Virtual Community Interaction, Technology Fit and Compatibility Examine the Students e-Satisfaction: A Study during COVID19 Pandemic

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Abstract

Pandemic outbreak have a serious change in the student and teaching society. Now students learning orientation drastically changing with the influence of COVID19 infection fear. Purposefully, the University students felling to connect virtual community for learning, interaction, information exchange and knowledge sharing. Numerous studies have been explored the significant effect of virtual community and leaning but this study objective to investigate how virtual community interaction, technology fit and compatibility collective develop the e-satisfaction of the university level student learning environment. The study attempts to investigate the useful component for increasing e-satisfaction of virtual learning. The study focused on university students who are engaged in UG, PG and PhD programs from different part of Indian higher education institution or universities. The total 384 number of responses were collected from the above academic intuitions. The study disclosed the importance of virtual community interaction, compatibility, and technology fit to measure the e-satisfaction.

Keywords: Virtual Interaction, Virtual Community, Technology Fit, Computability, e- Satisfaction, Higher Education.

1. Introduction

Impossibilities are always having a bundle of possibilities for future creation. If an extreme level of challenging conditions in one hand same time having numbers future possibilities another hand. The COVID19 duration is a very challenging time for humanity but it is also opening some doors for innovation and successive adaptation for human survivals. COVID19 pandemic is the very first experience for the young generation University students to face total lockdown situation in the country. In the same way, leaning processes of students are also suffered by massive spreading infection pattern of COVID19, families are worried about the virus infection and academic future of their children at the same time. Initially, World Health Organization (WHO) considered COVID19 incursion as uncommon pneumonia into the world but in March 2020 declared Pandemic (Li et al., 2020; Jin et al., 2020), after that most of the Nations trying to control virus dispersal and led strategies of social distancing, isolation, wear a mask, and work shut down or work from home etc. (Sharun et al., 2020).

Additionally, the term pandemic was described by (Morens et al., 2009) because it is not possible to define in one single line;

- Wider geographical extension or globally affected;
- The disease dispersal could be traced from one location to others;
- Explosive rate of transmission i.e., it takes very few times to achieve multiple cases;
- Human body not capable to produce immunity;
- The novelty of the disease or novel variant of existing once.

Disappointingly, several countries having a controversy with the World Health Organisation (WHO) on the declaration of COVID19 as pandemic (Buranyi, 2020). Truly, WHO faced negative criticism by deferent nation and political argument that the organization not communicated transparent information to the public.

Traditionally, the teaching and learning processes are somehow dependent on direct teaching pedagogy (Hayter & Parker, 2019; Murillo-Zamorano, 2019); after COVID19 the teaching and learning scenarios are entirely changing the Universities facing challenges to continue impactful teaching and learning process. In the context of modern teaching, methodologies are significantly changing the pattern and attitude of young generation students. Despite technical skills of the teachers and the teaching practices are significantly controlled by Information and Communication Technology (ICT), internet network becomes the capability hindrance of

technical skills of educator and students (Johnson & Johnson, 2009; Jung & Lee, 2018). Nowadays teaching practices in higher education institutions and student learning processes based on web technologies, because of this pandemic education system has unique opportunities to build a technology-based learning environment. Moreover, the successive use of Web 4.0 enabled technologies transforming the higher education system, universities and colleges are rapidly adopting these changes (Schwarzenberg et al., 2018). Sequentially, web-based learning interest of the university students are rapidly changing around the world (Kurucay & Inan, 2017), young generation university students are showing more interest in online learning system because of generation characteristics.

