Hospitality & Tourism
Systems

Impact of COVID-19 on Delivery of Quality Hospitality Education In India

Usha Dinakaran*

Abstract   *The Covid-19 pandemic caused many industries globally to undergo radical changes in their operational systems, disrupting the service delivery processes. The education industry is no exception to this phenomenon. India's higher educational institutions witnessed the immense challenge of taking the teaching process online with limited means and infrastructural support. This study aimed to assess the impact of the pandemic on the delivery of education online in India with particular reference to hospitality courses. A survey of 250 students and interview of 10 faculty members from 5 universities offering hospitality course across India showed that the online learning system is far from satisfactory and effective. Moreover, teachers need to undergo training sessions in order to improve their online teaching skills and create newer methods of imparting skills and evaluating students' performance.*

Keywords: *COVID-19, Hospitality, Education, Online Education, Online Learning*

INTRODUCTION

In the last two decades, the process used for giving or imparting education has undergone a sea-level change. Technology has transformed almost every field of the human race and education sector is not exempt from this phenomenon. The manifestation of technology in education like online learning content, online testing, improving student-teacher interaction through dynamic communication tools, and personalized education, among others, are seen in several recent changes in the global education field. Online education can be defined as the process of learning and utilizing electronic technologies to access educational curriculum which is outside of traditional classroom setting (Elfaki, Abdulraheem, Abdelrahim, 2019).   It can be understood as a combination of learning services and technology to elevate the quality and delivery of education.

When compared to developed nations, India is still in a nascent stage when it comes to digital education though it has been growing at a substantial rate of 55 per cent per year (Lone, 2017). The online education market in India is likely to grow to INR 360.3 billion by 2024 (Maida, 2020).

This growth is said to be majorly backed by the phenomenal rise in paid-user base expected to cross the 9.5 million mark in the year 2021 (Raju, 2020). The primary reason behind this projected growth is the combination of demand and supply driven by macroeconomic changes driven by the advent of COVID-19, a pandemic which has ravaged most industries across the globe. The pandemic, along with specific pre-existing drivers of online education such as the cost of online education, availability of quality education, boosting employability, digital government initiatives, increased smartphone users base, more internet penetration, disposable income and the young population are defining the online education scenario in India (Singh & Khaitan, 2017). The significant online potential of the various categories of education establishes that reskilling and online certification courses form a significant part of India's online education market with a share of 38%. Along with this another major category of online education which is online test preparation is expected to be fastest-growing among all other categories with an estimated growth rate of 64% in coming years (Singh & Khaitan, 2017). When it comes to higher education, several factors and recent changes have redefined the system. Government intervention, coupled with

---

*   Associate professor, Department of Hotel Management, CHRIST (Deemed to be University), Bangalore, Karnataka, India.
     Email: usha.dinakaran@christuniversity.in

universities' openness in adopting technologically advanced systems of education, have transformed the sector recently. Universities are now allowed to offer 100% online classes for any course to facilitate higher education enrolment rate from 25% to 50% by 2035. Foreign universities are now allowed to operate in India, whereas Indian higher education institutions are allowed to offer courses affiliated to foreign universities (McKenzie 2020).

The Indian online education sector received a further boost with the advent of the COVID-19 pandemic in 2020. It was on March 11, 2020, that the World Health Organization (WHO) declared COVID-19 as a pandemic. Responding to the outbreak, the Indian Government imposed a lockdown in every sector, disrupting the operational process. Imposed in various stages, educational institutions witnessed a steep dip in student engagement and increased drop-out rates, particularly among the economically weaker sections of the society (Karsan, 2020). Challenges in continuing the learning process despite a lockdown prompted a rise in demand for online courses and classes since students, teachers and other staff could no longer be physically present on campus (Madeshia & Verma 2020). Online delivery of education enabled schools and higher education institutions to provide support to students remotely through the adoption of better technology & introducing a virtual learning culture. Overall, this pandemic has been steering the education system towards technological innovation and advancements. Educational institutions are making use of orientation programs, induction programs, classes, counselling with the help of e-commerce tools such as Google meet, Skype, WebEx, Microsoft Teams and similar platforms. Teachers and students have been using electronic media such as WhatsApp, Google Drive, and Telegram to communicate electronically. Leading players in online education in the Indian market include Byju's, WhiteHat Jr, and Educomp which have witnessed sudden and unprecedented growth in user base in the face of the pandemic (Jhingan & Sarathy 2020).

