



“Impact of Online Education on the Performance of Management Students during COVID-19 Situation”

Dr. Dipesh Uike, Professor, Dr.Ambedkar Institute of Management Studies and Research, dipeshuike@gmail.com

Dr. Vibha Bhusari, Assistant Professor, G. H. Raisoni Institute of Management and Research, vibha.bhusari@raisoni.net

Abstract: The consequence of the COVID-19 situation was such that the schools and colleges were shut down all over the world. All the students were locked at their home and they did not have any access to their colleges or education. This situation has given rise to the idea of e-learning with the help of online digital platforms. The world has already a setup of internet and that has become one of the best sources for students and teachers to be in contact with each other using any of the available online software. There are number of online softwares available by which colleges have started interacting with their students. It was the safest way of interaction among the students and teachers under pandemic situation. As the pandemic was spreading very speedily and government of all countries have already banned the people gathering. Under this situation online education was the only best option left with colleges and teachers to be in touch with their students and let do not hamper the studies of the students. The main purpose of the study is to find out the impact of online education on the performance of the management students in comparison with the traditional way of classroom teaching. Did it fulfil the expectations of the students in terms of getting knowledge, problem solving or upgrading themselves? Total 200 students comprising males and females are considered for the study. All the students are considered from Nagpur university management colleges where online classes are conducted for the students.

Keywords: Impact, Online Education, Performance, Management, Students, COVID-19

I. INTRODUCTION

With the COVID-19 - a novel Covid illness spreading across the globe, numerous nations have requested conclusion of every single instructive establishment. Instructive foundations have reached a utilitarian stop since they needed to shield their understudies from viral openings, which are likely in an exceptionally mingling understudy local area. In the start of February 2020, schools just in China and a couple of other influenced nations were shut because of the multiplying defilement. Be that as it may, by mid-March, almost 75 nations have executed or declared conclusion of instructive organizations. As on tenth March, school and college terminations all around the world because of the COVID-19 have avoided one out of five understudies with regards to class. As per UNESCO, before the finish of April 2020,186 nations have executed cross country terminations, influencing about 73.8% of the absolute enlisted students (UNESCO, 2020). Despite the fact that the lockdown and social separating are the solitary approaches to log jam the spread of the COVID-19 by breaking the chain of transmission, conclusion of instructive establishments has influenced enormous number of understudies.

As the schools and universities are closed for an uncertain period, both instructive foundations and understudies are exploring different avenues regarding approaches to finish their recommended prospectuses in the specified time span in accordance with the scholastic schedule. These measures have absolutely caused a level of burden, yet they have likewise incited new instances of instructive advancement utilizing computerized mediations. This is a silver coating on a foreboding shadow thinking about the slow speed of changes in scholarly organizations, which proceeds with centuries old talk based methodologies in educating, imbued institutional inclinations and out of date study halls. All things considered, COVID-19 has been a trigger for instructive foundations worldwide to seek after imaginative methodologies in a generally a surprising bit of news. During this time, the greater part of the colleges has moved to online mode utilizing Blackboard, Microsoft Teams, Zoom, or other online stages.

The instructive establishments in influenced territories are looking for Band-Aid answers for keep educating, however note that the learning quality relies upon the degree of computerized admittance and effectiveness. The web based gaining climate differs significantly from the customary study hall circumstance with regards to student's inspiration, fulfillment and association (Bignoux and Sund, 2018). The Community of Inquiry (COI) structure offers an advantageous standard for interceding in internet educating and teaching (Garrison et al., 2001).

As per COI structure, accomplishment of electronic guidance is controlled by making a students' gathering. In this gathering (closely resembling the conventional study hall circumstance), learning occurs through three related components: (1) social presence, (2) intellectual presence, and (3) educating presence. Study by Adam et.al. (2012) contended that there was no huge contrast between internet learning and up close and personal class as agreeable to them and furthermore, they upheld the way that online class will be however viable as conventional class on the off chance that it seems to be planned suitably. These realities unmistakably show us that web based learning is an ideal substitute for the customary study hall learning in the event that they are planned reasonably.

