, is of interpretation and expression, validity and reliability. The most important mentioned cases in this features is validity and reliability. Researcher for research reliability has used Cranach’s Alpha method that according to table No.1 counted Cranach’s Alpha value by SPSS software is equal 0.828 bigger than 0.7. Thus test has acceptable reliability and answers have suitable validity and for validity of test 10 used questionnaires again to the reader and uniting result of opinions is chronological period at one week has shown that indicate suitable validity of questionnaires.

Table 1: Reliability Statistics

<table>
<thead>
<tr>
<th>N of Items</th>
<th>Cranach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>.828</td>
</tr>
</tbody>
</table>

6.2 Descriptive statistics of organizational factors

<table>
<thead>
<tr>
<th>Organization Factors</th>
<th>N</th>
<th>Mean</th>
<th>St. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support</td>
<td>145</td>
<td>1.3379</td>
<td>0.50306</td>
</tr>
<tr>
<td>Training</td>
<td>145</td>
<td>2.1586</td>
<td>0.97664</td>
</tr>
<tr>
<td>Management Support</td>
<td>145</td>
<td>1.9103</td>
<td>0.69639</td>
</tr>
</tbody>
</table>

6.3 Testing Research Hypothesizes
With regard to the results of Pearson correlation test, research hypothesizes result is described in table No.2

6.3.1 First Hypothesis
With regard to correlation coefficient 0.368 and P-value = 0.00 hypothesis in the level of error 0.01 is accepted then could resulted that perceived usefulness has positive impact on technology acceptance by accountant.

6.3.2 Second Hypothesis
With regard to correlation coefficient -0.160 and P-value = 0.054 hypothesis in the level of error 0.01 is rejected then could resulted that perceived ease of use hasn’t positive effect on technology acceptance by Iranian accountant.

6.3.3 Third Hypothesis
With regard to correlation coefficient 0.337 and P-value = 0.00 hypothesis in the level of error 0.01 is accepted then could resulted that perceived ease of use has positive impact on perceived use fullness.
Table 2: The result of Pearson correlation test

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Factors</th>
<th>Perceived Usefulness</th>
<th>Perceived Ease of Use</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>System Usage</td>
<td>Pearson Correlation</td>
<td>0.368</td>
<td>Accept</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Second</td>
<td>System Usage</td>
<td>Pearson Correlation</td>
<td>-0.160</td>
<td>Reject</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.054</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Third</td>
<td>Perceived Usefulness</td>
<td>Pearson Correlation</td>
<td>0.337</td>
<td>Accept</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Forth</td>
<td>Organization Factors</td>
<td>Pearson Correlation</td>
<td>0.289</td>
<td>Accept</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Fifth</td>
<td>Organization Factors</td>
<td>Pearson Correlation</td>
<td>0.024</td>
<td>Reject</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.773</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>145</td>
<td></td>
</tr>
</tbody>
</table>

6.3.4 Fourth Hypothesis
With regard to correlation coefficient 0.289 and P-value = 0.00 hypothesis in the level of error 0.01 is accepted then could resulted that existence of organizational factors has positive impact on perceived use fullness by Iranian accountant.

6.3.5 Fifth Hypothesis
With regard to correlation coefficient 0.024 and P-value = 0.773 hypothesis in the level of error 0.01 is rejected then could resulted that existence of organizational factors hadn’t positive impact on perceived ease of use by accountant.

7. RESEARCH FINDING AND RESULTS
Research results indicate rejection second hypothesis that show deficiency in motivation of accountant in learning information technology and on the other hand rejection fifth hypothesis that show lack of educational facilities, management supports and support for perception of accountants ease and their weakness. Considerable point is that both of rejected hypotheses connect with perceived ease of use, on the other hand perceived ease of use hasn’t impact on information technology acceptance and internal organization factors hadn’t impact on perceived ease of use. Therefore, organizational factors weakness (support, management support and training) emerge on perceived ease of use. Descriptive statistical results also show high educational average that show informing weakness, in increasing perceived ease of accountants.

8. CONCLUSIONS
With regard to research results present following conclusions:

1. Organizations for perceived ease of use must facilitate their software systems; develop suitable advertising and usage culture of information technology.
2. Holding private and general training courses for accountants to increase perceived ease of use in information technology.
3. Encouraging active staff in learning and training information technology.
4. Creating auto-efficient in accounting staff.

REFERENCES


