Online Learning in the blend of TAM in a reputed Business School of Bengal

Parantap Chatterjee[1], (Dr.) Soumen Chatterjee[2]
[1](DOMS, NSHM College Of Management And Technology/MAKAUT, India)
[2](DOMS, NSHM College Of Management And Technology/MAKAUT, India)
Corresponding Autghor: Parantap Chatterjee[1]

Abstract:*The purpose of the research is to identify the determinants of students' acceptance of online learning and to find out how these determinants can shape students' behavioral intention to use online learning. A conceptual framework based on the Technology Acceptance Model (TAM) was modified. A questionnaire was developed and used to solicit information from the 150 undergraduate BBA and post graduate MBA students who used online learning in a reputed Business School of Bengal. The outcome shows that students' perception of ease of use (PEOU), perceived usefulness (PU), attitudes towards usage of online learning (ATU), and the social influence of students' referent group (SI) were identified as significant determinants of students' behavioral intention (BI) to practice online learning. The possibility of using the social influence of students' referent group, students' perceived ease of use, students' perceived usefulness and their attitudes towards online learning to predict their behavioral intention to use online learning was also confirmed.*
Keywords: *Online Learning, PEOU, PU, TAM Model*

I. Introduction

Over the few decades it has been observed that rapid technological developments have increased society's dependence on information technology. One of them is the online learning technologies, which is defined as "the use of the Internet to access learning materials; to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience (Ally, 2004, P. 5)". Higher education institutions of have increasingly embraced online learning worldwide in order to realize different educational benefits such as: facilitating information exchange and collaborative learning, improving the quality of teaching and learning, improving access to education and training, realizing flexibility for time and place, responding to labor market conditions and to innovation technology itself, preparation for lifelong and self-paced learning while at the same time reducing costs and improving the overall cost-effectiveness of educational services. The user acceptance of a new information system, such as online learning, is considered the essential factor that determines the success or failure of this system (Davis, 1993). Hence, it is crucial for any College. On the other hand the technology acceptance model (TAM) is an information systems theory that models how users come to accept and use a technology where as Perceived ease-of-use (PEOU) – Davis defined this as "the degree to which a person believes that using a particular system would be free from effort" (Davis 1989). Perceived usefulness (PU) was defined by Fred Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance".

II. Objective of the study

To find out what are the underlying influences on students' behavioral intention to use online learning along with more specific objective is to determine the relationships between these determinants of proposed research model.

III. Literature review

Students' acceptance of online learning involves several studies that focus the influence of some students' attributes on their acceptance and usage of online technology. Students' preference for an online delivery system could be attributed to their perceived ease of use (PEOU) which would be evident from their competence in using internet and electronic communication, alongside their ability to engage in autonomous learning. The individuals' perception of the usefulness of online learning is an additional attribute that may increase their academic success in an online environment (Proffitt, 2008, p.18). Furthermore, the social influence of students' referent groups, student's attitude towards online learning are additional factors related to individuals' attributes and may influence their intention to learn online(Bertea, 2009; Shen, Laffey, Lin & Huang, 2006). The users' actual usage of the technology is strongly influenced by their behavioral intention, which in turn is influenced by their prior experience with this technology (Sumak, Hericko, Pusnik & Polancic, 2011). The aforementioned attributes (students' perceptions of usefulness and ease of use, attitudes and social influence factors) could shape the determinants of students' acceptance and intention to use online learning. These determinants are relevant to the TAM Model.

IV. Framework of TAM

The Technology Acceptance Model (TAM) (Davis, 1989; Davis, Bagozzi, and Warshaw, 1989) provides a conceptual framework for this study. Based on theories in social psychology, including the theory of reasoned action (TRA) (Ajzen and Fishbein, 1980) and the theory of planned behavior (Ajzen, 1985) where TAM proposes that two beliefs about a new technology, perceived usefulness (PU) and perceived ease of use (PEOU), determines a person's attitude toward using that technology (ATU), which in turn determine their behavioral intention (BI) to use it. TAM model tells external variables

