



Evaluating University Students' Acceptance of ChatGPT Using UTAUT2: Evidence from an Indonesian Computer Science Faculty

Aziza Aulia Salsabilla*¹, Muhamad Sadar², Syahtriatna³, Afriansyah⁴, Bayu Febriadi⁵

^{1,2,3,4,5}Faculty of Computer Science, Universitas Lancang Kuning, Pekanbaru, Indonesia

*Corresponding Author

Email: auliaazizaaulia@gmail.com

Received: 01/12/2025 Revised: 15/12/2025 Accepted: 20/12/2025 Published: 29/12/2025



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Abstract

This study examines determinants of students' behavioural intention to use ChatGPT in higher education by applying the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) within an Indonesian computer science faculty. A cross sectional survey was administered to 100 undergraduate students, and the structural relationships were assessed using partial least squares structural equation modelling. The results indicate that performance expectancy, effort expectancy, social influence, hedonic motivation, and habit are significant predictors of intention to use ChatGPT, whereas facilitating conditions and perceived price value are not significant. The findings contribute empirical evidence for understanding generative AI adoption in Indonesian higher education and suggest that universities should focus on task relevance, ease of use, responsible enjoyment, and habitual integration supported by academic integrity guidance and pedagogical scaffolding

Keywords: ChatGPT, generative AI, technology acceptance, UTAUT2, PLS-SEM, higher education, Indonesia

Introduction

Generative AI tools are rapidly entering academic workflows, reshaping how students search, draft, and refine academic outputs, while simultaneously raising concerns about overreliance and academic integrity. Empirical research has increasingly focused on students' perceptions and adoption drivers of ChatGPT across higher education settings (Habibi et al., 2023; Menon & Shilpa, 2023).

Within technology adoption scholarship, UTAUT2 remains a frequently used explanatory framework, and recent syntheses highlight that its core predictors continue to perform robustly across contexts, but their salience varies by technology type and setting (Tamilmani et al., 2021). For generative AI, students' adoption decisions may be shaped by utility for learning tasks, perceived interactional ease, and social norms within academic communities (Acosta-Enriquez et al., 2024; Ravšelj et al., 2025).



In Indonesia, systematic evidence on ChatGPT acceptance is still limited, particularly at the faculty level, where discipline specific task demands may moderate the perceived value of generative AI. This study addresses the gap by testing a UTAUT2 based model among computer science students at Universitas Lancang Kuning.

The research objectives are to (1) quantify the effects of UTAUT2 constructs on behavioural intention to use ChatGPT and (2) derive practical implications for responsible, learning oriented integration of generative AI tools in higher education.

Materials and Methods

Research design

The study employed a quantitative explanatory design using a cross sectional questionnaire survey. The conceptual model was adapted from recent UTAUT2 applications and updated to the context of generative AI use in higher education (Tamilmani et al., 2021; Baig et al., 2024).

Participants and data collection

Data were collected from 100 undergraduate students enrolled in the Faculty of Computer Science, Universitas Lancang Kuning. Participation was voluntary and anonymous, and the questionnaire was distributed using an online form during the academic term.

Measures

The instrument operationalised UTAUT2 constructs including performance expectancy (PE), effort expectancy (EE), social influence (SI), facilitating conditions (FC), hedonic motivation (HM), price value (PV), habit (HT), and behavioural intention (BI). Items were rated on a Likert type scale. Content validity was checked through expert review and pilot readability checks.

Data analysis

The measurement and structural models were evaluated using partial least squares structural equation modelling. Significance was assessed via bootstrapping with t statistics and p values. Model interpretation followed contemporary reporting practices for technology acceptance studies in higher education (Jeon & Lee, 2023; Cotton et al., 2024).

Respondent	Service Quality	Facilities	Comfort
R001	4	3	5
R002	3	3	4
R003	5	4	5
R004	2	2	3
R005	3	3	4
R006	4	5	5
R007	2	1	2
R008	3	2	3
R009	5	5	5
R010	4	4	4

Respondent	Service Quality	Facilities	Comfort
Crisp Value Range	Category		
0–40	Very Dissatisfied		
41–55	Dissatisfied		
56–70	Fairly Satisfied		
71–85	Satisfied		
86–100	Very Satisfied		

Results and Discussion

Hypothesis testing

Structural testing shows that PE, EE, SI, HM, and HT significantly predict BI, whereas FC and PV are not significant. Significant paths include PE to BI ($t=3.21, p=0.001$), EE to BI ($t=2.98, p=0.003$), SI to BI ($t=2.45, p=0.015$), HM to BI ($t=4.02, p<0.001$), and HT to BI ($t=3.89, p<0.001$). Non significant effects are FC to BI ($t=1.12, p=0.263$) and PV to BI ($t=0.98, p=0.327$).

