



Assessing Online Teaching Motivation, Satisfaction, and Intention among Teachers: A Structural Equation Modeling Approach

Senthilkumaran Piramanayagam

Prof., Welcomgroup Graduate School of Hotel Administration, Manipal Academy of Higher Education, India, senthil.kumaranp@manipal.edu

Arul Alanvijay

Asst. Prof., Department of Hotel Management ,Jamal Mohamed College, Tiruchirappalli, India, alanvijay@yahoo.com

Partho Pratim Seal

Assoc. Prof., Welcomgroup Graduate School of Hotel Administration, Manipal Academy of Higher Education, India, partho.seal@manipal.edu

The Covid-19 pandemic prompted drastic changes in education, including the closure of institutions and transition in the mode of teaching and learning. However, the effect of disruption is not equal across the spectrum of education. The transition to online mode of teaching created challenges to teachers of vocational education including hospitality. In the current study, we aimed to identify the factors of motivation, online teaching satisfaction and intention to adopt online teaching in the future by the teachers of hospitality education using Herzberg's Theory of Motivation. A cross-sectional survey was conducted among hospitality teachers in India, and the data was collected using Google Forms. Structural Equation Modelling (SEM) is employed to test the hypothesis proposed in the study. The IBM AMOS 25 software was used for data analysis and testing of hypothesis. The results of the study indicate that motivational factors are the significant predictors of online teaching satisfaction and teachers' intention to adopt online teaching in the future. The finding signifies that institutional administrators and policymakers of hospitality education in the study context needs to focus on improving both motivational and hygiene element to enhance teachers' satisfaction and behavioural intention in online teaching.

Keywords: Herzberg theory, motivation, teacher, online teaching, hospitality, vocational education

INTRODUCTION

The Covid-19 pandemic led to a wide spectrum transformation in the social, economic and cultural aspects of life on the global scale. The Covid-19 pandemic prompted

Citation: Piramanayagam, S., Alanvijay, A., & Seal, P. P. (2024). Assessing online teaching motivation, satisfaction, and intention among teachers: A structural equation modeling approach. *International Journal of Instruction*, 17(1), 295-312. <https://doi.org/10.29333/iji.2024.17116a>

drastic changes in education, including the closure of institutions and the mode of teaching and learning (Gupta et al., 2021; Makruf et al., 2022). The key change in higher education institutions worldwide is the virtualisation of the traditional didactic teaching and learning process (Kulikowski et al., 2021; Raman et al., 2022). Though online learning is not a new phenomenon, many institutions around the world rapidly moved to online teaching despite a relatively short preparation time (Lei & So, 2021). Neither teachers nor learners were adequately prepared to adopt online teaching and learning (Bajaj et al., 2021; Basbeth et al., 2021; Singh et al., 2021). The overnight and unexpected teaching transition have an undesirable impact on teachers (Mishra & Raina, 2021). The rapid change has generated a series of difficulties for teachers (Makruf et al., 2022; Panisoara et al., 2020).

Since Covid-19 was declared a global public health emergency by World Health Organisation (WHO), teachers in schools and higher education around the world have experienced rapid behavioural change. The transition from offline to online in higher education is most challenging to teachers and learners as online learning or e-learning was often marginal compared to face-to-face learning (Kulikowski et al., 2021). Researchers claim that teaching via the internet is generally perceived as less motivating among teachers than traditional face-to-face teaching, a critical challenge for adopting online-based tools and e-learning in higher education (Makruf et al., 2022). Researchers have highlighted the multiple challenges: availability of devices and internet access, lack of computer and online teaching related skills, attitude and behaviour of students. Other than these factors, evaluation and monitoring of students' performance also hindered teachers' adoption of online teaching (Da & Meredith, 2021; Kulikowski et al., 2021).

Higher education teachers have many tasks besides teaching, including research, administration, learning, and service. The obligation to conduct online classes during the COVID-19 pandemic has increased the workload and subsequently the stress and burnout. Even though online teaching has been appreciated for flexibility, opportunities for growth, learning new skills and adopting new technology, it is very complex and demanding. There is a significant challenge for teachers during online education in using of learning management system and developing an effective online learning environment (Gupta et al., 2021; Sharma & Srivastava, 2020). Researchers have observed that the impact of the COVID-19 pandemic on education is not equal across the different disciplines (OECD, 2021; Syauqi et al., 2020). Its implications for vocational education, including hospitality, are much different and complex due to its vocational nature (Piramanayagam & Seal, 2023; Gupta et al., 2021; Sharma & Srivastava, 2020).

Education in hospitality requires inculcating both hard and soft skills among learners, which is most valued by the recruiters and industry professionals (Gupta et al., 2021; Park & Jones, 2021). The classroom lessons and assignments built in the curriculum make students work in teams and prepare them to be highly interactive, a soft skill essential for hospitality professionals. Laboratory practicum with live demonstrations adds to the hard skills and competencies required for the field (Orlowski et al., 2021). For online learning, hospitality teachers had to go through several challenges that included the extension of their job scope to enhance their competency in technical skills

other than their core skills and use different online platforms to teach students appropriately and effectively. While teachers believe that technology will greatly support efficiently achieving the teaching and learning process, they generally hesitate to incorporate it. Favourable teacher motivation is essential to adopting and successfully implementing ICT, including online teaching and learning (Gautreau, 2011; Panisoara et al., 2020; Romero-Rodríguez et al., 2020).

