



Investigation the Factors that Affect Intention to Use Informational Technology among Payame Noor University Students (English Language) at Fars Province

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Abstract

The purpose of this study is presenting path analysis model of intention to use technology among English language students in Fars Payame Noor University. Research methodology is co relational and the instrument for data collection, are standardized questionnaires that were analyzed with software Lisrel. The results show that computer self-efficacy (0.23), perceived ease of use (0.28) and perceived usefulness (0.23) have direct and significant effect with intention to use technology, computer self-efficacy (0.36), cognitive absorption (0.18) and perceived ease of use (0.22) have significant and direct effect with perceived usefulness, and finally computer self-efficacy (0.20) and cognitive absorption (0.25) have significant and direct effect with perceived ease of use.

Keywords

Intention to use information technology, cognitive absorption, perceived ease of use, perceived usefulness, and computer self-efficacy

1. Introduction

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Without information technology predicting the future of learning will be vague and traditional training will be ineffective, so mastering the skills and concepts related to it along reading, writing and counting is considered as part of the central core of learning.

In the area of distance education, because the mission of Payame Noor University based on information technology issues such as the adoption of information technology and students' attitude toward this issue in applying new technologies and especially computers in the teaching-learning process and distance education system, it seems important and crucial that With careful planning various ICT-based education can be improved and also the quality of distance education progressed and students' resistance in using technology in educational field reduced and and recognized the strengths and weaknesses to help to improve the status of distance education Results of numerous researches(Sen 2005, Pan 2003, Lee 2001, Vankatesh & Davis 1996, Heysung 2004) indicated that intention to use technology is not the result of the only one effect But several factors may affect the variable Although the above research results also showed there is a significant relationship Between ease of use and usefulness of the technology with the intention of using technology, research Results of Pan (2003) that done over 450 students from the University of Florida showed that perceived ease of use and perceived usefulness of technology is effective on users' attitudes toward technology.

In addition, according to research findings experiences and computer self-efficacy have effect on perceived ease of use and perceived usefulness and also on intention to use technology.

Locas & Spittler (1999) investigated the influencing factor of perceived ease of use and perceived usefulness of technology. Results showed that subjective norms and high levels of individual performance on homework have significant impact on intention to use technology but perceived usefulness and perceived ease of use of technology have not significant effect on intention to use technology.

McFarland (2006) investigated the effect of computer self-efficacy on technology adoption. The results indicated that computer experiences has direct and significant effect on computer self-efficacy, perceived ease of use and perceived usefulness, in addition, computer self-efficacy has a direct and significant effect on perceived ease of use and perceived usefulness. In addition to these results, several other researches Compeau & Higgins (1995), Vankatesh & Davis (1997) The relationship between computer self-efficacy and perceived usefulness Sen (2005), Pan (2003), Lee (2001), Vankatesh & Davis (1996), and Heysung (2004) reported that The relationship between computer self-efficacy and perceived ease of use Various studies such as Davis & Vankatesh (2000), Chatziagapis (2008), and Yousoff (2009) stated that the Relationship between perceived ease of use and perceived usefulness is direct and significant. But the research result of Nan et al (2005) in an article entitled "Extended Information Technology Initial Acceptance Model and its Empirical test", are inconsistent with the mentioned research result, Although the relationship between cognitive absorption and perceived usefulness Its theoretical foundation from "self-perception theory" of Bem (1972) But empirical research such as Agrawal & Karahanna (2000) and Tan (2007) showed that there is a significant relationship Between the cognitive absorption with perceived ease of use and perceived usefulness It should be noted that Saade & Bahli (2005) found that cognitive absorption have a significant relationship with Perceived usefulness, but its relationship with perceived ease of use is not impressive Although Shang et al (2005) showed That the cognitive absorption has a significant

relationship with perceived ease of use , but its relationship with perceived usefulness is not considerable .

2. Method

2.1. Participants

Research method in this study is correlation and population of our study consists of all the Fars Payame Noor University Students (English Language). Of these, 317 students belong to Payame Noor University. To select the sample, due to the students being heterogeneous in terms of the kind of educational system, gender, and the time of arrival to the university, stratified ratio sampling was used. 375 students (227 female and 90 male) were selected as sample.

2.2. Measures

To collect data, standardized questionnaires of Intention to use information technology (Park,2003), cognitive absorption(Tan,2007), perceived ease of use(Gefen and Straub,2000), perceived usefulness(Gefen and Straub,2000), and computer self-efficacy(Wolters and Daugherty,2007) are used. To determine the reliability of the questionnaire, Cronbach's alpha coefficient was used and confirmatory factor analysis was done for ensuring the construct validity of instruments. In this study Lisrel software was used in data analysis.

3. Results

Considering that the correlation matrix is the basis for analysis in casual model, correlation matrix of variables with correlation coefficients and their significance levels are presented in Table1.

Table (1): Correlation matrix of variables

Variables	1	2	3	4	5
Computer Self-efficacy	1				
Cognitive Absorption	0.056	1			
Perceived Ease of use	*0.185	**0.238	1		
Perceived Usefulness	**0.391	*0.212	**0.327	1	
Intention to use information technology	**0.377	0.038	**0.396	**0.417	1

According to Table 1, Correlation between computer self-efficacy with perceived usefulness, cognitive absorption with perceived ease of use, perceived ease of use with perceived usefulness and intention to use technology, perceived usefulness with the intention to use technology are significant in 0. 01, the correlation between variables such as perceived ease of use with computer self-efficacy, and perceived usefulness with cognitive absorption are significant in 0. 05, but the correlation between the cognitive absorption with computer self-efficacy and intention to use technology is not significant.

