



E- Learning Implications In India

Chahat Sahani Assistant Professor, Graphic Era (Deemed to be University), Dehradun, India.

Pooran Singh Student, MBA Graphic Era (Deemed to be University), Dehradun, India.

Jitendra Chauhan Assistant Professor, School of Management, Graphic Era Hill University, Dehradun.

ABSTRACT

Paper aims to identify E-learning practices in India The main influencing elements for the adoption of e-learning in India are identified in the current study. Based on various literature present paper focuses on factors that act as an enabler or hindrance in literature review, the wider purpose of the present paper is find out the factors that act as enablers in proclaiming e-learning practices in India. The study focuses on 385 respondents of higher education from different universities taking classes online. The study used single cross sectional research design to collect data. The convenience sampling method was applied to choose responders. This study will help colleges /universities and government in enhancing e-learning practices

Keywords: E-learning, Covid -19, convenience sampling, E-learning practices.

1. INTRODUCTION

Our country's education system has undergone a tremendous transformation due to the rapid/easy internet and availability of low-cost mobiles and other electronic gadgets. People enjoy doing almost everything online, right from shopping to building business and socializing. With a population of 1.38 billion and with access to high-speed internet and smart phones, India has the highest number of tech-driven consumers. With technology playing an imperative role in multiplying reach and the handiness of learning tools/materials, e-learning has

posed as an opportunity for many foreign and national education training providers.

Today in this era of 21 century digitalization as gained its immense importance as the vision of our government is to become digital. So, government is also promoting digitalization in the economy so as to create ease. With development of online marketing online users has also increased and also digitally empowered society is being transformed. Today is an era of digitalization and an era of artificial intelligence and virtual reality. New learning online platforms even various MOOCS courses are available today for students. Today live classes have become more popularized as even students living in rural areas can avail the experience of online learning.

The new normal posed as a challenge for teachers who were compelled to move to online education due to the sudden wave of the pandemic. The main task here was to adapt to the complex digital world and learn technical expertise. In the absence of a uniform digital infrastructure, both mentor and mentee are facing unprecedented challenges. With the government's push for Digital India, the introduction of multiple schemes and initiatives will definitely fuel the growth of e-learning in our country which will eventually lead to a major shift in the education sector. E-learning broadens his horizons and provides a unique opportunity for teachers, researchers and knowledge aspirants to work together to share knowledge and learning resources on a common platform's-learning is changing the education sector in a very innovative way. The expansion of bachelor's programs and the changing trends in the education sector has broadened students' career options based on their abilities and skills. The benefits of these diverse courses are not just for students, but for universities, 4,444 educational institutions, the corporate sector, and the country as a whole. In addition, innovative methodologies such as simulations and serious games will intrigue learners and provide them with the opportunity to learn through application-based knowledge, helping them achieve overall excellence.

2. LITERATURE REVIEW

According to Shahzad (2021), who examined the COVID-19 and its effects on Malaysian students enrolled in higher education institutions, there is a sizable gender-based disparity in utilisation. Al-Fraihat (2020) obtained data from 563 students using an e-learning system while researching the factors influencing e-learning in UK universities. The study employed the quantitative Partial Least Squares - Structural Equation Modeling (PLS-SEM) model. They proposed that

the factors influencing perceived satisfaction include perceived system quality, information quality, service quality, support system quality, learner quality, teacher quality, and perceived usefulness. According to a study by Favale (2020), the COVID-19 outbreak has caused a number of economic changes as a result of the harsh measures that have been taken to stop the infection from spreading. Online collaboration, gaming, and video streaming have all benefited greatly from the internet during this time. Due to this situation there was stress laid on network and internet. This paper has analyzed the major impact of lockdown. There were more alternatives in terms of virtual teaching being suggested. The paper focuses on studying the importance of internet and how internet has help in facing challenges in meeting university operations. The use of the E-learning system during the COVID-19 pandemic is becoming a major difficulty for many colleges, according to M.A. Almaiah (2020), who researched and investigated a number of important issues and causes. This study was conducted in response to this issue since there has been a gap found due to the lack of consensus regarding the difficulties in fault finding and enabling elements of using e-learning during pandemics. According to Nie (2020), who looked into and investigated E-learning finance strategies in Russia, e-learning is crucial to the long-term advancement of education. Hasan (2020) looked at how psychological discomfort among college students during the COVID-19 epidemic was affected by the idea that e-learning was broken, using fear as a mediator. The study discovered that students' perceptions of "e-Learning crack-up" play a significant part in influencing their psychological anguish. Valverde-Berrocso, J. (2020). The purpose of this essay is to examine the factors that affect college students' acceptance of E-learning technologies The results showed that raising awareness and imparting information have a favourable impact on students' acceptance of online learning. A study on e-learning as a self-directed instrument for electronic learning for all educational sectors and educational systems that serve a variety of training objectives and students was conducted by H. Rodrigues in 2019. Focused on various concepts of e – Learning made a review out of it and published it.P.A. Cinquin(2019) studied various barriers and hindrances in online e- learning system . Review of various other papers was done and solutions to problems were being found.Mohammad et al (2012) Tarus et al., Tarus et al., Tarus et al (2015). Kamaruddinet al., (2009) researched how the learning environment affects students & learning outcomes as well as several characteristics of the learning environment. Struyven and others (2005) examines the difference between traditional mode and e-learning practices and