Among the universities and courses, the hospitality sector, in particular, is seeing an impressive growth in terms of student enrolment in recent years. The growing demand for tourism and other hospitality-related services which are projected to grow at the rate of 6.7% until 2021 and employing over 53 million people by 2029 (Business Standard, 2019) are prime reasons for this growth. Moreover, the Planning Commission of India recognizes this as the second-largest sector that provides employment opportunities to low skilled workers (Kumar, 2018). The estimates of the Union Ministry of Tourism reveal the requirement of around 2.03 lakhs professionals in the industry against the 21,000 hospitality graduates annually. Focusing on such credentials of an important industry, the Government of India has also realized the need for hospitality education. Due to this, anomaly the Government under the Ministry of Tourism has set up Institute of Hotel Management (IHM) and Indian Institute of Tourism and Travel management (ITTM). While IHM is responsible for catering the human resources demand in catering and hotels field, ITTM is responsible for fulfilling the human resources requirement in travel and tourism. Further, there have been a total of 180 institutes that includes both Government and private hospitality establishments that are offering certificate, diploma and degree courses in the field of hotel management (Kumar, 2014). Further it has been realized that in order to arm students with the required skill set there is a need for faculty members and the industry professionals to agree on the curriculum. The major reason behind this is the fact that only 11% of students graduated have the required skills which means that other students were not ready for the industry yet due to difference in curriculum from the point of view from academic professionals and industry professionals (Himanshu, 2014).

AIM OF THE STUDY

The main aim of the study is to assess the impact of COVID-19 on the delivery of quality hospitality education and the limitations of online education delivery platforms in India.

LITERATURE REVIEW

Importance/Uses of Online Education

With an increasing desire to do more with less becoming an essential decision for makers in nearly every economic sector, the education sector has seen rapid changes in the last two decades. All educational institutions today face the challenge of improving their financial and non-financial performance with budgetary constraints but without sacrificing the quality of education. There have been several studies conducted in past that focused on importance or uses of online learning which include: online learning increases their potential to tap new markets, provides economic benefits, international partnerships, reduced time to market, educational benefits, anonymity, student interaction and satisfaction, growth in the faculty members learning curve and helps to provide productive feedback and evaluation (Appanna, 2008). However, considering the COVID-19 era, online learning has evolved as the panacea for students in the time of crisis. Being a student-centered process, it offers them a significant amount of flexibility concerning time and location. It enables to provide students with customized procedures and processes entirely based on their requirements and needs. By using multiple online tools available, the educators make use of a combination of audio, video and text so that they can better reach their

students and still maintain a human touch in times of crisis. This method fosters an interactive and collaborative teaching-learning environment where students can provide their feedback and ask queries. This anytime and anywhere feature of online learning has helped students deprived of education due to infrastructure issues as it enables remote learning (Dhawan, 2020).

Factors Affecting the Quality of Online Hospitality Education

Online education or e-learning is one of the complex learning processes present today. It involves the usage of ICT; hence there are a variety of factors that might affect the quality of online education. Firstly, system quality is the functionality of an information system itself. System quality factors such as low complexity, authenticity, and technical support are useful predictors that have an impact on once satisfaction and the quality of education they are receiving (Faiz Osman, Wahid & Zakira, 2018).

Content quality is another factor understood as perceived output produced by the system. Some of its typical characteristics might include accuracy, relevance, promptness, sufficiency, completeness, understandability, format and accessibility. All these factors together tend to have an impact on the quality of online education. Learner's attitude towards online learning process, motivation, belief and confidence towards the transition from the traditional way of teaching to this new method have a significant impact on the quality of online education. Learner's attitude is affected by various dimensions such as self-efficacy, enjoyable experience and level of interaction with other students. Further, another major factor that impacts the quality of online education is the attitude of the instructor since it plays a pivotal role in gaining the students' attention. Moreover, computer literacy also plays a vital role in determining students' satisfaction and how much they can gain through online education (Lin, Kuo & Chiu, 2007). As the online education in hospitality sector is characterized by high-touch professionals and many of the skills related to hospitality are highly intangible, it has led to significant resistance in technology adoption. This issue stands as one major factor that is affecting quality of hospitality education. With the absence of major factors such as outdoor catering service experience provided to students, industry training, culinary events and related events in college such as exhibitions, competitions and practical culinary exams are some of the factors that affects the quality of online education in hospitality sector (Cantoni, Kalbaska & Inversini, 2009).

Requirements and Strategies to Deliver Online Hospitality Education Effectively

One of the significant concerns that instructors or teachers face in online teaching is to maintain interaction and sense of community with their students which was comparatively more straightforward while traditional method of face to face teaching (Ragan, 2010). There are two primary strategies adopted by teachers today in order to overcome the hurdles of online teaching while delivering it effectively. The first one, planning and development, stipulates that while undertaking online classes, instructors should make sure that although there are a wide array of educational technologies and tools, it is crucial to choose the appropriate one that matches the teacher's pedagogical style and strategies. It requires the teacher to plan out learning objectives in advance, and all of them should focus on student behavior, performance and understanding level. Further, the learning objectives so set should be specific and should focus on achieving one target at a time. Each of these objectives should be measurable and should have some pre-defined criteria for student assessment (HRC, 2009).

