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STUDENTS' PERCEPTION OF ONLINE LEARNING DURING COVID PANDEMIC: A CASE STUDY ON THE STUDENTS OF BANKING UNIVERSITY OF HO CHI MINH CITY

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ABSTRACT

The purpose of this study is to address some main factors that affect students' perception of online learning and discuss its potential to make it more inclusive and comprehensive. One of the objectives of this study is assessing the level of influence of each factor toward perception. This goal has been followed by using a model examining the impact of Motivation, Perceived Usefulness, Perceived Ease of Use, Instructor, Interaction and Academic Integrity as the hypotheses of study. A sample of 119 students of Banking university of Ho Chi Minh city have participated in this study. The respondents' answers were tested through the use of Cronbach's Alpha and Exploratory Factor Analysis (EFA). Finally, regression analysis was used on data in order to test hypotheses of study. The results show that Motivation, Perceived Usefulness, Interaction and Academic Integrity are factors affecting online learning perception, in which Motivation has the most influence. This thesis serves as a theoretical basis about the perception of Banking University students toward online learning for researchers, academic staff in Vietnam who want to do further research in this area. From there, some recommendations are made to help expanding online learning offerings in the post-crisis period

Keywords: COVID-19, online learning, perception, motivation, interaction, academic integrity

1. Introduction

The year 2019 saw an outbreak of CoronaVirus (SARS-CoV-2), which led to the deadly pandemic that threatened the whole of humanity. In an attempt to reduce the transmission of COVID-19, many restrictive policies have been implemented to prevent crowding, including social-distancing, self-isolation and the near-total shutdown of factories, restaurants, stores, schools and so on. In February 2020, Vietnamese Ministry of Education and Training issued an order to suspend all school operations nationwide as part of quarantine measures. As the Covid-19 pandemic was becoming more complicated, the nationwide school closure has been continuingly sustained. The extension of school closures challenged the education system across the country and forced many institutions that previously did not want to change their traditional approach, with no choice but to switch back. all to online teaching and learning. With the motto “Stop going to school but don't stop studying”, the Ministry of Education and Training has provided guidance on implementing online teaching and learning for the entire education system towards IT application, but still must ensure Basic quality standards in training in mid-March 2020. Universities have quickly adapted to develop their digital tools and platforms to ensure uninterrupted educational delivery to their isolated students. On the other hand, many online learning platforms are providing free access to their services in response to significant demand. As with most other teaching methods, online learning also has its own positives and negatives.

COVID-19 while posing a danger to mankind, has grown organizations to invest in online learning. While traditional, on-campus learning will inevitably return to prominence as the coronavirus subsides, universities can use this crisis as an opportunity to learn more about new digital tools and how to best leverage them. Addressing these issues could contribute to creating strategies for delivering lessons more effectively, expanding online learning offerings in the post-crisis period. Because of the inevitability of online learning in the future, there is an urgent need to investigate students’ perception of online learning during COVID pandemic. This thesis aims to address some main factors that affect students’ perception of online learning and discuss its potential to make it more inclusive and comprehensive.

2. Literature review

2.1. Online learning

Along with the rapid advancement of technology, online learning is becoming an increasingly significant trend. Even before the sudden appearance of Covid, the online learning system has already been implemented in various locations. The number of online courses continues to escalate steadily and accelerate with the unexpected presence of the pandemic. In the literature, online learning does not have a generic definition because of the overload of explanations and descriptions developed by many researchers and authors. According to Retnoningsih (2017), online learning is defined as a study process that is facilitated and supported by taking advantage of information and communication technology. In a similar fashion, Saifuddin (2017) also describes online learning as a distance learning that connects students with their learning resources as well as others through the use of the internet. Among many authors, Solomon Negash and Marelene V. Wilcox (2008) offered the most complete explanation of online learning, as is a real-time presence where the instructor and learner are both present at the time of learning content delivery. The applications in online learning can be different and

diverse depending on each place. As stated by Fauzi & Khusuma (2020), universities are required to adapt online teaching by carrying out the implementation of various offered applications, such as the zoom application. According to Dewi (2020), various applications can be utilized to support the interaction in online learning, including classroom, video conference, zoom and so on. In brief, online learning can be defined as a learning approach that exploits the potential of the Internet and technology in order to provide and receive educational content.

