SCOPE AND QUALITY ISSUES RELATED TO E-LEARNING ENVIRONMENT

B. Khalid, J. Rabbani
Institute of Business and Management, University of Engineering and Technology, Lahore
Corresponding author: bilal_khalid47@yahoo.com

ABSTRACT: *Education is most powerful tool existing on the earth, which proved to be a catalyst for changing the fate of mankind. Nations who invest in education are now ruling the world. E-learning is generally a comprehensive term that tends to describe educational learning and teaching through internet or web based systems. Despite of this commendable system of E-learning still failures exist. This paper will try to elaborate the scope and quality issues related to E-learning environment. This paper also attempts to elaborate potential causes of perceived E-learner satisfaction caused by numerous independent variables like learner dimension, course dimension, technology dimension and job dimension. A quantitative research methodology was used and data was collected from students of different universities. Practical implications are also provided in order to make E-learning more efficient and effective.*

KEYWORDS: E-learning, E-learner satisfaction, E-learning environment, flexible learning.

INTRODUCTION

The importance of education cannot be over emphasized. It is the most powerful tool which can be used to do anything. Any war, any battlefield or any competition can be won with the help of effective use of education. History has witnessed that those nations who invest in education and consider education as their asset rule this world and vice versa. So education needs to be spread out, new ways and methods must be explored so that we can easily disseminate and diffuse the education and its benefits to the world. The previous learning and education system was based on traditional learning system in which students and teachers must be physically resent in the class. With the advent of technology, the conventional learning system is changed to web based learning or electronic learning which is also known as e-learning.

E-learning usually means the use of information technology and telecommunication technology to convey information for both education and training purpose. E-learning has emerged out as a new learning paradigm for modern and latest education. The key benefits of e-learning include better interaction between learners and instructors, elimination of the limitation of time, space and geographical boundaries, flexible learning timings and less expensive fee structure. E-learning also provides a learning network model in which students can communicate to each other and with their course instructor through online web portal [1]. The characteristics of E-learning has fulfilled the requirement of modern society learning, therefore business and higher education systems are moving towards e-learning culture. Massachusetts Institute of Technology (MIT) took initiative and offers all of its courses virtually online and sends a robust message to all educational institutes regarding the strategic importance of electronic-learning [2].

Literature shows that e-learning has a growth rate of 35.6% but some failures exist in it [3,4]. So far very little is known that why users of e-learning discontinue their e-learning after having some initial experience. A research conducted by 'information system research' shows vividly that user / learner satisfaction is one of the key and vital factors in determining success of e-learning system implementation [5].

E-Learning has created a visible impact in the history of training and education system. E-Learning has become a solution to reshape learning environment [6]. According to Harris (2005) the individual learning objectives and variety of different learning contexts makes e-learning unlike other educational materials. The learning technology can be better used for the carriage of courses offered through web [7]. Research in the area of adaptive hyper media, virtual mentors and intelligent tutoring systems leads towards making better tools and techniques, which ultimately improve learning outcomes [8] .Hitherto the existing systems are either very domain specific or non-adaptive which do not support learning object recycle. This deficiency had resulted in exploration for smart e-Learning structures, which we can use as a standard web technology [7].

When we compare e-learning system with the traditional learning system we come to know that as there are some problems in traditional learning system likewise there are some hurdles in e-learning system as well, but the aptitude of e-learning on the effectiveness of learning process varies differently. It could be also said that teachers are considered as the main players (both in traditional learning and e-learning) in the learning process because they have to impart the knowledge to students. The most important obstacle found in traditional learning was time, space and finance (fees). These constraints and hurdles found in traditional learning are very well handled by e-learning system, because e-learning system provides the flexibility to choose time and space according to the will of student, web based learning system provides a conducive and friendly learning environment for students [8,9].

LEARNER DIMENSION

Research has shown that learner attitude towards computer or information technology is considered as a significant factor in e-learning satisfaction. Learner attitude can be defined as the learner's impression of involving or participating in e-learning through active use of computers. Positive attitude will increase the chance of successful e-learning and negative attitudes hinders e-learning. A student having a positive attitude towards learning internet technology will help him significantly for e-learning. Literature shows that learner attitude had a positive impact on perceived e-learner satisfaction [10,11]

Self-efficacy is individual tendency towards a specific functional aspect. It can also be defined as the possibility of success before executing a task [12]. Learners who have high internet self-efficacy are better in fulfilling their assigned

tasks. Internet self-efficacy is considered an important factor in predicting the network based studies. Students with higher self-efficacy potential are able to better adopt network based learning system [13].

