Available online at
https://journal.uitm.edu.my/ojs/index.php/ABRIJ

e-ISSN: 2462-1838

Advances in Business Research International Journal 10(2) 2024, 58-67.

Advances in Business Research International Journal

Factors Shaping Student Satisfaction in E Learning Environment

Syukrina Alini Mat Ali[a*], Noor'ain Mohamad Yunus[b], Sri Fatiany Abdul Kadir Jailani[c] ,Aida Azlina Mansor[d], Nor Diyana Mohamd Shobri[e]

[a]*Faculty of Business and Management, Universiti Teknologi MARA Selangor, Puncak Alam Campus, Malaysia*
[b]*Faculty of Business and Management, Universiti Teknologi MARA Selangor, Puncak Alam Campus, Malaysia*
[c]*Faculty of Business and Management, Universiti Teknologi MARA Selangor, Puncak Alam Campus, Malaysia*
[d]*Faculty of Business and Management, Universiti Teknologi MARA Selangor, Puncak Alam Campus, Malaysia*
[e]*Faculty of Business and Management, Universiti Teknologi MARA Selangor, Puncak Alam Campus, Malaysia*

ARTICLE INFO

Article history:
Received 10 October 2024
Accepted 30 October 2024
Published 31 Octonber 2024

Keywords:
online platforms
instructor support
teaching quality
satisfaction

DOI:
10.24191/abrij.v10i2

ABSTRACT

The aim of this study is to explore the relationship between online platforms, instructor support, and teaching quality and the level of satisfaction among students. This study utilized an online survey targeting students from the Faculty of Business and Management at Universiti Teknologi MARA, Selangor. In targeting this population, the researcher used a convenience sampling technique and collected 160 samples. Quantitative data was analyzed using a statistical analysis tool called SPSS to reveal statistically significant between these variables. Current research evidence points towards instructor support as having a positive correlation with attitudinal behavioural outcomes for students, particularly in regard to feedback and correspondence about online courses. Moreover, having high-quality teachers impacts learners' overall satisfaction with the subject they are learning, quality content, and technique. The readiness to participate in virtual classrooms also depends on the usability of the platforms used, as convenient interfaces increase satisfaction. This research underlines the need for well-ordered procedures of instructors and students' communication to provide supportive educational environment of online classrooms. There are recommendations that institutions should consider supporting instructors to provide better learning experiences on the platform and redesign the platform to increase its effectiveness. Subsequent research should include diverse student demographics by identifying how different factors affect satisfaction in environments for online learning.

1. Introduction

Since the 1990s, online education has been extensively studied and used as a complementary tool to traditional in-person classroom learning (Kang et al., 2022). Subsequently, the progress in online education has increased in conjunction with the growing technology sector, leading to a rising number of students in the current digital era (Prasad, 2022). The advent of online learning has swiftly become a significant catalyst for change in the educational landscape, providing a level of flexibility and accessibility that traditional classroom environments frequently fail to offer. With the widespread availability of digital technologies and internet connectivity, students from various backgrounds can now pursue their education at their own pace, according to their own schedules, and from nearly any location globally. This transformation has not only broadened educational access but has also compelled educational institutions to reconsider their methods of content delivery and engagement with learners. Nonetheless, the success of online learning is

[a*] Syukrina Alin Mat Ali. *E-mail address*: syukrina@uitm.edu.my

https://doi.org/10.24191/abrij.v10i2

intricately linked to student satisfaction (Muzammil, Sutawıjaya & Harsası, 2020). In this context, satisfaction pertains to the extent to which students' expectations, requirements, and experiences are fulfilled throughout their online educational experience. Key factors influencing this satisfaction include the quality of educational materials, the user-friendliness of the learning platform, the degree of interaction with instructors and fellow students, and the availability of support services. These elements are essential in shaping students' perceptions and overall contentment with online learning. Therefore, it is crucial to understand and improve these aspects to ensure that online education is not only accessible but also effective and fulfilling for students.