2.2. Perception

Similar to online learning, perception is also a term that carries many explanations from many authors. As reported by Hermawan & Tyas (2018), perception is the stage of knowing the environment such as objects, people, and symbols or signs that requires the recognition process. Kreitner and Kinicki (1992) explain perception as "a mental and cognitive process that enables people to interpret and understand the surroundings". However, the most popular and widely accepted definition of perception is given by Schacter & Daniel (2011), in which perception is described as the organization, identification and interpretation of sensory information for the purpose of figuring out the information presented or the environment. To conclude, perception is the way people interpret or respond to whatever is happening around them. Consequently, this process can be influenced by internal and external factors. While internal factors include individual experience, motivation and expectation; external factors involve others' expectations, cultural norms and society.

3. Theoretical models and previous research models

3.1. Technology Acceptance Model - TAM

There exist many theories about the explanation of user behavior toward technology-based products and services. The Technology Acceptance Model (TAM), developed by Davis (1989), is definitely the most prominent among others. TAM was designed to predict the usage and adoption of new technology. The purpose of this model is that it helps developers to evaluate the level of user-friendliness of the product and assess the potential of users. In this model, the two components as perceived usefulness and perceived ease of use hold a certain influence on the users' adoption of a new technology system.

However, TAM only provides general information about the technology adoption by users. As a result, further information is required when applying TAM in specific fields, so that the progression of technology can be navigated in the right direction (Mathieson, 1991). In recent years, the TAM model has been expanded by a number of researchers and has been applied to many different technologies including e-learning (Cheung & Vogel, 2013). Many other studies also discovered that perceived usefulness and perceived ease of use have a significant impact

on students' acceptance of e-learning (Bures et al. 2002, Selim 2003, Ong et al. 2004, Drennan et al. 2005, Saade & Bahli 2005).

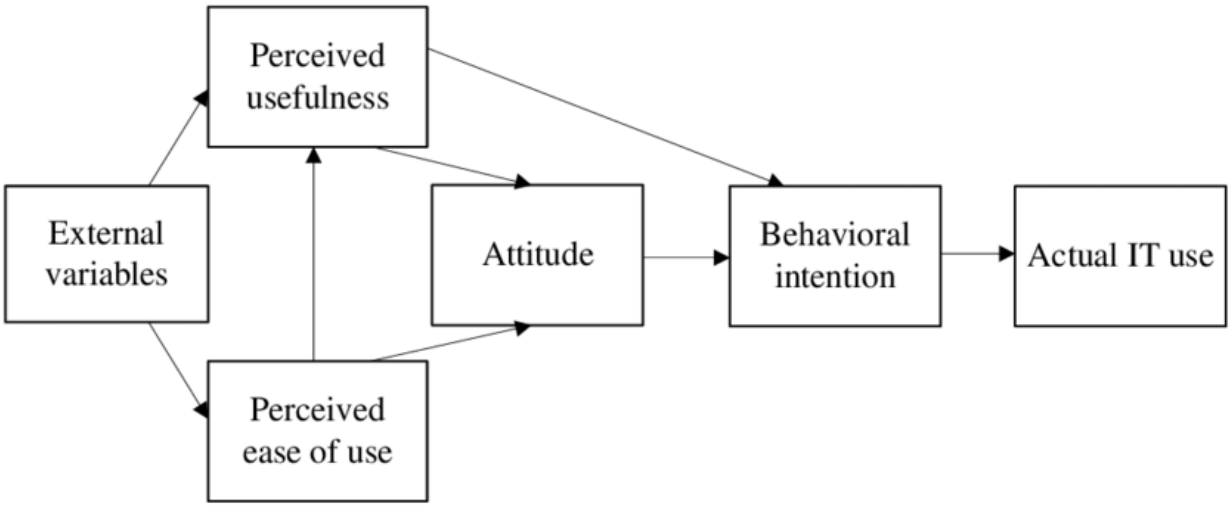

Figure 1: Technology Acceptance Model (Davis, 1989)

3.2. Perception theory

The perception process consists of three stages, which are selection, organization, and interpretation. Selection refers to people's ability to detect stimuli in the environment and convert them into meaningful experience. The second stage is organization, in which people sort out the selected stimuli into categories according to meaningful patterns. Organization is the final stage of perception, relating to the process of attaching meaning to the selected stimuli. In this stage, people with different experience, different characteristics will interpret the same object or event in different ways. Which also means that people coming from similar backgrounds, similar cultures will have similar perspectives when regarding the same object.

There are two dimensions of perception, namely the physical and the psychological. The Physical Dimension of Perception refers to the similar way people regard the object and environment around them since they have the same sensory organs as eyes, ears, and nose. The Psychological Dimension is considered to have a greater impact on perception because of the differences in people's beliefs, motivation, attitudes, interests and cultural values.

