E-Learning and its effectiveness in Management education

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Abstract

E-Learning is learning utilizing electronic technologies to access educational curriculum outside of a traditional classroom. The sudden outbreak of COVID-19 pandemic challenged the education system across the world and forced educators to shift to an online mode of teaching overnight. In India, where students and teachers are more adjusted to the traditional face to face(F2F) class were also forced to continue their studies through the online mode. But, majority of the students in India are from backward communities and low-income families that do not have access to a stable internet connection or in possession of a device suitable for e-Learning. As learners and teachers increasingly seek e-learning opportunities for an array of educational and individual benefits, it is important to evaluate effectiveness of these programs. While some students embrace online education, others may find it more inconvenient than and not as effective as teaching face-to-face and the nature of the course also play a significant role in the success of online education. In this context, this empirical study is initiated to find the effectiveness of e-learning in management education at post graduate level where students need much exposure, presentation skills and communication skills. Data is collected with the support of a structured questionnaire. The findings of this study can provide insights to stakeholders of academia to understand the challenges and frame possible solutions to improvise e-learning practices.

Keywords: E-learning, Technology, Management Education, COVID-19

Introduction

E-Learning is learning utilizing electronic technologies to access educational curriculum outside of a traditional classroom. While teaching can be based in or out of the classrooms, the use of computers and the Internet forms the major component of E-learning.

In March 2020, the Indian Government imposed a nation-wide lockdown to curb the spread of the disease, which is Covid-19. The Covid-19 is an infectious disease caused by coronavirus. Covid-19 was first identified in Wuhan, China and it spread globally. So, in order to control its spread, from March 25th the government observed the nation-wide lockdown and since then the educational system in our country has shifted from the face to face method to online learning or e learning. The outbreak of Covid-19 resulted in the digital revolution in the education sector through online lectures, online examinations, and interaction at virtual environments etc. across the country. Adapting to this new normal was not easy for many students.

Management studies is a curriculum where students are encouraged to learn the theory and practices of management. It aims at bringing out the best in them and inculcating various soft skills to be a

professional in their job and life. Management studies also encourages the students to showcase their innovative talents and ideas to mould the entrepreneur in them. The students are asked to do internships and live project work to give them first-hand experience of real work, so that the students will be capable of performing in any work environment. The curriculum provides specialization in Marketing, Human Resources, Operations, Finance, Analytics etc.

Every year about 3,60,000 MBA students graduate from various B-schools in India and about 61% of them are unemployable due to skill gaps and lack of work experience. A news report suggests that there has been a drop in the employment of these Management professionals in the last few years as they have lost their edge.

The Covid-19 pandemic has made the business schools shift from offline to online education. The pandemic has caused huge disruptions in management education across the world. B-schools are finding it difficult to send the students for summer internship, or finishing up with their final dissertation and also arranging final placement is also a challenge for the B-schools. Despite these difficult times it is not all doom and gloom, there are some benefits too, online learning has given some flexibility in scheduling classes and engaging industry experts and international professors, it has also given first-hand experience to the students of how work from home can be and what is to be expected.

E-learning has helped the students access the virtual libraries and also provided faster availability of reputed global resources to help them in building a deeper and global perspective. The main advantage of this system is that most of the resources are free and the students can have access whenever they want. The e learning system helped the students in building their knowledge and many B schools arranged online webinars, courses, workshops and most of these programs were free and the students were provided with certificates as well.

There are also negatives that have arisen out of the current system of e-learning practiced among management students. The students of this pandemic batch might lack exposure and practical learning. They may also lack the soft skills required to survive in the corporate world. With this backdrop, the present study aims to identify the effectiveness of e learning among management students.