2. Literature Review

2.1 *Student Satisfaction*

Satisfaction can be described as the emotional state experienced by an individual when the performance or outcome they encounter meets their expectations, leading to a perception of fulfilment (Kotler & Clarke, 1987). According to Oliver and Desarbo (1989), student satisfaction refers to a student's favourable emotions towards their educational experiences and results, which are influenced by continuous interactions and encounters on campus. Turley and Graham (2019) provided a definition of student satisfaction as the state of having a favourable experience and being able to demonstrate their achievements following their engagement in an online learning course. Student satisfaction can also refer to the immediate attitude that arises from the assessment of their experience with the education service they received (Onditi & Wechuli, 2017). When students are happy with the quality of services they receive, they are more likely to remain with their current educational institutions and recommend them to potential students (Mihanović et al., 2016). Numerous recent studies have investigated student satisfaction, particularly in the context of higher education. Research conducted by Said, Meng, Muzirah,& Yaakob, (2022) among two private institutions in Ho Chi Minh City, identifies a diverse array of factors that contribute to student satisfaction in higher education institutions, such as the quality of teaching and learning, community interactions, and infrastructure quality (Said, Meng, Muzirah,& Yaakob, 2022). This paper explores the three factors that contribute to student's satisfaction which are instructional support, teaching quality, and online plaform. In conclusion, student satisfaction is a multifaceted concept influenced by various factors such as instructional support, teaching quality, and the usability of online platforms. Rooted in emotional fulfillment, satisfaction occurs when students' educational experiences and outcomes meet or exceed their expectations. In traditional and online learning environments, factors like continuous engagement with instructors and the quality of feedback play a pivotal role in shaping students' attitudes and satisfaction. The shift to online education, particularly during recent years, highlights the importance of seamless digital platforms, as their usability and interface significantly impact the learning experience. Moreover, high student satisfaction is critical for educational institutions, as it encourages retention, loyalty, and positive word-of-mouth recommendations. Research consistently shows that students who feel supported and achieve favorable outcomes in their educational journeys are more likely to remain with their institutions and promote them to potential students.

2.2 *Instructor Support*

Instructor support encompasses various aspects, including responsiveness, guidance, and communication (Abuhassna et al., 2020). The definition of "support" implies active assistance and encouragement (Ball, O'Connor & Wilson 2017). In the previous literature review, instructor support emerges in many ways on numerous levels (Després-Bedward, Avery, & Phirangee, 2018). As for Pallof and Pratt (2003), instructors should consistently post to the discussion board, respond promptly to emails and assignments, and model effective online communication. The support provided by university instructors appears to have the most significant influence on student satisfaction and learning outcomes (Després-Bedward, Avery, & Phirangee, 2018). In this regard, Moore (1993) contended that the success of distance teaching is based upon the institution and the instructor establishing sufficient opportunities for dialogue between the teacher and the learner. Similarly, Umbach & Wawryznski (2005)] and Yilmaz & Keser(2017) highlighted the effect of instructors on student satisfaction. They asserted that students are more engaged and feel supported in institutions where faculty engage with them in and out of the classroom,

https://doi.org/10.24191/abrij.v10i2

placing a high priority on enriching educational experiences. In addition, instructor support is crucial not only as a source of instruction for satisfaction but also for ensuring that learners are successful in school (Keaton & Gilbert, 2020).In summary, instructor support is a crucial factor in determining student satisfaction and academic success, particularly in online learning environments. Through consistent communication, guidance, and active engagement, instructors can significantly enhance the learning experience. The literature shows that when students feel supported, they are more engaged and achieve better outcomes. As such, fostering strong instructor-student relationships is essential for improving satisfaction and ensuring long-term academic success. Thus, drawing from the existing literature, the hypothesis is formulated as follows

H1: Instructor support influences student satisfaction.