Human perception, to a certain degree, is affected by the factors belonging to three sources – the perceiver, the perceived and the situation. Factors in the perceived object including appearance, size, motion and sound can impact the perception toward that object. The situation factors refers to the context in which the objects are observed.The factor in perceiver relating to personal characteristics such as attitudes, motivation, interests, past experiences, and expectations. It means that a person's perspective of an object is highly influenced by his or her experience, habits, motives, personality and personal values.

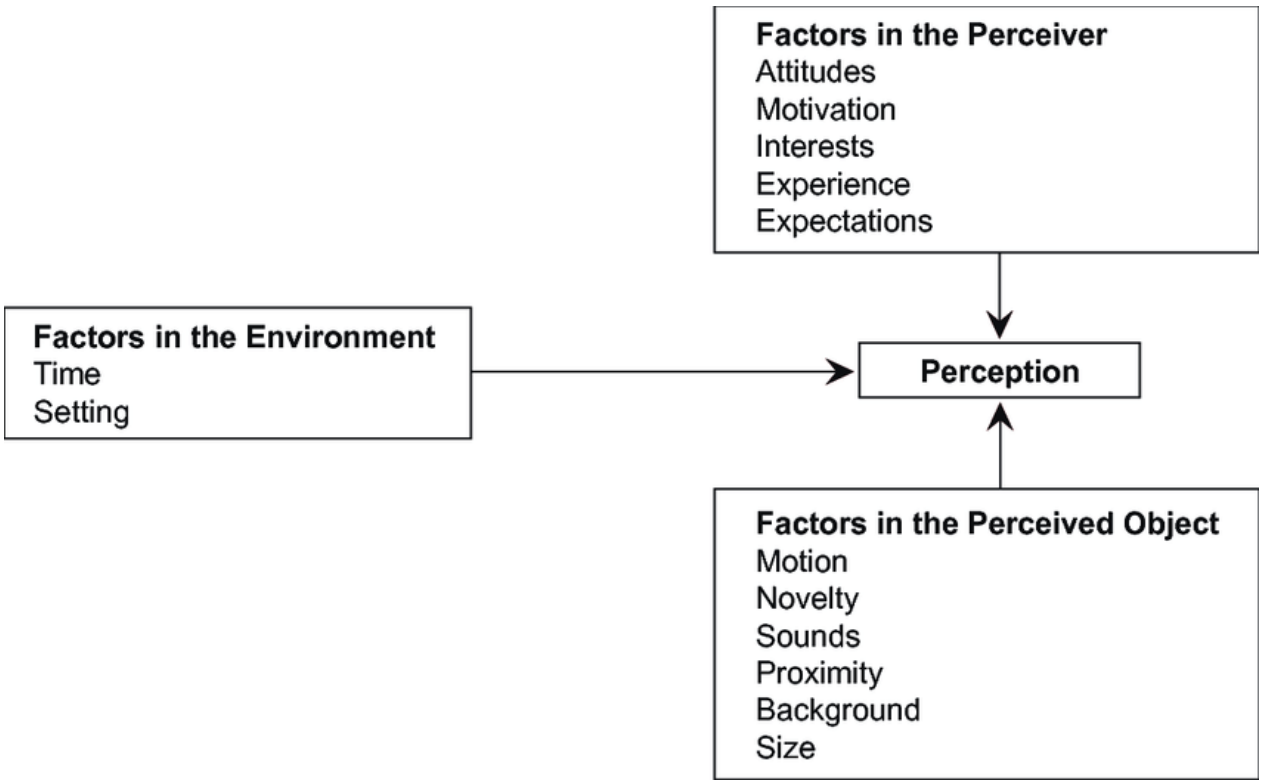

Figure 2: Factors that influence perception (adapted from Robbins, 2001, by Bergh & Theron, 2003)

3.4. Previous research models

Table 1: Summary of previous studies

Author(s) and year	Research title	Research scope	Methodology	Results/Findings
Van Wart, M., Ni, A., Medina, P., Canelon, J., Kordrostami, M., Zhang, J., & Liu, Y. (2020)	Integrating students' perspectives about online learning: a hierarchy of factors	987 students enrolled in educational programs at Jack H. Brown College of Business and Public Administration (JHBC), California State University San Bernardino	Critical success factor methodology	The study reveals that Basic Online Modality, Instructional Support, Teaching Presence, Cognitive Presence, Social Online Comfort, Interactive Online Modality, and Social Presence are factors related to quality from a