also provided solutions for providing additional value in the system so that barriers in e – learning system can be eliminated.

3. OBJECTIVES

The main goal of the current article, which is based on the literature research, is to identify the elements that promote or obstruct e-learning in India.

4. METHODOLOGY

Sample collection: Participants were mailed questionnaire to be administered by themselves. The study used single cross sectional research design to collect data. The convenience sampling method was applied to choose responders. A Google form was created and floated through emails and social sites such as Facebook, WhatsApp and LinkedIn. Respondents data and responses were assured to be kept confidential The total response obtained was 435, out of which 385 were usable (81.74%)

5.1 Constructs Used

Construct was measured on twenty two-item questionnaire. In present study Cronbach alpha was .882. All responses were measured on 5-point likert scale. Validity of the scale was assessed using AMOS 22. (Table No 4).

5. Analysis and Result

6.1 Respondents' Demographic Profile

Students between the ages of 18 and 27 who were enrolled in a variety of HEIs throughout India served as the study's respondents. In terms of gender, 58.8% of respondents were women and 41.19% were men. In Table No. 1, a thorough profile of the responders is provided.

Table 1 Respondents' Demographic Profile

	Particular	Frequency	Percentage
Gender	Male	201	52
	Female	184	48
Age	18 to 21 years	128	33
	21 to 24 years	202	52
	24 to 27 years	55	15
	Graduate	276	72

Education	Post Graduate	109	28
	Total	385	100.0

PCA was conducted on the 22 items for factor extraction. Further, varimax method of rotation was done on the extracted factors under oblique rotation method. The Kaiser-Meyer-Olkin (KMO) metric was used to determine whether the sampling was adequate yielded marvelous result (KMO= .986)(Hutcheson & Sofroniou, 1999). Moreover, sampling adequacy of individual items were also checked and it was found that all KMO were greater than the acceptable limit of 0.5 (Field, 2013). Kaiser criterion of factor extraction was adopted. Kaiser's criterion of 1 was met by five factors, and they together accounted for 95.6% of the variation. After rotation, the factor loading is shown in the table.

Factor-1 (Learner's Attitude) describes that the learner's attitude is the most influencing factor which affects the perception of students explaining 22.894% of the total variance. Factor-1 includes the various variables which affect the attitude of the learner in terms of suitability, attractiveness, satisfaction, problem solving, and parent's support. Factor-2 (Technical Incompatibility or Challenges) comprises the variables related to the technical issues of e-learning such as problems in numerical subjects, difficulty of accessibility in rural areas, need for smart gadgets, mismanagement of time, lack of digital literacy, and uncertainty in terms of course completion. Factor -2 explains 18.149% of total variance with Cronbach's alpha value .762. Factor-3 (Service Quality Challenges) encompasses all variable which are related to the service quality measure of e-learning such as problems related to the visual and audio clarity, connectivity and disturbance in the communication. Factor 3 explains 15.762% of total variance with Cronbach's alpha value .802. Factor-4 (Social Challenges) includes the constructs which are related to the various social challenges such as student's hesitation, family disturbance, and use of mobile and mobile data. Factor 4 explains 15.213% of total variance with Cronbach alpha 0.718. Factor 5 (Content Quality) includes variables related to the understanding of the subject, course or syllabus completion, the efficiency of teachers, and content covered which covered the 11.788% of total variance with Cronbach alpha 0.792. The investigated elements show the difficulties that Indian students pursuing higher education in e-learning confront in addition to illuminating the benefits of e-