Motivation is a construct that have both theoretical and practical significance. It is closely associated with individual' performance and job satisfaction (Bentea & Anghelachea, 2012). The teachers' motivation to adopt technology is an immensely significant area of research(Sharma & Srivastava, 2020). It is vital not only to encourage the adoption of online learning but also the adoption of other ICT tools. Most previous studies on the impact of the COVID-19 pandemic have been devoted to understanding the challenges and perspectives of students and teachers (Gupta et al., 2021; Harianto et al., 2021; Park & Jones, 2021; Ye & Law, 2021). It is essential for hospitality like vocational education institutions to understand the factors that motivate online teaching, teachers' satisfaction and intention to adopt online teaching. However, research on motivation factors, online teaching satisfaction and their intention to use online teaching in the future is scarce. In general, research on online teaching and learning in hospitality literature is still in its infancy(Lei & So, 2021). The study thus aims to identify the factors of motivation, online teaching satisfaction and intention to adopt online teaching in the future by a teacher of hospitality education using Herzberg's Theory of Motivation.

Literature Review

Teacher motivation

Since the late 1990s, there has been an increase in literature on teacher motivation, and it has developed and expanded across various social and cultural contexts during the last decade. The application of various theories into teacher motivation in terms of education studies, career choice, and professional commitment has set an agenda for future research in teacher motivation. Most of the past research on teacher motivation has been carried with the aim to reduce the teacher job turnover and the shortage of teachers in western countries. Researchers found that lack of career opportunity, job insecurity, low prestige, and poor compensation are causes of a higher level of teacher attrition. Educational administrators consider studies on teacher motivation, psychological well-being, and fulfilment are crucial factors as it is closely related to student motivation, teaching practice and educational reforms. Cheok & Wang (2015) insisted on examining the teachers' perception and beliefs hold on technology. It also expected to help the administrators to develop strategies to attract and retain potential teachers(Han & Yin, 2016).

Motivation is one of the most often researched topics in psychology and education. Motivation comes from the Latin word "movere" meaning mobilisation and is stated to be a source that provides the requisite determination and allows appropriate direction and behaviour. Motivation is the energy or drive that directs people to behave in a

specific manner (Han & Yin, 2016). (Sharma & Srivastava, 2020) emphasise that motivated individuals are able to achieve the desired goals than those who lack motivation. In the context of teachers' motivation, it is referred to an individual teacher's inclination to improve teaching practice and student engagement (Li, 2021). They insist that teacher's motivation is extremely crucial to enhance the teaching learning process. The learning outcomes and achievement of students is determined by the teaching effectiveness and quality of instruction by teachers. The teaching effectiveness is influenced by pedagogy adopted, teaching style and the way instructions delivered to the students. These factors associated with teaching effectiveness are determined by individual teacher's motivation. Adoption and use of technology in the class by a teacher to facilitate the learning is one such behavior expected to have great impact on learning experience (Aldunate & Nussbaum, 2013; Sharma & Srivastava, 2020).

Education institutions ranging from preschool to higher education across the globe increasingly adopted information and communication technology (ICT). The ICT enable learning is considered a change agent as it helps reduce temporal and spatial problems related to face-to-face classroom learning. It not only improved access to education but improved the quality of learning and significantly reduced the cost (Panigrahi et al., 2018). While the benefits of integrating technology in teaching are well recognised (Nawi et al., 2015), it is found that teachers' adoption of technology in education is not encouraging (Aldunate & Nussbaum, 2013; Gautreau, 2011; Sharma & Srivastava, 2020). The low adoption is due to lack of competence, low familiarity with internet-based teaching tools (Gupta et al., 2021; Makruf et al., 2022), the perceived complexity of use, belief in the effectiveness of ICT in teaching and lacking motivation to use technology (Bin et al., 2020). Past studies reiterate that higher education faculty are mostly happy and satisfied when they have adequate time for preparation and flexibility in their teaching schedules (Stickney et al. 2019). The study findings of (Fish & Gill, 2009) report that faculty with prior experience in online delivery are satisfied with the online delivery of courses compared to faculty with little or no experience in online teaching. Bin and colleagues (2020) emphasised that exploring teachers' motivation to adopt technology is immensely important. While there is abundant evidence on the benefits of technology in vocational education, teachers' adoption of technology in vocational education is limited (Bin et al., 2020).

Vocational education and online teaching during Covid-19

Like most of the other elements of society and lives, the COVID-19 pandemic has also disrupted education worldwide. However, the effect of disruption is not equal across the spectrum of education. The OECD report on the impact of the pandemic on vocational education highlights that digital solutions support courses of academic learning more than practice-oriented learning. It is less suited for vocational education as more practice-oriented components tend to be vocational education's assets and core values (OECD, 2021). As vocational education tends to value not only the mastery of knowledge but skills, online learning is considered less effective. A study on the

effectiveness of online teaching indicates that vocational teachers are not matched to students' expectations and lack skill (Syauqi et al., 2020).

While hospitality is the oldest profession and powerful economic activity, hospitality education is a relatively new discipline (Ottenbacher et al., 2009). Hospitality has solid vocational origins. Higher education institutions offering hospitality programs invest much in infrastructure and physical facilities, which are essential to teaching technical skills such as customer service, proficiency in reception, and culinary methods. As these technical skills need to be transferred to the real work environment, institutions invest much in simulating the workplace environment, which is vital for the employment of students. Employers generally depend on educational institutions to get work-ready graduates as they have limited time to develop new recruits (Spowart, 2011). While the drastic change induced in the mode of delivery of teaching due to COVID-19, a teacher working in hospitality education faced peculiar and distinctive challenges due to the vocation and practice nature of the course. The researcher found that vocational education and training teachers, including hospitality teachers, generally do not have adequate skill and motivation to adopt technology in teaching (Gupta et al., 2021; Rimmington, 1999; Sharma & Srivastava, 2020). However, with online teaching and learning becoming a new normal, it is necessary to explore the factors influencing the teachers' motivation, satisfaction and continuing intention (Lei & So, 2021; Park & Jones, 2021; Rimmington, 1999; Sharma & Srivastava, 2020).