		(CSUSB)		student's perspective
Liu, I. F., Chen, M. C., Sun, Y. S., Wible, D., & Kuo, C. H. (2010)	Extending the TAM model to explore the factors that affect Intention to Use an Online Learning Community	436 senior high school students from all over Taiwan	Structural equation modeling (SEM)	Online Course Design, User-interface Design, Previous Online Learning Experience, and Perceived Interaction have certain impact on Intention to Use an Online Learning Community
Fish, L. A., & Snodgrass, C. R. (2014)	A Preliminary Study of Business Student Perceptions of Online versus Face-to-Face Education	67 students from Catholic University	Qualitative method	Student responses to difficulty, motivation, discipline, cheating, self-directed learning, independence, and interaction with the instructor and other students favor FTF education as being preferred

(Soure: Author summarize)

4. Research design

4.1. The method of building the scale

The paper has two research objectives related to creating a scale, including: measuring characteristics of students participating in the research and asking them to assess the level of agreement with the impact of each factor to online learning perception.

The nominal scale was built to distinguish and identify the study subjects. The thesis has developed nominal scales including: Gender, Major, Program, School year and whether they have participated in any online classes. The advantages of this scale are easy to set up as well as high specificity and provide useful information.

Hierarchical scales are designed to quantify and arrange problems in order, measuring attitudes, consciousness, opinions, interests and perceptions. The scales and signs observed in the project use the Likert scale (5 levels) and are described in detail in a table to identify the level of impact of each factor to online learning perception

Likert scale with five levels include: Strongly disagree, Disagree, Neutral, Agree, Strongly agree.

The model has six scales of independent factors with 29 observed variables and a dependent factor scale with 5 observed variables built on a theoretical basis.

Hypothesis H0 has 6 elements including: (1) Motivation, (2) Perceived Usefulness, (3) Perceived Ease of Use, (4) Instructor, (5) Interaction and (6) Academic Integrity

The dependent element is the perception of online learning.

After the results of Cronbach's Alpha analysis, eliminating variables that do not ensure reliability, factor analysis is used to reduce and group the variables, consider the degree of convergence of the observed variables by each component and discriminant value of the factors. When analyzing factors, it is necessary to note the following points: KMO coefficient (Kaiser-Meyer-Olkin) is an indicator that considers the appropriateness of factor analysis. A large KMO value, from 0.5 to 1 is a sufficient condition for an appropriate factor analysis. Bartlett's test of sphericity, if this test is statistically significant, Sig $\leq$ 0.05, the observed variables are correlated with each other in the population. Factor Loading is a simple correlation coefficient between variables and factors. According to Hair et al. (1998), the selection of threshold factor loading factor (Factor Loading) in EFA should consider the sample size.

4.2. Factor analysis for independent variables

Table 13: KMO and Bartlett's Test for Independent Variable

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.719
Bartlett's Test of Sphericity	Approx. Chi-Square	1698.986
	df	351
	Sig.	.000

(Source: Results extracted from the author's analysis in SPSS)

The results of factor analysis to explore independent variables show that, with the KMO test result of 0.719 greater than 0.5 and the Sig of Bartlett's test less than 0.05 (observed variables are correlated with each other in the population), thus rejecting H0. The author can conclude that the survey data have the conditions to conduct exploratory factor analysis (EFA) and can use those results.

Table 14: Total Variance Explained for Independent Variable

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	6.259	23.182	23.182
2	3.874	14.350	37.532
3	2.355	8.722	46.254
4	1.931	7.150	53.404
5	1.792	6.637	60.041
6	1.352	5.006	65.047
7	1.186	4.392	69.440

(Source: Results extracted from the author's analysis in SPSS)

The results of Table 15 show that the factor analysis model produces exactly seven factors with Eigenvalues factor greater than 1, which together explains 69.440%> 50%.

Table 17: Total Variance Explained for Independent Variable

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	2.373	79.102	79.102
2	.372	12.417	91.519
3	.254	8.481	100.000

(Source: Results extracted from the author's analysis in SPSS)

The results of Table 17 show that the factor analysis model produces exactly one factor with Eigenvalues factor greater than 1, which together explains 79.102% > 50%. Therefore, this model is true to the original hypothesis, the research model consists of a dependent variable.