Literature Review

E-Learning

Rapid developments in technology have made distance education easy (McBrien, Cheng & Jones, 2009; Littlefield, 2018) there are 2 types of distance learning, synchronous and asynchronous distance learning. The synchronous learning environment is structured in the sense that students attend live lectures, there are real-time interactions between educators and learners, and there is a possibility of instant feedback, Synchronous learning generally works best for students who can schedule set days and times for their studies. Whereas asynchronous learning environments are not properly structured, Students with complicated schedules often prefer asynchronous distance learning. In such a learning environment, learning content is not available in the form of live lectures or classes; it is available at different learning systems and forums. Instant feedback and immediate response are not possible under such an environment

Dhawan (2020) has conducted a study on online learning in the time of covid-19 crises, in her study she highlighted the quality and importance of online learning during the crises. She pointed out the need of adapting to this new method of education during the disasters and also in her study, she prioritizes the accessibility of technology to all income group students and we must prepare in advance in the years to face any crises so that every student gets the right education at the right time.

Kapasia (2020) in her study suggests targeted interventions to create a positive space for study among students from the vulnerable section of society. Strategies are urgently needed to build a resilient education system in the state that will ensure to develop the skill for employability and the productivity

of the young minds. The infrastructural facilities should be availed to the education institutions which can regulate the digital learning process during future health emergencies. Distance, scale, and personalized teaching and learning are the three biggest challenges for online teaching (Ligouri & Winkle, 2020). Innovative solutions by institutions can only help to deal with pandemic e-learning.

Subedhi (2020) conducted a study on Impact of E-learning during COVID-19 Pandemic among Nursing Students and Teachers of Nepal, and pointed out that E-learning is a good opportunity to continue education but in the context of developing countries like Nepal it is not fully effective unless the factors affecting the E-learning process are taken into account. Technological factors were one of the critical factors affecting the e learning system.

Management Effectiveness

A study on the determinants of management information systems effectiveness in Small- and Medium-Sized Enterprises in Vietnam, identified factors that really affect the effectiveness of management information systems(Le et al., 2020). Factors such as organizational characteristics, manager's knowledge, top management commitment, user involvement, and information quality are tested. The study points out that the information quality has the strongest effect on the effectiveness of management information systems, followed by managers' knowledge and user involvement. However, organizational characteristics and management commitment are not significantly related to management information systems effectiveness but they have indirect influence in effectiveness.

Chen and Jones (2007) assessed the perception and effectiveness of MBA students in blended learning vs traditional class. Overall perceptions of the course, instructor and learning outcomes were positive for both groups. Some of the noted differences is that the students from traditional classrooms were more satisfied with the clarity of instruction. On the other hand, students in the blended-learning section indicated more strongly that their analytical skills improved as a result of the course. The results suggest that the two delivery methods were similar in terms of final learning outcomes, but the effectiveness of both may be improved by incorporating aspects of the other.

Arbaugh (2014) tried to predict the online course effectiveness by examining the variables such as course technologies, learner behaviors and instructor behaviors and study on 48 online masters of business administration courses found that the instructional behavior was the strongest predictor out of the three variables.

Research Methodology

This is an empirical study using an online survey based on the 112 post graduate management students studying in various colleges and universities. A structured questionnaire link using 'Google form' was sent to students through WhatsApp. Participants were provided full consent before participation in the online survey. A total of 112 students provided complete information regarding the survey. Basic descriptive analysis using frequency tables are used to identify the pattern of responses. Judgmental sampling is used for the survey.

Result and Data Analysis

Involvement in E learning before pandemic

Table 1 shows that out of 112 respondents, majority of the respondents were female. (55.4%) of the respondents were female and (44.6%) of the respondents were male. All of these respondents are students doing MBA in various b schools and universities. More than half (62.5%) of the respondents

were not involved in any kind of e- learning before the pandemic and only (37.5%) of the respondents were involved in e learning before the pandemic and lockdown.

Table 1

	Frequency (n)	Percentage (%)
Gender of the respondents		
Male	50	44.6%
Female	62	55.4%
Involved in e-learning before pandemic		
No	70	62.5%
Yes	42	37.5%

Learning status

Table 2 shows hours spent for e learning, devices and platform used for e learning. Out of 112 respondents, (45.5%) spends 2-4 hours in a day for e -learning and (25.9%) spends less than 2 hours in a day and only (9.8%) spends more than 6 hours in a day. While looking into the devices used for e learning, the majority of the participants (83.0%) use mobile phones for learning, followed by laptop (16.1%) and television (0.9%). Out of 112 respondents, more than half of the respondents (58.9%) use google meet for e learning followed by zoom (28.6%) and Microsoft teams (8.9%) and rest of the respondents use other platforms such as coursera, Moodle, etc.