2.3 *Teaching Quality*

In years past, to be a good teacher would mean mastery of the subject matter or high marks on state testing outcomes or being perceived as compliant and obedient, engaged in delivery in your classroom. Many people believe that traits like this have an impact on how well students learn, but no one claims they are related to the performance of teachers. This notion of "quality" has been have discussed in various earlier times along with the history of teaching. It can mean knowledge of the subject, scores or tests passed, level of compliance and obedience, or even brilliance or brilliance in the classroom (Darling-Hammond, 2021). Many people mix up these personal traits with student learning, but they don't always have anything to do with the "master craft" of teaching.“Teaching quality comprises four elements whica are teaching content, teaching methods, teaching conditions, and teaching management” Gao, Zhuang,& Chang, 2021) A survey of 280 undergraduate students from a major higher education institution in Singapore demonstrated a significant relationship between teaching quality and student satisfaction (Wong & Chapman, 2023). A research by Xu and Xue (2023) shown variations in satisfaction levels influenced by infrastructure and the characteristics of online learning environments, indicating that enhancements in teaching quality may result in increased student satisfaction. A further research involving undergraduate students at Linyi University on the correlation between these two factors revealed identical findings. (Gao, Zhuang, & Chang, 2021). In order to improve the quality of their teaching, teachers need to use methods and strategies that get students to talk to each other and participate (Van Wart et al., 2020). In simple terms, teaching quality is no longer just about knowing the subject well or following rules; it now includes important aspects like what is taught, how it’s taught, the learning environment, and how teachers manage their classes. While some people think personal traits of teachers can influence student learning, these traits alone don't define good teaching. Recent research shows that when teaching is of high quality, student satisfaction improves. Factors like engaging teaching methods and a supportive learning environment also play a crucial role. To enhance teaching quality, teachers should use interactive approaches that encourage students to participate and communicate with one another. This leads to the idea that better teaching quality can result in happier, more satisfied students. Therefore based on the previous study, the hypothesis is formulated as below.

H2: Teaching Quality effect students’ satisfaction

https://doi.org/10.24191/abrij.v10i2

2.4 *Online Platform Usability*

The usability of online platforms includes the availability of technical support, ease of accessing course materials, and the effectiveness of communication tools. It also referring to the collaborative and interactive elements, including online classrooms, discussion boards, and opportunities for peer-to-peer learning, that enhance knowledge sharing and promote active student involvement (Yadav et al., 2024). According to Abuhassna et. al., (2020) 243 university students respond better and excel more in online courses when the platforms they use are both friendly. The finding is in line with Nuryakin, et al., (2023) that user friendly plaforms is required to improve student satisfaction. Research published by Yadav et al. (2024) showed that the design and usability of e-learning platforms influence student happiness, as well as their learning achievements and engagement in higher education. Furthermore, when instructional resources are easily accessible and user-friendly, students are less at risk for frustration and more likely to value the learning experience, resulting in enhanced satisfaction (Liaw, 2008). A platform needs to be functional if it provides clear communication between both students and teachers, including components like discussion forums, instant messaging, and a linked feedback system (Van Wart et al., 2020). It is important to having a better online platform for students in order to promote student satisfaction (Yousaf,et., al, 2023). The usability of online platforms plays a crucial role in student satisfaction and engagement. Key factors include access to technical support, ease of navigating course materials, and effective communication tools. Collaborative features like online classrooms, discussion boards, and opportunities for peer learning enhance knowledge sharing and encourage active participation among students. Research indicates that when platforms are user-friendly, students tend to perform better in online courses. A well-designed e-learning platform significantly impacts student happiness, learning achievements, and overall engagement in higher education. Moreover, easy access to instructional resources helps minimize frustration and enhances the learning experience. Functional platforms that facilitate clear communication between students and instructors—such as discussion forums, instant messaging, and feedback systems—are essential for promoting satisfaction. Therefore, developing better online platforms is vital for improving student satisfaction. This leads to the formulation of a hypothesis based on these findings. As the result based on the previous study, the hypothesis is formulated as below

H3: Online Platform Usability effect students' satisfaction

3. **Research Method**

The objective of this study is to examine the influence of the online platform, instructor support, and teaching quality on student satisfaction through the use of a quantitative research design and an online survey. SPSS software will be employed to analyse the data in order to obtain statistical insights. Respondents were selected using a convenience sampling procedure. The sample consisted of 160faculty od Business and Management students from Universiti Teknologi MARA in Selangor. This method was selected for its practicality and accessibility to participants, which are consistent with the study's constraints in terms of time and resources. An online survey was implemented to gather data, which was disseminated via email and social media platforms. The survey comprises closed-ended queries that employ a five-point Likert scale, with responses extending from "strongly disagree" to "strongly agree." SPSS software was employed to analyse the data in order to address the research questions.

