

University Social Responsibility and Self Efficacy as Antecedents of Intention to use E-Learning: Examining Mediating Role of Student Satisfaction.

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ABSTRACT

The main objective of the present study is to assess the relationship of university social responsibility, and self- efficacy on intention to use online learning. Moreover, mediation effect of student satisfaction is examined as well. Present study distributed questionnaire among 576 students through convenient sampling. The response rate of the present study was 68%. The collected data was assessed by using PLS-SEM through PLS 3.3.2. The findings of the study show there exist positive relationship between Self efficacy, university social responsibility and intention to use e-learning. Moreover, mediating role of student satisfaction is also confirmed. Present study fills the gap of limited studies conducted regarding Covid-19 for Pakistani universities. The findings of the present study are helpful for the policy makers of university sector.

Keywords: Intention to use, satisfaction, self-efficacy, social responsibility, Universities of Pakistan

Article Received: 10 August 2020, Revised: 25 October 2020, Accepted: 18 November 2020

1.0 Introduction

The term Global Pandemic is the new synonym of the very important term which was used in past as global village. Countries of west have the power to deal with the pandemic because of their economic power. But, developing countries do not have such economic and technological might. In the current pandemic situation, one of the most important concern is the higher education which is converted online in the current pandemic. The current situation is that Covid may run its life cycle until there is some scientific breakthrough. Therefore, higher education institutes are using online mode of teaching for their students. In Pakistan, Higher Education Commission of Pakistan is committed to make this online learning successful (Mumtaz, Saqulain, & Mumtaz, 2021).

Corporate social responsibility is the important economic concept which is also known as CSR. This is the important concept which deals with the issues of community, society, employees, partners

and customers. Organizations in this era are not ranked only on the basis of profitability. On the other hand, a number of different concepts have emerged in order to create conducive work environment. University is the important element of society, therefore, CSR activities by universities are also very important element for their survival (Bokhari, 2017).

E-learning is being widely used because it is easy to follow and because of its flexible schedule. Through e-learning transfer of skills and knowledge has become possible in short time and low cost. In this scenario, one of the most important factors of learning is the self-efficacy. Individuals become committed to the organizations because of their efficacy beliefs. People have high sense of efficacy who have confidence in their capabilities. Such people set goals that are challenging for themselves (Ithriah, Ridwando, & Suryanto, 2020). In the context of university e learning, Alivernini and Lucidi (2011) stated that self-

efficacy is the good predictor of academic success. Moreover, self-efficacy is the concept that has the capability to affect the perception of the students. Thus, there is possibility that self-efficacy have the capability to effect the success of students (Yavuzalp & Bahcivan, 2020).

The institutes that deal in higher education consider students as important stakeholder in the form of customers. It is very important for them to satisfy the needs of the students as they are ultimate customers. These students attend the higher education institutes as their basic goal is to get the education from there. On the other hand, these institutes always try to meet the expectations of the students and try to make them satisfied (DeShields, Kara, & Kaynak, 2005). It is also important because success of universities is mainly dependent upon the satisfaction of the students. Satisfaction of the students is also key for the organizations to know their weaknesses and strengths. Satisfaction of students is not only dependent upon the teaching but there are a number of different other factors as well (Manzoor, 2013).

Intention is the important element which connects the belief and desire to action. It is very important for the organizations to understand that success of online learning is merely dependent upon the satisfaction of the students who may have intent or willingness to use this mode in future (Brahmasrene & Lee, 2012). Therefore, universities must understand the way student perceive regarding environment of e-learning. Additionally, it is also very important to explore the factors that make the students satisfied and they are willing to use e-learning again in future (Park, 2009).

As universities are moving from conventional learning to online learning, it is very important for the universities to understand the drivers of student satisfaction. Therefore, present research focuses on important factors that may develop intent of using online learning among students of Pakistan. Online education is defined as delivering content of courses to students using web-based servers and internet technology. In context of Pakistan, there is

very little research in e learning of students and intent of using it.

2.0 Literature Review

Intent to Use E-Learning

Technology is involved in distance learning. Now a days there a number of different forms of distance learning including the Web, collaborative systems, computers, video, audio, and print media. In this concept, students and teachers are connected through different networks as they are connected to each other in the form of virtual network. E-Learning is considered as fourth generation of distance learning (Chang, Hajjiyev, & Su, 2017).