Instructive establishments in India have additionally made a change to internet showing climate not long after Union Government's choice to force cross country lock-down for 21 days from 25th March, 2020 which was subsequently stretched out for 19 additional days. Nonetheless, the significant concern is about the nature of realizing which is firmly related with how well the substance is planned and executed. Adequacy of adapting additionally relies upon how the substance is curated to online climate and furthermore in comprehension and tending to the requirements looked by understudies. The examination is significantly more important thinking about that in India the arrangement of online instruction has never been attempted at this scale and this resembles a monstrous social test.

The aftereffects of the examination are significant for instructive foundations in two primary reasons. Initially, the move to online mode has been a sudden one because of remarkable lockdown forced to deal with the COVID-19, and the organizations didn't had the opportunity to plan and embrace the course substance for online mode. In this specific situation, experience of understudies and the learnings can be fused to make web based learning simple, effective and profitable. Second, even after lockdown is denied, facing everyday life after the COVID-19 pandemic won't resemble previously and web based learning is setting down deep roots, however in mix with normal disconnected classes.

There is vulnerability about the length of the pandemic and odds of reinfections, the social separating can turn into another ordinary. In this way, all the instructive establishments require to be set up to move lion's share of the course substance to e-learning stages and adjust the course design and educational plan reasonably. The aftereffects of our investigation can be significant contribution to settling on the learning climate in online stage to advance successful learning. In the following area, we give a short audit of writing followed by information and techniques segment where we portray the philosophy utilized in the examination. At that point, we examine the outcomes and the ramifications followed by finishing up comments of the examination. [1]

The current innovative headways permit us to utilize a few different ways to plan the online substance. It is vital to consider the inclinations and impression of students while planning the online courses to make the learning powerful and profitable. Inclination of the student is identified with the availability or ability of the student to take part in cooperative learning and the components affecting the preparation for internet learning. In the segment to follow, we summaries the learning's from the survey of related writing.

II. LITERATURE REVIEW

Warner et al. (1998) proposed the idea of preparation for web based learning in the Australian professional instruction and preparing area. They depicted status for web based adapting for the most part regarding three aspects:(1) the inclination of understudy's for the method of conveyance contradicted to vis-à-vis homeroom guidance; (2) understudy's trust in the using the electronic correspondence for realizing which remembers fitness and trust for the utilization of the Internet and PC based correspondence; and (3) capacity to participate in self-sufficient learning. The idea was additionally refined by a few specialists like McVay (2000, 2001) who built up a 13-thing instrument which estimated understudy conduct and mentality as indicators. Therefore, Smith et al. (2003) directed an exploratory examination to approve the McVay's, (2000) survey for online status and concocted a two-factor structure, "Solace with e-learning" and "Self-administration of learning". Afterward, a few examinations were taken in the mood for operationalising the idea of status for internet learning (Evans (2000); Smith (2005)).The components that affected the availability for web based learning as advanced by analysts were self-coordinated learning(Guglielmino (1977); Garrison (1997); Lin and Hsieh (2001); McVay (2000, 2001)), inspiration for learning (Deci and Ryan (1985); Ryan and Deci (2000); Fairchild et al. (2005)), student control (Hannafin (1984); Shyu and Brown (1992); Reeves (1993)),computer and web self-adequacy ((Bandura (1977,1986 1997); Compeau and Higgins (1995); Eastin and LaRose (2000); Tsai

and Tsai (2003); Tsai and Lin (2004); Hung et al. (2010)), online correspondence self-adequacy (Palloff and Pratt (1999); McVay (2000); Roper (2007)).