Hertzberg two factor theory of motivation

The motivation-hygiene theory profound by psychologist Frederick Herzberg is the extension of Maslow's hierarchy of need theory of motivation but is directly applicable to organisations' working environments. Herzberg's theory on motivation has been widely used to measure teachers' motivation in a general academic context. However, its application in measuring vocational teacher motivation to adopt online teaching is scarce (Amzat et al., 2017; Basbeth et al., 2021; Gautreau, 2011; Madsen, 2020; Sharma & Srivastava, 2020; Timmreck, 2016). Herzberg identified two unique sets of factors affecting motivation and satisfaction at work: "motivators" or "growth factors" and "hygiene" or "maintenance factors" (Herzberg, 1968). Herzberg suggested that a set of attributes under hygiene factors such as supportive policy and administration, amicable relationship with supervisors and peers, fringe benefits, safe working conditions and adequate salary, if absent, cause dissatisfaction. However, it does not contribute to satisfaction even if it is available more than required. In Herzberg's words, "The opposite of job dissatisfaction is not job satisfaction, but no job dissatisfaction". He also narrated that attributes under motivation factors such as an opportunity for personal growth and promotion, recognition, responsibility and sense of achievement, if adequate, are likely to improve performance and satisfaction (Mullins, 2007; Robbins & Judge, 2017). Herzberg argued that organisations need to focus not only on hygiene factors but also on motivation factors to improve satisfaction. He concluded that "motivators were the primary cause of satisfaction and hygiene factors the primary cause of unhappiness on the job" (Herzberg, 1968, p. 57). Salary, incentive, recognition, and

promotion opportunities have strong influence in the teacher satisfaction (Hendrawijaya et al., 2020).

In the academic context, institutional policy and regulations, incentives, interactive institution environment, training, infrastructure, supportive technology, interpersonal relationships with students and peers, superior's guidance, and student interaction are considered hygiene factors (Hendrawijaya et al., 2020). Autonomy, the challenging nature of the task, recognition by superiors and peers, opportunity for personal growth, and career advancement are considered motivation factors (Basbeth et al., 2021; Gautreau, 2011; Madsen, 2020; Sharma & Srivastava, 2020). Researchers who employed Herzberg's theory to measure teachers' motivation for technology adoption found a positive relationship between hygiene factors and teachers' satisfaction and future intention to adopt technology (Basbeth et al., 2021; Gautreau, 2011). Though there have been studies on Herzberg's two-factor theory on teachers' motivation, no study has been found on the teacher's motivation for online teaching, especially in vocational courses like hospitality. Despite the plethora of research on Herzberg's theory of motivation in the field of teaching, contradicting results are found on the impact of hygiene factors and motivators on various teaching-related outcomes (Amzat et al., 2017; Basbeth et al., 2021; Chu & Kuo, 2015; Gautreau, 2011; Islam & Ali, 2013).

Motivation, satisfaction and future use intention

Both motivators and hygiene factors are found to significantly affect teachers' satisfaction and intention to use technology in the future (Panisora et al., 2020; Sharma & Srivastava, 2020). Basbeth and colleagues (2021) found that motivators have a strong impact on satisfaction than hygiene factors. Several research studies support using technology as one of the significant predictors of behavioural intention (Ataliç et al., 2016; Basbeth et al., 2021; Chu & Kuo, 2015; Madsen, 2020; Sharma & Srivastava, 2020). Researchers reported that the resulting positive learning experience, greater student engagement and response enabled by technology provide teachers with a sense of achievement and satisfaction. Teachers are also satisfied when they are recognised for their work (Hendrawijaya et al., 2020). Teachers' satisfaction with using ICT is one of the significant predictors of future intention to use technology (Bajaj et al., 2021; Nikou, 2021; Wang et al., 2021). Future intention to use technology is the probability of performing or continuing behaviour in the future. When motivation for adopting technology is lacking, an individual's satisfaction with adoption is likely to decrease (Basbeth et al., 2021). Considering the literature discussed above, the following hypotheses have been proposed:

H1: Hygiene factors have a positive impact on online teaching satisfaction

H2: Motivators have a positive impact on online teaching satisfaction

H3: Hygiene factors have a positive impact on teachers' intention to adopt online teaching in future

H4: Motivators have a positive impact on teachers' intention to adopt online teaching in future

H5: Teachers online teaching satisfaction have a positive effect on teachers' intention to adopt online teaching in future

METHOD

The aim of the study is to understand the motivating factors and their impact on online teaching satisfaction and intention to use online teaching in the future among hospitality teachers. A cross-sectional survey was conducted among hospitality teachers in India, and the data was collected using a structured questionnaire using Google Forms. The study population was hospitality teachers of undergraduate and postgraduate levels across the India employed in government and private institutions. A convenient sampling method was adopted. The study used an online survey delivered to the participants between January 5 to February 5 2022, during the closure of hospitality institutions in the third wave of COVID- 19. The online survey created through Google Forms was sent to all faculty through emails, Facebook Messenger and WhatsApp messages to include maximum respondents for the survey. Participants in the study were encouraged to share the survey form with other teachers familiar to them with a similar profile. While 268 completed forms were received back, about 242 responses were used for analysis as the rest were either incomplete or had large amounts of missing data.