4. **Results**

This section presents sets of results relating to the profile of respondents, descriptive statistics, reliability analysis, t test, anova, and multiple regression. Table 1 summarises the characteristics of the respondents of the study. The demographic information of the 160 participants indicates that the majority are female (61.9%) and are above the age of 24 (64.4%), suggesting a prevalence of older students. The majority of students primarily utilise mobile phones (66.9%) for accessing online learning, while laptops are the secondary preference (28.1%). Furthermore, a substantial proportion of students (69.4%) utilise the internet from their residences, as opposed to the institution (30.6%). The demographic distribution indicates that the sample consists of individuals who are highly connected digitally and are more inclined to participate

https://doi.org/10.24191/abrij.v10i2

in online learning from their homes. This might potentially impact their views on the level of assistance provided by instructors, the quality of teaching, and their overall happiness with the online platform.

Table 1: Demographic Information

VARIABLE	FREQUENCY	PERCENTAGE
GENDER		
Males	61	38.1%
Females	99	61.9.%
AGE		
<19	9	5.6%
20-21	6	3.8%
22-23	42	26.3%
>24	103	64.4
MAIN DEVICE		
Laptop	45	28.1%
Mobile phone	107	66.9%
Tablet	8	5.0%
LOCATION TO ACCESS INTERNET		
Home	111	69.4.3%
University	49	30.6%

Tables 2 below present the descriptive statistics results of the study, including mean, standard deviation, skewness, kurtosis and Cronbach's alpha value. The normality test was run to determine the distribution's shape. The assumptions were tested by running the descriptive statistics, and the Skewness and Kurtosis results were presented. The normality test shows that the data was generally distributed since the value of the skewness and kurtosis was ±3 for each variable (Coakes, 2013). In this study, reliability analysis was performed by computing Cronbach's alpha values for each variable. The findings revealed that the scale has good internal consistency.

Table 2: Descriptive Statistics

	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach Alpha's
Instructor's Support	3.655	.789	-.128	-.358	0.879
Teaching Quality	3.702	.692	.284	-.616	0.819
Online Platform Usability	3.700	.760	-.062	-.554	0.874
Student Satisfaction	3.672	.775	-.145	-.325	0.883

Bivariate analyses were computed to examine the relationship between individual characteristics and student satisfaction towards online learning. Preliminary analyses were conducted to ensure no violation of the assumption of normality, homogeneity of variance (Pallant, 2007), or the presence of outliers. The result is presented in table 4. An independent sample t-test was computed to test the significant difference between gender, internet access and place to access the internet. There was a significant difference in satisfaction for males (M=3.068, SD= 0.513) and females (M=4.044, SD=0.669); t (158) =-9.749, p=0.000. The magnitude of the difference in the means (mean difference = -0.436, 95% CI: -1.173 to –0.777) was large (eta squared =0.3). Next, the result revealed that there is a significant difference in satisfaction an internet access connection for yes (M= 3.712, SD=0.758) and no (M= 3.000, SD=0.800); t (158) = 2.732, p 0.007. The magnitude of the difference in the means (mean difference= 0.712, 95% CI: 0.197 to 1.228) was very small (eta squared = 0.04). Finally, there was no significant difference in satisfaction for places to access the internet for home (M=3.693, SD=0.802) and university (M= 3.624, SD= 0.716); t (158) = 0.519, p =

https://doi.org/10.24191/abrij.v10i2

0.604. The magnitude of the difference in the means (mean difference = 0.069, 95% CI: -0.194 to 0.333) was very small (eta squared = 0.001).