1.1. Significance of the study

Detail highlights of the study the collective impact of a virtual community, compatibility, technology fit, and assistance on e- Classroom satisfaction of University level students. The previous study constructs the community motivation in an online learning satisfaction (Liu & Cavanaugh, 2012; Huang, 2008; Sun et al., 2008; Wang, 2008; Bhattarcherjee, 2001; Vijay et al, 2019), students compatibility features of e- classroom learning (Ifinedo, 2012; Zhang et al., 2014), technology fit adopted from Lu and Yang, (2014) McGill & Klobas, (2009). Therefore, the proposed study attempts to perform the statistical validation of constructs and the respective scale in the Indian context. This study has been structured in the following direction. A preliminary review of the literature and associated constructs been explained in the respective section. Related constructed hypotheses, sample and measurement are explained in the next section. Lastly, the result of the study is explained hereafter discussion and future potential of the research presented.

The purpose of this research was to find out the collective relationships of the virtual community, compatibility, technology fit and determine how these collaborative factors are influences students e-satisfaction. Following research questions guided the research study-

1. Find out the relationship between a virtual community, system compatibility, technology fit and online learning environment.
2. How these factors (Virtual community, compatibility, and Technology fit) collectively justifying the students e-class satisfaction.

Technological collaborative virtual learning system increasingly being updated in education day by day. During literature view the selective keywords interchangeably use like online learning,

virtual learning, distance education etc. the virtual earning never held without IT gadgets such as laptop, computer, tablets, smartphones, webcam, and efficient internet connectivity (Mayer, 2019). Formerly, we noted that the government education policy endorses virtual leaning interaction and encourage students to incorporate the technologies in education, and successive development of student learning. Main advantages of virtual learning forums build knowledge in wide view (Tenorio et al., 2020), virtual learning facilitates convenient and flexible learning system. Moreover, virtual leaning forums provides flexibility schedule and accessibility for the students it is all time available whenever they want to access (Aldholay et al., 2019). Worldwide governments are announcing and instructed to their educational institutions for creating as well as adopting internet-based learning system because successive developments of the notions significantly depend on young generation education, skill, reskill and upskilling (Tenorio et al. 2016). Therefore, internet embedded electronic devices are computer, laptop, smartphone, tablet, and other portable devices are loaded with online learning software which is assists the students in the online learning process.

2. Review of literature and hypotheses development

This section provides insight about appropriate literature review for the various research constructs being used into the research study. Designing relevant hypotheses exploring the possible association with the dependent variable.

2.1. Virtual learning Interaction: The theory of Virtuality explained the communication performed face to face interaction from two deferent end and it's controlled or moderated by internet network and computer devices (Mesmer-Magnus et al., 2011). In the context of COVId19 pandemic, the education communities are significantly facing a challenge to control the virus infection rate and create a safe environment. Online learning benefits for students extensively considered, some important reimbursements profiles are explained;

- e-Class leaning system provides location flexibility;
- Cost and time saving;
- Opportunities to create a collaborative learning environment which is not necessary for physical presence;
- Limitless learning option and available study material;
- Agreement to gain updated knowledge and preserved it more efficient way.

E-learning could be elucidated as the computer network technology-enabled system mainly connected by the internet, individual interaction and knowledge delivered via proper channel.

During COVID19 situation University and colleges radically adopted electronic learning environment the term e-learning classified likewise computer-enabled learning, online learning, web-based learning, virtual learning such terms are attracting researcher to the research (Venkatesh & Bala, 2008; Hrastinski, 2008; Al-Fraihat, 2020). Additionally, after 2010 Indian universities or higher education institutions radically adopted computer-based learning, the massive user of internet continuously increasing. In fact, educational institution willingly interacts with students, virtual interaction defined potential collaborative opportunities to the learner as well as organization. Hence, internet technologies gradually distributed to small institutes and schools (Jacovkis, 2011) even though the economic family are also prerequisite technological equipment and internet connection (Cabero-Almenara et al., 2019). Advancement of Internet technology pushed to upgrade or innovate computer-based learning devices such as smartphone, computer, laptop, tablet, television, printing, and social interaction software becoming more effective and intelligent; increasingly faster connection during virtual interaction than earlier (Alalwan, 2020).