The second strategy, i.e. teaching in action stipulates that one of the significant aspects of the success of online education is to maintain the level of interaction between teacher and students and between student and student. For this, teachers can adopt two strategies which involve online discussion forums and students collaboration in different assignments. The online discussion forums facilities improved interaction in online learning along with promoting constructivist thinking, critical thinking and high order thinking capability (Hammond et al., 2019).

(Arora, 2017) in his study on the online education market in India showed how online education is playing an essential role in the development of the Indian education industry especially considering its effect in terms of money as well as innovation. There has been a steep rise in businesses in the field of online education with the approximate growth of 19% in Indian online education market. Coursera which is one of the world's largest online education providers has 1.3 million Indian students out of 18 million registered learners, thus showing how online education has created a significant impact on the mind-set of Indian students.

(Ray, 2010) stated that in a country like India with millions of young minds, it becomes essential to prepare them for the future. Although the country has many educational institutions and teaching professionals, still there lies a disparity mainly on the grounds of factors such as the social background of students, parents and different standards of teaching training programs, being some of the common

factors. These factors indicate that online education has risen as a way through which standardization is brought for every student.

(Sigala & Baum, 2003) in his study stated that hospitality sector is service oriented and thus it is required to equip students with necessary skills required. Hence for imparting hospitality education online among the students, institutions can follow strategies such as giving live demo during culinary classes, and training with respect to housekeeping.

(Hartman, 2009) Stated that while teaching hospitality education online, colleges can opt for strategies like practical culinary classes where each student can be given with the task of preparing dishes as per the allotted menu with a time period allotted to them in which they are required to complete the task. Along with faculty members available to clarify all the doubts during the online sessions.

(Harris, 2010) showed that in order to enhance hospitality online education another strategy which can be adopted is virtual world. Under this strategy students can get the onsite experience. Under this strategy students can get the onsite experience by providing them the feel of actually handling customers virtually. This strategy may prove to be more interactive and provide enjoyable learning experience to the students and thus provides new dimensions to overall learning process

The following figure shows the conceptual framework on which the present study is based.
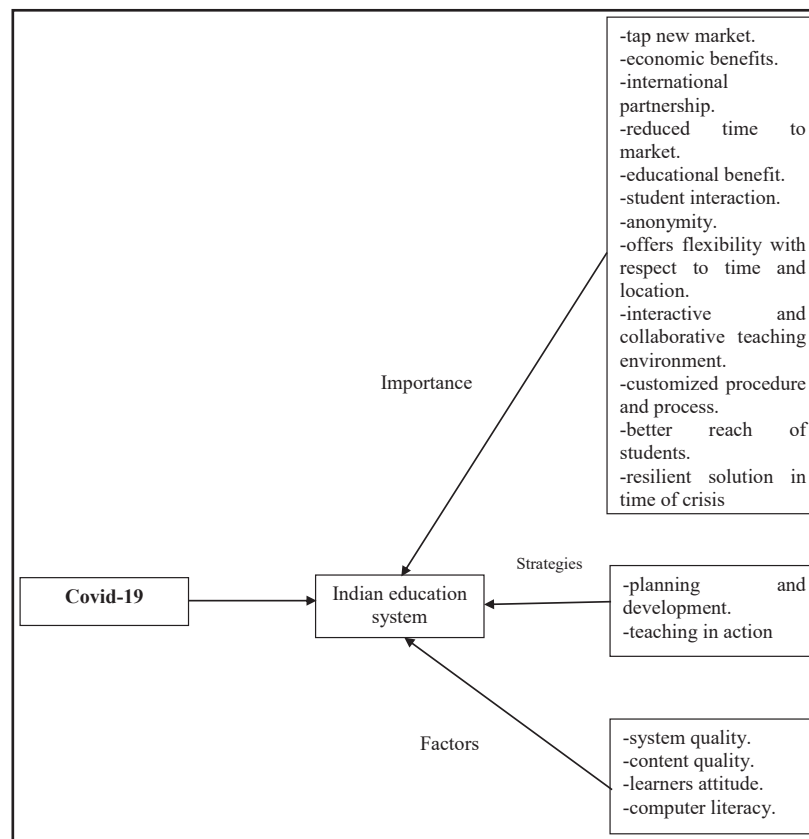
Fig. 1: Conceptual Framework

RESEARCH METHODOLOGY

Quantitative and qualitative data for the current study were collected. Qualitative data from an interview with ten faculty members from five educational institutions offering hospitality courses across India who had to transition into the 100% online education option due to the lockdown was collected. The interviews aimed to understand the challenges they have been facing in the delivery of online education. Faculty members with a minimum of two years' experience and a Ph D in the respective fields were the basis for selection.