A one-way analysis of variance (ANOVA) was performed to explore the relationship between age and device use on student satisfaction towards online learning. Regarding age, participants were divided into four groups according to their age. Findings showed a significant difference at the $p < 0.05$ in satisfaction towards online learning for four age groups: $F(3,156) = 6.531$, $p = 0.000$. The magnitude of difference in the means was large; the effect size calculated using eta squared was 0.111. Next, concerning devices used by part-time students, the type of device was divided into three groups: laptop, mobile phone and tablet. there was a statistically significant difference at $p < 0.05$ level in satisfaction towards online learning for the three device types. : $F(2, 157) = 3.952$, $p = 0.000$. The magnitude of the difference in means was calculated using an eta squared was medium (eta squared = 0.08).

Table 4: Bivariate Analysis for Association Between Demographic Data and Student Satisfaction

	Mean	Standard Deviation	t	F
Gender				
Male	3.068	.513	0.000**	
Female	4.044	.669		
Age				
Less than 19 years old	3.266	.678		0.000**
20-21	2.500	.414		
22-23	3.695	.673		
24 and above	3.767	.778		
Internet Access				
Yes	3.712	.758	0.007**	
No	3.000	.800		
Device				
Laptop	3.653	.702		0.000**
Mobile Phone	3.751	.765		
Tablet	2.725	.755		
Place to Access Internet				
Home	3.693	.802	0.604	
University	3.624	.716		

Multiple regression analyses were performed to analyse the relationship between instructor support, teaching quality, and online platform usability with student's satisfaction towards online learning. Table 5 shows the results of the multiple regression analysis conducted in this study. The result shows no collinearity problem as the value of the VIF was less than ten, and the tolerance value was below 1.0, given from the three independent variables. The R2 value of 0.896 indicates that 89.6 per cent of the variation in the dependent variable is explained by the independent variables. Another 10.4 per cent of student satisfaction is explained by other factors. The F-test is significant at the p-value <0.05 (0.000); therefore,

https://doi.org/10.24191/abrij.v10i2

the linear model is valid overall. The results revealed that there is a significant positive relationship between instructor support ((β=0.259, p<0.05), teaching quality ((β=0.480, p<0.05) and online platform usability (β=0.203, p<0.05) with student satisfaction with online learning.

Table 5: Multiple Regression Analysis

	Standardised Coefficients (Beta)	T	sig	CI Lower	CI Upper	Tolerance	VIF
Instructor's Support	.259	3.373	.001	.105	.403	.216	4.632
Teaching Quality	.480	6.499	.000	.375	.702	.232	4.304
Online Platform Usability	.203	2.760	.006	.059	.356	.234	4.267
R2	0.896						
Adjusted R2	0.898						
F change	210.529						
Sig F Change	0.000						

5. Discussion

Course instructor engagement is particularly valuable in online teaching and learning as observed by finding of this study. This research thus implies that instructor support, ranging from timely feedback, effective guidance, and clear communication from instructors, bear a positive relationship with the inclination of students towards positively developing attitudes towards virtual classrooms. In support of the assertion, Wang and Antonenko (2017) also pointed out that the students themselves consider online video interactions with instructors as more learner-effective. Besides, Seo et al. (2021) explained that the integration of artificial intelligence can improve the communication and support between the teachers and students as well as the student in question which also enrich the learning experience of the students. These insights emphasise that one of the critical components of informed instruction is a structured interaction towards the development of suitable supportive online educational environments. Quality of teaching is another factor that encompasses the satisfaction of students who learn via the internet. There is a strong positive correlation between teaching quality and satisfaction of students as shown by the assessment results of the study. Efficient teaching characterized by quality content, interesting approaches and proper techniques boosts the online learning experience. Vagos and Carvalhais (2022) assert that the student-teacher relationship significantly influences student satisfaction, a critical dimension of overall educational experience. This relationship encompasses emotional support, effective communication, and mutual respect, which collectively foster an engaging learning environment. Research consistently shows that positive interactions between students and teachers lead to enhanced academic performance, increased motivation, and improved emotional well-being. Students' willingness to learn online is also determined by how usable the online platform is. When the platform is user-friendly and simple, it improves the overall learning experience and increases the attractiveness of online learning. According to Vlachogianni and Tselios (2021), the usability of the educational platforms that are being used always contributes to the experience of learners. As Nuryakin et al. (2023) finding, the ease of using the platforms increases the students' happiness levels. Such platforms stimulate engagement and minimize dissatisfaction through easy navigation and simple interfaces. In the end, a better user experience encourages a conducive environment in terms of learning thus improving performance and general wellbeing of students in places of education. This finding backs up the statement in Xu, Zhang and Wang (2023) as regards the platforms' interactive multimedia elements and immersive technology enhancing the constant usage and acceptance of the platforms which can also thrill the users.