Table 2:

	Frequency (n)	Percentage (%)
Hours spent:		
Less than 2 hours	29	25.9%
2-4 hours	51	45.5%
4-6 hours	21	18.8%
More than 6 hours	11	9.8%
Devices used:		
Mobile phone	93	83.0%
Laptop	18	16.1%
Television	1	0.9%

Platform used:		
Google meet	66	58.9%
Zoom	32	28.6%
Microsoft teams	10	8.9%
Zoom & google meet	1	0.9%
Company based	1	0.9%
Coursera and zoom	1	0.9%
Moodle	1	0.9%

Anxiousness and Cost of e-Learning

Table 3 shows the anxiousness and the financial burden on e-learning. Out of 112 respondents, (42%) responded that they might be anxious about being unable to understand the concept taught online. (41.1%) responded that they are anxious and (17%) responded that they are not anxious.
Regarding the financial burden, out of 112 respondents, (50%) of the respondents said that they need financial aid to support the online class, (50%) of the respondents are of the opinion that they do not need institutional aid to support the online class.

Table 3:

	Frequency (n)	Percentage (%)
Anxiousness:		
Yes	46	41.1%
No	19	42%
May be	47	17%
Financial Burden:		
Yes	56	50%
No	56	50%

Effectiveness of e-Learning

Table 4 shows the effectiveness of e-learning in professional degrees followed by effectiveness of e-learning in developing soft skills. Out of 112 respondents (37.5%) Strongly disagreed with the effectiveness of e-learning in professional degrees, (36.6%) respondents disagreed, (18.8%) were neutral in opinion, (5.4) agreed that e-learning is effective for professional degrees and only (1.8%) strongly agreed. While coming to the soft skill development, out of 112 respondents (35.7%) were of the neutral opinion that e-learning is effective in developing soft skills. (32.1%) disagreed with the effectiveness of soft skill development, (15.2%) strongly disagreed, (14.3%) agreed that e-learning is effective for developing soft skills and only (2.7%) strongly agreed.

Table 4:

	Frequency (n)	Percentage (%)
Effectiveness:		
Strongly Agree	2	1.8%
Agree	6	5.4%
Neutral	21	18.8%
Disagree	41	36.6%
Strongly Disagree	42	37.5%
Soft skill development:		
Strongly Agree	3	2.7%
Agree	16	14.3%
Neutral	40	35.7%
Disagree	36	32.1%
Strongly Disagree	17	15.2%

Comfortableness of presentation

Table 5 shows the level of comfort participants have while doing presentation. Out of 112 respondents, majority of the respondents (79.5%) opined that the face to face mode presentation is more comfortable and only (20.5%) were comfortable with the online mode of presentation.

Table 5:

	Frequency (n)	Percentage %
Mode of presentation:		
Face to Face	89	79.5%
Online	23	20.5%

Problems of e-Learning

Table 6 discusses the problems related to e-learning. Out of 112 respondents, (45.5%) of the respondents said loss of internet connection is their biggest problem in e learning. And (24.1%) says inability to get clarity of ideas that are taught in the class are their problem. (21.4%) says they lack motivation to attend the class. (3.6%) respondent says that there is no monitoring during classes. The rest of the respondents have their own problems.

Table 6

	Frequency (n)	Percentage (%)

Biggest problem related to e-learning:

Loss of internet connection	51	45.5%
Inability to get clarity of ideas	27	24.1%
Lack of motivation to attend classes	24	21.4%
No monitoring during class	4	3.6%
Other reasons	5	5.4%

Independent Sample t-Test

To further understand the effectiveness of e-learning. We will conduct an Independent Sample t-Test to identify if there exist any difference in the perception on the effectiveness of e learning between two groups namely, students who had used e learning before pandemic and those who have started using it after the pandemic. First in order to ascertain if there is equal variance or not between the two groups in the sample, we run a Levene's Test. While testing out the Hypothesis the Rule of thumb is applied which is - if the p value (sig value in the output table) is less than .05 the null hypothesis is rejected and alternate hypothesis is accepted.