Firstly an email was sent to the chosen universities explaining the purpose of the study and requesting their participation in it. After two rounds of follow-ups, the university administration responded with the contact details of ten teachers who expressed their interest in the interview. Consequently, on the mutually agreed time, the interview

was held. An email with the questions was sent to them, for which they took seven days to respond. The profile of 10 faculty members is present below in Table 1.

Table 1: The Profile of 10 Faculty Members

| Respondent	Gender	Age	Experience
Respondent A	Female	18-25 years	2-5 years
Respondent B	Male	25-35 years	5-10 years
Respondent C	Male	35-45 years	10-15 years
Respondent D	Female	25-35 years	5-10 years
Respondent E	Female	25-35 years	10-15 years
Respondent F	Male	18-25 years	2-5 years
Respondent G	Female	35-45 years	5-10 years
Respondent H	Male	25-35 years	5-10 years
Respondent I	Male	18-25 years	2-5 years
Respondent J	Male	More than 45 years	More than 15 years

On the other hand, quantitative data consisted of survey method where data was collected from 250 students undergoing hospitality education courses online from various educational institutions of India. They were asked questions regarding their perspective on the impact of COVID-19 on the delivery of quality hospitality education through online platforms. The questionnaire was structured and close-ended and consisted of questions pertaining to the demographic profile of the respondents, their general background. Finally, they were asked to mark their preference on a Likert scale of 1 to 5 with 1 being strongly disagreed and 5 representing strongly agree. For this purposive sampling has been used, which is a non-probability method and where respondents are selected based on the judgment of the researcher. The sample size was determined based on the theoretical considerations of the study and the available resources. It is essential to select an appropriate sample size in order to ensure that it is representative of the target universe and is cost-effective at the same time. SPSS software was used for analyzing the survey responses, the results of which have been presented in the form of frequency analysis, correlation, regression and ANOVA while the interview conducted was analyzed using thematic analysis. The quantitative data collected from the respondents were in raw form and required to be processed and analyzed to draw conclusions and generalizations.

DATA ANALYSIS

Survey Analysis

The demographic profile of respondents, i.e. students is shown in the following figure.
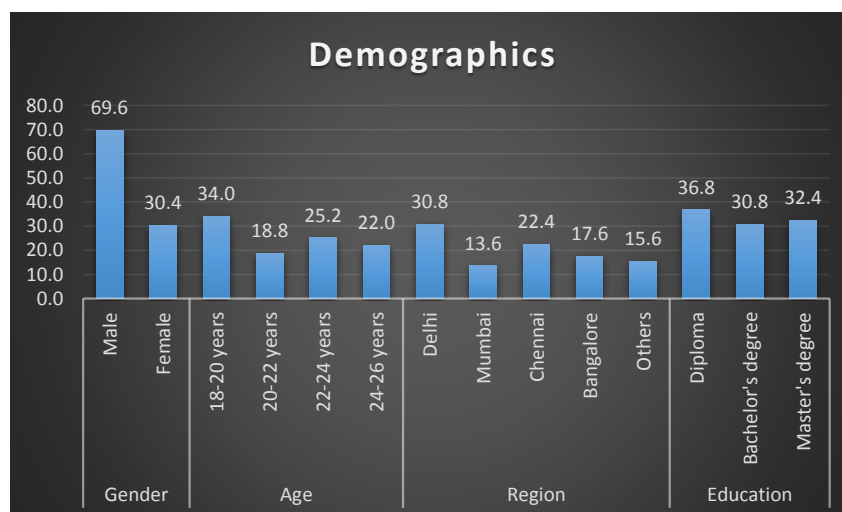
Fig. 2: Demographic Profile of Respondents

As shown in Fig. 2, the majority of respondents were males and belonged to the age group of 18-20 years (34%). 30.8% of respondents were from Delhi, 22.4% were from Chennai, 17.6% were from Bangalore, 13.6% were from Mumbai, and the remaining 15.6% belonged from other parts of India. Further considering their educational qualifications, 36.8% were pursuing a diploma course, followed by Master's and Bachelor's courses respectively.

Furthermore, the survey revealed that most of the institutions had adopted online teaching method in response to the COVID-19 pandemic. While 99.6% agreed that COVID-19 had increased the popularity of online education, 97.6% of students said they are comfortable with this online teaching method. 24% of students revealed that their institution had adopted Zoom as the primary mode of online teaching, while 20.8% said that their institution had adopted Google Meet and Skype. On the mode used for sharing documents, 34% said that they have been using mail, followed by 29.6% who use Google Meet and 26% for WebEx. When asked about the issues they have been facing in online education, 30.8% said that it is non-availability/affordability of online learning sources like laptop or desktop at home. 27.6% said that it is a poor internet connection that causes the problem, 24.4% said it is lack of adequate technical skills, and 17.2% agreed that it is a power problem. Considering the importance of online education, 22% said that it is flexibility concerning time and location, 16.4% said that it helped to increase international partnership, 15.6% said that it helps in the evaluation process, 15.2% agreed that it helps to better reach.