https://doi.org/10.24191/abrij.v10i2

6. Conclusion and recommendation

In conclusion, to enhance online education universities should focus on improving the instructors' support through offering the necessary training and developing the effective communication as well as providing appropriate feedback to students supported by AI tools. This will ensure that instruction corresponds to students' requirements and adequately tailored to individual learning experiences. Also, the educational institutions should pay attention to the issues of online environment and make it more user friendly. Other features, such as incorporating interactive and immersion methodologies can also enhance the overall learning experience in a way that would make the students satisfied. Last, but not least, universities should cover a teaching professional development where educators should acquire skills and knowledge concerning the quality of their performance to provide quality and stimulating content that fosters online learning. In further studies, it can be planned to examine the students' diversity in online classes in greater detail. Research should also explore if age, cultural, mode of learning and experience in online learning affects the degree of instructor engagement, the quality of teaching as well as the degree to which the chosen online platform that is easy to use. Such research could help facilitate the development of improved online learning paradigms that are less restrictive, and better suited for use by a wider range of students.

Conflict of interest statement

This section is compulsory. The following is an example of a conflict-of-interest statement:

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

References

Book

Coakes, S. J. (2013). *In SPSS: analysis without anguish: version 20 for Windows.* Australia: WILEY Publication.

Pallant, J. (2007). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.

Kotler, P. & Clarke, R. N. (1987). Marketing for Healthcare organizations, Eaglewood Cliffs, NJ: Prentice Hall

Journal article

Abuhassna, H., Al-Rahmi, W. M., Yahya, N., Zakaria, M. A. Z. M., Kosnin, A. B. M., & Darwish, M. (2020). Development of a new model on utilizing online learning platforms to improve students' academic achievements and satisfaction. International Journal of Educational Technology in Higher Education, 17, 1-23.

Darling-Hammond, L. (2021). Defining teaching quality around the world. European Journal of Teacher Education, 44(3), 295-308.

Ball, D., O'Connor, C., & Wilson, S. (2018, April). The dreams, possibilities, and necessity of public education. In *Presidential Address for the Annual Meeting of the American Educational Research Association (AERA), New York, NY*.

Després-Bedward, A., Avery, T. L., & Phirangee, K. (2018). Student perspectives on the role of the instructor in face-to-face and online learning. *International Journal of Information and Education Technology*, *8*(10), 706-712.

Gao, S., Zhuang, J., & Chang, Y. (2021, October). Influencing factors of student satisfaction with the teaching quality of fundamentals of entrepreneurship course under the background of innovation and entrepreneurship. In Frontiers in education (Vol. 6, p. 730616). Frontiers Media SA.

Garrison, D. R. (2011). E-learning in the 21st century: A framework for research and practice. New York, NY: Taylor & Francis.

Kang, H., Zhang, J., & Kang, J. (2022). Analysis of online education reviews of universities using NLP techniques and statistical methods. Wireless Communications and Mobile Computing, 2022(1), 8730117.