2.2. Virtual Community

Traditionally, human communication and community very much depend on some geographical local and common interest of human relations. Now modern, communication not limited into geographical location because of internet and web communication revolution, although the modern community thinking beyond the geographical soundings and interest (Cheng, 2011; Kim et al., 2020). Increasingly, virtual community becomes more specific, exciting, and providing space to interact with virtual strangers (Chou, 2020). As the objective of virtual learning online communities provided opportunities to share your information among the group member and high chance to find the possible or most appropriate solution for your problems (Wang et al., 2019; Jang et al. 2008). Eventually, the common activity interest in the virtual platform the individual feels more attached just like a traditional geographic influenced community. In the virtual community, the sense of communication and common interest is the basic component for the accomplishment of the virtual community (Cheng, 2011; Kim et al., 2009). Moreover, the perceptual comparison of the community members and the intention to corporate with other members is the feeling of belongingness, member feels secure during community activities (Rosenbaum et al, 2005). On the other hand, individual feel free ethically supported and emotionally safe under community edge (Rosenbaum et al., 2005), the community also encourage vulnerability within the belongingness even member may not be faced ever in real life (Colombo et al., 2001).

The community member may influence the behaviour of another member into the belonging group, somehow community member feels it's an authority to influence (McMillan and Chavis, 1986). Broadly, virtual community members are available virtually every time according to the convenience of the member could share information or query the other member will respond without any time limitation (Rosenbaum et al., 2005; Kim et al., 2020). Therefore, individuals are joining the community as per his preference, need, willingness, priority, and goal of learning; the desired aim increase the satisfaction (Naranjo-Zolotov et al., 2019).

H1: Virtual Community has a direct and positive effect on Students e-Class Satisfaction.

2.3. Compatibility Measures

System compatibility is the fundamental issues with generation -Z users' adoption of innovative technology or application (Cheng, 2015). Nevertheless, the intensity of the user compatibility predicted the innovation and previewed determent of information system (IS) to align by the influence of user requirement, experience, present values, and knowledge basis (Rogers, 1995; Bilgihan et al., 2016). Therefore, findings of the study pointing out the compatibility of the technologies and information system significantly changed the learning process mode, resulting from its successive adaptational intent of learner could influence the satisfaction as well. Same as, Pemkaumar (2003) noted that the users are attracted towards new or innovative technology which can solve current leaning needs. Fundamentally, the compatibility of information system drawing significate attention in virtual education pattern (Kim et, al., 2005; Xie et, al., 2015). Sequentially, for information system technology adaptation compatibility always leads; some research highlighted that the compatibility has a considerable impact on the user's satisfaction (Ozturk et al., 2016; Isaac et al., 2019). Present research study intuition described the virtual learning technologies fit for university students' lifestyle. According to the findings of Islam and Azad (2015), technological compatibility has a significant impact on user e-satisfaction and one more author Cheng (2016) confirmed a meaningful relation between user's compatibility and satisfaction. This study tries to investigate the information system compatibility impact on user's satisfaction.

H2: Compatibility has a direct and positive effect on Students e-Class Satisfaction

2.4. Technology Fit

Technology play vital role in virtual or online learning process technology fit is described as the concentration of the best possible technology suite to the system which works appropriately and

meeting client requirements (Issac et, al., 20019; Lin & Wang, 2012). Extensively, the technologies increase the efficiency, effectiveness, and performance of an individual during online learning or work (Lu & Wang 2014; Negahban & Chung, 2014). Similarly, the characteristics of technology properly consider asper the task requirement and select the most appropriate or fit once because technology continuously assisting during a work assignment. Hence, the knowledge of suitable technology is the top priority for the individual remains insufficient to choose fit technology which must compatible with the corresponding assignment (Lin & Lu, 2011, Goodhue and Thompson, 1995). Numerous, studies examined the positive association among technology fit and individual performance, some appropriate contributor note is as follows:

Finding	**Citations**
Technology fit positive and significate association on effectiveness and performance	Alkhalifah & D'Ambra, 2011; D'Ambra et. al., 2013; Daud et. al., 2011; Gatara & Cohen, 2014; Glowalla & Sunyaev 2014; Larsen et al., 2009; Lee & Lehto 2013; Lee et. al., 2005; McGill & Klobas, 2009; Norzaidi et. al., 2007; Isaac et. al., 2018.