Impact of COVID-19 on the Delivery of Quality Education

The following analysis is based on determining the impact of COVID-19 on the delivery of quality education. Coding of the variables is shown in Table 4 in appendix.

Table 2: Correlation between COVID-19, Delivery of Quality Education

Variables	Pearson Coefficient	Significance
Dependent	1	
A1	.805**	.000
A2	.837**	.000
A3	.764**	.000
A4	.754**	.000
A5	.785**	.000
A6	.737**	.000
A7	.733**	.000
A8	.811**	.000
A9	.785**	.000

Variables	Pearson Coefficient	Significance
A10	.785**	.000
A11	.806**	.000
A12	.829**	.000
A13	.813**	.000
A14	.757**	.000
A15	.797**	.000
A16	.784**	.000
A17	.837**	.000
A18	.811**	.000
A19	.787**	.000

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

As shown in the above Table, the value of significance for all the variables is less than the significance level of the study, i.e. $0.000 < 0.05$. Thus, there is a possibility of having a significant linkage between COVID-19 and delivery of online education. Further, the Pearson Coefficient value of each variable is greater than the coefficient value required for having at least moderate linkage between the dependent and independent variable (i.e. A1 - 0.805, A2 – 0.837, A3 – 0.764, A4 – 0.754, A5 – 0.785, A6 – 0.737, A7 – 0.733, A8 – 0.811, A9 – 0.785, A10 – 0.785, A11 – 0.806, A12 – 0.829, A13 – 0.813, A14 – 0.757, A15 – 0.797, A16 – 0.784, A17- 0.837, A18- 0.811, A19- 0.787). Thus the correlation results show that there is a significant linkage between COVID-19 and delivery of quality education. Further to determine the impact, below stated hypothesis was tested:-

H_0: COVID-19 does not have significant impact on delivery of quality hospitality education.

H_1: COVID-19 does have significant impact on delivery of quality hospitality education.

Result of regression analysis is shown in the Table 2 below.

Table 3: Regression Analysis for Hypothesis 1

CL	Coefficient	T-statistic	p-value	R^2	Adjusted R^2	F Ratio
Constant	-.260	-2.338	.020	0.875	0.864	84.431
A1	.052	.885	.377			
A2	.137	1.995	.047			
A3	-.048	-.764	.445			
A4	-.016	-.295	.769			
A5	.136	2.287	.023			
A6	-.005	-.096	.924			
A7	-.091	-1.737	.084			

CL	Coefficient	T-statistic	p-value	R^2	Adjusted R^2	F Ratio
A8	.153	2.517	.013			
A9	.075	1.221	.223			
A10	.152	2.547	.012			
A11	-.090	-.930	.353			
A12	.349	3.284	.001			
A13	.168	1.770	.078			
A14	-.285	-2.720	.007			
A15	.083	.718	.473			
A16	.057	.711	.478			
A17	.396	4.228	.000			
A18	-.013	-.100	.921			
A19	-.107	-.952	.342			

The value of R^2 and adjusted R^2 is 0.875 and 0.864, which means that the model appropriately represents the impact of COVID-19 on delivery of quality hospitality education. The value of adjusted R^2, which is 0.864 shows 86.4% of the variation in the delivery of quality education, is represented by COVID-19. The F- value 84.431 being higher than the required value of 1, it indicates the variation in the delivery of quality education is represented more precisely with the presence of COVID-19 as an independent variable in the model, the variation in delivery of quality hospitality education is represented more precisely. Further, the P-value of variables in respect of A2 has increased the complexity, A5 has affected the content quality, A8 has affected the timelines, A10 has affected the completeness, A12 has affected the format and accessibility, A14 has affected learner's motivation level, and A17 has affected self-efficacy. All these variables, being less than the significance level of the study, i.e. less than 0.05, meaning these variables indicate the impact COVID-19 have on delivery of quality hospitality education. *Thus the null hypothesis that COVID-19 does not have significant impact on delivery of quality hospitality education is rejected.*

Interview Analysis

The following section will focus on qualitative analysis of interview conducted with ten faculty members of different hospitality educational institutions of India regarding the challenges they face or the limitations of online education platforms.

Respondent A while sharing her experience on current transition from traditional learning and teaching style to an entirely different online education due to COVID-19 felt that online learning has a few weaknesses that have been hampering the effective communication between students or learners and educators. She stated that *"time and location flexibility is one the major advantages of online education. This advantage is one of the fragile elements, and it can create problems"* since non-serious behavior on the part of students concerning time and flexibility is proving to be a real challenge for teachers, further students tend to be more relaxed and only watch demonstrations on video rather than actually actively participating in them.