Table 18: Component Matrixa for Dependent Variable

	Component
	1
PE2	.751
PE3	.792
PE4	.830

(Source: Results extracted from the author's analysis in SPSS)

The results show that after performing factor rotation by Varimax method, three observed items (scales) have formed convergence groups with values greater than the minimum standard of

0.5. Therefore, this is the final result to include in the narrowing of the variable in the next section.

5. Conclusion

The intensity of Covid pandemic combined with the trends of applying technology into the teaching and learning process suggest that online learning will continue to play the central role in the education context. Based on the result of data analysis, some implications toward improving student's perception on online learning have been proposed.

About Motivation

The first solution that can boost students' motivation is to reward them for participating in class discussion. Instructors also can increase the level of engagement by adding quizzes or small tests that require student attention and understanding. Most importantly, to catch and hold student’s attention, the instructor must be inspiring and motivating. Moreover, instructors also have to limit distraction and disruption as small as possible to maintain the ongoing class.

About Perceived Usefulness

In order to assist students in time management, instructors can create the calendar of assignments and the schedule of materials to be studied for the course. In this way, students will have the opportunity to schedule their work suitable for their preference and study pace. Giving links to free, easily accessible resources is also important since it makes sure that students will always have accessibility to materials and all the required information. To enhance the perspective of usefulness, the university official must provide detailed information and video tutorial whenever a technology application is involved. Although problems relating to technology are unavoidable, the possible solution for this issue is that students can contact their instructor whenever they encounter technical difficulties. By informing the instructor, students may get assistance from the class instructor and their peers. If the problem can not be sold, an offer for a video recorded lesson afterwards can sooth the student's frustration and nervousness. In this situation, the university' technical support services are considered to be valuable and critical. Furthermore, the university also can try different applications and platforms available in order to find the most accessible and user-friendly tool.

About Interaction

To increase the interaction level in online classes, instructors may give students tasks and questions to discuss. Many platforms and groups can also be implemented to encourage student communication. Moreover, instructors must have a certain degree of sensitivity to provide a stress-free online learning environment. Finally, instructors must maintain communicating with

students by regularly asking them questions, breaking up the long lecture into small activities, group discussion, and so on.

About Academic Integrity

Cheating in exams is common in online learning environments and there are many ways to avoid this problem. By designing questions that require higher order thinking and deeper understanding, students can not simply find the correct answer by searching the Internet (Bloom, 1956). The exam can include varied question types to prevent students from asking help from their friends. It is always necessary to continuously remind students of academic integrity policies and consequences if the policies are not followed.

REFERENCES

1. Altuwairesh, N. (2021). Female Saudi University Students' Perceptions of Online Education Amid COVID-19 Pandemic. Arab World English Journal (AWEJ) Special Issue on Covid, 19.
2. Astani, M., Ready, K. J., & Duplaga, E. A. (2010). Online course experience matters: Investigating students' perceptions of online learning. Issues in Information Systems, 11(2), 14-21.
3. Babbie, Earl R. The Practice of Social Research. 12th ed. Belmont, CA: Wadsworth Cengage, 2010.
4. Bączek, M., Zagańczyk-Bączek, M., Szpringer, M., Jaroszyński, A., & Wożakowska-Kapłon, B. (2021). Students' perception of online learning during the COVID-19 pandemic: a survey study of Polish medical students. *Medicine*, *100*(7).
5. Bartlett, J. et al. (2001). Organizational Research: Determining Appropriate Sample Size in Survey Research. Retrieved January 15, 2018 from: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.486.8295&rep=rep1&type=pdf
6. Brians, Craig Leonard et al. Empirical Political Analysis: Quantitative and Qualitative Research Methods. 8th ed. Boston, MA: Longman, 2011.

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7. Craig, A., Goold, A., Coldwell, J., & Mustard, J. (2008). Perceptions of roles and responsibilities in online learning: A case study. Interdisciplinary journal of e-learning and learning objects, 4(1), 205-223.

8. Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. Management science, 35(8), 982-1003.

9. Eichelberger, A., & Ngo, H. (2018). College students' perception of an online course in special education.

10. Elkaseh, A. (2015). *An investigation of the factors for adopting E-Learning in Libyan higher education for learning and teaching* (Doctoral dissertation, Murdoch University).

11. El-Zeftawy, A. M. A., & Hassan, L. A. E. W. A. E. A. (2016). Perception of students regarding blended learning implementation of community health nursing course at faculty of nursing, Tanta University, Egypt. *Journal of Nursing Education and Practice*, *7*(3), 83-93.