COURSE DIMENSION

E-learning courses are mostly time flexible, flexible location, methods and participation [14]. In addition to that exclusion of physical barriers allows more dynamic interaction of constructive learning [15]. As e-learning has no limitation of time and space so the students can communicate spontaneously irrespective of time and space [16]. Currently most e-learning programs and courses are offered in continued education programs and the students (learners) are mostly on job [17].

A well designed quality based e-learning program is the ideal factor for learners when they are considering learning via e-learning. Quality can be the other influential factor in obtaining satisfaction in e-learning. [11]. E-learning also has some virtual characteristics like online interactive discussion, brain storming and presentations for course material help learners in forming effective learner models. Hitherto, quality of e-learning courses is considered significant factor.

MATERIALS AND METHODS

Learner dimension and course dimension are taken as the independent variables whereas perceived e- learner satisfaction is taken as criterion variable. One of the predictor variable i.e. learner dimension is measured by further two dimensions which are learner attitude towards computer and learner internet self-efficacy. Based on the above discussion the proposed model is shown in the figure below: The purpose of this research is to measure the significant effect of learner dimension and course dimension on perceived e-learner satisfaction of the students of different universities of Pakistan. .

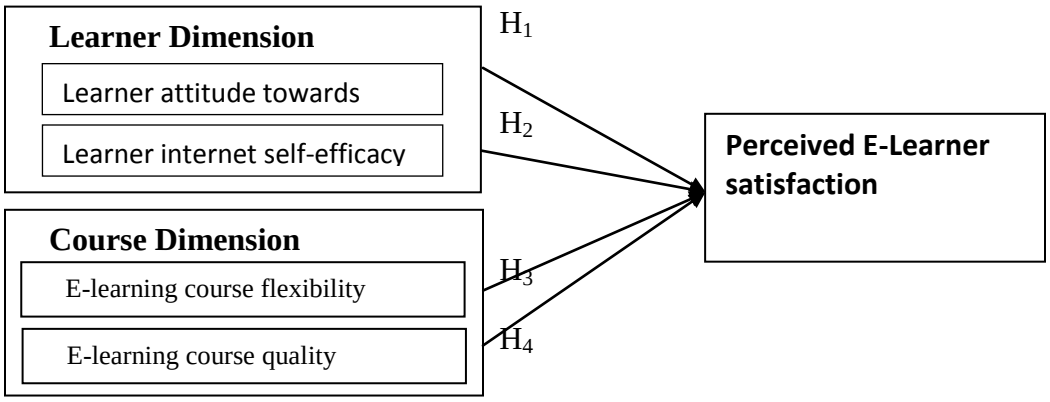

Figure-1 Proposed conceptual framework

Hypotheses:

Following hypotheses were established to test the significant effect of independent variable e.g. LTC, LCA and LISE on the Perceived E-Learner satisfaction.

H1: Learner attitude toward computers has a significant positive impact on perceived e-learner satisfaction with e-learning

H2: Learner Internet self-efficacy has a significant positive impact on perceived e-learner satisfaction with e-learning

H3: E-Learning course flexibility has a significant positive effect on perceived e-learner satisfaction with e-learning

H4: E-Learning course quality has a significant positive effect on perceived e-learner satisfaction with e-learning

Data for this study was collected from the currently enrolled students and those who have completed their degrees from the respective universities. Within the time span of 90 days data was gathered for this research.. 400 questionnaires were distributed out of which 264 questionnaires were returned, 10 questionnaires were deleted on the basis of missing data in the questionnaires due to the missing data that represents a response rate of 63%. A total of 254 questionnaires were entered into the SPSS for analysis.

With the purpose to collect data from the participants quantitative research method was adopted. To carry out this

esearch an amalgamation of already approved questionnaires from the existing body of literature was used. Both the predictors and criterion variable are measured by a five point Likert scale from 1 (strongly agree) to 5 (strongly disagree) whereas the following tables provides a brief description of the questionnaire.