The present study tries to investigate the use of technology fit on user satisfaction for the validation and direction the proposed hypothesis is -

H3: Technology Fit has a direct and positive effect on Students e-Class Satisfaction.

Table 1: Formulated Hypotheses

Independent Variable	**Dependent Variable**	**Hypotheses**	**Outcomes**
Virtual Community	e- Class Satisfaction	**H1**	Virtual Community has a direct and positive effect on e-Class Satisfaction
Technology Fit	e- Class Satisfaction	**H2**	Technology Fit has a direct and positive effect on e-Class Satisfaction
Compatibility	e- Class Satisfaction	**H3**	Compatibility has a direct and positive effect on e-Class Satisfaction

2.5. Satisfaction Concerns

Satisfaction is the psychological state of the user which is the outcome of the constructive experience. Sequentially, the users most essential indicators of satisfaction of the technology or system to fulfil the objective and needs of the users as well as organization (DeLone & McLean, 2016). The positive affiliation of the internet portal infrastructure, responsiveness, adaptability, user-friendly platform for the individual which create a positive impact on satisfaction (Lee & Lin, 2005). Therefore, user satisfaction might indicate how e-portal respond during working progress resulting in the expected response is always increasing the satisfaction (Xinli, 2015; Isaac et. al., 2019). The basic user satisfaction antecedents indicate new system adaptation somehow influenced by system technologies compatibility, the university students leaning is collectively depended on technological availability and have very limited time to compatible with online learning portal as well as virtual communities. Additionally, user satisfaction dependent on various antecedents likewise functions, quick response, and user-friendliness (Xinli, 2015; Wang, 2008; Alwalwan, 2020), online learning students identify satisfaction on their interest and collective intuition of learning. Numerous previous research studies findings confirmed the user e-satisfaction played a critical role in information system practices in the context of technological application. The study adopted construct and item of e-satisfaction from various appropriate existing studies (Huang, 2008; Sun et al., 2008; Wang et al, 2019; Bhattarcherjee, 2001; Vijay et al, 2019).

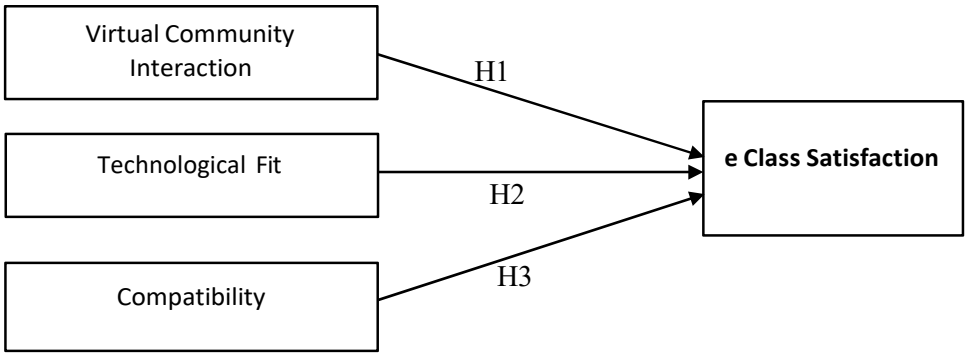

Figure 1: Conceptual Framework and Hypotheses.