The survey questionnaire has multiple sections. The first section is appended with a consent form with necessary instruction that the response to the service is voluntary and data collected will be used only for academic purposes. It also emphasised that the participant may withdraw from the survey at any point in time, and the confidentiality of the response will be ensured by the researchers. The second section has statements related to the constructs under the study. Instruction on response format was also included at the beginning of the scale. The last part of the survey included a request to provide the demographic profile of the respondents. As the indicators/statements in the scale were developed independently by the authors, the statements in the questionnaire were reviewed by three experts for content validity. Based on the recommendations of a three-member expert team consisting of a domain expert from hospitality teaching, a psychologist who is also familiar with scale development, and a language expert, necessary modifications in the scale were adopted (Elangovan & Sundaravel,2021). The structural equation model (SEM) approach was adopted to examine the relationships between variables. SEM combines the benefits of regression and factor analysis. The final scale consisted of seven items related to hygiene and motivation factors. While teachers' online teaching satisfaction was measured using three statements, the intention to adopt online teaching in the future was measured using five items. All the items were measured using a seven-point Likert scale where '1' denotes strongly disagree and '7' indicates strongly agree. During data analysis, factor loadings, mean values, skewness, kurtosis, average variance extracted (AVE), and composite reliability (CR) were calculated. Subsequently, a measurement model was adopted to test the psychometric properties of the scale adopted to measure the research constructs. Finally, the hypotheses proposed in the literature are analysed using a structural model. The demographic profile of the respondents is presented in Table 1.

Table 1
Demographic profile of the respondents

Characteristics	Frequency (in Percent)
Gender	
Male	172 (71.0)
Female	70 (29.0)
Age	
Average	34.8 Years
Minimum	22
Maximum	59
Educational Qualification	
Under-graduation	87 (36.0)
Post-graduation	152 (62.8)
Terminal Degree (PhD)	3 (1.2)
Academic Position	
Assistant Professor	212 (87)
Associate Professor	28 (11)
Professors	2 (1)
Years of Experience in Teaching	
Average	8.6 Years
Minimum	2 Years
Maximum	34 Years
Past experience in Teaching online before the Covid-19 pandemic	
Yes	9 (3.7)
No	233 (96.3)

FINDINGS

Analysis of normality, reliability and validity

The normality of the research constructs and their indicators was analysed using Skewness (S) and Kurtosis (K). The Skewness values between -1.14 to 0.83 and the Kurtosis value between -0.78 to 1.03 indicates that all the indicators in each construct were within the acceptable range of normality. Meanwhile, the Cronbach's α values for all the constructs under the study ranging from 0.833 to 0.921, reflects a satisfactory level of reliability of indicators/statement under each construct. The statement "*I have received a monetary reward for my online teaching during the pandemic*" has been removed from the analysis due to poor factor loadings (0.512) (Collier, 2020). Factor loading, mean, Skewness (S) and Kurtosis of variables in the study are presented in Table 2.

Table 2
Factor loading, mean, AVE and composite reliability

Variables and Indicators in the scale	Factor Loading	Mean	S	K
Hygiene Factor				
Institution policies and regulations are supported me to adopt online teaching	0.825	5.16	-0.60	0.11
Institutions environment and the facilities are encouraged me to adopt online teaching	0.790 0.725	5.12 5.90	0.52 -0.63	-0.78 0.29
Institution provided adequate training to adopt online teaching	0.737	5.82	0.76	0.33
Institution provided adequate resources to adopt online teaching	0.712	5.88	0.44	0.18
Online teaching helped me to build good interpersonal relationship with peers and student	0.811	5.65	0.83	0.87
My superiors provided adequate support and guidance for online teaching	0.554	3.60	-1.14	1.03
I have received monetary reward for my online teaching during the pandemic				
Motivation Factor				
I am given enough autonomy in online teaching	0.775	3.14	0.54	-0.26
Teaching online is challenging to me	0.753	5.95	0.68	0.23
I received recognition for my online teaching performance from my superiors	0.738	3.22	0.38	-0.46
I received recognition for my online teaching performance from my colleagues	0.720	4.04	0.61	-0.11
Online teaching during pandemic helped me to advance my career in teaching	0.719	6.11	0.24	-0.43
I feel, online teaching given me an opportunity for personal growth	0.718	6.02	0.39	0.45
Teaching online itself makes me feel joyful	0.718	5.18	0.43	0.56
Online Teaching Satisfaction				
I am satisfied with the online teaching in relation to my own personal experiences	0.985	6.43	-0.98	0.68
I am satisfied with the online teaching in relation to my experiences with students	0.871	6.12	-0.95	0.81
I am more satisfied with teaching online as compared to other delivery methods.	0.859	5.84	-0.79	0.54
Intention to adopt Online Teaching in future				
I would love to use online teaching platforms for my class.	0.859	5.89	-0.66	-0.75
I will increase using online teaching platforms for my class	0.840	5.93	-0.81	0.58
There is a high probability that I will conduct an online course in the future	0.839	6.22	-0.54	0.33
I have plans to conduct online classes through various platforms in the future.	0.810	5.98	-0.63	0.69
I intend to teach online teaching during any crisis in the future	0.717	6.55	-0.61	0.92

Meanwhile, the composite reliability values between 0.933 to 0.877 indicates the internal consistency and the average variance extracted (AVE) values between 0.540 to 0.822 and reflect the acceptable level of convergent validity of the data (Tabachnick &

Fidell, 2019). The CR, AVE and correlation between constructs are presented in Table 3. Moreover, a convergent validity test is conducted to determine whether indicators in the scale load together with a single study construct. The higher values of the square root of AVEs compared to correlation with all other constructs indicates the good discriminant validity among research constructs (Fornell & Larcker, 1981).

