The Study of the Impact of Covid Pandemic on Higher Education with Reference to Management Institutes in Pune, India

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ABSTRACT

The danger of Covid pandemic has reached in every country of the world. India is not exception for this. India is now fighting with this danger to protect its population. Indian government declared lockdown in entire country. During the lockdown period every sector have been adversely affected. Through the present study an attempt has been made to know the opinions of the faculty members and students about e-learning practices implemented by the management institutions and also highlights the various problems faced by the faculty members and students. The study shows that there is positive as well as negative effects on the higher educational system of India.

Keywords: Higher Education, Covid pandemic, Impacts, Challenges and Problems.

1. INTRODUCTION

Indian higher educational sector is experiencing major reforms due to lockdown in Covid pandemic period. Many sectors faced many problems due to lockdown; higher education sector is among the first in other sectors. The entire educational system from elementary education to higher education has been badly affected and collapsed during the lockdown period. Due to lockdown there was enforcement of isolation which tremendously impacted on personal interaction of teachers and students. Therefore, there were no traditional classroom teaching and learning and one to one dialogue between students and teacher. On this background online teaching learning or computer-based learning has existed as an alternative for the traditional teaching learning mode. Covid pandemic has brought a significant transformation imposing several problems and challenges in the higher educational sector. On this background the government has encouraged for innovative utilization and promotion of technology based modes of teaching and learning. The fact is that the students and faculty members have positively responded very quickly to the crisis of Covid pandemic in the light of guidelines issued by the government and University Grant Commission. This study highlighted the students and faculty member opinion and perception towards e-learning and e-teaching.

1.1. Need of the Study & Literature Review

The Indian educational sector has been adversely affected because of outbreak of Covid pandemic. The Covid pandemic forced the close down of educational institutions, which has adversely affected on the students' academic performance. To overcome this problem online learning method has been implemented by almost all the educational methods are recent development in the educational sector. Students and teachers are now in the process of adapting these innovative modes of teaching and learning. On the background of this transformation in the educational sector, and the prevailing situation in higher educational sector, there is a need to understand the opinions perceptions of the students and faculty members about this new normal of teaching-learning methodology. Apart from this it is also important to know about the various problems/challenges faced by the students and faculty members in applying this new methodology in teaching and learning process. Hence, the present study has been conducted.

1)   P. K. Jena, (2020), has highlighted the major effects of Covid pandemic on higher education. Author has stated that due to Covid pandemic many new modes of learning and teaching, new perspectives and trends have emerged in entire educational sector. Through the study authors has focused on the new trends of higher education institute in the post Covid pandemic era. In the opinion author Covid pandemic has provided an

opportunity for the change in pedagogical approaches and introduce virtual education system [8].

2) S. Aishwarya, (2020), highlighted on the perception and preferences of agricultural students towards the online course work sessions. Through the study author has pointed out that majority of the students are ready to accept online learning mode. Author has also observed that majority of the students preferred to use smart phone for online learning. Through the study it is observed that majority of the students envinced a positive attitude towards online classes in the wake of COVID pandemic [7].

3) Purva Gohiya and Ashish Ghoiya, (2020), have stated that, e-learning and e-teaching are proved as very helpful during the lockdown period and restrictions. Authors have pointedout that, teaching and learning activities were conducted successfully during the lockdown period. Through the study authors have also found that, majority of the students believe on offline teaching learning practices. In their opinion, offline classes are better but they are comfortable with e-classes. Through the study authors has found that the network connectivity issue was the major constraint in smooth conduction of e-learning practices [5].

4) R. Vivek and K. Nabi, (2020), have discussed on the importance of e-learning during the Covid pandemic and lockdown period. Through the study authors have highlighted the benefits of online mode of teaching and learning from the perspective of students, and analyzed the students' perception of e-learning during Covid-19 lockdown period. Through the study authors have observed that, students have a positive perception towards e-learning and e-teaching practices [4].

1.2. Objectives

1. To study the impact of Covid pandemic on higher education institutions.
2. To understand the perception, opinion of the faculty members and students pertaining to online teaching and learning practices
3. To understand the problems/issues faced by faculty members and students in online teaching-learning problems.
4. To understand the acwantages of online mode of teaching and learning from the perspective of faculty members and students.

1.3 Hypothesis

1. H_o: There is a positive impact on higher education in covid pandemic.
   H 1: There is a negative impact on higher education in covid pandemic.

2. H_o: Student are motivated through E- learning process.
   H 1: Student are not motivated through learning process.

3. H_o: Problems in conducting online session faced by faculty member.
   H 1: problems in conducting online session are not faced by faculty member.

2. RESEARCH METHODOLOGY

For the study purpose elaborative or survey method has been applied. Primary data were collected through the questionnaires for faculty members and students of selected management institutes. The collected primary data were analyzed through simple percentile analysis method. Secondary data were collected through various study papers, articles published in the various national and international journals.