Any endeavors to fortify the adequacy of web based adapting needs to comprehend the view of the clients. Studies have reported both ideal and ominous discernments by understudies on internet learning. A few investigations demonstrate that the educator's cooperation with understudies impressively affects the understudy's view of internet learning. Consistency in course configuration (Swan et al. 2000), the capacity of the cooperation with course teachers to advance basic reasoning capacity and data preparing (Duffy et al. (1998, pp. 51-78); Picciano (2002); Hay et al.(2004)) pace of intelligence in the web based setting (Arbaugh (2000); Hay et al. (2004)), the degree of instructional accentuation on learning through connection, the adaptability of internet learning (Chizmar and Walbert (1999); McCall (2002); National Center for Vocational Education Research (2002); Petrides (2002); Schrum (2002); Klingner (2003); Kim et al. (2005)), odds of drawing in with educators and friends in web based learning settings (Soo and Bonk (1998); Wise et al. (2004); Kim et al. (2005)), social presence (Barab and Duffy (2000); Kim et al. (2005); Jonassen (2002)),academic self-idea (Trautwein et al. (2006); Lim et al. (2007)), skills needed to utilize the innovation (Wagner et al. (2000) were distinguished as the apparent qualities of web based learning. Henceforth a viable online class relies on very much organized course content (Sun and Chen (2016)), solid and steady educators (Sun and Chen (2016)), cutting edge innovations (Sun and Chen (2016)), and criticism and clear guidelines (Gilbert, 2015).

Be that as it may, a few shortcomings identified with web based learning were additionally depicted in the writing. Deferral in reactions (Hara and Kling (1999); Petrides (2002); Vonderwell (2003), wariness of their companions' alleged expertise(Petrides (2002)); absence of a feeling of local area and additionally sensations of disengagement (Woods', (2002); Vonderwell (2003); Lin and Zane, (2005)); , issues in teaming up with the co-students, specialized issues Piccoli et al.(2001); Song et al.(2004)), issues identified with teacher (Muilenburg and Berge, 2005) higher understudy weakening rates (Frankola (2001); Ryan (2001); Laine (2003)), the requirement for more prominent order, composing abilities, and self-inspiration; and the requirement for online clients to make a period obligation to learning (Golladay et al. (2000); Serwatka (2003) are viewed as boundaries or shortcoming of internet learning.

A few analysts looked at the adequacy of on the web or electronic instructional exercises with regular educating in study halls. The sorts of potential experiences that may happen online when contrasted with ordinary homerooms vary considerably, and the effect of conveying inside some setting can directly affect perspectives of the understudies and staff. The examinations investigated view of internet learning encounters versus ordinary study hall encounters by understudies and personnel and revealed blended discoveries that request further examinations. A portion of those territories incorporate examining the nature and measure of associations that is accessible on the web (Moore and Kearsley (1995)), adaptability and availability of web - based guidelines (Navarro and Shoemaker (2000)),the abilities, inspirations, time and impression of student and instructor(Yong and Wang (1996); Shih, Ingebritsen, Pleasants, Flickinger, and Brown, 1998; McIsaac et al. (1999); White (2004) and whether a few or these viewpoints are connected to scholarly accomplishment (Brewer and Erikson (1997)). It was likewise discovered that there was no critical contrast between web based learning and eye to eye class concerning their fulfillment and furthermore as far as their scholastic execution (Hara and Kling, 1999).Studies additionally upheld the way that online class will be however successful as conventional class on the off chance that it very well might be planned fittingly (Nguyen, 2015).

The writing has featured various models which gives the fundamental system to comprehend the understudies' discernment in regards to online training. Papers have likewise featured possible bottlenecks for achievement of the web based learning. Notwithstanding, relatively few papers have endeavored to comprehend the understudies discernment and inclination in Indian setting. It is justifiable that lone predetermined number of distance instruction stages were utilizing on the web method of training before the Covid-19 pandemic. Further, to the most amazing aspect our insight, concentrate on these lines has not been endeavored in the field of horticultural schooling, where internet learning activities are considerably lesser presumably in light of higher portion of viable learning viewpoints in educational program. We attempt to fill this hole with our examination, attracting experiences from the writing conceptualizing the issue, only concentrating on internet learning in farming training.

III. OBJECTIVES

- I. To study about online education practices adopted by education during COVID-19 crisis.
- II. To study different factors related to online education such as lecture delivery feasibility, complete content delivery, time feasibility and home comfort.
- III. To study about performance of the students during COVID-19 situation.
- IV. To study about the impact of online education practices on the performance of the management students in pandemic crisis.