Respondent B pointed towards the fact that all students and learners are different and also vary in their capabilities and confidence levels. Some students are unlikely to feel confident with this form of teaching which can eventually increase frustration and confusion among them. He stated that *"any form of non-compatibility between the design of technology and components of the learning process and inadequate customization of the learning process will certainly cause imbalance."* Moreover the discussion with respondent B also pointed towards another important fact that this lack of training at graduation level will make it challenging for them to function according to hospitality industry standards in future when they would go for their post-graduation.

Respondent C said that *"many teachers still are digital migrants while the students are much more digital natives."* And this is why the usage of technology comes so naturally and easily to them. This sudden transition in teaching style due to COVID-19 has caused challenges for teachers. The present situation is demanding an increased and a completely different set of skills than required for the traditional method of face to face teaching, particularly in a field like hospitality which requires regular training for skill development. According to him, *"teachers are required to increase their capabilities to make efficient use of different modes of online education. Since students can no longer depend on on-site training in hotels, we have to come up with novel methods to make sure that learning is not impaired. Such methods would involve setting* newer types of skill-based daily assignments and tasks and creating evaluation methods based on them."

Respondent D also agreed with the statement of respondent C and said that *"it has become imperative for teachers to become literate and effective while handling all the tools necessary for providing online education."* Moreover, while using the online modes of teaching, English is the prominent language, which might cause inconvenience for those teachers who are uncomfortable with the language.

Respondent E stated that she feels *"classroom which is usually run in the form of discussions and face to face interaction has an advantage of accountability and supervision over students."* While in the case of online education, teachers do not have such freedom in the case of online classes. This is

specifically true with respect to hospitality industry since it is service oriented and there are chances of this being diluted in case of online instruction. In order to prepare students with the necessary service skills for hospitality industry, aspects missing in case of online education needs to be addressed. Further considering the situation in hospitality industry, online learning methods are still not that advanced. Thus it becomes very challenging for teachers to keep the students motivated so that they can complete their courses and make their online learning experience enjoyable. All these issues have come up as a real challenge for the teachers.

Respondent F, while talking about the challenges of online education, said that *"this transition can be successful only when the student and learner have the appropriate capability and motivation. Further, this also requires that students must have proper availability of laptop and desktop computer at their homes, with good internet connectivity."* However, considering the current infrastructural facilities in India, many students have been facing challenges, which is another important reason for their lack of success in online teaching. Yet another problem he stated included *"difficulty in accessing the intended impact of course on students."* He further stated that as teachers they do not feel confident that students are actually completing test, exams and quizzes on their own rather they feel there is always opportunity for them to cheat.

Respondent G, while sharing her thoughts on the present issue, pointed towards a significant factor. She opined that though the teachers and students living in urban areas might not have faced significant problems in this immediate transition from the traditional way of teaching to online mode, it is those hailing from rural areas who are severely impacted. For them, this overnight change is challenging to implement as well as understand. *'Rural areas of India still face the issue of connectivity, availability of internet and connected issues. Moreover, teachers belonging to such areas are also not well equipped with technology."*

Respondent H stated that *"there could be certain demographic factors such as small children at their homes which could act as a limitation for the teachers."* Such factors indicate that these demographic factors might make it difficult for them to focus while engaging in online classes. Further, distractions from other family members could be an inevitable factor. Same could be the situation for students as well, which could make it difficult for them to concentrate.

Respondent, I shared that *"this technology which might work as an extension for children is proving to be an enigma for teachers of the older generation"*, implying increased pressure on the teachers which has eventually turned into frustration for them as well. Student assessment is a significant limitation of this online teaching process as it becomes difficult for teachers to evaluate if the students have

understood the lesson or not. Besides this transition requires extra efforts on parts of teachers like uploading lesson content, class preparation, valuation of online assignments, enhancing their knowledge regarding online platforms, arranging conferences at periodical time periods and management of individual student. All these issues together make teachers more averse to online teaching.

CONCLUSION

The COVID-19 pandemic has forced schools, colleges and other educational institutions in India to undergo a transition in their teaching style immediately. Traditionally, India has been following face to face teaching style where teachers illustrate the concepts to the students in a classroom setting. The advantage of this traditional mode of teaching was the interaction between teachers and students with minimal technological dependence or intervention. Comparing this conventional teaching style with online learning adopted amidst COVID-19 has brought forth significant deficiencies in the online teaching structure in India, such as lack of human connect, absence of opportunity of collaborative learning, teacher's supervision and challenges in infrastructure and technology in remote and underdeveloped areas of the country. Further, the deployment of internet facilities is proving to be challenging for the Indian education system. The present study, through the help of regression and correlation techniques along with thematic analysis, tries to understand the impact of COVID-19 on delivery of quality hospitality education and the challenges or limitations of this form of teaching style. This study established that the COVID-19-led online hospitality education in India has had a substantial impact on the delivery of quality hospitality education by certain influencing factors such as content quality, timelines, completeness, format and accessibility, learner's motivation, self-efficacy and further has also increased the complexity of the whole process. The interview conducted with faculty members highlighted the challenges or limitations of online education. Some of the challenges included hampering of effective communication between students or learners and educators. Non-serious behavior on the part of students concerning time and flexibility is proving to be a real challenge, and students might not feel confident with this form of teaching which can eventually increase frustration and confusion among them. Further, any form of non-compatibility between the design of technology and components of the learning process and small customization of the learning process will undoubtedly cause imbalance. While using the online modes of teaching, English is the prominent language which might cause trouble for those teachers who are not very comfortable with the English language. Further, hospitality sector being service oriented, chances of this being diluted in case of online instruction is high. In order to prepare students with the necessary service