E learning is the type of education which is conducted through web, in this concept, students and teacher do not have any physical contact, infact they use different modes instead of actual face to face contact. For pure online learning, e learning is important tool in the form of distance learning mode. In present era, web is the only mode which is used by the students for the online study purpose. Researchers have pointed out that in online studies, course work covers 80% of the content, whereas remaining time goes to interactive session (Allen & Seaman, 2005).

Behavioural intention of intention to use is defined by Allen and Seaman (2005) as the likelihood that a person will use a certain application. Behavioural intention of the students is affected by their attitude which is guided by perceived behavioural control, subjective norms and later behaviour. Intention is basically the subjective probability regarding a certain behaviour. The term behavioural intention is the wish of the students to accept the system of e-learning (Salloum, Al-Emran, Shaalan, & Tarhini, 2019). BI is the willingness of a person that e-learning will be used as the system in order to fix the future learning method. BI is considered as important factor of the behaviour. It shows the readiness to conduct a specific behaviour (Samsudeen & Mohamed, 2019).

Student Satisfaction

Scholar defined student satisfaction as a perception as how well academic success is supported by a

learning environment (Lo, 2010). In the same context, Kuo (2010) pointed out that satisfaction of students regarding online learning is regarded as commitment, success. Drop out rates, and motivation regarding a program. Therefore, student satisfaction is very important to be evaluated in order to identify areas of improvement and development.

The fulfilment response of consumer is considered as the satisfaction of students. It is the judgement of the individual regarding a service, product and service feature. Therefore, satisfaction is considered as negative or positive feeling. Whereas, concept of e learning and e satisfaction has emerged because of e-commerce. Researchers defined e- satisfaction as the judgement of consumers regarding the e-services that are offered in virtual marketplace (Szymanski & Hise, 2000). Among one of the important predictors of behavioural intention is the satisfaction. Researchers have empirically revealed satisfaction is the important predictor of behavioural intention (Khalifa & Liu, 2002). In the context of e learning student is the important stakeholder and considered as customer if e-learning services. E learning environment and other surroundings may play important role in creating satisfaction of the students. The environment surrounding of the students include peer students, instructions, course, and support service. Researchers defined satisfaction of students as an effective response which can be of carrying intensity which is followed by activities of e-learner. The satisfaction of the student is mainly dependent upon four different factors such as learning performance, customization, learning community and interface of user (Song & Cho, 2010).

University Social Responsibility

University social responsibility also known as USR is the intelligent and ethical measurements of the impacts of natural, social and human environment (Garde Sánchez, Rodríguez Bolívar, & López-Hernández, 2013). It is also a source of competitive advantage and positional superiority. In past literature, a number of different definitions of USR

are presented. In this context, society is impacted by every organization. Thus, it is vital for universities to take responsibility of all the consequences and effects of their performance, policies, structures and strategies (Argandoña, 2012).

A number of different USR models are developed by a number of different universities but they are not tested in past. It is very important to empirically test the models of USR in the form of business perspective social responsibility bond to the way nature, economy, society and people are managed by the organization. It is important to understand that there are four different kind of impacts that a university have on the society. It is in the form of society, organization, cognition and education (Vázquez, Aza, & Lanero, 2016).

Self-Efficacy of Learning

Self-efficacy is the belief that one has the ability to initiate cognitive resources and motivation to meet th demands in a certain situation. Researchers have pointed out that self-efficacy is not related to the skills of the individua; nut infact the belief and judgements that what can be done by the individual with those certain skills. Its been further explained by researchers that self-efficacy determines the required actions needed to be takes, the level of effort required and what other methods can be used in the challenging situation. In recent studies, self-efficacy is also considered as important element of system usage. In this regard, scholar proposed that self-efficacy is important aspect of ease of use (Hwang & Yi, 2002). The student who have high level of self-efficacy have high level of work enjoyment as well. This enjoyment creates satisfaction and motivation among the customers. On the other hand, if student have anxiety of using computer, his/ her intention to use technology will diminish. In this context, service anxiety is referred as feelings and response that is associated with indirect or direct use of computer (Mun & Hwang, 2003).

The situation when user face anxiety because of using computers, they may face feelings of fear, apprehension and uneasiness regarding use of

technology or systems in future. The perception of people regarding technology is impacted computer anxiety. Intention to use e-learning is basically the future probability of using online services for the learning process which change into behavior later (Esterhuyse, Scholtz, & Venter, 2016).