IV. RESEARCH MODEL

The research model of the study is as follows (Fig.1):

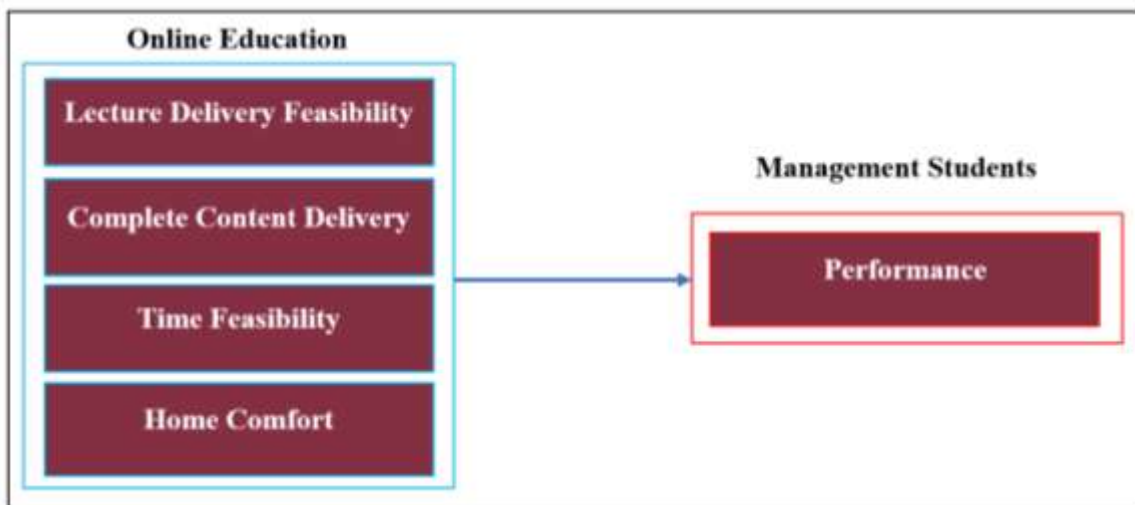


Fig.1 Research Model

V. HYPOTHESIS

The hypotheses of the research study about the impact of online education on the performance of the management students are as follows:

1. H1: Lecture delivery feasibility is the biggest performance affecting factor of students.
2. H2: complete content delivery factor has affected students' performance.
3. H3: Time feasibility has affected students' performance.
4. H4: Home comfort has affected students' performance.

VI. RESEARCH METHODOLOGY

Type of Research

Exploratory research was used for the study.

Method of Data Collection

Primary data

Structured Questionnaire was designed.

Interview was conducted among people.

Secondary data

Books, Journals and Newspapers.

Sample Design

Geographical area/ Universe:

Nagpur city is taken into considered.

Sampling Unit:

Management students from Nagpur city.

Dependent Factor:

Performance.

Independent Factors:

Lecture delivery feasibility, complete content delivery, time feasibility and home comfort.

Sampling Method

Probability sampling method.

Probability sampling type: - A good Simple Random Sampling method is used.

Sample Size: - 200 Students.

Tools Used

Multiple regression analysis tool and two-way ANOVA tool were applied to know relationship between dependent (performance) and independent variables (lecture delivery feasibility, complete content delivery, time feasibility and home comfort).

VII. DATA ANALYSIS AND INTERPRETATION

Testing Reliability Statistics

Likert scale was used with 1 was equivalent to 'Strongly Disagree' and 5 was equivalent to 'Strongly Agree'. Internal consistency was checked using Cronbach's Alpha.

TABLE 1

RELIABILITY STATISTICS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.857	.733	10

The Cronbach's Alpha value is shown in above TABLE 1. The value is 0.857 which is equivalent to 85.7%. It means that the scale's internal consistency is at good level.

Descriptive Statistics

The analysis of the current data was done to see the influence of the independent factors (lecture delivery feasibility, complete content delivery, time feasibility, home comfort) upon dependent factor which is performance.