skills for hospitality industry, voids of online education needs to be addressed.

The sudden transition from traditional teaching to online learning due to COVID-19 enabled the HRD Ministry of India to launch "Bharat Padhe Online" campaign, where it has been receiving welcoming ideas in order to improve the online education system of India. The following recommended strategies may prove to be helpful for hospitality and other educational institutions under the present circumstances:-

Technology is very crucial for improving online hospitality education. There are a wide variety of educational apps and software programs that teachers can use to improve the students' experience. Like video options, teachers by using apps such as Zoom, Jing, Microsoft team and Google classroom can either record the lectures or could hold the online demo sessions. Further, the teachers can provide students with those pre-recorded sessions which students can watch or even re-watch to understand the concepts better.

Teachers, while using apps such as Zoom, Webex, Microsoft team or Screencast-o-Matic, can record their computer screens. Through these apps, teachers can walk through presentation and show students the steps on the website on how they can use various programmes on their computers. Further teachers may also use digital text options which allows teachers to make a bank of comments efficiently activated through keystrokes. Thus while grading some essay, teachers can easily use pre-made comments, if the same mistake occurs repeatedly.

Further teachers can hold online culinary exhibitions, where students are required to showcase their talents, thus giving them practical experience of working in hospitality sector.

Since hospitality sector is service oriented sector and students have to learn to deal with customers, teachers can provide online assignments to students where they are given real life situation and asking strategies they will adopt while facing such situations.

Teachers who are facing issues can be using them with the help of their colleagues. Further, they can collectively discuss a topic with them and can share their experiences in handling the online education tools so that they can successfully remove apprehensions in handling them later.

However, for teachers to use the technologies efficiently or get well equipped with them, the first and significant step is to provide them with appropriate training since all teachers do not have a sound technical background. Providing teachers sessions on tools or software required can help improve their efficiencies. Further studies in

this area can explore universities' perspective on how to address the challenges faced in online learning as it is likely to persist for a for a long time.

REFERENCES

Appanna, S. (2008). A review of benefits and limitations of online learning in the context of the student, the instructor and the tenured faculty. *International Journal on E-Learning*, *7*(1), 5-22. Retrieved from https://www.researchgate.net/publication/237143888

Arora, A. (2017). Online education market in India. Retrieved from https://www.franchiseindia.com/education/FLAME-University-and-Wellesley-College-have-partnered-to-facilitate-international-academic-exchange-Devi-Singh.9323#

Business Standard. (2019, April 30). Tourism sector records growth of 6.7% in 2018. *Business Standard*.

Cantoni, L., Kalbaska, N., & Inversini, A. (2009). E-learning in tourism and hospitality: A map. *Journal of Hospitality, Leisure, Sport and Tourism Education*, *8*(2), 148-156. doi:https://doi.org/10.3794/johlste.82.263

Dhawan, S. (2020). Online learning: A Panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, *49*(1), 5-22. doi:https://doi.org/10.1177/0047239520934018

Elfaki, N. K., Abdulraheem, I., & Abdelrahim, R. (2019). Impact of e-learning vs traditional learning on students performance and attitude. *International Journal of Medical Research & Health Sciences*, *8*(10), 76-82. Retrieved from https://www.researchgate.net/publication/338528127

Faiz, M. A.O., Wahid, A. K., & Zakria, A. R. (2018). Assessment of factors affecting e-learning: preliminary investigation. Retrieved from https://www.researchgate.net/publication/327666987

Hammond, L. D., Flook, L., Harvey, C. C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Educational Research and Innovation*, *24*(2), 97-140. doi:https://doi.org/10.1080/10888691.2018.1537791

Harris, L. R. (2010, May). *My teacher's judgment matters more than mine: Comparing teacher and student perspectives on self-assessment practices in the classroom* [Paper presentation]. Classroom Assessment SIG at the May 2010 Annual Meeting of the American Educational Research Association, Boulder, CO.

Hartman, J. (2009). Student demand for alternative modes of course delivery.