1. Sampling Technique

Convenient sampling method has been followed to select sample population of faculty members and students belonging to the management institutions.

2. Size of the Sample

The sample population consisted of 181 faculty members and 108 students.

2.1. Limitations of the Study

The main purpose of the study is to examine the impact of COVID pandemic/lockdown on the management educational institutions only and therefore the present study does not deals with the other types of higher educational institutions. There are many factors which may be directly/indirectly influenced due to Covid pandemic and lockdown, but the present study is confirmed only to the impact on teaching and learning practices in management institutes.

3. RESULTS AND DISCUSSION

Table 1. Gender wise distribution of the respondents

Sr. No.	Gender	Response	Percentages
1	Male	167	57.2%
2	Female	122	42.2%
	Total	289	100%%

As per the collected primary information, there are 57.2% male respondents where as 42.2% female respondents.

Table 2. Age wise distribution of the respondents

Sr. No.	Age	Response	Percentages
1	20 to 25	78	27%
2	26 to 30	36	12.5%
3	31 to 35	54	18.7%
4	40 to 45	53	18.3%
5	45 to 50	26	9%
6	50 and above	12	4.2%
	Total	289	100%

The above table indicates the age group of the selected respondents. Majority of the respondents (27%) are in the age group of 20 years to 25 years. 18.7% and 18.3% respondents belonging to the age groups of 31 years to 35 years and 40 years to 45 years respectively. 9% respondents are belonging to the age group of 45 years to 50 years where as only 4.2% respondents are belonging to the age of 50 years and above.

Table 3. Designation wise distribution of the respondents

Sr. No.	Particular	Response	Percentages
1	Faculty	181	62.4%
2	Student	108	37.6%
	Total	289	100%

As per provided information by the respondents, there are 62% respondents are faculty members, and 37.6% respondents are students in the selected management institutes.

A question has been asked to the family respondents about their institutes category or affiliation. The following table shows the fact in this regard.

Table 4. Category/affiliation of the selected management institutes

Sr. No.	Category Of Your Institute	Response	Percentages
1	State University	88	48.6%
2	Affiliated to SPPU	40	22.1%
3	Private University	18	9.9%
4	Deemed University	7	3.9%
5	Autonomous	28	15.5%
	Total	181	100%

As per the information provided by the faculty respondents 48.6% of them have stated that, their institutes are affiliated to the state university. 22.1% respondents have stated that their management institutes are affiliated to SPPU, whereas 9.9% respondents' management institutes are in the category of private university. 3.9% respondents are belonging to the management institutes which are in the category of deemed universities. 15.5% respondents have stated that their management institutes are autonomous.

A question has been asked to the faculty respondents with a view to know their opinion about the effect of Covid pandemic on higher education. The following table shows the various opinions of the respondents in this regard.

Table 5. Opinion of the respondents on the effect of Covid pandemic

Sr. No.	Effect of pandemic on higher education	Response	Percentages
1	Yes	151	83.4%
2	No	19	10.5%
3	Maybe	11	6.1%
	Total	181	100%

Majority of the respondents (83.4%) have opined that, due to Covid pandemic the higher education system has badly affected, whereas 10.5% respondents have opined negatively in this context. According to these respondents, there is no any effect of Covid pandemic on the higher education sector. 6.11% respondents are not sure about whether, there is any effect of Covid pandemic on higher education sector or not.

Table 6. Important about conducting of online classes during lockdown period

Sr. No.	Online Classes	Response	Percentages
1	Yes	152	84%
2	No	29	16%
	Total	181	100%

As per the provided information by the faculty respondents, 84% of them has conducted online classes during the lockdown period 16% respondents have stated that, they have not conducted any online classes during the lockdown period, due to technical problems.

To know the views of the faculty members regarding the need of partial introduction of e-learning in higher education is one of the important objectives of the present study. The following table indicates the opinions of the faculty members in this context.

Table 7. Opinion of the respondents about the need of partial introduction of E-learning in higher education

Sr. No.	Opinions	Response	Percentages
1	Yes	159	87.8%
2	No	22	12.2%
	Total	181	100%

Majority of the respondents (87.8) have about the need of partial introduction of e-learning in higher education. In the opinion of these respondents to overcome. The danger of Corona Virus and for maintains social distance; e-learning is become very essential in education sector today. On the Country, 12.2% respondents have responded negatively. According to these respondents there are many drawbacks and limitations in the e-learning process therefore they denied the importance and need of e-learning in the higher education.