Table 3
CR, AVE and Correlation between the study constructs

Constructs	CR	AVE	Motivation	Hygiene	Satisfaction	Future Intention
Motivation	0.891	0.540	0.738			
Hygiene	0.877	0.544	0.229	0.737		
Satisfaction	0.933	0.822	0.702	0.487	0.906	
Future Intention	0.908	0.664	0.722	0.514	0.809	0.814

Note: The square root of AVE has presented diagonally in bold letters

Assessing the fitness of measurement model

Structural Equation Modelling (SEM) is employed to test the hypothesis proposed in the research. The SEM has two models: a measurement model and a structural one. The IBM AMOS 25 software was used for assessing both the measurement and structural model in the study. While the measurement model is used to analyse the relationship between observed and unobserved variables, the structural model is used to analyse the direct and indirect relationship between unobserved variables in the study. As the scale used in the study has been developed from the literature, it is essential to test the psychometric properties of the scales through measurement model (Hair et al., 2018). Furthermore, SEM consists of two processes: assessing the validation and fitness of the measurement model using confirmatory factor analysis and fitting the structural model by structural or path analysis (Collier, 2020).

The fitness of the proposed model was assessed by evaluating various fit indices such as the Chi-square test, Comparative fit index, Goodness of Fit Index and Root Mean Square Error of Approximation (RMSEA) with a threshold value of <3 , >0.90 , >0.90 , and <0.08 , respectively (Kline, 2016). The fit indices of the proposed measurement model in Table 4 indicate that model has a good fit as it exceeds the threshold values.

Table 4
Fit indices of the measurement model

Fit Indices	Suggested Threshold values	Model Fit Indices
X^2		274.18
df		143
X^2/df	≤ 5	1.917
CFI	≥ 0.90	0.952
GFI	≥ 0.90	0.949
RMSEA	≤ 0.08	0.059

Hypothesis testing using a structural model

The structural model provides the strength of the relation between theoretical constructs and the sign, positive or negative of the relationship. The result of the analysis and the

final structural model, along with the standardised beta coefficient presented in Figure 1. Both strength and sign of the relationship can be interpreted using the standardised beta coefficient. The result of the hypothesis between variables, beta coefficient and t-value is presented in Table 5.

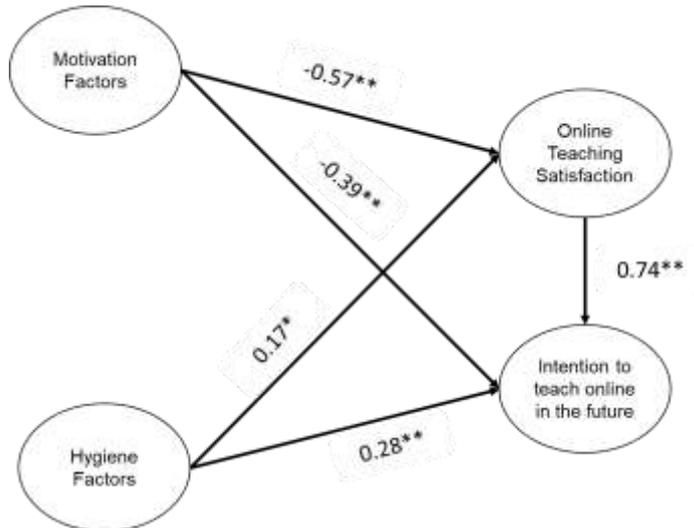


Figure 1
Structural model

Table 5
Result of Hypothesis Testing

Hypothesis	β	t-value	Results
H1: Motivation Factor \rightarrow Online Teaching Satisfaction	-0.57**	7.58	Supported
H2: Hygiene Factors \rightarrow Online Teaching Satisfaction	0.17*	2.13	Supported
H3: Motivation Factor \rightarrow Intention to adopt Online Teaching in future	-0.39**	4.55	Supported
H4: Hygiene Factors \rightarrow Intention to adopt Online Teaching in future	0.28*	3.42	Supported
H5: Online Teaching Satisfaction \rightarrow Intention to adopt Online Teaching in future	0.74**	11.27	Supported

* $p < 0.05$; ** $p < 0.01$.

The resulting structural model in Fig.1 discloses that motivation and hygiene factors have a statistically significant impact on online teaching satisfaction. However, while hygiene factors have a positive impact ($\beta = 0.17, p = 0.005$) on online teaching satisfaction, the motivation factors have a negative impact ($\beta = -0.57, p = 0.000$) on online teaching satisfaction. In terms of future intention to adopt online teaching, while the motivation factor has a statistically significant positive impact ($\beta = 0.28, p = 0.005$), the hygiene factor has a negative impact ($\beta = -0.39, p = 0.000$).

DISCUSSION

Since the declaration of covid-19 as a global health emergency in 2020, teaching and learning in the field of education have had significant challenges, which have induced undesirable effects on teachers during online teaching. While online teaching and learning have become a new normal and indispensable tool, it induced rapid and unexpected challenges for both teachers and students (Makruf et al., 2022). A supporting environment and favourable motivation among teachers are vital to adopt any technology-based teaching tools (Raman et al., 2022). Researchers in the current study adopted Herzberg's Two-factor motivation theory to analyse the impact of hygiene factors and motivation factors on hospitality teachers' online teaching satisfaction and their intention to adopt online teaching in the future.