Keaton, W., & Gilbert, A. (2020). Successful online learning: What does learner interaction with peers, instructors and parents look like?. Journal of Online Learning Research, 6(2), 129-154.

https://doi.org/10.24191/abrij.v10i2

Liaw, S. S. (2008). Investigating students' perceived satisfaction, behavioral intention, and effectiveness of e-learning: A case study of the Blackboard system. Computers & Education, 51(2), 864-873.
Mihanović, Z., Batinić, A., & Pavičić, J. (2016). The link between students' satisfaction with faculty, overall students' satisfaction with student life and student performances. *Review of Innovation and Competitiveness, 2*(1), 37–60.
Moore Michael, G. (1993). Theory of Transactional Distance, Keegan D.(ed) Theoretical principles of distance education, London & New York.
Muzammıl, M., Sutawıjaya, A., & Harsası, M. (2020). Investigating student satisfaction in online learning: the role of student interaction and engagement in distance learning university. *Turkish Online Journal of Distance Education*, *21*(Special Issue-IODL), 88-96.
Nuryakin, N., Rakotoarizaka, N. L. P., & Musa, H. G. (2023). The effect of perceived usefulness and perceived easy to use on student satisfaction the mediating role of attitude to use online learning. APMBA (Asia Pacific Management and Business Application), 11(3), 323-336.
Palloff, R. M. & Pratt, K. (2003). The virtual student. A profile and guide to working with online learners. San Francisco: Jossey-Bass.
Prasad, G. (2022). "Online education in industry 5.0," in Pedagogy, Presence, and Motivation in Online Education, Perez, A., and Orakc (eds.). Pennsylvania: IGI Global.
Onditi, E. O., & Wechuli, T. W. (2017). Service quality and student satisfaction in higher education institutions: A review of literature. *International journal of scientific and research publications*, *7*(7), 328-335.
Said, N., Meng, C., Muzirah, M., & Yaakob, M. (2022). Student satisfaction with online learning: A survey of HCMC private university second-year students. *International Journal of Health Sciences*, *6*, 4565-4581
Seo, K., Tang, J., Roll, I., Fels, S., & Yoon, D. (2021). The impact of artificial intelligence on learner–instructor interaction in online learning. International Journal of Educational Technology in Higher Education, 18(1).
Turley, C., & Graham, C. (2019). Interaction, student satisfaction, and teacher time investment in online high school courses. *Journal of Online Learning Research*, *5*(2), 169-198.
Umbach, P. D. and Wawrzynski, M. R. (2005) "Faculty do matter. The role of college faculty in student learning and engagement," Research in Higher Education, 46(2), 153–184.
Vagos, P., & Carvalhais, L. (2022). Online versus classroom teaching: Impact on teacher and student relationship quality and quality of life. Frontiers in psychology, 13, 828774
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), 53
Vlachogianni, P., & Tselios, N. (2022). Investigating the impact of personality traits on perceived usability evaluation of e-learning platforms. *Interactive Technology and Smart Education*, *19*(2), 202-221
Wang, J., & Antonenko, P. D. (2017). Instructor presence in instructional video: Effects on visual attention, recall, and perceived learning. Computers in human behavior, 71, 79-89
Wong, W. H., & Chapman, E. (2023). Student satisfaction and interaction in higher education. *Higher education*, *85*(5), 957-978.
Xu, T., & Xue, L. (2023). Satisfaction with online education among students, faculty, and parents before and after the COVID-19 outbreak: Evidence from a meta-analysis. *Frontiers in psychology*, *14*, 1128034
Yadav, A, Nanda, V, Singh,S.S, Bharti, S, Yadav, N (2024) Enhancing E-Learning Platform for Higher Education. International Journal of Scientific Research in Engineering and Management, 8(4)
Yılmaz, R., & Keser, H. (2017). The impact of interactive environment and metacognitive support on academic achievement and transactional distance in online learning. *Journal of Educational Computing Research*, *55*(1), 95-122.
Yousaf, H. Q., Rehman, S., Ahmed, M., & Munawar, S. (2023). Investigating students' satisfaction in online learning: the role of students' interaction and engagement in universities. Interactive Learning Environments, 31(10), 7104-7121.

https://doi.org/10.24191/abrij.v10i2

https://doi.org/10.24191/abrij.v10i2