

A STUDY OF E-LEARNING ACCEPTANCE ON SATISFACTION OF SENIOR SECONDARY STUDENTS

Ms Shalini* Dr Manju Gera**

ABSTRACT

The global educational terrain has been fully transformed by e-learning. Numerous academic institutions have successfully embraced e-learning, and many more have started doing so in India. This study investigates the acceptance of e-learning and its impact on the satisfaction of senior secondary students in the Tricity region (Chandigarh, Mohali, and Panchkula). A thorough literature analysis has been conducted to achieve this goal by integrating constructs of the Technology Adoption Model. Convenient sampling is utilized to choose the schools in the Tri-city area that have undergone e-learning setup and are utilizing e-learning technology in their teaching-learning process through Smart class utilization. A sample size of 50 students was used in the exploratory study using the questionnaire method. Hypotheses were investigated to determine the significant influence of e-learning adoption on students' satisfaction. The demonstrated outcome showed that e-learning has a significant impact on students' satisfaction.

Keywords: E-Learning, Technology Acceptance Model, Students Satisfaction.

***Research Scholar, Dept. Of Education, P.U. Chandigarh**

**** Prof., Dept. of Education, USOL, P.U. Chandigarh**

INTRODUCTION

"E-learning is not just a change in medium; it is a change in mindset. It empowers learners to take control of their education, explore at their own pace, and transcend the boundaries of traditional classrooms."

E-learning is learning new information and skills online, providing students with a flexible and personalized learning environment. To continuously improve students' knowledge, skills, and more, this innovative approach uses electronic gadgets to give high-quality educational services. (Fazlollahtabar & Muhammadzadeh, 2012).

Sahu (2020) claims that to deliver effective and sustainable education throughout the pandemic, educational institutions in several nations are switching from traditional classroom instruction to online instruction.

Student participation in educational activities is impacted by the relationship between interactive learning and content production. Significant opportunities for self-fulfilment are presented by this correlation, including the ability to provide timely feedback on ideas, remove barriers to production, encourage student interaction, improve cognitive stimulation and performance, gain understanding of learning challenges, and record personal ideas (Shishov et al., 2021).

Senior secondary, being at a critical stage of academic and personal development, are particularly affected by this paradigm shift. This study explores the acceptance of e-learning platforms among these students and the resultant impact on their satisfaction levels and academic outcomes.

REVIEW OF RELATED LITERATURE

Teo, Tan and Wong (1998) investigated the role of perceived usefulness, perceived ease of use and perceived enjoyment on the intention to use the Internet. The findings of the study indicated that the user used to be not significant, while, the perceived enjoyment used to have a strong relationship with internet usage.

Sun and Zhang (2005) conducted an empirical study on causal relationships between perceived enjoyment and perceived ease of use. The findings indicated that the causal direction of perceived enjoyment was stronger on perceived ease of use, while, the direct relationship between perceived ease of use was not that strong in the path analysis.

Sun et al. (2008) identified the factors, after surveying a sample of 295 students. These included the course quality, course flexibility, instructor attitude, computer anxiety, and diversity of the assessment. In online learning, it was observed that the essence of these factors is gauged by the measure that if the quality of these factors is up to the standard, it will surely lead to an adequate level of student satisfaction.

Barber et al. (2015) analysed this perspective by emphasizing upon the importance of three factors, so as to improve the pedagogy for E-learning that is required to achieve students' satisfaction. These factors include online authentic assessment tasks, problem-based learning, and productive and meaningful communities. The researcher argued that there is a positive relationship between these three factors. The results showed that students must be prepared according to the current time period, in order to achieve the most effective and efficient level of education.

Gray and DiLoreto (2016). The researchers focused on four factors, so as to establish a positive relationship between E-Learning practices and the variable of student satisfaction. These factors included the 'Course Structure,' 'Student engagement,' 'Learner interaction,' and 'Instructor Presence'. The results of the study showed that the usage of effective strategies, particularly in designing these factors would significantly impact the students' e-learning capabilities, as well as their level of satisfaction

Munabi (2020) studied the factors that affect the undergraduate distance learners behavioural intention to use the Makerere University E-learning Environment (MUELE) at Makerere university using the Learning Management System-Technology Acceptance Model (LMS-TAM). The LMS-TAM used for this study, was made up of the three factors from original Technology Acceptance Model (TAM): perceived ease of use, perceived usefulness, and behavioural intention including an external factor called enjoyment. The model predicted that enjoyment and perceived usefulness were the factors that influenced learners continued use of the LMS.