Table 8. Impact of E-teaching on the overall self development (opinions of the faculty members)

Sr. No.	Impact	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Total
1	I prefer conducting online course sessions	73 40.3%	73 40.3%	22 12.1 %	6 3.3%	7 3.8%	181 100%
2	E-teaching opportunity for self-development	96 53%	64 35.3%	16 8.8%	2 1.1%	3 1.6%	181 100%
3	I will look for opportunity e-teaching sessions in future	80 44.1%	75 41.1%	19 10.4%	4 2.2%	3 1.6%	181 100%
4	It is convenient for me to conduct e-teaching sessions from residence	75 41.1%	76 41.9%	17 9.3%	8 4.4%	4 2.2%	181 100%

As per the collected primary information it is found that, 40.3% of the respondents are strongly agreed and agreed to conduct online course work sessions. 12.1% of the respondents have not expressed their opinion on whether to conduct online sessions or not. 3.3% and 3.8% respondents are disagree and strongly disagree in this regard. 5.3% and 35.3% respondents are strongly agreed and agreed with the statement that, E-learning process providing them an opportunity for self-development. 8.8% of the respondents have not express their opinions in this regard; where as 1.1% and 1.6% respondents are denying that E-teaching process provides an opportunity for the self-development of faculty members.

44.1% and 41.1% respondents have stated that, they will look for the opportunity to conduct e-teaching sessions in future. 10.4% respondents are not agree or disagree in this regard. 2.2% and 1.4% respondents are strongly disagree and disagree respective in this regard. 41.1% and 41.9% respondents are strongly agree and agree respectively for that the e-teaching process is proved very convenient for them. Due to the e-teaching they are now able to conduct course work sessions for their residence. 9.3% respondents have not expressed their opinions in this regard; whereas 4.4% and 2.2% of the respondents strongly disagree and disagree in this regard.

Table 9. Opinion of faculty members pertaining to e-learning

Sr. No	Opinions	Strongly Agree	Agree	Neither Agree nor Disagree	Strongly Disagree	Disagree	Total
1	Students are feeling comfort due to e-learning	59 32.5%	66 36.4%	47 25.9%	8 4.4%	1 0.5%	181 100%
2	E-learning and e-teaching provides equal opportunities to participate in the course work sessions	57 31.4%	69 38.12%	38 20.9%	14 7.7%	3 1.6%	181 100%
3	E-learning ensures maximum attendance of the students	49 27%	56 30.9%	41 22.6%	28 15.4%	7 3.8%	181 100%
4	Involvement of students is more in E-learning	55 30%	58 32%	34 18.7%	27 14.9%	7 3.8%	181 100%
5	E-learning process provides chance to enhance their skills	56 30.9%	71 39.2%	38 20.9%	12 6.6%	4 2.2%	181 100%
6	E-learning help students to improve their exam scores	58 32%	63 34.8%	41 22.6%	15 8.2%	4 2.2%	181 100%

From the study point of view it is relevant to know the opinions/perceptions of the faculty members about the e-learning practices implemented in their institutions. The above table indicates the various opinions expressed by the respondents. As per the collected information, 32.5% and 36.4% respondents strongly agreed and agreed respectively for the statement that students are feeling comfort with e-learning process because due to e-learning process they can easily attend the important lectures through Internet by staying in their residence and therefore, they feel comfort with e-learning. 25.9% respondents have not expressed their views or opinion in this regard. 4.4% and 0.5% respondents are strongly disagree and disagree in this regards. In the opinion of these respondents, e-learning and e-teaching process have many drawbacks and thus. Students are not motivated for e-learning or learning through electronic gadgets. In the opinion of 31.4% respondents (who strongly agreed) and in the opinion of 38.12% (who just agreed) E-learning and teaching provides equal opportunities to participate in the course work sessions. 20.9% respondents have not expressed their views in this regard. According to the 7.7% respondents (who strongly agreed), and 1.6% respondents (who just agreed) e-learning and e-teaching is not providing equal opportunities to participate in the course work sessions due to lack of technological knowledge among rural students, lack of Internet Connectivity in rural parts etc.

Due to these drawbacks e-learning process is unable to provide equal opportunity to participate in the coursework sessions through e-learning opined by some respondents. 27% respondents and 30.9% respondents strongly agreed and agreed for that the e-learning ensures minimum attendance of the students for the virtual classes. 22.6% respondents are neither agree no disagree in this regard. 15.4% respondents and 3.8% respondents strongly disagree and disagree in this regard. In the opinion of these respondents students' attendance may be adversely affect due to proper internet connectivity, continuous supply of electricity (in rural areas) lack of knowledge about handling electronic gadget etc. On the basis of collected information from the faculty members (respondents) it is found that, 30% and 32% respondents are strongly agreed and agreed for that, there is a more involvement of students in e-learning process due to easy accessibility to virtual classes. 18.7% respondents are not agreed or disagreed in this context. 14.9% and 3.8% respondents are strongly disagreed and disagreed in this regard. 30.9% respondents and 39.2% respondents are strongly agreed and agreed for that, e-learning process provides chance to enhance the skills of students.