TABLE 2

DESCRIPTIVE STATISTICS

Factors	Mean	SD	Factors	Mean	SD
Lecture delivery feasibility	3.77	0.64	Complete content delivery	3.61	0.59
Time feasibility	3.58	0.53	Home comfort	3.48	0.57
Performance	3.31	0.55			

The descriptive statistics for the online education adopted by the management colleges are as shown in the above TABLE 2. There are various factors in the above TABLE 2, out of these independent factors, the first factor is 'lecture delivery feasibility' has biggest mean value (M=3.77, Std.=0.64), from this it can be seen that 'lecture delivery feasibility' has a good impact on the 'performance'. Next biggest mean was 'complete content delivery' with mean (M=3.61, Std.=0.59). The next highest mean factor was 'time feasibility' with the mean (M=3.58, Std.=0.53). The next is 'home comfort' with the mean (M=3.48, Std.=0.57).

Multiple Regression Analysis

For the prediction purpose and the casual inference multiple regression analysis tool was applied. Multiple regression tool helps in explaining the dependent variable (performance) variance with the help of independent variables (lecture delivery feasibility, complete content delivery, time feasibility, home comfort)

TABLE 3
Model SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.753	.567 ^a	.563	3.31708

a. Predictors: (Constant), lecture delivery feasibility, complete content delivery, time feasibility, home comfort

As per the value shown in the above TABLE 3, the value of R can be seen as .753. R is responsible for measuring the good quality prediction of the dependent variable. However, the value of R was shown as .753 and it's easy to know that there was a good level of prediction. The variance proportion in the dependent factor such as 'performance' was explained by the independent factors such as lecture delivery feasibility, complete content delivery, time feasibility, home comfort. For this reason, R Square gave a good help which is here .567. It says that 56.7% of the 'performance' factor variability was explained with the help of the given independent factors. 'Adjusted R Square' was calculated with the given value of 'R Square'.

TABLE 4
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	2656.372	4	664.039	60.35	.000 ^b
	Residual	2145.635	195	11.003		
	Total	4802.007	199			

a. Dependent Variable: performance

b. Predictors: (Constant), lecture delivery feasibility, complete content delivery, time feasibility, home comfort

As shown in the above TABLE 4, independent factors have statistically significantly predicted the dependent factor, $F(4, 195) = 60.35, p < .0005$.

TABLE 5
COEFFICIENTS

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Effect
	B	Std. Error	Beta			

(Constant)	9.741	.635		15.340	.000	
Lecture delivery feasibility	.499	.094	.581	5.309	.000	Accepted
Time feasibility	.393	.084	.379	4.679	.002	Accepted
Complete content delivery	.467	.094	.501	4.968	.001	Accepted
Home comfort	.165	.041	.171	4.024	.000	Accepted

Dependent Variable: performance

Beta calculations have been shown in the above TABLE 5. From the table it can be seen that all the factors have significant contribution in the 'performance' (dependent variable) of the management students in online education. From the above given TABLE 5, lecture delivery feasibility ($t=5.323$, $Beta=.581$, $p<.05$) has the biggest beta value. The next with biggest beta value was complete content delivery ($t=4.968$, $Beta=.501$, $p<.05$). Time feasibility has the next biggest beta value ($t=4.679$, $Beta=.379$, $p<.05$). The smallest beta value among all the given factors was home comfort ($t=4.024$, $Beta=.171$, $p<.05$). From the different values of the factors their 't' value and Beta value it can be found out that all the factors were good predictors of the 'performance' (dependent variable).

Beta value of 'lecture delivery feasibility' was biggest among all the given factors. So, it can be seen that 'lecture delivery feasibility' of the online education has biggest impact on the performance of the students. Therefore, H1 hypothesis was accepted here.

'Time feasibility' has significantly influenced the performance of the students. As online classes can be conducted as per the time feasibility and no need to travel to any other place, students have saved lot of time. Therefore, H2 hypothesis was accepted here.

'Complete content delivery' has a good impact on the performance of the students. Delivery of the content to the students becomes easy and with the help of online system videos, notes and other necessary contents were sent very easily to the students. Therefore, H3 hypothesis was accepted here.

'Home comfort' has a very impact on the performance of the students. Online education system in this pandemic has given complete safety to the students. Students just by sitting at home only were able to take all necessary knowledge. This has kept the students well and focussed on their studies. Therefore, H4 hypothesis was accepted here.