3. Methodology

Instrument Selection

Purposefully, authors utilized appropriate literature review for the research construct related to virtual learning, virtual community, online learning, technology fit, system compatibility and e-satisfaction. Virtual learning and community based online learning system having sixteen items which are internally categorized into four-part first four items belongs to the membership, second part five to nine items represent influence and relatedness, the third part has four items from ten to thirteen belongs to integration and fulfilment of a need, and last part of the section represents emotional connection having last three items form fourteen to sixteen all items adopted form several sources (Bressler & Grantham, 2000; Davidson & Cotter, 1986; McMillan, 1996; McMillan & Chavis, 1986; Kim & Kim, 2004). Similarly, other three constructs and respective items were adopted from existing studies; compatibility construct related items adopted from (Ifinedo, 2012; Rui-jin et al, 2014); Technology fit construct belonging one item was self-developed and rest were adopted from (Lu & Yang, 2014; McGill & Klobas, 2009; Negahban & Chung, 2014); lastly, the construct e-satisfaction identification adopted form Huang, 2008; Sun, Tsai, Finger, Chen, & Yeh, 2008; Wang, 2008; Bhattarcherjee, 2001; Vijay et al, 2019) and few were self-developed.

Phase I - Developing the Scale for e- Class Learning Satisfaction in the Indian context

The study was carried out with an adaptive scale questionnaire the items were select for virtual community learning from (Bressler & Grantham, 2000; Davidson & Cotter, 1986; McMillan, 1996; McMillan & Chavis 1986; Kim, 2004) these studies were authenticated and validated in deferent countries context. Followed by selected items for compatibility (Ifinedo, 2012; Rui-jin et al, 2014), technology fit (Lu & Yang, 2014; McGill & Klobas, 2009; Negahban & Chung, 2014) and e-satisfaction form (Huang, 2008; Sun et al., 2008; Wang, 2008; Bhattarcherjee, 2001; Vijay et al., 2019).

The all-selected items were measured on seven-points of Likert scale classify “1= strongly disagree” to “7= Strongly agree”. All items like declarative statements customer free show their agreement on provided scale measurement, except the demographic description all main construct question in the form of close-ended. In the study statistical calculation and analysis performed on IBM SPSS 26 tool pack and AMOS 26 used for SEM.

Phase II – Scale Reliability Retest (Mini Pilot Survey)

Before finalization scale items the authors decided to underlie retest adopted scaled items. A mini-pilot study was conducted formerly main study response administration at the stage of pilot study items contents modified on the ground of expert's suggestions of the respective area and selected populations respondents. The modification included grammatical correction, replacing item name, and additional appropriate item added after expert suggestion and respondent observation. Complete questionnaire test and validated prior main study data collection. Additionally, during pilot study Cronbach's reliability coefficient and factors calculated, the reliability test was calculated on 30 items divided into four segments three independent variables namely virtual community (16 items), compatibility (3 items), technology fit (4 items), and outcome variable e-satisfaction (7 items). In the pilot survey, 80 respondents contacted but only 48 were returned feedback after that only 45 were found suitable for examination.

Phase III – Scale Validation

Finally, the study was conducted, examine, and validate the scale. The stratified convenient sampling design was adopted for sample belong to UG, PG and PhD programme University students who are engaged or adopted virtual community learning system. More than 800 hundred questionnaires were communicated to the respondents from various Indian locations like Srinagar, Roorkee, Dehradun, Cuttack, Bhubaneswar, Raurkela, Lucknow, Kanpur, Silchar and Bilaspur.

Study context

The first-hand data was collected by direct mail of self-administrated and adoptive scaled questionnaire during lockdown phase from various public and private sector Universities & autonomous institutions such as IITs and NITs and others, belongs to Uttarakhand, Uttar Pradesh, Odisha, Chhattisgarh, and Assam students. However, from the above academic institutions, everyone was not fully equipped with virtual interaction platform or failing the full virtual degree path. These academic institutions working under government or academic regulatory authorizes like UGC, AICTE, MHRD etc., hence most of the institutions adopted mix method of learning experiences for their students but in view COVID19 pandemic every Indian academic institution challenge to quickly built virtual interaction or learning system for uninterrupted education.