Satisfaction and Intention to use E-Learning

A number of authors in past have mentioned and defined satisfaction as the affective condition which is the result of evaluation of different aspects. It is the important aspect of re-use intention regarding any service or a product. Focusing on the context of new technology, satisfaction on the basis of past experience is important predictor of continuously using a certain product again in future (Bhattacharjee, 2001). Similarly, researchers measured satisfaction of customers in the context of e-commerce and found that satisfaction is affected by the performance of the service provider. Later, it's been reported by researchers that loyalty intention is positively affected satisfaction of customers. On the other hand, it is extensively reported by researchers that satisfaction of consumer creates greater intention to use a service or a product and create favorable word of mouth as well (Belanche, Casaló, & Guinalú, 2012).

Hypotheses 1: Student Satisfaction is positively related to Intention to use E-Learning.

University social responsibility and Student Satisfaction

A number of past studies have examined the relationship of student satisfaction with different perspectives like service quality. Universities can better develop strategies by assessing the satisfaction of students and antecedents that can affect the student satisfaction. With the help of these factors' universities can better plan and position the university in the global market. In present scenario, universities are re-establishing their strategies because priorities of students to get education are altering and shifting towards technology Stukalina (2014), so, universities can better plan their strategies by learning the antecedents that create satisfaction among students.

Whereas, there are very limited studies that have assessed the effect of USR on satisfaction of students. There are a number of reasons because of which it is critical to assess the effect of USR on customer satisfaction. Presently, universities are very much conscious about their students. These universities want to train their students and also, they want to attract the new students as well. Both of these aspects are important to retain their current customers. The satisfaction of student is mainly dependent upon the experience of the students regarding their education (Wicks & Roethlein, 2009). Therefore, these universities are playing important role to create satisfaction for their students. Thus, student satisfaction will have positive effect on behavioral attitude including may return and WOM recommendation regarding university and they are the main antecedents of loyalty of students (Brown & Mazzarol, 2009). In the same way, if students are not satisfied there will be high negative effect on the university. Thus, USR is the important antecedent of student satisfaction. Therefore, the following research hypotheses are proposed:

Hypothesis 2. Overall perception of USR positively influences student satisfaction.

Hypothesis 3: Overall perception of USR positively influences student intention to use e-learning.

Hypothesis 4. Student satisfaction mediates the relationship of overall USR and intention to use e-learning.

Self-Efficacy of E-learning and Student Satisfaction

Learner satisfaction is explored by a number of researchers and they revealed e-learning is strong predictor of satisfaction (Gunawardena, Linder-VanBerschoot, LaPointe, & Rao, 2010). In this regard, researchers found that e-learning and self-efficacy are important antecedents of student satisfaction (Liaw & Huang, 2013). Furthermore, researchers also investigated the effect of self-efficacy on student satisfaction and they found there is strong positive relationship among them (Shen, Cho, Tsai, & Marra, 2013). There are two

important cognitive factors according to social cognitive theory. One of them is self-efficacy which effect the behavior of student which in turn have the potential to enhance the success and satisfaction of students. Self-efficacy of the learn effect the attitude and willingness to keep studying from the same institute again in future. The effort of the students to complete their tasks is also increased because of self-efficacy. In another study conducted by Liang and Tsai (2008), researchers revealed that students having high level of self-efficacy are satisfied with their online learning environment. As a result they use internet more frequently (Prifti, 2020).

Hypothesis 5. Self-efficacy positively influences student satisfaction.

Hypothesis 6: Self-Efficacy positively influences student intention to use e-learning.

Hypothesis 7. Student satisfaction mediates the relationship of self-efficacy and intention to use e-learning.

3.0 Methodology

Survey based approach was adopted in present study to get the response from the respondents. For this purpose, a 5-point Likert scale questionnaire was developed. In which there were 12 items. The developed questionnaire was distributed among students. Convenience sampling was used in this study as sampling method. To determine the sample size, Morgan and Krejcie (1971) table was followed and questionnaire was distributed among 572 students of private universities of Punjab, Pakistan. From these distributed questionnaires, 396 were received back having response rate of 68%. The collected data was assessed through SPSS 26 and PLS 3.3.2.