VIII. CONCLUSIONS

The research study has investigated four factors which were lecture delivery feasibility, complete content delivery, time feasibility and home comfort. The factors were investigated keeping in mind the influence of these factors on the performance of the management students during pandemic situation. The online education has created a very good option to the teachers and students to be in touch with each other when the lockdown and social distancing were going on very strictly. The online education has never downgraded the performance of the students. All the required things are fulfilled with the help of the online education. The main purpose of the study was to find out the impact of online education on the performance of the students. Does online education has fulfilled the gap of the traditional way of classes? From the results as shown above it has been observed that the online education has fulfilled the needs of the management students. Everything that was required by the students was provided such as contents, notes or lecture delivery. The observations of the study were very positive. The factors have very positively impacted the performance of the students. Students have got complete knowledge under the situation of lockdown and social distancing. When there were number of travels bans, restrictions on functions, restrictions on people gathering etc. During this period online education has fulfilled a very great role in bringing together both students and teachers. The results have confirmed the positive impact of online education on the performance of the management students as far as lecture delivery feasibility, content delivery, time feasibility and home comfort.

REFERENCES

- [1] Bignoux, S., & Sund, K. J. (2018). Tutoring executives online: What drives perceived quality? *Behaviour & Information Technology*, 37(7), 703–713.
- [2] Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *American Journal of Distance Education*, 15(1), 7–23.
- [3] Warner, D., Christie, G., & Choy, S. (1998). *Readiness of VET clients for flexible delivery including on-line learning*. Brisbane: Australian National Training Authority.
- [4] McVay, M. (2001). *How to be a successful distance learning student: Learning on the Internet*. New York: Prentice Hall.
- [5] Smith, P. J., Murphy, K. L., & Mahoney, S. E. (2003). Towards identifying factors underlying readiness for online learning: An exploratory study. *Distance Education*, 24(1), 57–67.
- [6] Evans, T. (2000). Flexible delivery and flexible learning: Developing flexible learners? In V. Jakupec, & J. Garrick (Eds.), *Flexible learning, human resource and organizational development* (pp. 211–224). London: Routledge.
- [7] Smith, P. J. (2005). Learning preferences and readiness for online learning. *Educational Psychology*, 25(1), 3–12.
- [8] Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant difference and future horizons. *MERLOT Journal of Online Learning and Teaching*, 11(2), 309–319.
- [9] Hara, N., & Kling, R. (1999). Students' frustrations with a web-based distance education course. *First Monday*, 4(12).
- [10] Brewer, S. M., & Erikson, D. F. (1997). A tale of two classrooms. *Journal of Computing in Teacher Education*, 13(2), 20–22.
- [11] Navarro, P., & Shoemaker, J. (2000). Performance and perceptions of distance learners in cyberspace. *American Journal of Distance Education*, 14(2), 15–35.
- [12] Moore, M. G., & Kearsley, G. (1995). *Distance education: A systems view*. Belmont, CA: Wadsworth Publishing.
- [13] Golladay, R., Prybutok, V., & Huff, R. (2000). Critical success factors for the online learner. *Journal of Computer Information Systems*, 40(4), 69–71.
- [14] Serwatka, J. (2003). Assessment in on-line CIS courses. *Journal of Computer Information Systems*, 43(3), 16–20.
- [15] Petrides, L. A. (2002). Web-based technologies for distributed (or distance) learning: Creating learning-centered educational experiences in the higher education classroom. *International Journal of Instructional Media*, 29(1), 69–77.
- [16] Gilbert, B. (2015). Online learning revealing the benefits and challenges. *Education Masters*. Paper 303.
- [17] Sun, A., & Chen, X. (2016). Online education and its effective practice: A research review. *Journal of Information Technology Education*, 15.
- [18] Vonderwell, S. (2003). An examination of asynchronous communication experiences and perspectives of students in an online course: A case study. *The Internet and higher education*, 6(1), 77–90.
- [19] Swan, K., Shea, P., Fredericksen, E., Pickett, A., Pelz, W., & Maher, G. (2000). Building knowledge building communities: Consistency, contact and communication in the virtual classroom. *Journal of Educational Computing Research*, 23(4), 359–383.