Hypothesis:
H_0: There is no significant difference in the perception on the effectiveness of e-learning between those students who had used e-learning before pandemic and those who started using it after pandemic.
H_1: There is a significant difference in the perception on the effectiveness of e-learning between those students who had used e-learning before pandemic and those who started using it after pandemic.

Levene's Test and Independent Sample T-Test

	Levene's Test		T-Test		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.432	.512	1.029	110	.306
Equal variances not assumed			1.004	79.849	.318

In the above table we can see that the p value of the Levene's test is 0.512 which is greater than 0.05 which allows us to assume that there is equal variance between the two groups of the data. So it is the row in which equal variance is assumed that has to be taken into account when we are doing the analysis. The row giving the assumption of unequal variance is given for reference only.
We then analyses the T-Test in which the p value that is attained is 0.306 which is also greater than 0.05, this also further allows us to ascertain that the Null Hypothesis is accepted. Therefore, it can be interpreted that "There is no significant difference in the perception on the effectiveness of e learning between those students who had used e learning before pandemic and those who started using it after pandemic"

Implications of the Study

The study conducted related to e-Learning was done to check the efficiency of e-Learning among the students of Management. The study was done in the background of the Coronavirus Pandemic as it is a time where most educational institutions are closed and all classes have been shifted to the virtual environment of an online classroom. The study is relevant in this particular time as moving forward online classes may become the new normal and we have to be sure that it is effective in producing the best output with regard to the quality of the students. Especially when it comes to the quality of students passing out from professional courses like B. Tech, MBA and MBBS etc.

The study finds that most of the students who are studying online feel that online learning is not very effective when it comes to learning professional courses, case in point being that of management studies. So this implies that the universities and syllabus making committees of Universities have to go back to the drawing board and revise their syllabus and include topics which can be taught more effectively online, the universities and colleges also need to ensure that they develop a teaching method which will be effective in mitigating all the problems that come related to e-Learning like attention deficit among students, lack of monitoring, dry content, style of teaching etc. There needs to be a major overhaul which needs to take place with regard to e-Learning on a larger scale not only with regards to professional courses but classes of all courses across all streams and even in schools.

There have emerged a lot of e-learning apps and websites over the past few years like Byju's, Unacademy, My Study Buddy etc. But these were availed only by those who had the technology to be able to access them. Now all kinds of learning has been shifted to the online mode during the pandemic and it is still not certain the current situation will stabilize and schools and colleges will reopen. In the study that was conducted among management students exactly 50% of the respondents felt that e-Learning was a financial burden upon them and they needed financial assistance. Given the fact that management is among the most fee heavy courses that are offered in institutions, and still 50% of the students feel financially burdened by online classes says a lot. This statistic can easily help one to speculate the kind of burden it may similarly be placing on students from other fields of study as well. So, another aspect that needs to be taken into account is the cost that is associated with e-Learning and there must be steps taken either at the Central level or at the State level to mitigate the cost that is associated with e-Learning.

Conclusion

The study concludes that most of the respondents felt that e-learning is ineffective in the fields of professional courses especially management studies. There are problems many problems which can be identified such as lack of motivation, clarity of ideas, and loss of internet connection. Although the course may be completed online, the aim objective of the course which is to provide students with presentation skills, exposure and communication skill will remain unfulfilled if it is taught and carried on in the present manner. The students may also find themselves lacking when it comes to matters of industrial experience such as internships and other activities which are quite important and play a crucial role when looked at from a management point of view.

At this critical period in time, learning management system could be adopted by the b-schools to build on the effectiveness of the courses they offer in the online mode. Finally, multi-prolonged strategies need to be adopted immediately in order to help develop a skilled proficient young mind which will be capable of leading the generations of tomorrow.

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