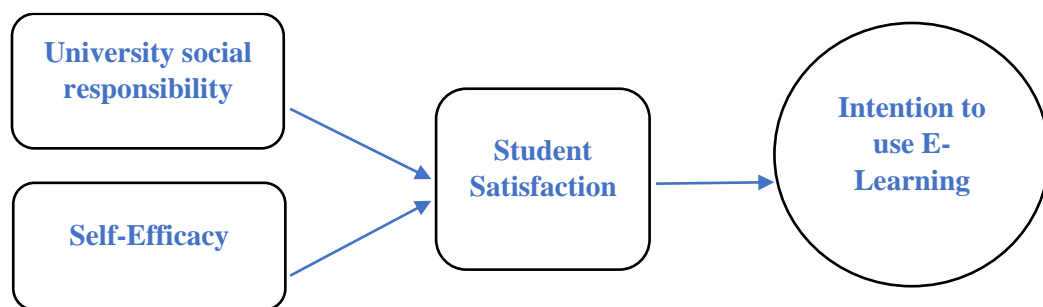


Figure 1 Theoretical Framework

4.0 Results

Present study employed SPSS 26 for initial screening of the data. After initial screening PLS 3.3.2 was employed. Assessment through PLS is comprised of 2 steps i.e. inner model and outer model. Inner model is also known as structural model whereas, outer model is also known as measurement model (Vinzi, Chin, Henseler, & Wang, 2010). Structural model is used to verify the proposed relationships. Thus, causal relationships

that are proposed in the study are assessed through PLS.

In the measurement model phase of PLS, reliability and validity, factor loading, and discriminant validity of the collected data is assessed. These tests should be analysed before testing the proposed hypothesis of the study (Anderson & Gerbing, 1988). Through the discriminant validity and convergent validity, the construct validity is verified. Figure 2 shows the measurement model of the present study.

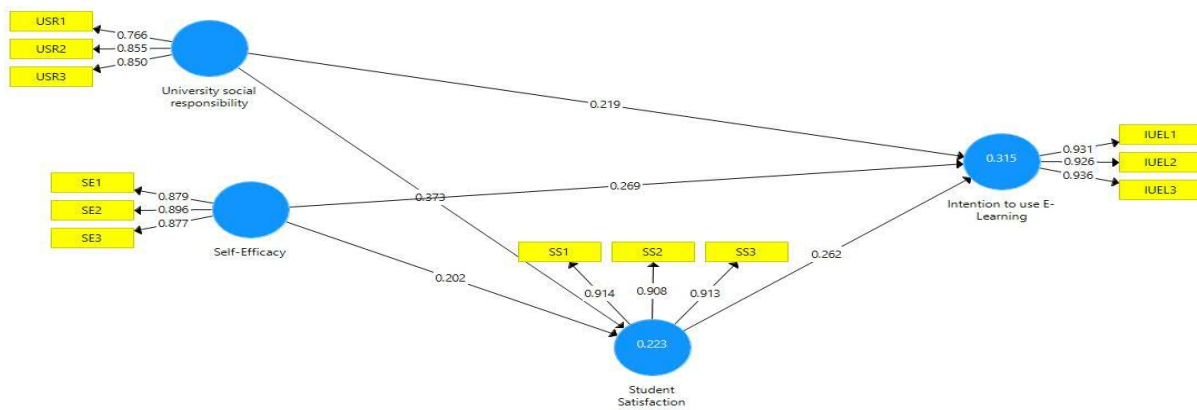


Figure 2 Measurement Model

Note: IUEL= Intention to use e-learning, SS= student satisfaction, USR= university social responsibility, SE= Self efficacy

In the measurement model, 1st step is to assess the factor loading of items that are used in the study. According to Hair Jr, Matthews, Matthews, and Sarstedt (2017), for an item to be retained, the

minimum factor loading of the items must be more than 0.708. Table 1 in the present study shows the factor loading demonstrating that this threshold level is fulfilled in the present study.

Table 1: Factor Loading

	IUEL	SE	SS	USR
IUEL1	0.931			
IUEL2	0.926			
IUEL3	0.936			
SE1		0.879		
SE2		0.896		
SE3		0.877		
SS1			0.914	
SS2			0.908	
SS3			0.913	
USR1				0.766
USR2				0.855
USR3				0.850

Note: IUEL= Intention to use e-learning, SS= student satisfaction, USR= university social responsibility, SE= Self efficacy

The next phase in measurement model is to calculate the reliability and validity of the data. In this phase, AVE, composite reliability and Chron Bach alpha of the data is calculated. Cronbach Alpha and CR shows the data is reliable for further testing. It shows the consistency of the items used

in the study (Hair, Celsi, Ortinau, & Bush, 2010). The minimum threshold value for CR and Cronbach alpha to be accepted is 0.70. according to table 2, this criterion is also fulfilled in the present, study.