12. Fish, L. A., & Snodgrass, C. R. (2014). A preliminary study of business student perceptions of online versus face-to-face education. The BRC Academy Journal of Education, 4(1), 1-21.

13. Hamdan, A. (2014, October). Faculty members' perceptions of online learning in Saudi Arabia: The case for more professional development support. In *European conference on e-learning* (p. 218). Academic Conferences International Limited.

14. Hixon, E., Barczyk, C., Ralston-Berg, P., & Buckenmeyer, J. (2016). The Impact of Previous Online Course Experience RN Students' Perceptions of Quality. *Online Learning*, *20*(1), 25-40.

15. Hussein, Z. (2016). The Effectiveness Of The E-Learning From The Perspectives Of University Students On Acceptance, Accessibility And Cost Savings. *International E-Journal of Advances in Education*, *2*(5), 280-284.

16. Israel, G. (n.d.) Determining Sample Size. University of Florida IFAS Extension. Article posted on Tarleton State University website. Retrieved January 13, 2018 from https://www.tarleton.edu/academicassessment/documents/Samplesize.pdf.

17. Kanik, M. (2021). Students' Perception of and Engagement in Reactive Online Education Provided during the COVID-19 Pandemic. International Online Journal of Education and Teaching, 8(2), 1063-1082.

18. Kazmer, M. M., Gibson, A. N., & Shannon, K. (2013). Perceptions and experiences of e-learning among on-campus students. In Advancing library education: Technological innovation and instructional design (pp. 45-64). IGI Global.

19. Kumar, S. (2018). Awareness, benefits and challenges of e-learning among the students of Kurukshetra University Kurukshetra: A study. International Journal of Information Dissemination and Technology, 8(4), 227-230.

20. Liu, I. F., Chen, M. C., Sun, Y. S., Wible, D., & Kuo, C. H. (2010). Extending the TAM model to explore the factors that affect intention to use an online learning community. Computers & education, 54(2), 600-610.

21. Lui, A. K., Choy, S. O., LI, S. C., & CHEUNG, Y. H. (2006). A study on the perception of students towards educational weblogs. Informatics in Education, 5(2), 245-266.

22. McNabb, David E. Research Methods in Public Administration and Nonprofit Management: Quantitative and Qualitative Approaches. 2nd ed. Armonk, NY: M.E. Sharpe, 2008.

23. Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). e-Learning, online learning, and distance learning environments: Are they the same?. The Internet and higher education, 14(2), 129-135.

24. Mucundanyi, G. (2019). *College student engagement in online learning* (Doctoral dissertation, New Mexico State University).

25. Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). Advantages, Limitations and Recommendations for online learning during COVID-19 pandemic era. Pakistan journal of medical sciences, 36(COVID19-S4), S27.

26. Muijs, Daniel. Doing Quantitative Research in Education with SPSS. 2nd edition. London: SAGE Publications, 2010.

27. Nassoura, A. B. (2020). Measuring Students' Perceptions of Online Learning In Higher Education. Int. J. Sci. Technol. Res, 9, 1965-1970.

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28. Richardson, C. J., & Swan, K. (2003). Examining social presence in online courses in relation to students' perceived learning and satisfaction. Journal of Asynchronous Learning Networks, 7(1), 68-84.

29. Savvidou, C. (2017). Feedback given, feedback received: lessons from a distance learning course. In *EDULEARN Proceedings* (pp. 8756-8764). IATED Publications.

30. Singh, Kultar. Quantitative Social Research Methods. Los Angeles, CA: Sage, 2007.

31. Smart, K. L., & Cappel, J. J. (2006). Students' perceptions of online learning: A comparative study. Journal of Information Technology Education: Research, 5(1), 201-219.

32. Song, S. M. (2010). *E-learning: Investigating students' acceptance of online learning in hospitality programs*. Iowa State University.

33. Taat, M. S., & Francis, A. (2020). Factors Influencing the Students' Acceptance of E-Learning at Teacher Education Institute: An Exploratory Study in Malaysia. *International Journal of Higher Education*, *9*(1), 133-141.

34. Van Wart, M., Ni, A., Medina, P., Canelon, J., Kordrostami, M., Zhang, J., & Liu, Y. (2020). Integrating students' perspectives about online learning: a hierarchy of factors. International Journal of Educational Technology in Higher Education, 17(1), 1-22.

35. Wang, S. L., & Wu, P. Y. (2008). The role of feedback and self-efficacy on web-based learning: The social cognitive perspective. Computers & Education, 51(4), 1589-1598.