In the opinion of these respondents, students have now development and improved their skills and knowledge about the utilization of electronic gadgets, and Internet and now they are also to handle social networking sites websites for their study purpose. 20.9% respondents have not expressed their views or opinions in this regard. 6.6% and 2.2% respondents are strongly disagreed and disagreed in this regard. 32% and 34.8% respondents are strongly agreed and agreed for that e-learning help students to improve their exam scores and also helps to improve their academic performance;

because Internet and social network sites make them able to achieve adequate and proper information pertaining to their study subjects. 22.6% respondents have not expressed their views or opinions in this regard. 8.2% and 2.2 respondents are strongly disagreed and disagreed in this regard.

Table 10. E-learning should be a part of Higher education (opinions of the faculty members)

Sr. No.	Opinions	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree	Total
1	E-learning should be introduce partially in future	78 43%	84 26.4%	16 8.8%	1 0.5%	2 101	181 100%
2	E-learning will help higher education to survive	60 33%	91 50.2%	25 13.8%	3 16.5	2 1.1%	181 100%
3	Class room activities and E-learning will be alternative to each other	69 38%	72 39.7%	27 14.9%	10 5.5%	3 1.6%	181 100%
4	E-learning process need the hour for development of higher educational system	73 40%	80 44.1%	21 11.6%	6 3.3%	1 0.5%	181 100%

The above table focused on the opinions and perceptions of the respondents regarding whether the e-learning process should be a part of higher education system or not. As per the collected information, 43% and 46.4% respondents strongly agreed and agreed for the introduction of e-learning partially in higher education system in future. In their opinion, introduction of e-learning in higher education will be very useful to all the students, teachers and other stakeholders of higher education sector. 8.8% respondents have not expressed their views or opinion in this regard. 0.5% and 1.1% respondents are strongly disagreed and disagreed in this regard. According to these respondents offline classes or traditional teaching-learning methods are proved as very effective as e-learning and e-teaching modes. Traditional or offline learning teaching methods creates direct positive interaction between teacher-student, student-student with a view to exchange new ideas innovative thoughts, new information pertaining to particular subjects. 33% and 50.2% respondents are strongly agreed and agreed for that, e-learning will help higher education sector to survive with new and innovative technology which may improve the academic, performance of the students.

13.8% respondents have not expressed their views or opinion in this regard. 16.5% and .1.1% respondents are strongly disagree and disagree in this regard. Traditional class room activities and e-learning will become alternative modes of learning and teaching, 38% and 39.7% respondents strongly agree and agree with this. 14.9% respondents could not expressed their views or opinions. 5.5% and 1.6% respondents are strongly disagree and disagree in this context. According to these respondents, traditional classroom activities (teaching-learning) and e-learning teaching modes have very different features and these two modes could not be a alternative for each other 40% and 44% respondents are strongly agreed and agreed for that there is a need of hour for proper implementation of e-learning process with a view to develop the higher educational system in India. 11.6% respondents could bot expressed their views or opinion in this context. 3.3% and 0.5% respondents strongly disagree and disagree in this regard.

To understand the perception and opinion of the students about the e-learning process, some questions have been asked to them. The information provided by

the management students have presented in the following tables.

Table 11. Category wise distribution of the management institutes of the respondents (students)

Sr. No.	Category of Your Institute	Response	Percentages
1	State University	43	39.8%
2	Affiliated to SPPU	15	13.9%
3	Private University	21	19.4%
4	Deemed University	8	7.4%
5	Autonomous	10	9.3%
6	Affiliated to JNTU	2	1.9%
	Barktullah university	1	0.9%
	University of Delhi	1	0.9%
	Affiliated to UGC	1	0.9%
	Central	1	0.9%
	Central University	2	1.9%
Other	Nagpur University	1	0.9%
	Dr.Homi Bhabha State University	1	0.9%
	Oil and Natural Gas Corporation Limited	1	0.9%
	Total	108	100%

39.8% respondents are belonging to the state universities, 13.9% respondents are belonging to the institutes which are affiliated to SPPU 19.4% respondents are learning in private universities; where as 9.3% students are belonging to autonomous management institutions and 7.4% respondents are belonging to the deemed university and 1.9% belonging to the management institutes which are affiliated to the JNTU. Apart from this, 0.9% students learning in other types of management institutes, that is Barktullah University, University of Delhi, management institutes affiliated to University Grant Commission (UGC), Central University, Nagpur University, and Dr. Homi Bhaba State University etc. It shows that almost all the selected respondents are belonging to the different higher educational institutions. It is proved as very helpful to study the various dimensions and aspects of e-learning practices in these institutions.