Table-1.Variables and their measurement

Sr. No.	Variables	Authors	No. of Items
1	IV-Learner Dimension		
(a)	Learner attitude towards computer	[18]	7
(b)	Learner internet self-efficacy	[19]	12
2	IV - Course Dimension		
(a)	E-Learning Course Flexibility	[20]	8
(b)	E-Learning Course quality	[20]	3
3	DV- Perceived E-Learner Satisfaction	[20]	9

RESULTS AND DISCUSSION

The following table describes values for descriptive statistics for both the dependent and independent variables used in this research.

In the present research values for correlation for all variables are significant at level $p<0.01$. According to the following table E-Learning course flexibility has the highest positive correlation (0.660) with the dependent variable i.e e-learner perceived satisfaction. In the similar way the second highest positive correlation is between learner internet self-efficacy and e-learner perceived satisfaction with a value of (0.646). Likewise e-learner course quality and learner attitude toward perceived e-learner satisfaction are also found to have a strong positive correlation with perceived e-learner satisfaction with the values of correlation (0.639) and (0.600) respectively. It is evident from the following table that all the variables showed a significant positive relationship with perceived e-learner satisfaction.

The values of Cronbach's alpha for the instrument used in this study are obtained by applying reliability analysis. The value of Cronbach's alpha of the whole instrument is acceptable i.e. $\alpha=0.909$. In the similar way the values of Cronbach's alpha for LATC, LCA, LISE, ATL, PELS, PLCF, ELCQ, CD, TQ, IQ, TD and JO are $\alpha=0.937$, $\alpha=0.807$, $\alpha=0.553$, $\alpha=0.882$, 0.854, 0.636, 0.528, 0.631, 0.751, 0.906 and 0.741 respectively and theses which fulfill the standards used for reliability.

In addition to this linear regression is used to find out that how much change in criterion variable is caused by the predictors. The values of regression results demonstrated that factors of both the dimensions i.e. learner and course dimension have a significant positive impact of perceived e-learner satisfaction. In the following table the value of R2 at $p=0.000$ and $F= 71.654$ is 0.535 which demonstrates that overall 53.5% variance in PELS is caused by LATC, LISE, ELCF and ELCQ whereas other factors can be held responsible for the remaining variance in PELS which are not a part of this study at this point of time. The value of significance level i.e $p=0.000$ with the value of Beta

Table2. Characteristics of the respondents

Characteristics of the respondents	Frequency	Percentage
Gender		
Female	54	21.3
Male	200	78.7
Total	254	100
Age		
Less than 30 years	148	3
30-39	60	5.0
40-49	27	49.3
50-59	16	30.3
Greater or equal to 60	3	15.0
Total	254	100
Degree of Respondents		
Bachelors	90	35.4
Masters	135	53.1
Mphil	29	11.4
Total	254	100

Table-3. Pearson Correlation

Variables	LATC	LISE	ELCF	ELCQ	PELS
LATC	1				
LISE	.654**	1			
ELCF	.700**	.748**	1		
ELCQ	.578**	.6.672**	.718**	1	
PELS	.600**	.646**	.660**	.639**	1

**. Correlation is significant at the 0.01 level (2-tailed). N=254

Table-4. Coefficients of regression analysis

Model	B	Std. Error	Beta	T	Sig.
Constant	0.118	0.233		0.530	0.000
LATC	0.203	0.072	0.178	2.826	0.000
LISE	0.286	0.093	0.216	3,076	0.002
ELCF	0.233	0.094	0.191	2.466	0.000
ELCQ	0.218	0.056	0.254	3.898	0.001
R^2=0.535, F=71.654					

a. Dependent variable: PELS

DISCUSSION AND PRACTICAL IMPLICATIONS

The current study was conducted to analyses the effect of learner dimension and course dimension on the perceived e-learner satisfaction of the students of various universities with e-learning. The results show that all of the four hypotheses i.e. H1, H2, H3 and H4 are supported and well accepted for this research. Keeping in view that the learner ability and his/her interest and environment plays a decisive role in e-learning. Although e-learning is progressing at a very fast pace but still failures exist. Higher education system should take up this matter and some policies should be made on higher level in order to assist students who wish to go for distance learning. This research can be used by scholars and professionals in the field of e-learning. In addition to it some more research can be made in order to identify more situational, personal and environmental factors that can increase perceived e-learning satisfaction

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