learning. The study finally concluded that in India, running regular classes through the e-learning platform is quite new and challenging, because of the different demographical nature and environment of the students and colleges. Students and teachers both are facing problems in terms of technology challenges and quality measures of these channels. On the other hand, the respondents are also worried about the content covered and their quality in terms of course or syllabus completion. The findings of the study also revealed that e-learning or learning from home has been affected by the various social factors such as family disturbance, maximum use of cell phone and mobile data, etc. Confirmative factor analysis (CFA) was used to assess the extracted five factor model. The indices for measurement model are given as below: CMIN=142.214, DF= 199 CMIN/DF= 0.715, CFI=0.998, SRMR=0.022, RMSEA = 0.0000

6. CONCLUSION:

Technology is used in e-learning to supplement face-to-face instruction and learning. A blended e-learning strategy supports an integrated classroom and online teaching-learning process. E-learning was never taken seriously in India before the Covid-19 outbreak. This abrupt shift in education has provided instructors and students with a plethora of new teaching and learning opportunities. Hence created rooms for creativity .After pandemic situation more stress were laid on providing education to students online by various e-learning platforms. E-learning system has completely changed the traditional form of classroom teaching. It totally depends on teacher delivering through e – learning technologies that how they create environment wherein student thinks in critical manner as teacher or instructor has to make his/her student user friendly to various e learning technologies so that they fit in to e-learning system . There are various benefits of e-learning system as it leads to greater student concentration, student engagement, easy problem solving .E-classes were helpful to students during pandemic situation in some schools and universities blended mode of education was being conducted. Studies found that students were satisfied with e-classes as students believe that offline classes are good but e-classes are good as well convenient for them too. Technology is not merely an approach for having positive impacts of learning rather a larger vision of enabling technology is required to help students learn better and teachers teach better is required. As a result, solutions to issues such as pricing, accessibility, delivery mode, and content are needed. Due to advancement of

technology digital class rooms were made possible. Through E-learning system place and time hindrance were being removed as high-quality education is offered across all domains and locations, as well as improving teacher efficiency in impoverished and emerging countries. There is certain hindrance and barriers in e-learning system this leads to slow adaption of e-learning in India. The major problem is in rural area as there is a disparity between rural and urban areas, lack of technology in rural areas, poor connectivity . The government should strive to lower the barriers to the adoption of the e-learning system by assisting in the growth of the economy by reducing economic disparities, uplift rural areas, and improving network connectivity as the e-learning system has gained importance and improved the education system. . In India, e-learning has a promising future and is poised to take off. It is unlikely, however, will put back traditional learning; rather, both models will coexist.

Table 2: TOTAL VARIANCE EXPLAINED

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.175	64.432	64.432	14.175	64.432	64.432	5.037	22.894	22.894
2	1.389	6.312	70.744	1.389	6.312	70.744	3.993	18.149	41.043
3	1.054	4.791	75.536	1.054	4.791	75.536	3.468	15.762	56.805
4	.982	4.463	79.999	.982	4.463	79.999	3.347	15.213	72.018
5	.838	3.807	83.806	.838	3.807	83.806	2.593	11.788	83.806

Extraction Method: Principal Component Analysis.

Table 3: ROTATED COMPONENT MATRIX

	Component				
	1	2	3	4	5
V1		.689			
V2		.730			
V3		.751			
V4		.819			
V5		.697			
V6	.783				
V7	.751				
V8	.803				
V9	.812				
V10	.730				
V11	.770				
V12			.765		
V13			.722		

V14			.749		
V15			.806		
V16					.773
V17					.722
V18					.753
V19				.769	
V20				.717	
V21				.728	
V22				.760	

Table 4: MODEL VALIDITY MEASURES

	CR	AVE	MSV	MaxR(H)	LA	TI	SQC	SC	CQ
LA	0.955	0.779	0.571	0.955	0.882				
TI	0.947	0.781	0.613	0.947	0.756** *	0.884			
SQC	0.935	0.783	0.587	0.938	0.727** *	0.766** *	0.885		
SC	0.943	0.806	0.613	0.945	0.746** *	0.783** *	0.758** *	0.898	
CQ	0.925	0.805	0.585	0.926	0.725** *	0.764** *	0.739** *	0.765** *	0.897

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