Almulla (2021) studied updated TAM paradigm to look at students' adoption of e-learning in university, which includes seven constructs: computer self-efficacy, subjective norm, perceived enjoyment, perceived usefulness, perceived ease of use, attitude towards use, and behavioural intention to use e-learning system for education sustainability. 174 university students were selected by stratified random sampling. Computer self-efficacy (CSE), subjective norm (SN), and perceived enjoyment (PE) were found to be major determinants of perceived ease of use (PEU) and perceived usefulness (PU).

Alqahtni (2022) analyzed and investigated the educational quality, social influence, and TAM Model factors that increase the students' attitude toward using e-learning; thus, it affects students' satisfaction and academic performance. The study was conducted at two universities in Saudi Arabia. Structural equation modeling (SEM) and route analysis were used to evaluate the research model and analyze data from e-learning users through a questionnaire. The findings revealed that perceived ease of use (PEU) and perceived usefulness (PU) mediate the effects of educational quality (EDQ), social influence (SOI), and perceived enjoyment (PE), which in turn affect students' attitude toward use (ATU), and students' satisfaction with using e-learning systems (SSE). Additionally, the results demonstrated that the mediator factors had favorable "R square (R²)" values for adopting e-learning systems in higher education, with PEU = 0.562, PU = 0.712, ATU = 0.608, and SSE = 0.636. The hypotheses' findings led to the development of a validated instrument to measure students' online learning in Saudi Arabia's higher education.

Douglas (2023) analysed the factors that influence the satisfaction and intention of continuity of use, of teachers and students, regarding using Moodle in undergraduate courses in one Campus at the Federal Institute of Rondônia in Brazil. The starting point was an integration of DeLone and McLean's Information Systems Success Model (ISSM) with Davis' Technology Acceptance Model (TAM). The results confirmed six of the nine hypothesised relationships. QI positively impacts PEOU and US. PEOU positively impacts PU, which in turn positively impacts US and BI. Similarly, US positively impacts Moodle's BI. It was also evidenced that PU is the strongest predictor of US.

Sutirman (2024) studied the results of adoption of electronic learning systems (BeSmart) using Technology Acceptance Model (TAM) factors and servqual models to measure the education services. The data was obtained using SEM with AMOS 2.4. From the findings of the study, note that EoU and U of electronic learning systems have a positive and significant effect on ESQ through student satisfaction. These findings contribute to university management to understand that service quality needs to pay attention to Ease of Use, Usefulness, and student satisfaction. This research provides insights into the importance of improving the quality of service in education and students' satisfaction, especially in the provision of service in learning and teaching field.

SIGNIFICANCE OF THE STUDY

This study aims to determine how students feel about the acceptance of e learning and evaluate it for academic reasons. Positive student perceptions, the facilitation of student concentration, the flexibility of access to smart learning sources for learning, and the improvement of student skills in using smart class technology for e-learning are significant results of this research study about incorporating smart class technology into teaching.

Additionally, e-learning and developing methodologies and technologies connected to e-learning have gained much attention. This is because of the necessity to adapt to the educational process in the environment of senior secondary education. According to Hong et al (2021), some people believe that the availability of information and communication technology (ICT) and the Internet to design and deliver education has become a new problem to meet the far more extensive data consumption using applications and learning tools that are utilized in e-learning. Due to this, e-learning will face considerable challenges in terms of both the technical (reliability of information and communication technology, availability of equipment) and social aspects (the capability of teachers to deliver e-learning, difficulties experienced by students).

One of the most important indicators of the quality of higher education is the extent to which students are content with the results of their experiences having participated in e-learning. It is logical to anticipate that a higher level of satisfaction will be related to a more significant probability of success in the learning process, ultimately resulting in improved learning performance. It is possible to gain fresh insights into the fundamental to core issues of successful learning practices by assessing and evaluating the aspects that influence student satisfaction with the outcomes of e-learning (Yawson& Yamoah, 2020). Several factors play a role in determining the level of satisfaction and future use of e-learning. These factors include the perceived utility of the learning knowledge provided, the low complexity of the outputs of e-learning, and the availability of user technical support.

The research aims to answer the following questions:

What aspects of e-learning impact senior secondary students' acceptance.

What is the impact of e-learning acceptance on their level of academic satisfaction.

OBJECTIVES

This study was conducted to achieve the following objectives:

- 1.To study the impact of Perceived Usefulness (PU) on Student's Satisfaction (SS)
- 2.To study the impact of Perceived Ease of Use (PEOU) on Student's Satisfaction (SS)

HYPOTHESES

H.1a: There exists no significant impact of Perceived Usefulness (PU) on Students satisfaction (SS).

H.2a: There exists no significant impact of Perceived Ease of Use (PEOU) of TAM Construct on Students satisfaction (SS).

