EXAMINING STUDENTS' ATTITUDES TOWARDS E-LEARNING: A CASE FROM NAGPUR

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ABSTRACT:

Despite the growing technology in higher education universities have failed to bring computer use, e-learning, on line learning into the main stream and maximize the potential benefits in the classroom . Yet colleges and universities continue to invest large sums of money in automation and electronic communication facilities. Measuring students' attitude towards e-learning provides a beneficial construct to predict learning outcomes. This study was designed to examine students toward e-learning at RTM Nagpur University in India. Data was collected through a survey of 300 post graduate students. The results showed that 68.66% Students were significantly positive towards e-learning. However 31.31% of students had negative attitude towards e-learning. It was about 77.33% of students perceived e-learning usefulness. About 59.99% of students intended to adopt e-learning. Further, enter regression analyses revealed a statistically – significant model for perceived usefulness of e-learning and intention to adopt e-learning as the best predictors of student's attitude towards e-learning (F =994.905, df=1, R squre = .714, P < 0.0001).

Keywords:

e-learning, students attitude, e-learning technology

INTRODUCTION:

INTRODUCTION: The trend of using e-learning as a learning or teaching tool is now rapidly expanding into education (Liaw et al, 2006). e-learning covers a wide set of ICT technology based applications and processes, including computer–based learning , web-based learning, virtual classrooms, and digital collaboration and networking (Hambrecht, 2000). Bates (2001) also ranges e-learning in higher education from technology enhanced class-room to distributed learning. Technology- Enhanced Classroom First, the web and the Internet have been integrated into

classroom teaching in the same way as previous technologies. Teachers may build a course Webpage, with links through the Internet to relevant resources on other Websites. Instructors can convert their PowerPoint slide presentations to pdf files (electronic documents), which students can download and print from a website, or teacher's own papers and research materials such as photographs or slides , as well as links to other relevant sources . Teachers may also use other web sites for illustration within their classroom lectures. And students may be asked to participate in on-line discussion forums, to discuss the lecture afterwards amongst them. Enhancing classroom teaching is still by far the most prevalent use of the web in post – secondary education. Distance Education In view of Tayler (1995) distance education operations have evolved through the following four generations: first, the correspondence model based on print technology; second, the multi-media model based on print, audio and video technologies; third, the Tele-learning model, based on applications technologies to provide opportunities for synchronous communication; and fourth, the Flexible Learning Model, based on online delivery via the Internet. The fifth generation of distance education is essentially a derivation of the fourth generations, which aims to capitalize on the features of the Internet and the web. Some other researchers believed that distance education after the revolution of the information communication technology changing to various models step by step and ranging from correspondence study to virtual learning (Reddy & Manjulika, 2000; Connolly & Stansfield 2006; Goel, 2009) . Distributed Learning With both technology–enhanced classroom teaching and distance education, the move to on-line learning could be seen as evolutionary , a natural next step forward in two long but separate historical processes. The potentially revolutionary development is in distributed learning, because this will radically change the way that traditional campus institutions operate. Distributed

learning describes a mix of deliberately reduced face- to- face teaching and on-line learning (for instance one face- to- face lecture or seminar a week, with the rest of the teaching and learning done on–line, replacing the traditional three face –twofaced lectures a week). Unfortunately, especially in the USA, the term "distributed learning" is also commonly used to include fully distance courses taught totally on–line. It might be more helpful to describe the mix of reduced face– to – face teaching and on-line teaching as "mixed mode". Another term, used in Australia, is flexible learning. While "flexible learning "may encompass on-line learning, it can also include face – to-face teaching delivered in the workplace, and other flexible delivery methods (Bates, 2001). However, despite the growing technology in higher education several recent studies (Link & Marz, 2006;Hayashi et al, 2006) have advocated that Many students may lack the necessary skills to use e-learning effectively and are therefore handicapped. Jones and Jones (2005) also compared teacher and student attitudes concerning use and effectiveness of web-based course management software. The results showed those faculties were significantly more likely than students to agree with web-based learning. In other words, while faculty believed web base course enhanced student to student communication, this was not the case according to students. Guruajan and Low (2004) also found that students preferred the knowledge which acquired from personal contacts than online courses. They believed that ICT tools helped them only when the personal contacts fail. Participants implied that while ICT tools are convenient, they are not a substitute to 'interaction 'with lectures. The text book is still considered as the main source of knowledge, followed by references provided to them and finally web resources. A more recent study conducted by Becta (2008) found that many learners preferred traditional teaching methods and face – to – face rather than the use of computers. Almost three quarters of learners (74%) said they learned