Table 12. Conducted of online classes during lockdown period

Sr. No.	Online classes	Response	Percentages
1	Yes	81	75%
2	No	18	16.7%
3	Maybe	9	8.3%
	Total	108	100%

As per the information provided by the respondents, if is found that, 75% higher education institutions have been conducted online classes during the lockdown period. 16.7% respondents have stated that, their institutions have not conducted any online class during the lockdown period. 8.3% respondents do not know whether there were any online classes conducted by their institutions or not. It shows that, majority of the higher educational institutions have been conducted online classes of course work despite of many constraints like lack of Internet connectivity, lack of adequate electronic gadgets etc.

Table 13. Is there any effect of pandemic on your higher education?

Sr. No.	Opinion	Responses	Percentage
1	Yes	74	68.5%
2	No	34	31.5%
	Total	108	100%

In the opinion of 68.5% respondents, there are bad and adverse effects of Covide-19 pandemic and lockdown on the entire educational sector of India; whereas 31.5% respondents have opined that, there are no any severe bad or adverse effects of Covid pandemic and lockdown on the educational sector; because majority of the institutions, school, colleges are

conducting their coursework programmes through online mode of learning and teaching.

Table 14. Opinion of the respondents (students) about the need of partial introduction of E-learning in higher education

Sr. No.	Partial Introduction of E-learning	Response	Percentages
1	Yes	88	81.5%
2	No	20	18.5%
	Total	108	100%

From the above table it is revealed that, majority of the respondents (81.5%) have stated the importance and need of partial introduction of e-learning practices in higher education; where as 18.5% respondents, negatively responded in this regard. There is no difference in the opinions of the teachers and students regarding the partial introduction of e-learning in higher education. Majority of the students are in the opinion of introduction of e-learning in higher education sector.

Table 15. Impact of E-learning on overall self-development (opinion of the students)

	Impact	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Total
1	I prefer to attends online sessions	39 36.1%	51 47.2%	15 13.8%	2 1.8%	1 0.9%	108 100%
2	E-learning provides opportunity for self-development	51 47.2%	43 39.8%	12 11.1%	2 1.8%	- -	108 100%
3	I will look for opportunity to attends e-learning sessions in future	39 36.1%	51 47.2%	15 13.8%	3 2.7%	- -	108 100%
4	It is convenient for me to attends e-learning sessions from residence	49 45.3%	42 38.8%	13 12%	3 2.7%	1 0.9%	108 100%

According to the collected information from the respondents it is observed that, 36.1% and 47.2% of the respondents are strongly agree and agree to attend online coursework sessions. 13.8% of the respondents have not expressed their opinion on whether to attend the online sessions or not. 1.8% and 0.9% respondents are disagreed and strongly disagreed in this regard. 47.2% and 39.8% respondents are strongly agreed and agreed with the statement that e-learning provides opportunity for self-development. 12% respondents have not expressed their opinions in this regard. It is found that only 1.8% respondents negatively responded in this context. 36.1% and 47.2% respondents have stated that they will look for the opportunity to attend e-learning sessions in future. 13.8% respondents are not agreed or disagreed in this regard.

Only 2.7% respondents are disagreed in this context 45.3% and 38.8% respondents are strongly agreed and agreed for that the e-learning process is proved very convenient for them to attend every course work session from their residence, whereas 12% respondents have not expressed their opinions in this regard. 2.7% and 0.9% respondents are disagreed and strongly disagreed in this regard. It shows that majority of the respondents are having positive attitudes towards e-learning practices implemented in their institutes.

Table 16. Opinions of students pertaining to E-learning practices

Sr. No.	Opinion	Strongly Agree	Agree	Neither Agree nor Disagree	Strongly Disagree	Disagree	Total
1	Feeling very comfort with e-learning practices	45 41.6%	43 39.8%	15 13.8%	4 3.7%	1 0.9%	108 100%
2	It provides equal opportunity to participate in the course work sessions	38 35.1%	49 45.3%	17 15.7%	3 2.7%	1 0.9%	108 100%
3	E-learning ensures maximum attendance of the students	43 39.8%	48 44.4%	14 12.9%	2 1.8%	10.9%	108 100%
4	E-learning increases students involvement in the learning process	35 32.4%	50 46.2%	14 12.9%	7 6.4%	2 1.8%	108 100%
5	It provides adequate time for enhancing students skills	40 37%	47 43.5%	17 15.7%	2 1.8%	2 1.8%	108 100%
6	E-learning helps students to improve their exam scores	40 37%	44 40.7%	20 18.5%	2 1.8%	2 1.8%	108 100%

From the study point of view it is also important to know the opinions/perceptions of the students about the e-learning practices implemented in their institutions. As per the collected information 41.6% and 39.8% respondents strongly agreed and agreed that they are feeling very comfort with e-learning practices implemented in their institutions, because they are now easily attending every lecture through Internet by staying in their residence, and therefore they feel very comfort with this learning mode. 13.8% of the respondents have not expressed their opinion or perception in this regard. 3.7% and 0.9% respondents are strongly disagree and disagree in this regard. In the opinion of these respondents this new mode of learning and teaching have several drawbacks and thus many teachers are also feels uncomforted with this mode. In the opinions of 35.1% and 45.3% respondents e-learning practices have created equal opportunities for the students to participate in the course work sessions. 15.7% respondents could not expressed their opinion in this context. 2.7% and 0.9% respondents are strongly disagree and disagree in this regard. 39.8% and 44.4% respondents are strongly agreed and agreed with the statement that, e-learning ensures maximum attendance of the students for virtual classes. 12.9% respondents could not express their opinion and perception in this context.