Table 2: Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
IUEL	0.923	0.924	0.951	0.867
SE	0.860	0.861	0.915	0.781
SS	0.899	0.899	0.937	0.832
USR	0.765	0.779	0.864	0.680

Note: IUEL= Intention to use e-learning, SS= student satisfaction, USR= university social responsibility, SE= Self efficacy

In this phase average variance extracted (AVE) of the data is also calculated. For the acceptability of AVE, all values of AVE must be more than 0.50 (Barclay, Higgins, & Thompson, 1995). This benchmark is fulfilled in the present study as well. Table 2 also shows the AVE values demonstrating the criteria of AVE is fulfilled.

Next step in measurement model is to assess the discriminant validity of the data. It is very important to assess the measurement model before testing the hypothesis of the study. The test of discriminant validity shows that the items of the

construct are not overlapping, and they are different from each other. The variance among construct is shared by measuring the discriminant validity of data. The value of discriminant validity should be more than the variance shared among particular construct (Compeau, Higgins, & Huff, 1999). In this study Fornell and Larcker (1981) approach was adopted to establish discriminant validity. Table 3 showing all values in diagonal are greater than the remaining values. Thus criteria as proposed by Fornell and Larcker (1981) is fulfilled.

Table 3: Fornell & Larcker, 1981

	IUEL	SE	SS	USR
IUEL	0.931			
SE	0.413	0.884		
SS	0.439	0.309	0.912	
USR	0.409	0.287	0.431	0.825

Note: IUEL= Intention to use e-learning, SS= student satisfaction, USR= university social responsibility, SE= Self efficacy

Additionally, HTMT approach was also employed in present study which is the latest approach to test the discriminant validity. According to this

criterion, the values should not be more than 0.85. The values mention in table 4 shows this criterion is fulfilled as well.

Table 4: HTMT

	IUEL	SE	SS	USR
IUEL				
SE	0.463			
SS	0.482	0.352		
USR	0.488	0.355	0.510	

Note: IUEL= Intention to use e-learning, SS= student satisfaction, USR= university social responsibility, SE= Self efficacy

After establishing the measurement model in the present study, structural model is assessed in the

present study. In this phase, direct as well as indirect hypothesis of the present study are tested.

For this purpose, bootstrapping procedure is adopted. Bootstrapping process provide p-values and t value by which proposed hypothesis are rejected or accepted. Whereas Beta value shows the

direction of relationship. Figure 3 shows the structural model of the present study and Table 5 shows the results of direct relationships proposed.

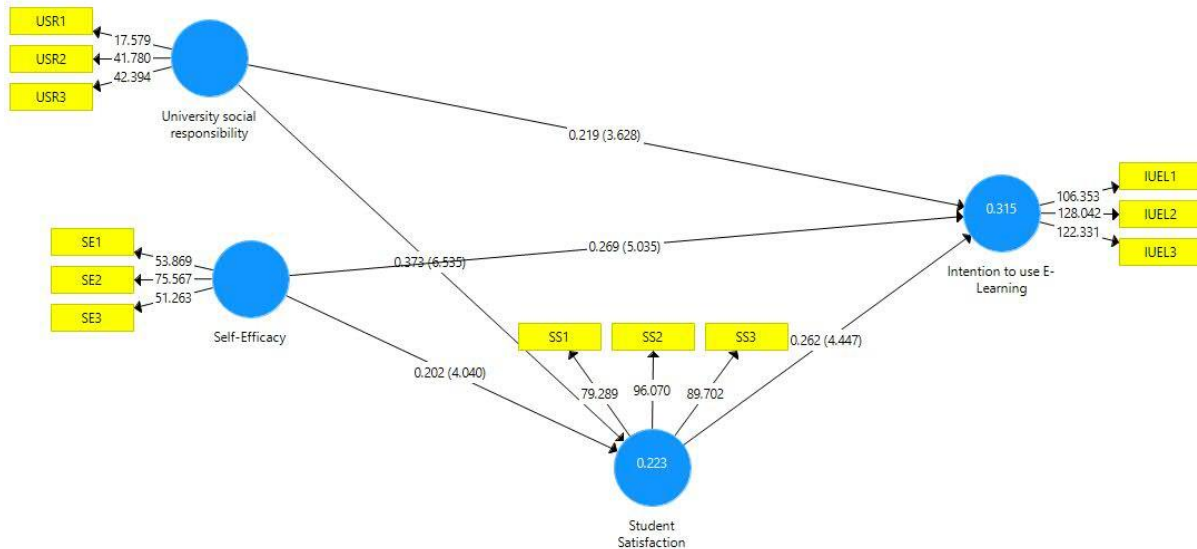


Figure 2 Structural Model

Note: IUEL= Intention to use e-learning, SS= student satisfaction, USR= university social responsibility, SE= Self efficacy