better through face – to – face contact with tutors and other learners and over half of learners (53%) agreed that they preferred to read from a book or handout rather than a computer screen. In addition, only half of learners (53%) stated that using computers on their course motivated them to study and a similar population (55%) said they did not rely on computers to keep in touch with other learners on their courses. A cross cultural study conducted in united states and south Korea in 2005 (Kwun et al, 2005) found that American and Korean students alike disagreed with the following statements "The online class environment is more effective", "whatever I learn in a face – to - face class, I would learn it in an online class", and " online setting is the most appropriate method of learning in today's environment " . In addition, both American and Korean students agreed with following statements." I am aware that may lose some of the advantages of face–to- face class if I take an online course " and "An online class would require more of my effort than a face– to - face class" . The above results support the claim that e-learning has not been accepted by students. Yet colleges and universities continue to invest large sums of money in automation and electronic communication facilities. For this reason , Martinze (2004) suggests that the study of student's attitude towards e-learning can in many ways help managers better prepare in light of e-learning for the future . Asan and Koca (2006) reveal there is a relationship between students' attitude towards e-learning and positive learning outcomes. Cereijo (2006) proposes that students attitude towards e-learning provides a beneficial construct to predict learning outcomes. The theory of technology acceptance model was really designed to test student's attitude towards new technology. This theory proposed by Davis (1983) explains a variety of human behaviors based on intentions that are jointly determined by attitudes. According to TAM, individual's actual system use is determined by behavioral intentions, and the behavioral intentions are

determined by attitudes toward using perceived usefulness has direct effect on attitude toward using. Behavioral intentions (BT) are assumed to capture the motivational factors that influence a behavior, and thus indicate how hard people are willing to try or to what extent they are planning to make an effort, in order to perform the behavior (Ajzen & Fishben, 1980). Attitude (A) describes an individual's positive or negative feeling about performing the target behavior. Perceived usefulness (U) as described by Davis (1989) is the belief that ICT adoption leads to augmented work place activity. Hence, the technology acceptance model used in the current study as a theoretical framework to measure Indian postgraduate Students' Attitudes Towards e-learning. Further, identifying whether students' attitude can be predicted by students' intention to adopt e-learning and perceived usefulness of e-learning. Attitudes Web-based learning approaches were found to be a promising alternative to conventional education process, especially beneficial to remote students and for lifelong education (Gunasekaran et al, 2002). Parker (2003) argued that the learners who are comfortable with technology and have a positive attitude towards it are more likely to succeed within an e-learning environment. Shashaani (1994, p.351) stated "computer experience is positively related to computers attitudes" and Woodrow (1991, p.65) pointed out "awareness of students attitudes towards computers is a critical criterion in the evaluation of computer courses and in the development of computer-based curricula". For students, e-learning offers individual empowerment with greater control over their own learning. It allows improved flexibility over the time, place and mode of study, and makes learning resources, peer and tutor group interaction, and universities themselves more accessible. (www.elearning.canterbury.ac.nz/documents/online.pdf).

MATERIAL AND METHOD:

Method Designing the instrument The instrument with 48–item of which 33 were positively and 15 were negatively worded are based on a 5 point likert type scale designed as: strongly agree (5), agree (4), undecided (3), disagree (2) and strongly disagree (1). The direction of item scores is reversed for negatively worded items, so that a response of strongly agree is given a value of 1, agree of value of 2, and so on. Table 1 shows the reliability of the measurement scale. Cronbach's alpha reliability scores were all over 0.7. Hence, the results demonstrate that the questionnaire is a reliable measurement instrument. Table 1 The reliability of the measurement scale Scale Cronbach's alpha Attitude towards e-learning o.71 Perceived usefulness of e-learning 0.84 Intention to adopt e-learning o.71 In this study, face validity and content validity of the scale was ensured through consultation with faculty members who were professional in educational technology from RTM Nagpur University . Survey Sample Stratified sampling technique was employed in the present study. 300 post graduate students at the RTM Nagpur University from different faculties were the sample of the present study (Table2). Table 2 Sample details Arts Science Department Number Department Number Education 30 Computer science 30 Mass communication 30 Biotechnology 30 Geography 30 Statistic 30 Psychology 30 Physic 30 Political science 30 Chemistry 30 Personal characteristics of respondents Approximately 93.6% of students who participated in the study here between 19 to 25 years and only 6% more than 26 years. 45.53 %of respondents were male and 54.5% were female.

RESULT AND DISCUSSION:

Analysis of Data In order to test the research questions data analysis were made throughout the SPSS version 17. To answer question 1,

descriptive analysis was used to determine the percentage of negative and positive respondents. Further, a multiple regression model was computed to create a regression equation to answer the research question whether students' attitude can be predicted by students' intention to adopt e-learning and perceived usefulness of e-learning. Results Measuring Students' Attitudes Towards e-learning As shown in Table 3 about 77.3% students perceived e-learning useful. However, 22.33 % students in were undecided. Only .3% students disagreed that e-learning was useful. About 59.99% of students agreed that to adopt e-learning. On the other hand, 35.33% of students were undecided as 4.66% Indian students didn't intent to adapt e-learning. Table 3 Students Perception on E-Learning Independent variables SA % A % U % D % SD % Total Perceived usefulness of e-learning 43 14.33 189 63 67 22.33 1 .3 _ _ 300 Intention to Adapt e-learning 26 8.66 154 51.33 106 35.33 14 4.66 _ _ 300 A multiple regression equation was computed to distinguish whether student's attitude towards e-learning can be predicted by 2 independent variables, namely student's intention to adopt e-learning and student's perceived of e-learning. The results reveal that the R2 value for this dataset was 468. This indicated that % 99.97 of the student's attitude toward e-learning was explained by the independent variables of the above mentioned. A statistically – significant model for perceived usefulness of e-learning and intention to adopt e-learning as the best predictors of student's attitude towards e-learning is: (F = 994.905, df=1, R squre = .714, P < 0.0001). Discussion The objective of this study were to measure Indian postgraduate students' attitude toward e-learning and finding factors can predict students' attitude toward e-learning The theory of technology acceptance model was really designed to test user's attitude toward new technology. The results show that 68.66% Students were significantly positive towards e-learning. However 31.31% of students had negative attitude towards e-

learning. It was about 77.33% of students perceived e-learning usefulness. About 59.99% of students intended to adopt e-learning. Further, 99.97% of the student's attitude toward e-learning was explained by the independent variables namely, perceived Usefulness of e-learning, Intention to use. This result is in agreement with Devis (1989) who found the strong links among, perceived usefulness (U), intentions (I) and user's attitude (A). Hence, Program managers can focus on these factors that are expected to affect student's attitude to adopt e-learning. Although the factors that are used to model e-learning explain 77.33% of the variation of the dependent variable (attitude to adapt e-learning), Further studies should be carried out to explore more variables that can be used to get better insight into the research question .

CONCLUSION:

Conclusion In spite of the benefits that will accrue to students when e-learning is incorporated into teaching and learning at RTM Nagpur University, there are three challenges which need the immediate attention of university authorities. These are: (a) access to hardware (computers); (b) improvement in bandwidth infrastructure; and (c) skills training. Computer ownership has been identified as critical to adoption of e-learning. Although, there has been some improvement in the number of computers at the various RTM Nagpur University ICT laboratories, there is the call for some further strategies to improve access to personal computers, especially, laptops to attain the computer/user ratio of 1:20, the target set in the Strategic Plan of RTM Nagpur University. Special efforts should be made to target female students to use the internet to improve their computer skills. The student perception regarding the e-learning adaption is high also its usefulness among the students is very high. The other challenge in relation to access to computers is the unreliable Internet connectivity.