In terms of the relationship between motivators and online teaching satisfaction, the results of the current study revealed that motivators act as a significant antecedent for teachers' satisfaction. The findings also indicate that motivator in the study context negatively influences the online teaching satisfaction. A 57 percent of variation in the teacher's online satisfaction is explained by the motivators. The result highlights that hygiene factor has positive influence on online teaching satisfaction. An increase in one unit of the perceived hygiene factor is able to explain seventeen per cent variation in the online teaching satisfaction. The current findings on motivators as a significant predictor of satisfaction and intention, is consistent with previous studies (Ataliç et al., 2016; Basbeth et al., 2021; Chu & Kuo, 2015; Madsen, 2020; Sharma & Srivastava, 2020). The result of the study indicates that while the hygiene factors positively contribute to online teaching satisfaction, the lack of motivational factors reduces the teaching satisfaction. The findings of the study aligned with Herzberg's theory that a lack of adequate level of motivators to do the job induces individuals' dissatisfaction in the workplace (Herzberg,1968). The result of the study reveals that the low perceived motivation for online teaching was a significant source of dissatisfaction in online teaching and the intention to adopt online teaching in the future among the hospitality teacher in the study context. The low to a moderate mean perceived value between on statement related to autonomy and recognition of motivators indicates that hospitality higher education institutions fail to recognise the faculty's effort and provide adequate autonomy during online teaching. The descriptive statistics also indicate the disagreement on the availability of monetary rewards provided to the teachers for their efforts in online teaching. Hospitality teachers in the study context perceive that online teaching is challenging, but it provides them with the opportunity for personal growth and advancing their career in teaching. Not surprisingly, motivation factors have strong influence in teacher satisfaction than hygiene factors in online teaching. While the lowest score for statement related to receiving monetary benefit for online teaching indicates the need for monetary rewards on recognition of teachers' effort to adopt online teaching, statement related to the positive impact of online teaching in teachers' personal career growth have significant implications for administrators in the educational institution (Bin et al., 2020).

When considering the impact of motivators and hygiene factors on future intention to teach online, both act as predictors. While motivators explained 39 per cent of the variation, hygiene factors explained 28 per cent of variation in future online teaching intention. Although both motivational and hygiene factors significantly influence the intention to adopt online teaching in the future, online teaching satisfaction acts as a proximal predictor of future intention ($\beta = -0.74, p = 0.000$). The study results corroborate the finding of (Bajaj et al., 2021; Nikou, 2021; Wang et al., 2021) that satisfaction is a significant predictor of teachers' intention to adopt online teaching. While institutions intend to introduce any new technology in the teaching and learning process, institutional administrators and policymakers of hospitality education need to emphasise the significance of the adoption of technology in career advancement and personal growth of teachers (Aldunate & Nussbaum, 2013; Sharma & Srivastava, 2020). The result of the study emphasises the need for developing an institutional level mechanism to recognise teachers' online teaching performance as part of teachers' motivation which could be a monetary or a non-monetary (Bin et al., 2020). The institution may also develop an innovative process to facilitate peer-to-peer appraisal and interaction which may enhance the teachers' learning related to the online teaching techniques. We may conclude that hospitality higher education institutions should invest the effort to keep a teacher motivated toward online teaching by ensuring the presence of motivation and hygiene factors.

This research on the impact of motivation and hygiene factors on hospitality teachers' online teaching satisfaction and intention makes several contributions to teacher motivation literature specific to online teaching and learning in hospitality, a vocational education in nature. First, the study's result provides evidence that hygiene and motivation factors significantly impact teachers' satisfaction and future behavioural intention to adopt online learning. Second, the study findings demonstrate that online teaching satisfaction is a proximal predictor of future intention than job-related motivators and hygiene factors. Third, the results reveal that motivation and hygiene factors can amplify faculty satisfaction and intention to adopt online teaching in the future. While the result of the current study also supports Herzberg's theory of motivators and their influence on individual satisfaction, it contradicts the role of hygiene factors and their impact on satisfaction. The finding signifies that institutional administrators and policymakers of hospitality education in the study context needs to focus on improving both motivational and hygiene element to enhance teachers' satisfaction and behavioural intention in online teaching. As the reliability, convergent and discriminant validity of scale developed for the study been highly acceptable, it may be extended to other cultural and disciplines. The study also contributes to developing a validated scale to measure motivation based on Herzberg's theory of motivation.

In terms of limitations of the study, four issues affect the generalisation of the findings. First, the sample size of 242 is very small, considering the diversity and number of institutions offering hospitality education in India. Second, the concern is on the data collection procedure of study as it has used mostly internet-based data collection, either from social media or personal networks. It generally limits the response by the population familiar with using these networks and excludes those who have no reach or

are part of internet-based networks. Third, the generic bias of individuals occurs during self-reported survey responses. Fourth, the quantitative research design adopted in the study fails to record the individual personal experience. This limitation also extends the scope for further research that adopts qualitative design to measure perspectives on teachers' personal experiences, which may provide in-depth knowledge on the challenges and adoption of online-based teaching. Despite these limitations, the current research is the first to contribute to the knowledge of motivational factor that impacts teachers' satisfaction and intention to use online teaching in hospitality, a vocational course is known for building both hard and soft skills among learners.