METHODOLOGY

In light of the previous review of the survey strategy and its distinguishing characteristics, this research chose a Survey Method to be applied as the research methodology. Many studies in E-Learning have used the survey strategy as the methodology for data collection (Ali and Ahmad, 2011; Islam et al., 2011). Therefore, this research follows the same approach for data collection.

A questionnaire consisting of three sections was used as instrument to collect data.

Section 1 had the demographic factors of the students.

Section 2 was used to identify the student's exposure to E-learning.

Section 3 In this part, the students were asked to rate statements according to the following scales: 1- strongly disagree, 2- disagree, 3-unsure, 4-agree and 5-strongly agree also their valuable inputs with regard to learning by smart class usage.

The number of units taken in a sample is referred to as sample size. In this study, a sample of 50 students was taken from Tricity (Chandigarh, Mohali and Panchkula).

SAMPLE

The sample of 100 senior secondary students was selected from Tricity (Chandigarh is Union Territory; Mohali represents Punjab whereas Panchkula represents Haryana). A random purposive sampling technique was used.

DISCUSSION AND FINDINGS

The literature research revealed that the e-learning approach simultaneously impacts learner satisfaction. Student satisfaction with e-learning results is a primary indication of education quality in education. A positive correlation can be inferred between a greater level of happiness and an increased likelihood of success in the learning process, resulting in improved learning performance. Analysing and evaluating the factors that impact student satisfaction with e-learning outcomes might offer fresh perspectives on the essential aspects of effective learning methods.

E-Learning Acceptance Factors: The study found that the perceived usefulness and perceived ease of use, interactive teaching methods, and platform usability were key determinants of e-learning acceptance. Students who received consistent teacher support in school and guidance were more likely to engage with e-learning platforms.

Satisfaction: A majority (84%) of respondents reported satisfaction with e-learning, citing flexibility and accessibility as major advantages. However, 16% expressed dissatisfaction due to technical challenges and lack of interpersonal interaction.

CONCLUSION

The acceptance of e-learning significantly influences the satisfaction of senior secondary students in the Tricity region. While e-learning offers flexibility and enhances academic outcomes for many students, it also presents challenges such as limited teacher-student interaction and technological barriers. Institutions must focus on improving infrastructure, providing training for teachers, and fostering self-regulated learning among students to maximize the benefits of e-learning.

Future research could explore the long-term impacts of e-learning and its effectiveness in comparison to traditional classroom methods, considering diverse demographic and socio-economic factors.

DELIMITATION OF THE STUDY

The study will be delimited with respect to the following:

- The present study was confined to the Senior Secondary Students of Tricity only.
- The present study was confined to Senior Secondary Schools of Tricity with the provision of E-learning/Smart classes.

REFERENCES

Abbad, M. M. M. (2021). Using the UTAUT model to understand students' usage of elearning systems in developing countries. *Education and Information Technologies*, 26(6), 7205–7224. <https://doi.org/10.1007/s10639-021-10573-5>

Alqahtani, M. A., Alamri, M. M., Sayaf, A. M., & Al-Rahmi, W. M. (2022). Exploring student satisfaction and acceptance of e-learning technologies in Saudi higher education. *Frontiers in Psychology*, 13(October), 1–13. <https://doi.org/10.3389/fpsyg.2022.939336>

Barrot, J. S., Llenares, I. I., & del Rosario, L. S. (2021). Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines. *Education and Information Technologies*, 26(6), 7321–7338.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.

Fülöp, M. T., Breaz, T. O., Topor, I. D., Ionescu, C. A., & Dragolea, L. L. (2023). Challenges and perceptions of e-learning for educational sustainability in the “newnormality era.” *Frontiers in Psychology*, 14(January), 1–14. <https://doi.org/10.3389/fpsyg.2023.1104633>

Goossen, K., Hess, S., Lunny, C., & Pieper, D. (2020). Database combinations to retrieve systematic reviews in overviews of reviews: A methodological study. *BMC Medical Research Methodology*, 20(1), 1–15. <https://doi.org/10.1186/s12874-020-00983-3>

Hasan, N., & Bao, Y. (2020). Impact of “e-Learning crack-up” perception on psychological distress among college students during COVID-19 pandemic: A mediating role of “fear of academic year loss.” *Children and Youth Services Review*, 118(August), 105355. <https://doi.org/10.1016/j.childyouth.2020.105355>

Hoerunnisa, A., Suryani, N., & Efendi, A. (2019). E-Learning In Multimedia Classes To Improve Vocational Students' Learning. *07(02)*, 123–137.