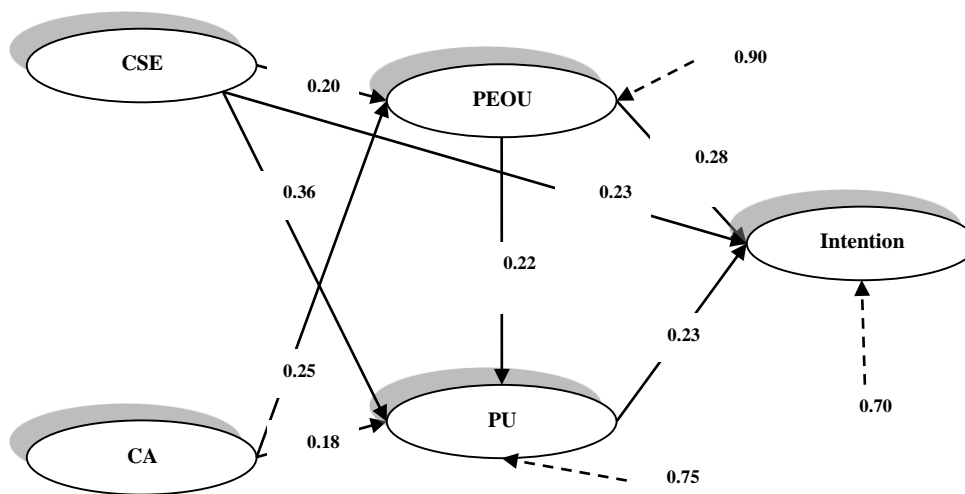
Table (2): Direct, Indirect and Total Effect of Variables

Effect	Direct effect	Indirect effect	Total effect	T-Value
Criterion: information and communication technology	-----	-----	-----	-----
Predictors: Computer self-efficacy	0.23	0.14	0.37	3.03
perceived ease of use	0.28	0.05	0.31	3.66
perceived usefulness	0.23	-----	0.23	2.91
Criterion: perceived usefulness	-----	-----	-----	-----

Predictors: computer self-efficacy	0.36	0.04	0.40	4.80
cognitive absorption	0.18	0.05	0.23	2.37
perceived ease of use	0.22	-----	0.22	2.82
Criterion: perceived ease of use	-----	-----	-----	-----
Predictors: computer self-efficacy	0.20	-----	0.20	2.46
cognitive absorption	0.25	-----	0.25	3.08

According to Table 2, Computer self-efficacy($\beta=0.23, t=3.03, P=0.01$), perceived ease of use ($\beta=0.28, t=3.66, P=0.01$) and perceived usefulness ($\beta=0.23, t=2.91, P=0.01$) and significant direct effect is to use information and communication technology, computer self-efficacy ($\beta=0.36, t=4.80, P=0.01$), cognitive absorption ($\beta=0.18, t=2.37, P=0.05$) and the perceived ease of use ($\beta=0.22, t=2.82, P=0.01$) and significant direct effect is the perception of usefulness. Computer self-efficacy ($\beta=0.20, t=2.46, P=0.05$) and cognitive absorption ($\beta=0.25, t=3.08, P=0.01$) and significant direct effect is the perceived ease of use. It should be noted that computer self-efficacy (0.14) and perceived ease of use (0.05) have an indirect effect on the intention to use technology. Also, computer self-efficacy (0.04) and cognitive absorption (0.05) have an indirect effect on perceived usefulness. Variances of the variables intention to use technology, perceived usefulness and perceived ease of use of technology, respectively are (0.30), (0.25) and (0.10). Fitted indices (GFI), (AGFI) and (CFI), respectively (1), (0.98) and (1) indicate that the fitness of model is very high. The RMSEA value is equal to 0.000 so characteristic of reported fitness indicate that model has a good fitness with the data.

Figure1: Fitted Model



4. Discussion

This research investigated the effective factors on intention to use technology. The research result showed that there are direct relationships between computer self-efficacy, perceived ease of use, and perceived usefulness with intention to use technology. These findings are consistent with the findings of Sen (2005), Pan (2003), Lee (2001), Vankatsh & Davis (1996) and Heysung (2004), although the above mentioned results showed that there is a direct relationship between perceived ease of use, perceived usefulness and intention to use technology.

But this result is inconsistent with the results of research of Locas & Spitler (1999) that argued there is a significant relationship between computer self-efficacy and perceived ease of use.

Results obtained in this study are aligned with findings of Compeau & Higgins (1995), and Vankatesh & Davis (1997). Also it is indicated that there is a direct relationship between perceived ease of use and perceived usefulness. These findings are consistent with the findings of Davis & Vankatesh (2000), Chatziagapis, (2008), Yousoff (2009) and inconsistent with result of Nan et al (2005). Also there is a direct relationship between computer self-efficacy and perceived ease of use.

These findings are aligned with the studies of Sen (2005), Pan (2003), Lee (2001) and Vankatsh, Davis (1996) and Heysung (2004). there is a direct relationship between cognitive absorption with perceived usefulness and perceived ease of use of technology, these findings are in the same direction with the research of Agarwal & Karahanna (2000) and Tan (2007).

Among the study variables, perceived ease of use of technology in comparison to other variables, has the greatest impact on the intention to use technology, therefore, It is recommended that course content is developed in such a way that students familiarized with technology training and without technology training so that they perceive examples of facility that earn by using ICT in teaching – learning process, in addition university publicized monthly magazines so that student gain favorable attitude toward using information technology, also in future research, other components of the technology acceptance model are considered.

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