CONCLUSION

The current study aimed to analyse the impact of motivation and hygiene factors on hospitality teachers' online teaching satisfaction and future intentions. Herzberg's Theory of Motivation has been adopted to analyse the impact of motivators and hygiene factors on satisfaction and future intention. The findings of this study indicate that lack of motivation has a negative influence on hospitality teachers' satisfaction and future intention to use online teaching in the study context. This implies that when educational institutions intend to introduce any technology-based intervention in teaching and learning, policymakers should emphasise the need to adopt new technology and its benefits for teachers. Moreover, policymakers must develop monetary or non-monetary incentives or rewards for the adoption of technology. In conclusion, the research findings highlight that the presence of motivation is more significant than hygiene factors in the adoption of any technological intervention in teaching learning.

REFERENCES

- Aldunate, R., & Nussbaum, M. (2013). Teacher adoption of technology. *Computers in Human Behavior*, 29(3), 519–524. <https://doi.org/10.1016/j.chb.2012.10.017>
- Amzat, I. H., Don, Y., Fauzee, S. O., Hussin, F., & Raman, A. (2017). Determining motivators and hygiene factors among excellent teachers in Malaysia: An experience of confirmatory factor analysis. *International Journal of Educational Management*, 31(2), 78–97. <https://doi.org/10.1108/IJEM-03-2015-0023>
- Ataliç, H., Can, A., & Cantürk, N. (2016). Herzberg's Motivation- Hygiene Theory Applied to High School Teachers in Turkey. *European Journal of Multidisciplinary Studies*, 1(4), 90. <https://doi.org/10.26417/ejms.v1i4.p90-97>
- Bajaj, P., Khan, A., Tabash, M. I., & Anagreh, S. (2021). Teachers' intention to continue the use of online teaching tools post Covid-19. *Cogent Education*, 8(1). <https://doi.org/10.1080/2331186X.2021.2002130>
- Basbeth, F., Ahmad Saufi, R., & Sudharmin, K. Bin. (2021). E-teaching satisfaction in a black swan moment: the effect of student engagement and institutional support. *Quality Assurance in Education*, 29(4), 445–462. <https://doi.org/10.1108/QAE-03-2021-0039>
- Bin, E., Islam, A. Y. M. A., Gu, X., Spector, J. M., & Wang, F. L. (2020). A study of Chinese technical and vocational college teachers' adoption and gratification in new

technologies. *British Journal of Educational Technology*, 51(6), 2359–2375. <https://doi.org/10.1111/bjet.12915>

Chu, H.-C., & Kuo, T. Y. (2015). Testing Herzberg's Two-Factor Theory in Educational Settings in Taiwan. *The Journal of Human Resource and Adult Learning*, 11(1), 54–65. <http://www.hraljournal.com/Page/10> HuichinChu&TsuiYangKuo.pdf

Cheok, M.L. & Wong, S.L. (2015) Predictors of E-Learning Satisfaction in Teaching and Learning for School Teachers: A Literature Review. *International Journal of Instruction*, 8(1), 75-90.

Collier, J. E. (2020). Applied Structural Equation Modeling Using AMOS. *Applied Structural Equation Modeling Using AMOS*. <https://doi.org/10.4324/9781003018414>

Da, R., & Meredith, D. P. (2021). Factors affecting effective online teaching transition in Asian universities during COVID-19. *Journal of University Teaching and Learning Practice*, 18(8). <https://doi.org/10.53761/1.18.8.8>

Elangovan, N & Sundaravel, V. (2021) Method of preparing a document for survey instrument validation by experts. *Method X*, 8. <https://doi.org/10.1016/j.mex.2021.101326>.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39. <https://doi.org/10.2307/3151312>

Gautreau, C. (2011). Motivational factors affecting the integration of a learning management system by faculty. *Journal of Educators Online*, 8(1), 1–25. <https://doi.org/10.9743/JEO.2011.1.2>

Gupta, V., Roy, H., & Sahu, G. (2021). How the tourism and hospitality lecturers coped with the transition to online teaching due to COVID-19: An assessment of stressors, negative sentiments & coping strategies. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 30(May 2021), 100341. <https://doi.org/10.1016/j.jhlste.2021.100341>

Hair, F. J., Black, W. C., Babin, B. J., & Anderson, R. E. (2018). *Multivariate Data Analysis*. Cengage Learning. <https://doi.org/10.1002/9781119409137.ch4>

Han, J., & Yin, H. (2016). Teacher motivation: Definition, research development and implications for teachers. *Cogent Education*, 3(1). <https://doi.org/10.1080/2331186X.2016.1217819>

Hariato, A., Situmorang, R., Alexandra, Y., & Ardani, E. G. (2021). Student Perspective on Practical Learning Method in Pandemic of COVID-19. *Conference Series*, 3(2), 432–442. <https://doi.org/10.34306/conferenceseries.v3i2.611>

Kline, R. B. (2016). *Principles and Practices of Structural Equation Modeling* (Fourth Edit). The Guilford Press.