The present bandwidth places severe restrictions on the number of people who could have access to the Internet. Although most students have intimated that e-learning will enhance teaching and learning, they also attribute the slow adoption of e-learning to the frustrations they experience due to the frequent interruptions with the connectivity.

REFERENCE:

Abdel-Wahab, A. G. (2008). Modeling students' Intention to adapt E-learning: A case from Egypt. Turkish online Journal of Distance Education –TOJDE January 2008 ISSN 1302-6488 Vol. 9, No.1 http://www.ejisde.org .Retrieved on 25 Jan. 2014.

Ajzen, I. & Fishbein, M. "Attitude (1997). Behavior Relations: A Theoretical Analysis and Review of Empirical Research," Psychological Bulletin (84), pp. 889-916.

Bates, T. (2001). National strategies for e-learning in post- secondary education and training. Fundamentals of educational planning, No. 70. http: //www.unesco.org/iiep 2008/08/06, Retrieved on 6 Jan 2014.

Chakraborty, I., Hwa ha, P. J. & Cui, D. (2006). Examining cognitive style on technology acceptance decisions. www.sciencedirect.com

Davis, F. D. (1989). Perceived usefulness , Perceived Ease of Use , and User Acceptance of Information Technology, MIS Quarterly, 13(3), pp. 329-339.

Davis, F. (1993) User Acceptance of Information Technology : System Characteristics ,User Perceptions and Behavioral Impacts. International Journal of Machine Studies , 38.

Gururajan, V. & Low, E. (2009). Using ICT tools to manage knowledge: A student perspective in determining the quality of education.

http://eprints.usq.edu.au/218/1/QIK_2005_Conference_viji's_paper.pdf - Retrieved on 13 Feb. 2014. Jones,

H.G. & Jones, H. B. (2005)A Comparison of Teacher and Student Attitudes Concerning Use and Effectiveness of Web-based Course Management Software. Educational Technology &Society, 8(2), pp. 115-139, http://www.ifets.info/journals/8_2/12.pdf - Retrieved on 6 Feb 2014.

Gunasekaran, A., McNeil, R. and Shaul, D. (2002). E-learning research and applications. Industrial and Commercial Training 34(2), 45-55.

Liaw, S. S., Huang, H.M. & Chen, G.D. (2006). Surveying instructor and learner attitudes toward e-learning .www. Sciencedirect.com OECD (2005)," E-learning in tertiary education: where do we stand?" Education & Skills, Vol. 4, No .1, pp. 235-293.

Parker, M.(2003). Technology-enhanced e-Learning: Perceptions of First Year Information Systems Students at the Cape Technicon. Proceedings of SAICSIT 2003, 315-319.

Shashaani, L. (1994). Gender differences in computer experience and its influence on computer attitudes. Journal of Educational Computing Research. 11(4) : 347-367.

Taylor, J. (2001). Fifth generation distance education. Keynote Address presented at the 20th ICDE World Conference, Düsseldorf, Germany, April 2001.

Tuparova, D., Tuparov, G., Ivanov, S., Karastranova ,E. & Pevena , J. (2006). Teachers ' attitude towards elearning courses in Bulgarian universities. Current Developments in Technology-Assisted Education (2006). http://www.formatex.org/micte2006/pdf/1755-1759.pdf Retrieved on 30 June 2008.

Woodrow, J. E. (1991). A comparison of four computer attitude scales. Journal of Educational Computing Research. 7(2): 169-189.

Table 1 The reliability of the measurement scale

Scale	Cronbach's alpha
Attitude towards e-learning	o.71
Perceived usefulness of e-learning	0.84
Intention to adopt e-learning	o.71

Table 2 Sample details

Arts		Science	
Department	Number	Department	Number
Education	30	Computer science	30
Mass communication	30	Biotechnology	30
Geography	30	Statistic	30
Psychology	30	Physic	30
Political science	30	Chemistry	30

Table 3 Students Perception on E-Learning

Independent variables	SA	%	A	%	U	%	D	%	SD	%	Total
Perceived usefulness of e-learning	43	14.33	189	63	67	22.33	1	.3	_	_	300
Intention to Adapt e-learning	26	8.66	154	51.33	106	35.33	14	4.66	_	_	300