Table 5: Direct Relation

	Relationships	Beta	(STDEV)	T-value	P Values	Decision
H1	SS -> IUEL	0.262	0.059	4.447	0.000	Accepted
H2	USR -> SS	0.373	0.057	6.535	0.000	Accepted
H3	USR -> IUEL	0.219	0.060	3.628	0.000	Accepted
H5	SE -> SS	0.202	0.050	4.040	0.000	Accepted
H6	SE -> IUEL	0.269	0.053	5.035	0.000	Accepted

Note: IUEL= Intention to use e-learning, SS= student satisfaction, USR= university social responsibility, SE= Self efficacy

As per the values demonstrated in table 5, SE and IUEL are positively associated with each other with (Beta= 0.269, t=5.035) Thus H1 is accepted. Moreover, USR and SS are also positively and significantly related to each other (Beta-0.373, t= 6.534) Showing H2 is accepted. Moreover, H3 is

also accepted because USR and IUEL are also positively associated (Beta=0.219, t=3.628). In the end, H5 and H6 are also accepted because SE and SS (Beta= 0.202, t=4.040), and SE and IUEL (Beta= 0.269, t=5.035) are in positive relationship respectively as well.

Table 6: Mediation Results

	Relationship	Beta	(STDEV)	T- value	P Values	Decision
H4	USR -> SS -> IUEL	0.097	0.026	3.712	0.000	Supported
H6	SE -> SS -> IUEL	0.053	0.020	2.660	0.004	Supported

Note: IUEL= Intention to use e-learning, SS= student satisfaction, USR= university social responsibility, SE= Self efficacy

Table 6 shows that mediation relationships proposed in the study. According to values obtained, SS mediates the relationship between USR and IUEL (Beta= 0.097, t=3.712) thus, H4 is supported. Moreover, SS also mediates the relationship between SE and IUEL (Beta=0.052, t=2.660). Thus, H6 is supported as well.

In the end, Structure model evaluates the R square of the present study. The values of R square are also termed as determination of coefficient shows the effect of predicting factors on outcome variables. According to Chin (1998), minimum value of R square should be more than 0.10. The values of table 7 shows this criterion is fulfilled as well.

Table 7: R square

	R Square
IUEL	0.315
SS	0.223

Note: IUEL= Intention to use e-learning, SS= student satisfaction

5.0 Conclusion

People all around the globe are facing the issue of Pandemic in the form of Covid-19. This pandemic has affected every kind of business including universities. Organizations in developed countries have the ability to get through this situation because of their economic might. But situation in developing countries is very different. Same is being faced by universities of developing countries. In the current Covid situation universities of Pakistan have switched to online learning. Therefore, this study was conducted to assess the effect of university social responsibility and self-efficacy of students on student satisfaction and intention to use e- learning. For this purpose, data was collected from students of private universities of Pakistan. For analysis of collected data PLS-SEM approach was employed for which PLS-3.3.2 was used.

Its been revealed from the findings of the study university social responsibility plays very

important role to create student satisfaction and to develop future intention among students to use e learning. Moreover, student satisfactions also mediate the relationship of USR and intention to use online learning. These results are consistent with the findings of (Belanche et al., 2012). Moreover, self-efficacy also positive effect student satisfaction and intention to use e learning. Additionally, student satisfaction mediates relationship of self-efficacy and intention to use e learning. These findings are consistent with the findings of (Prifti, 2020).

There are few limitations in present study as many other studies as well. The current model is tested university settings of Pakistan. This model should be tested in any other industry as well. Moreover, present model is tested with mediation of satisfaction. Further studies can use word of mouth as moderator in this model. Present study fills the gap of very few studies conducted related to Covid-19 in Pakistani university sector. The findings of the present study are helpful for the policy makers of Pakistan universities to develop strategies to retain their students.

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