Study participants description

In the research, study authors were expected to select participant form university-level students who were enrolled in UG, PG and PhD programme. Therefore, the authors' selected respondents on the basis of students were involved in virtual collective learning activities, the tools were used like YouTube, blogging, and discussion forums. Study data were collected through self-administrated adoptive scaled questionnaire form, during the period of April 2020 to September 2020. Authors were sent direct mail to the respondent's number 850, and the total number of filled questionnaires received 428 forms which 384 responses found suitable for interpretation. According to Tabachnick & Fidell (2012), the sample size was appropriate, 44 number of respondents were deleted from the analysis seat on the ground of incomplete, unsatisfactory, and duplicate or doubtful responses.

4. Empirical analysis:

The section provides a brief picture of the sample, interpretation of the data, executed test and the result as well. An empirical analysis carried out by the direction of Hair et. al., (2010). The model assessment was done through confirmatory factor analysis (CFA) and structural equation modelling (SEM) executed for model fitness.

Demographic description

Sample demographic profile explained in table 1, the total number of respondents is 392 in which 230 females (58.8 percent), 154 males (39.3 percent) and 8 respondents did not prefer to disclose their gender that is 2 percent only. The age classification of respondents was under 20 about 39.3 percent, between 21 to 24 about 50.5 percent, 25 to 24 about 7.1 percent, and above 31 only 2.6 percent. Majority of respondents studying into UG and PG jointly 84 percent of the total respondent's percentage.

Table 2: Sample Demographics

Demographic Items	Categories	N	Percentage (%)
Gender	Female	230	58.7
	Male	154	39.3
	Prefer not to say	8	2.0
Age	Under- 20	156	39.8
	21- 24	198	50.5
	25-30	28	7.1
	31- above	10	2.6
Education	PhD	20	5.1
	PG	94	24.0
	UG	247	63.0
	Other	31	7.9

Source: Primary data.

Data interpretation

Collated data were processed in SPSS 26.0 research analysis software, followed by analyzed structural equation modelling (SEM) the steps to data analysis suggested by Hair et al., (2006). Confirmatory factor analysis (CFA) conducted for the estimation measurement model and testing the model fit as well as hypotheses testing.

Model Measurement

Model psychometric features are investigated via ground of following points: internal consistency of constructs and items, followed by convergent and discriminant validities. Items loadings more than 0.5 are satisfactory and values less than were deleted or fixed it form the scale also (Hair et al., 2009). Research model consists of three independent variables (virtual community interaction, Compatibility and technology fit) and one dependent variable (e-Satisfaction). Sequentially, three hypotheses were tested in this model followed by factors validated and four research constructs comprised for CFA. The result calculated and displayed in table 3 which included four constructs, thirty items, factors loadings, average variance extracted (AVE) of the construct recommended 0.50 preferably adequate, Cronbach's alpha (α), and composite reliability (CR) of the study were above 0.7 suggested (Fornell & Larcker, 1981; Hair et al., 2012).

Table 3: Construct and scaled items.

Constructs	Items (Indicators)	Adopted from (Reference)	Factor Loading Reliability	AVE	Cronbach's (α)	Composite Reliability (CR)
Virtual Community Interaction	1. Information Exchange	Bressler & Grantham (2000), Davidson & Cotter (1986), McMillan (1996), McMillan & Chavis (1986), Kim, (2004). Isaac (2019).	0.772	.611	0.87	0.81
	2. Suggestions		0.812			
	3. Virtual participation		0.791			
	4. Belongings		0.897			
	5. Idea generation and Suggestion		0.893			
	6. Quality of members participation		0.75			
	7. Reflection of other members in my opinion		0.764			
	8. Responsibility and Willingness		0.794			
	9. Common Interest		0.815			
	10. Availability of information usefulness from community members		0.804			
	11. Requirements of virtual community		**Deleted**			
	12. Ability and exchange of information		0.887			
	13. Members of information satisfaction		**Deleted**			
	14. Importance of new members		0.892			
	15. Membership duration		0.912			
	16. Forthcoming involvement in community activities		0.893			
Compatibility (CMP)	1. Compatible with standards	Ifinedo (2012), Rui- in, et al. (2014), Ifinedo (2018), Kolodinsky (2004).	0.988	0.88	0.892	0.922
	2. Compatible with the existence		0.89			
	3. Compatible with requirements		0.96			
Technology fit	1. Fits with the current learning style	Lu & Yang (2014) McGill	0.857			