Hong, J. C., Liu, Y., Liu, Y., & Zhao, L. (2021). High School Students' Online Learning Ineffectiveness in Experimental Courses During the COVID-19 Pandemic. *Frontiers in Psychology*, 12(August), 1–9. <https://doi.org/10.3389/fpsyg.2021.738695>

Koh, J. H. L., & Kan, R. Y. P. (2021). Students' use of learning management systems and desired e-learning experiences: are they ready for next generation digital learning environments? *Higher Education Research and Development*, 40(5), 995–1010. <https://doi.org/10.1080/07294360.2020.1799949>

Landrum, B., Bannister, J., Garza, G., & Rhame, S. (2021). A class of one: Students' satisfaction with online learning. *Journal of Education for Business*, 96(2), 82–88. Mystakidis, S., Berki, E., & Valtanen, J. (2019). The Patras blended strategy model for deep and meaningful learning in quality life-long distance education. *Electronic Journal of E-Learning*, 17(2), 66–78. <https://doi.org/10.34190/JEL.17.2.01>

Moore, M. G., & Kearsley, G. (2011). *Distance Education: A Systems View of Online Learning*. Cengage Learning.

Nikou, S., & Maslov, I. (2023). Finnish university students' satisfaction with e-learning outcomes during the COVID-19 pandemic. *International Journal of Educational Management*, 37(1), 1–21. <https://doi.org/10.1108/IJEM-04-2022-0166>

- Poerwita Sary, F., &Herlambang, O. (2019). E-learning Program Effectiveness on Students' Learning Satisfaction at Telkom University Bandung. *KnE Social Sciences*, 3(14), 271. <https://doi.org/10.18502/kss.v3i14.4314>
- Prifti, R. (2022). Self-efficacy and student satisfaction in the context of blended learning courses. *Open Learning*, 37(2), 111–125. <https://doi.org/10.1080/02680513.2020.1755642>
- Rachmawati, R., Azis, Y. M., & Sarosa, M. (2023). Student Satisfaction and Priority Quadrants towards E-Learning. *Indonesian Journal Of Educational Research and Review*, 6(1), 219–229. <https://doi.org/10.23887/ijerr.v6i1.59306>
- Saputri, M. E., Utami, F. N., & Sari, D. (2022). The Effectiveness of E-Learning Service Quality in Influencing E-Learning Student Satisfaction and Loyalty at Telkom University. Setiawati, A. P. (2023). Impact of E-Learning Quality on Student Satisfaction During Covid-19 and Continuing Intentions to Use E-Learning Post. *Conference On Economics Management AndAccounting*, 1, 422–436. Shishov, S. E., Yu, S., Lyakhova, N. B., Pivneva, S., Kapustina, D. M., &Arkotov, P. A. (2021). Digitalization Policy Influence: Implementation of Mobile Learning in the University Educational Process. *Webology*, 18(Special Issue), 687–699 <https://doi.org/10.14704/WEB/V18SI04/WEB18158>
- Taghizadeh, M., &Hajhosseini, F. (2021). Investigating a Blended Learning Environment: Contribution of Attitude, Interaction, and Quality of Teaching to Satisfaction of Graduate Students of TEFL. *Asia-Pacific Education Researcher*, 30(5), 459–469. <https://doi.org/10.1007/s40299-020-00531-z>
- Tj, H. W., &Tanuraharjo, H. H. (2020). The Effect Of Online Learning Service Quality On Student Satisfaction During COVID19 Pandemic In 2020. *JurnalManajemen Indonesia*, 20(3), 240. <https://doi.org/10.25124/jmi.v20i3.3520>
- Wagiran, W., Suharjana, S., Nurtanto, M., &Mutohhari, F. (2022). Determining the elearning readiness of higher education students: A study during the COVID-19 pandemic. *Heliyon*, 8(10), e11160. <https://doi.org/10.1016/j.heliyon.2022.e11160>
- Wan Mamat, W. H., Mohd Nazry, S. S., & Mohamad Shariff, N. (2022). Impact Effectiveness and Satisfaction of E-Learning among Undergraduate Students During Pandemic Covid-19. *International Journal of Care Scholars*, 5(3), 12–20. <https://doi.org/10.31436/ijcs.v5i3.222>
- Yawson, D. E., & Yamoah, F. A. (2020). Understanding satisfaction essentials of Elearning in higher education: A multi-generational cohort perspective. *Heliyon*, 6(11), e05519. <https://doi.org/10.1016/j.heliyon.2020.e05519>
- Zheng, H., Qian, Y., Wang, Z., & Wu, Y. (2023). Research on the Influence of ELearning Quality on the Intention to Continue E-Learning: Evidence from SEM and fsQCA. *Sustainability*, 15(6), 5557. <https://doi.org/10.3390/su15065557>
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice*, 41(2), 64-70.