1.8% and 0.9% respondents are strongly disagree and disagree in this regard. In the opinion of these respondents e-learning practice cannot ensure about the maximum attendance of the students due to lack of technical knowledge among the rural students about handling electronic gadgets, lack of strong Internet connectivity. 32.4% and 46.2% respondents are strongly agreed and agreed for that e-learning practices increase more involvement of the students in the course work practices due to easy accessibility to virtual classes conducted in their institutions. 12.9% respondents have not expressed their opinion and perception in this regard. 6.4% and 1.8% respondents strongly disagree and disagree in this regard. 37% and 43.5% respondents strongly agreed and agreed that, e-learning provides adequate time to the students to improve their skills and inner potentials. 19.7% respondents neither agreed nor disagreed in this regard. 1.8% respondents are strongly disagree and 1.8% disagreed in this regard. 37% and 40.7% respondents are strongly agreed and agreed for that e-learning helps them to improve their exam scores and improve their academic performance. It shows that, there are also various positive effects on the higher education institutions which could be very helpful to the entire educational sector from the development point of view in future.

Table 17. E-learning should be a part of higher education (opinions of the students)

Opinions	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Total
E-learning should be introduce partially in future	39 36.1%	53 49%	13 12%	03 2.7%	-	108 100%
E-learning will help higher education to survive	43 39.8	48 44.4%	11 10.1%	06 5.5%	- -	108 100%
Classroom activities and e-learning will be alternative to each other	41 37.9%	37 34.2%	28 25.9%	01 0.9%	- -	108 100%
E-learning process need the hour for development of higher educational system	40 37%	49 45.3%	15 13.8%	03 2.7%	01 0.9%	108 100%
E-learning is an added advantage for students	43 39.8%	45 41.6%	16 14.8%	03 2.7%	1 0.9%	108 100%

For the above table it is revealed that, 36.1% and 49% of the respondents are strongly agree and agree for that, e-learning practices should be introduce partially in future. In their opinion the introduction of introduction of e-learning in higher education system will be very useful to them to improve their knowledge pertaining to various subjects. 12% respondents have not expressed their opinion in this regard. 2.7% respondent disagree in this regard. In the opinion of these respondents offline classes or traditional mode of learning is more effective than e-learning. 39.8% and 44.4% respondents are strongly agreed and agreed with the statement that, e-learning will help higher education to survive 10.1% respondents have not expressed their views in this regard. Only 5.5% respondents are disagreed with this. Classroom activities and e-learning will be alternative to each other, 37.9% and 34.2% respondents are strongly agreed and agreed with this statement. 25.9% respondents could not expressed their opinion in this context. Only 0.9% and 0.9% respondents are disagreed and strongly disagreed in this regard. In the opinion of these respondents, e-learning and traditional classroom teaching-learning modes are having different features and cannot become alternative for each other. 37% and 45.3% of the respondents are strongly agreed and agreed for that, there is a need the better for development of higher educational system. 13.8% respondents have not expressed their views or opinion in this regard. 2.7% and 0.9% respondents are disagree and strongly disagree in this context. 39.8% and 41.6% respondents are strongly agreed and agreed with the statement that, e-learning is an added advantage for the students. 14.8% respondents have not expressed their views in this regard. 2.7% and 0.9% respondents are disagree and strongly disagree with is statement.

Table 18. Problems in conducting online sessions faced by faculty members (multiple responses)

Problems	Responses	Percentage
Lack of proper Network connectivity	150	82.8%
Lack of technological knowhow	107	59.1%
Distractions	78	43%
Difficulty in conducting group activities	102	56.3%
Other problems and challenges	86	47.5%

The above table indicates the various challenges and problems faced by faculty members while conducting online course work session multiple responses have been given by the respondents. According to the 82.8% respondents, lack of proper network connectivity is the major problem in conducting online sessions. Due to lack of proper network connectivity many times majority of the students could not participate or attend the online sessions. In the opinion of 59.1% respondents, apart from the lack of strong connectivity majority of the faculty members faced the challenges in conducting online sessions due to lack of proper knowledge about handling of electronic devices during online coursework sessions. Sometimes it may happen that incidents happing around them during coursework sessions distract the concentration of the faculty members which create many constraints in the online teaching process, stated by 43% respondents. 56.3% respondents are facing difficulties in conducting group activities due to certain limitations of online teaching process. 47.5% respondents have faced

the problems like majority of the students have not smart phone or laptop (students in rural areas) unavailability of necessary resources problems in connecting with students staying in remote areas therefore these students could not attends the online sessions regularly.