Himanshu, A. (2014). *Less than 11% of hotel management graduates are employable after college. Aspiring Minds. Retrieved from* https://www.aspiringminds.in/press_doc/

less_than_11_of_hotel_management_graduates_are_
employable_a

HRC. (2009). *Best practices in online teaching strategies*. The Hanover Research Council. Retrieved from https://www.uwec.edu/AcadAff/resources/edtech/upload/Best-Practices-in-Online-Teaching-Strategies-Membership.pdf

Jhingan, A., & Sarathy, A. (2020, March). *COVID-19 Assessing the impact on the education sector and looking ahead. Retrieved from* https://www.ey.com/Publication/vwLUAssets/ey-COVID-19-Assessing-the-impact-on-the-education-sector-and-looking-ahead/$File/ey-CO-VID-19-Assessing-the-impact-on-the-education-sector-and-looking-ahead.pdf

Karsen, J. (2020, July 10). *COVID-19 lockdown: Impact of global pandemic on education sector. Retrieved from* https://www.indiatoday.in/education-today/featurephilia/story/covid-19-lockdown-impact-global-pandemic-on-education-sector-1698391-2020-07-08

Singh, A., & Khaitan, A. (2017, May). *Online education in India: 2021- A study by KPMG in India and Google. Error 404 – Page could not be found - KPMG Global. Retrieved from* https://assets.kpmg/content/dam/kpmg/in/pdf/2017/05/Online-Education-in-India-2021.pdf

Kumar, A. (2018). Hospitality education in India: Issues and challenges. *Journal of Hotel and Business Management*, *7*(1), 1-5. doi:https://doi.org/10.4172/2169-0286.1000169

Kumar, M. (2014). Hospitality education in India-present status, challenges and opportunities. *African Journal of Hospitality, Tourism and Leisure*, *3*(2), 1-12. Retrieved from https//: www.ajhtl.com

Lin, S. Y., Chiu, C. K., & Kuo, C. (2017). Factors affecting participation in online learning: Evidences from Andragogy. *Journal of Global Business Management*, *3*(1), 1-7. Retrieved from http://www.jgbm.org/page/21%20ShinYi%20Lin.pdf

Lone, Z. A. (2017). Impact of Online Education in India. *International Journal of Engineering Science and Computing*, *7*(7), 13950-13953. Retrieved from https://ijesc.org/upload/4e9a4612244093f84c7b9826de3f1d36.Impact%20of%20Online%20Education%20in%20Indian.pdf

Madeshia, P. K., & Verma, S. (2020). Review on higher education in India. *Journal of Critical Reviews*, *7*(10), 1161-1164. doi:https://doi.org/10.31838/jcr.07.10.228

Maida, J. (2020, July 11). *Online education market in India 2020-2024.* Retrieved from https://www.businesswire.com/news/home/20200710005233/en/Online-Education-Market- India-2020-2024-Increased-Penetration

McKenzie, L. (2020, February 17). *Indian government opens up market for online higher education. Inside Higher Ed | Higher Education News, Career Advice, Jobs. Retrieved from* https://www.insidehighered.com/news/2020/02/17/indian-government-opens-market-online-higher-education

Ragan, L. (2010). *Online course management: Overcoming the challenges of "anytime" learning. Magna Products. Retrieved from* https://www.facultyfocus.com

Raju, V. S. N (2020, May 12). How is COVID-19 changing the traditional mindset of academicians and institutions in India. *Higher Education Digest*, *2*(7), 2.

Ray, P. P. (2010). Web-based e-learning in India: the cumulative views of different aspects. *Indian Journal of Computer Science and Engineering*, *1*(4), 340-352. Retrieved from https://arxiv.org/abs/1208.0770https://arxiv.org/ftp/arxiv/papers/1208/1208.0770.pdf

Sigala, M., & Baum, T. (2003). Trends and issues in tourism and hospitality higher education: Visioning the future. *Tourism and Hospitality Research*, *4*(4), 367-376. doi:https://doi.org/10.1177/14673584030040

Faiz Osman, M. A., Wahid, A. K., & Zakria, A. R. (2018). Assessment of factors affecting e-learning: preliminary investigation. Retrieved from https://www.researchgate.net/publication/327666987

APPENDIX

Table 4: Coding of Variables

Codes	Variables
A1	It has affected system quality.
A2	It has increased complexity.
A3	Increased the need for technical support.
A4	It has affected the authenticity.
A5	It has affected content quality.
A6	It has affected accuracy.
A7	It has affected relevance.
A8	It has affected timelines.
A9	It has affected sufficiency.
A10	It has affected completeness.
A11	It has affected understandability.
A12	It has affected format and accessibility.
A13	It has affected learner's attitude.
A14	It has affected learner's motivation level.
A15	It has affected learner's belief.
A16	It has affected learner's confidence.
A17	It has affected self-efficacy.
A18	It has affected education experience.
A19	It has affected level of interaction.