	2. Suitability for coursework	& Klobas	0.867			
	3. Essential for work responsibilities	(2009), Negahban &	0.801			
	4. Computer and Internet Fits **(Self-develop)**	Chung (2014), Isaac (2019).	0.793			
e-Satisfaction Identification	1. Satisfied - performance of network and educators	Huang (2008), Sun et al. (2008), Wang (2008), Bhattarcherjee, (2001), Vijay et al, (2019), Isaac (2019).	0.867	0.75	0.874	0.799
	2. Satisfied - an experience of an online learning platform		0.844			
	3. Satisfied - technical session experience at e class interactions		0.843			
	4. Satisfied - educators technical and subjective knowledge. (**Self-develop**)		0.852			
	5. My decision to use online learning was a wise one.		0.859			
	6. Anticipated - Satisfaction. (**Self-develop**)		0.902			
	7. Overall online learning Satisfaction		0.894			

Note: VCI: Virtual Community Interaction, CPT: Compatibility, TechF: Technology fit, SatId: Satisfaction Identification.

Table 4: Cross Loading Results				
	VCI	**CPT**	**TechF**	**SatID**
VCI1	**0.772**	0.657	0.508	0.420
VCI2	**0.812**	0.580	0.498	0.424
VCI3	**0.791**	0.650	0.500	0.512
VCI4	**0.897**	0.656	0.603	0.475
VCI5	**0.893**	0.576	0.446	0.440
VCI6	**0.750**	0.581	0.582	0.523
VCI7	**0.764**	0.622	0.552	0.462
VCI8	**0.794**	0.564	0.512	0.465
VCI9	**0.815**	0.588	0.522	0.464
VCI10	**0.804**	0.571	0.504	0.443
VCI12	**0.887**	0.448	0.427	0.425
VCI14	**0.892**	0.499	0.448	0.476
VCI15	**0.912**	0.506	0.449	0.490
VCI16	**0.893**	0.559	0.539	0.555
CPT1	0.574	**0.988**	0.544	0.601
CPT2	0.508	**0.890**	0.463	0.547
CPT3	0.391	**0.960**	0.367	0.532
TechF1	0.326	0.372	**0.857**	0.446
TechF2	0.263	0.341	**0.867**	0.398
TechF3	0.452	0.542	**0.801**	0.527
TechF4	0.469	0.556	**0.793**	0.552
SatId1	0.450	0.513	0.508	**0.867**
SatId2	0.476	0.556	0.537	**0.844**
SatId3	0.456	0.517	0.499	**0.843**
SatId4	0.481	0.547	0.502	**0.852**
SatId5	0.436	0.525	0.503	**0.859**
SatId6	0.417	0.516	0.512	**0.902**
SatId7	0.404	0.508	0.493	**0.894**

Table 5: Discriminant Validity of Latent Constructs Dimensions

Construct	VCI	CPT	TechF	SatID	Mean	SD
VCI	**0.790**				5.01	1.01
CPT	0.587	**0.801**			4.99	1.87
TechF	0.576	0.532	**0.799**		6.10	0.87
SatID	0.612	0.601	0.597	**0.863**	5.18	1.23

Note :

a) Virtual Community Interaction (VCI), Compatibility (CPT), Technology fit (TechF) and Satisfaction Identification (SatID).

b) Diagonal values represent the square root of AVE, all the other values denote the correlation coefficients.