Table 19. Problems in attending online sessions faced by students (multiple responses)

Problems	Responses	Percentages
Lack of proper Network Connectivity	93	86.1%
Lack of technological knowhow	60	55.5%
Distractions	37	34.2%
Lack of smart phone/laptop	42	38.8%

86.1% respondents have stated that, the faced the problems in attending online coursework sessions due to lack of proper network connectivity in their native place. 55.5% respondents have stated that, due to lack of proper technological knowhow they faced difficulties in attending online sessions. 34.2% respondents have stated that, they lose their concentration due to various incidents happing around them while they attending online course work sessions, which may create bad impact on their grasping power. 38.8% respondents have stated that, they have not smart phone or laptop therefore they cannot participate in the online sessions.

XI) Hypothesis:

H_o: There is a positive impact on higher education in covid pandemic.
H 1: There is a negative impact on higher education in covid pandemic.
Test applied: Z test

Methodology: Assumption

We assume that an there is a positive impact on higher education in covid pandemic, If there is a negative impact on higher education in covid pandemic the researcher tried to investigate whether the positive and negative parameter related with impact in covid pandemic. It is necessary to prove that association between positive and negative impact on higher education in covid pandemic.

$$\text{Mean} = \frac{151 + 91 + 11}{3} = \frac{181}{3} = 60.33$$

Level of significance: 0.05

Variance =

$$X_i - \overline{X_1} = \quad 151 - 60.33 = 90.67$$
$$= \quad 91 - 60.33 = 30.67$$
$$= \quad 11 - 60.33 = 49.33$$

$$X - X^2 = 90.67^2 = 8221.0$$
$$= 30.67^2 = 940.64$$
$$= 49.33^2 = 2433.4$$
$$= \frac{8221.0 + 940.64 + 2433.4}{n-1} = \frac{1151.04}{2} = 5797.52$$

Standard Deviation = 76.141

$$\text{Z score} = \frac{X - m}{\sigma} = \frac{3 - 60.3}{76.141} = \frac{57.33}{76.141} = 0.7529$$

Critical Value = 1.645

P Value = .45151

Table 20. Positive or negative impact on higher education

Variables	Significance of Z score	P value
The positive or Negative impact on higher education in covid pandemic.	0.7529	.45151

The value of Z is 0.7529. The value of p is < .45151 the result is not significant at p < 0.05

If p value is ≥ά the Null hypothesis can be Rejected.

If p Value is < ά the Alternative hypothesis can be accepted.

Inference:

As the significance of z test score 0.7529 and the p value is .45151 the null hypothesis can be rejected. Therefore researcher accept alternative hypothesis and conclude that there is negative impact on higher education in covid pandemic.

H_o: Student are motivated through E- learning process.
H 1: Student are not motivated through learning process.
Test applied: Z test
Methodology: Assumption

We assume that an student are motivated through E-learning process. If Student are not motivated through learning process. The researcher tried to investigate whether the motivated and are not parameter related with impact in covid pandemic. It is necessary to prove that association between motivated and are not motivated through e learning process.

Mean $= \dfrac{159 + 8 + 11}{3} = \dfrac{181}{3} = 59.33$

Leval of Significance $= 0.05$

Variance $=$

$X_i - X_1^- = \quad 151 - 60.33 = 90.67$

$\qquad = \quad 8 - 60.33 = 52.33$

$\qquad = \quad 11 - 60.33 \quad = 49.33$

$X - X^2 \quad = 90.67^2 = 8221.0$

$\qquad = 52.33^2 = 2738.42$

$\qquad = 49.33^2 = 2433.4$

$\qquad = \dfrac{8221.0 + 2738.42 + 2433.4}{n-1} = \dfrac{13392}{2} = 133.92$

Standard Deviation $= \quad 11.57$

Z score $= \dfrac{X - m}{\sigma} = \dfrac{3 - 60.33}{11.57} = \dfrac{57.33}{11.57} = 4.955$

Critical Value $= 1.1601$

P Value $= .1230$

Table 21. Student are motivated or not motivated trough learning

Variables	Significance of Z score	P value
Student are motivated through e learning or students are not motivated through e learning	4.955	.1230

The value of Z is 4.955. The value of p is $< .4,955$ the result is not significant at $p < 0.05$
If p value is $\geq \acute{a}$ the Null hypothesis can be Rejected.

If p Value is $< \acute{a}$ the Alternative hypothesis can be accepted.