Kulikowski, K., Przytuła, S., & Sułkowski, Ł. (2021). The motivation of academics in

remote teaching during the covid-19 pandemic in polish universities—opening the debate on a new equilibrium in e-learning. *Sustainability (Switzerland)*, 13(5), 1–16. <https://doi.org/10.3390/su13052752>

Lei, S. I., & So, A. S. I. (2021). Online Teaching and Learning Experiences During the COVID-19 Pandemic—A Comparison of Teacher and Student Perceptions. *Journal of Hospitality and Tourism Education*, 33(3), 148–162. <https://doi.org/10.1080/10963758.2021.1907196>

Li, Z. (2021). Promoting teacher motivation in online learning during the covid-19 pandemic. *IMCC Journal of Science*, 1, 131–146. https://myjournal.imcc.edu.ph/publication/volume-1-issue-2-2021/5_li-2021/

Madsen, S. S. (2020). What is the motivation of Norwegian and New Zealand teacher educators for using digital technology when teaching? *Nordic Journal of Comparative and International Education (NJCIE)*, 4(2), 42–63. <https://doi.org/10.7577/njcie.3826>

Makruf, I., Rifa'i, A. A., & Triana, Y. (2022). Moodle-based online learning management in higher education. *International Journal of Instruction*, 15(1), 135–152. <https://doi.org/10.29333/iji.2022.1518a>

Mishra, L., & Raina, R. L. (2021). Online teaching effectiveness in higher education: Faculty perspectives in India. *Journal of University Teaching and Learning Practice*, 18(8). <https://doi.org/10.53761/1.18.8.6>

Nikou, S. A. (2021). Web-based videoconferencing for teaching online: Continuance intention to use in the post-COVID-19 period. *Interaction Design and Architecture(S)*, 47, 123–143.

OECD. (2021). *Implications of the COVID - 19 pandemic for Vocational Education and Training* (Issue June).

Nawi, A., Hamzha, M. I., Ren, C. C., & Tamuri, A. H. (2015). Adoption of Mobile Technology for Teaching Preparation in Improving Teaching Quality of Teachers. *International Journal of Instruction*, 8(2), 113–124.

Ottensbacher, M., Harrington, R., & Parsa, H. G. (2009). Defining the hospitality discipline: A discussion of pedagogical and research implications. *Journal of Hospitality and Tourism Research*, 33(3), 263–283. <https://doi.org/10.1177/1096348009338675>

Panigrahi, R., Srivastava, P. R., & Sharma, D. (2018). Online learning: Adoption, continuance, and learning outcome—A review of literature. *International Journal of Information Management*, 43(May), 1–14. <https://doi.org/10.1016/j.ijinfomgt.2018.05.005>

Panisoro, O., Lazar, I., Panisoara, G., Chirca, R., & Ursu, S. (2020). Motivation and continuance intention towards online instruction among teachers during the COVID-19 pandemic: The mediating effect of burnout and technostress. *International Journal of Environmental Research and Public Health*, 17(21), 1–29.

<https://doi.org/10.3390/ijerph17218002>

Park, M., & Jones, T. (2021). Going Virtual: The Impact of COVID-19 on Internships in Tourism, Events, and Hospitality Education. *Journal of Hospitality and Tourism Education*, 33(3), 176–193. <https://doi.org/10.1080/10963758.2021.1907198>

Piramanayagam, S., & Seal, P. P. (2023). Overcoming the Challenges of COVID-19 by Hospitality Educational Administrators: A Grounded Theory Approach. *The Qualitative Report*, 28(1), 227–251. <https://doi.org/10.46743/2160-3715/2023.5542>

Raman, A., Thannimalai, R., Rathakrishnan, M., & Ismail, S. N. (2022). Investigating the influence of intrinsic motivation on behavioral intention and actual use of technology in moodle platforms. *International Journal of Instruction*, 15(1), 1003–1024. <https://doi.org/10.29333/iji.2022.15157a>

Rimmington, M. (1999). Vocational education: Challenges for hospitality management in the new millennium. *International Journal of Contemporary Hospitality Management*, 11(4), 186–192. <https://doi.org/10.1108/09596119910263595>

Romero-Rodríguez, J. M., Alonso-García, S., Marín-Marín, J. A., & Gómez-García, G. (2020). Considerations on the implications of the internet of things in spanish universities: The usefulness perceived by professors. *Future Internet*, 12(8), 1–13. <https://doi.org/10.3390/FI12080123>

Sharma, L., & Srivastava, M. (2020). Teachers' motivation to adopt technology in higher education. *Journal of Applied Research in Higher Education*, 12(4), 673–692. <https://doi.org/10.1108/JARHE-07-2018-0156>

Singh, A., Gupta, K., & Yadav, V. K. (2021). Adopting e-learning facilities during COVID-19: Exploring perspectives of teachers working in Indian Public-funded Elementary Schools. *Education* 3-13, 1–26. <https://doi.org/10.1080/03004279.2021.1948091>

Spowart, J. (2011). Hospitality students' competencies: Are they work Ready? *Journal of Human Resources in Hospitality and Tourism*, 10(2), 169–181. <https://doi.org/10.1080/15332845.2011.536940>

Syauqi, K., Munadi, S., & Triyono, M. B. (2020). Students' perceptions toward vocational education on online learning during the COVID-19 pandemic. *International Journal of Evaluation and Research in Education*, 9(4), 881–886. <https://doi.org/10.11591/ijere.v9i4.20766>

Tabachnick, B. G., & Fidell, L. S. (2019). Using Multivariate Statistics. In *Pearson* (Seventh Ed). https://doi.org/10.1007/978-3-540-47648-1_3905

Timmreck, T. C. (2016). Motivation-Hygiene Theory Adapted for Education. *The High School Journal*, 61(3), 105–110. <http://www.jstor.org/stable/40365315>

Wang, T., Lin, C. L., & Su, Y. S. (2021). Continuance intention of university students and online learning during the covid-19 pandemic: A modified expectation confirmation

model perspective. *Sustainability* (Switzerland), 13(8).
<https://doi.org/10.3390/su13084586>

Ye, H., & Law, R. (2021). Impact of COVID-19 on hospitality and tourism education: a case study of Hong Kong. *Journal of Teaching in Travel and Tourism*, 21(4), 428–436.
<https://doi.org/10.1080/15313220.2021.1875967>