(e.g. System experience, level of education, age etc.) determines both PEOU and PU where PEOU directly determines PU and if they have a strong correlation then both PEOU and PU determines ATU, whereas PU directly determines BI. Finally BI determines actual system in use. In theoretical concept PU defines the degree to which a person believes that use of technology will produce better outcomes. This means if students perceive that the online learning system can help improve their performance, they are more likely to use online learning in their learning process (Yee, Luan, Ayub & Mahmud, 2009). PEOU explains the user's perception of the amount of effort required to utilize the system or the extent to which a user believes that using a particular technology will be effortless (Alrafi, 2009).
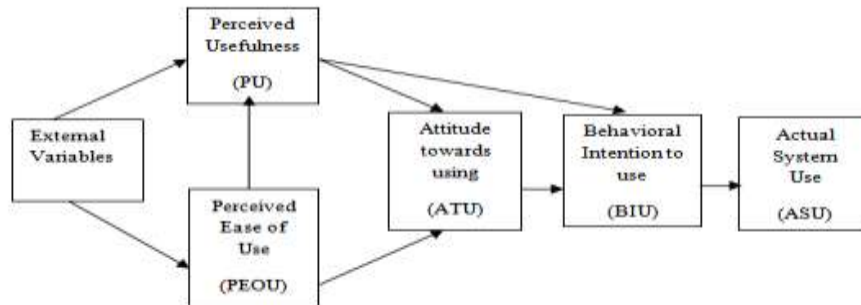
V. TAM Model

Fig.1 Original TAM Model

VI. Proposed Research Framework

Social influence (SI) is defined as "the degree to which an individual perceives that other important persons believe he/she should use the system". This conceptual model is a simple flow chart illustrating the hypothesized relationships between research constructs that constitute the key determinants of students' intention to practice online learning. These determinants are: social influence of referent groups SI, PU, PEOU, and ATU towards online learning and their BI to learn online.
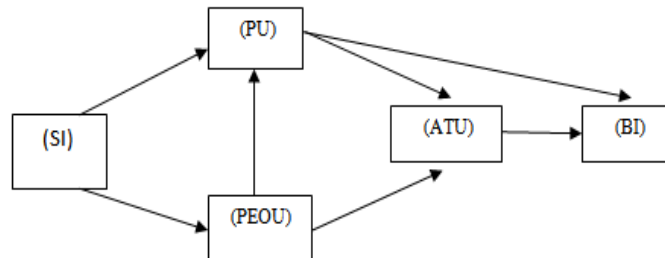

Fig.2 Proposed Research framework based on original TAM model

VII. Methodology

For the purpose of this study, a structured questionnaire was developed. The final version of the questionnaire included 30 items to measure the five attributes of the research model; SI (six items), PEOU (six items), PU (six items), ATU towards online learning (six items), and BI to use online learning (six items). All items required seven-point Likert-scaling responses ranging from 1= "strongly disagree" to 7= "strongly agree". In this study, the questionnaire reliability assessment was done using Statistical Package for Social Sciences (SPSS). Reliability assessment was done using Cronbach Alpha calculation. Moreover to measure the relationship among these determinants of proposed research model correlation is calculated which is described in below tables.

Table 1: Determinants Reliability Cronbach Alpha

Determinants	No of items	Cronbach Alpha
SI	6	0.76
PEOU	6	0.67
PU	6	0.71
ATU	6	0.73
BI	6	0.78

Table 2: Correlations between SI and PEOU

Correlations		
	Factors	PEOU
SI	r value	. 756
	P value	.000
	N	150

Table 3: Correlations between SI and PU

Correlations		
	Factors	PU
SI	r value	. 786
	P value	.000
	N	150

Table 4: Correlations between PEOU and PU

Correlations		
	Factors	PU
PEOU	r value	. 736
	P value	.000
	N	150

Table 5: Correlations between PU and ATU

Correlations		
	Factors	ATU
PU	r value	. 756
	P value	.000
	N	150

Table 6: Correlations between ATU and BI

Correlations		
	Factors	BI
ATU	r value	. 821
	P value	.000
	N	150

V. Conclusion

The research was conducted to identify the determinants of students' intention to use online learning, to explore the availability of these determinants among students of a Business School in Bengal, and to investigate relationships and influences of these determinants on students' intention to practice online learning. Based on literature review, SI of students' referent group, PU, PEOU, and ATU towards online learning are the attributes that were identified as key determinants of students' BI to learn online. Based on the data that was collected from the research sample, the extent to which these determinants are available among students of a Business School was explored. It was found that students of a Business School in Bengal tend to have positive attitudes towards using online learning and in turn increase their intention to practice online learning.

VIII. Limitations & Scope of further research

Even though this research revealed meaningful findings for the learner related determinants affecting their intention to use online learning, several possible limitations should be mentioned: First, the purposive technique to select the research sample from only a small sector of students of a Business School of Bengal, Second, the results of the research were based on data that was collected form students who have basic knowledge and insufficient experience of learning online.

For further research it is suggested to carry out the current research using a larger sample, with longer experience to learn online. Additional research to study the influence of each category of students' referent group on their intention to learn online is needed.

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