Inference:

As the significance of z test score 4.955 and the p value is .1230 the null hypothesis can be rejected. Therefore researcher accept alternative hypothesis and conclude that there students are not motivated.

H_o: Problems in conducting online session faced by faculty member.
H 1: problems in conducting online session are not faced by faculty member.
Test applied: Z test
Methodology: Assumption
We assume that an Problems in conducting online session faced by faculty member.
If problems in conducting online session are not faced by faculty member the researcher tried to investigate whether the problems faced and are not that parameter related with impact in covid pandemic. It is necessary to prove that association between problems faced and problems are not motivated through online session.

Mean $= \dfrac{150 + 107 + 78 + 102 + 86}{5} = \dfrac{523}{5} = 104.6$

Level of Significance $= 0.05$
Variance $=$

$X_i - X_1^- = \quad 150 - 104.6 = 45.4$

$\qquad = \quad 107 - 104.6 = -3.6$

$\qquad = \quad 78 - 104.6 \quad = 26.6$

$\qquad = \quad 102 - 104.6 = -2.6$

$\qquad = \quad 86 - 104.6 = -18.6$

$X - X^2 \quad = 45.4^2 = 2061.16$

$\qquad = 3.6^2 = 12.96$

$\qquad = 26.6^2 = 707.56$

$\qquad = 2.6^2 \quad = 6.76$

$\qquad = 18.6^2 = 345.96$

$= \dfrac{2061.16 + 12.96 + 707.56 + 6.76 + 345.96}{n-1 = 5-1 = 4} = \dfrac{3134.4}{4} = 783.6$

Standard Deviation $= \quad 27.99$

Z score $= \dfrac{X - m}{\sigma} = \dfrac{5 - 104.6}{27.99} = \dfrac{99.6}{27.99} = 3.558$
Critical Value $= 1.6649$ (Probability: $p = 1 - \acute{a}/2$)

P Value $= .000187$

Table 22. Problem face or not faced by faculty member

Variables	Significance of Z score	P value
Problems faced by faculty member or problem is not faced by faculty member through conducting online session.	3.558	.000187

The value of Z is 3,558. The value of p is < 000187 the result is significant at p < 0.05

If p value is ≥ά the Null hypothesis can be accepted.

If p Value is < ά the Alternative hypothesis can be rejected.

Inference:

As the significance of z test score 3.558 and the p value is .000187 the null hypothesis can be accepted. Therefore, researcher accept null hypothesis and conclude that there problems faced by faculty member in conducting online session.

4. DISCUSSION

On the basis of collected primary information, it is observed that, majority of the faculty members and students are feeling comfort with e-learning and e-teaching modes. It is found that, majority of the students and faculty members are having positive attitude towards e-learning and e-teaching modes. Due to some drawbacks and certain limitations, in using e-learning and e-teaching process some respondents have denied the significance or importance of e-learning and e-teaching in the higher education.

It is observed that majority of the students and faculty members agreed for that e-learning should be a part of higher education in future. During the lockdown period many management institutions were conducted online coursework sessions; despite of many barriers.

It is observed that, due to using of e-learning and e-teaching modes, there is a maximum attendance of the students for every session. Through the study it is observed that there are many problems in conducting online sessions, such as lack of proper network connectivity, lack of technological knowhow, difficulties

in conducting group activities, lack of other proper resources, distractions lack of smart phone/laptop etc.

Majority of the students are getting various advantages e-learning. It proved as a useful mode for improving their exam scores and improving overall academic performance. It is observed that, e-learning process enhancing the students' inner potentials and skills.

Through the study it is observed that, there are many positive effects on the higher educational institutions, which may be useful to the Indian higher educational sector from the development point of view. Through the study it is found that, majority of the students and faculty members are in favor of introducing e-learning partially in the higher education sector in future.

5. CONCLUSION

The present study highlights the perception and opinion of the faculty members and management students towards e-teaching and e-learning during the lockdown period and Covid pandemic. From the study it is revealed that, majority of the faculty members and students preferencing for e-teaching and e-learning as it provided very comfort in the e-learning and e-teaching process. It also provided to the students a freedom to interact with their teachers. It is concluded that the present study shows that in the recent past e-learning and e-teaching has achieved good popularity in the higher educational sector as teachers and students are found to be inclined towards online learning tools to interact with each other. As the significance of z test score 3.558 and the p value is .000187 the null hypothesis can be accepted. Therefore researcher accept null hypothesis and conclude that there problems faced by faculty member in conducting online session.

But still as E-learning and e-teaching are the most accepted and popular mode of education at this time of Covid pandemic. It future the virtual or online education which may perhaps be an alternative or a parallel system of education.

AUTHORS' CONTRIBUTION

Dr Kirti Dang Longani & Dr Preeti Sharma made a significant intellectual contribution to the work described in the paper. Made contribution and drafting and designing paper. Both authors contributed in collection and analysis of data

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