Structural model assessment and hypotheses testing

Figure 2 and Table 6 explained the SEM assessments that elucidate the various hypotheses findings tests. Here, overall quality of model predict virtual community impact on e-class satisfaction H1 is acceptable ($\beta = 0.296$, $t = 2.751$, $p \leq 0.001$). Similarly, technology fit predicts e-class satisfaction H2 is acceptable with ($\beta = 0.317$, $t = 3.984$, $p \leq 0.001$) and Compatibility of e-class satisfaction is also acceptable with ($\beta = 0.423$, $t = 4.135$, $p \leq 0.001$). The SEM models explain significate information about research data and direction of hypothesized path relationship by using coefficient (β) and square R (R^2). According to Chin (1998), the relationship strength indicated by R^2 value and its shows the percentage of model variance indicates the analytical power. The SEM obtained results of the study indicates that the model structurally fit and it holds satisfactory analytical performance.

Table 6: SEM model result

Number	Hypothesized path	Estimate β	t-value	$p \leq$	Result
H1	Virtual Community → e-Class Satisfaction	0.295	2.751	0.001	Accepted
H2	Technology Fit → e-Class Satisfaction	0.317	3.984	0.001	Accepted
H3	Compatibility → e-Class Satisfaction	0.423	4.135	0.001	Accepted

The all observed research variables (virtual community interaction, Technology fit, compatibility), were found positive and significant influence on e-class satisfaction. Therefore, on the ground of hypothesized path analysis, all three hypotheses accepted and model also was able to found significant $R^2 = 67$ percentage of variance e-class satisfaction.

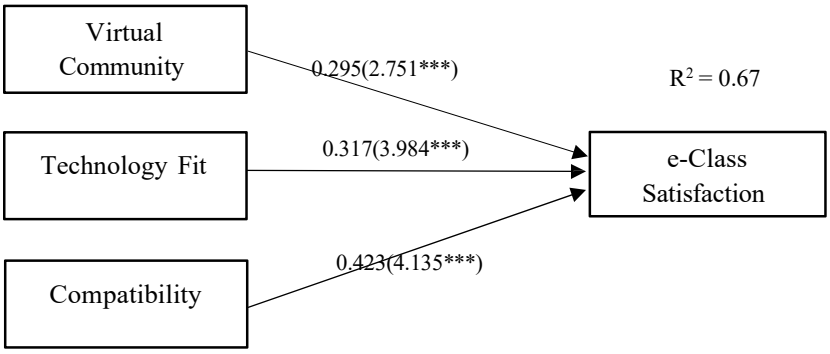

Figure 2: Structural model

5. Discussion

In this study, exploring the possible linkages among virtual community interaction (VCI), Technology Fit (TF), compatibility and e-class satisfaction of the university students who were engaged in UG, PG, PhD, and others courses. Authors tried to address previous research gap by collecting data from the sample in Indian higher education context and future research directions are also provided. Similarly, this study highlighted the importance of VCI, TF and compatibility to enhanced the students e-class satisfaction during their higher education degree completion. The structural equation modelling (SEM) results provided the suitability of model fit for the proposed conceptual research framework.

6. Research Implication:

This research study is also having some managerial or practical application for University students and others, the interest of virtual community use for learning. Therefore, technological fitness and technological compatibility become a necessity to adopt information technology or online leaning solutions. So that, this study provides some impactful evidence for online leaning suitability and e-class satisfaction. To the end of this research authors findings indicated that the fusion of both theoretical and empirical linkages developed a better understanding. Nowadays, online learning becomes a passionate identity among the new generation of students.

7. Limitation and future research direction:

In this research, study authors used self-reported adoptive scaled instruments for data collection. Mostly, the results of the interpretation are depending on construct and the instrument was used. Methods EFA and CFA was employing initial for items qualifications are construct justification. The sample size of the study is small and adequate for SEM, the study adopted a convenient

sampling technique for data collection. Furthermore, the authors suggested that for further investigation with additional suitable constructs and item that are significantly influenced the e-class learning satisfaction or try to investigate how satisfaction develop the sustainable performance of the students. This study only considers University students, another level of students of individuation might change the results and explore the other level of research dimensions.

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