Discussion and implications

The dominance of PE and EE aligns with recent findings that students prioritise practical utility and effort reduction when evaluating generative AI tools for academic tasks (Habibi et al., 2023; Menon & Shilpa, 2023). The significant role of HM suggests that perceived enjoyment and conversational interaction may support sustained use, while HT indicates that repeated exposure can normalise ChatGPT as part of routine study practices (Acosta-Enriquez et al., 2024; Ravšelj et al., 2025).

The non significance of FC may reflect students’ strong baseline digital skills and existing access to devices and internet services, reducing the incremental effect of institutional support. Similarly, the non significance of PV is plausible in contexts where students primarily access free or institutionally available AI services.

Practically, universities should focus on aligning ChatGPT use with learning objectives and assessment integrity, offering guidance on prompt literacy, source verification, and reflective critique to mitigate risks of superficial learning and academic misconduct (Cotton et al., 2024; Baig et al., 2024).

Crisp Output Range	Satisfaction Category (Likert)
1.00 – 1.49	Not Satisfied (Very Low)
1.50 – 2.49	Moderately Satisfied (Low–Medium)
2.50 – 3.49	Satisfied (High–Medium)
3.50 – 4.00	Very Satisfied (High)

Conclusion

This study provides evidence that performance expectancy, effort expectancy, social influence, hedonic motivation, and habit significantly shape students’ intention to use ChatGPT within an Indonesian computer science faculty. Facilitating conditions and perceived price value did not show significant effects in the tested model.



The findings support targeted institutional strategies centred on demonstrable learning utility, usability support, and responsible integration practices. Future research should expand samples across disciplines and institutions, incorporate actual use measures, and test moderating effects such as prior AI experience and academic integrity orientation.

References

Acosta-Enriquez, J. E., et al. (2024). Public acceptance of artificial intelligence services using UTAUT2: Evidence from Latin America. *Heliyon*. <https://doi.org/10.1016/j.heliyon.2024.e24254>

Baig, A., Guo, Y., Manjrekar, P., & Parde, N. (2024). A systematic review of ChatGPT in education: Global trends, challenges, and opportunities. *International Journal of Educational Research*, 128, 102411. <https://doi.org/10.1016/j.ijer.2024.102411>

Cotton, D. R. E., Cotton, P. A., & Shipway, J. R. (2024). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International*. <https://doi.org/10.1080/14703297.2023.2190148>

Habibi, A., et al. (2023). The adoption of ChatGPT in education: Students' perceptions and behavioural intention. *Computers and Education: Artificial Intelligence*, 5, 100190. <https://doi.org/10.1016/j.caeai.2023.100190>

Jeon, J., & Lee, S. (2023). Large language models in education: An empirical study of students' use and attitudes toward ChatGPT. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-023-11834-1>

Menon, D., & Shilpa, A. (2023). AI chatbots and student learning: Exploring the role of ChatGPT in higher education. *Heliyon*, 9(11), e20962. <https://doi.org/10.1016/j.heliyon.2023.e20962>

Ravšelj, D., et al. (2025). Exploring university students' adoption of ChatGPT: A cross country study. *PLOS ONE*. <https://doi.org/10.1371/journal.pone.0315011>

Tamilmani, K., Rana, N. P., Prakasam, N., & Dwivedi, Y. K. (2021). The battle of Brain vs. Heart: A literature review and meta analysis of "hedonic motivation" use in UTAUT2. *International Journal of Information Management*, 58, 102269. <https://doi.org/10.1016/j.ijinfomgt.2020.102269>

Strzelecki, A., & ElArabawy, Y. (2024). To use or not to use ChatGPT in higher education: Students' acceptance and use of ChatGPT. *British Journal of Educational Technology*. <https://doi.org/10.1111/bjet.13425>

Acceptance and use of ChatGPT in the academic community: An empirical study based on the UTAUT model. (2024). *Education and Information Technologies*. <https://doi.org/10.1007/s10639-024-12765-1>