International Journal of Evaluation and Research in Education (IJERE)
Vol. 15, No. 1, February 2026, pp. 136~145
ISSN: 2252-8822, DOI: 10.11591/ijere.v15i1.33610

Assessing the impact of ChatGPT in education: perspectives from Vietnamese educators

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Article Info

Article history:

Received Mar 30, 2025
Revised Oct 13, 2025
Accepted Nov 16, 2025

Keywords:

Adoption intention
Artificial intelligence
ChatGPT
Education technology
System quality
User satisfaction
Vietnamese educators

ABSTRACT

ChatGPT is an AI-driven conversational model offering significant benefits for personalized learning, such as adaptability to individual learning styles and increased engagement. While prior research has largely explored student use, limited attention has been given to educators' perspectives particularly in Vietnam, where access to ChatGPT remains inconsistent. This study examines how perceived information quality (IQ), system quality (SQ), and service quality (SRQ) influence Vietnamese educators' satisfaction (SF) and intention to use (IU) ChatGPT for academic purposes. Data were gathered through an online survey of 96 educators from five public universities in southern Vietnam and analyzed using partial least squares structural equation modeling (PLS-SEM). Results show that all three quality dimensions significantly affect user SF, but only SQ directly impacts the IU. SF mediates the effects of information and SRQ on usage intentions, emphasizing the importance of user experience in fostering adoption. Policy recommendations include enhancing equitable access to AI tools, promoting AI literacy among educators, and conducting ongoing evaluations to support sustainable implementation. The study highlights how spatial and contextual factors shape AI adoption in education, offering practical insights for integrating ChatGPT and similar tools, especially in under-resourced or geographically remote educational settings.

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1. INTRODUCTION

In recent years, the proliferation of artificial intelligence (AI) technologies has revolutionized various sectors, giving rise to virtual assistants like Siri (Apple) and Alexa (Amazon). The remarkable growth of AI, particularly in the context of global integration and the robust development of the fourth industrial revolution, is unsurprising. Among the innovative AI applications, ChatGPT has emerged as a promising tool. Based on the GPT-3.5 architecture developed by OpenAI, it utilizes advanced natural language processing techniques to simulate human-like conversations and provide tailored responses to user queries. For instance, it simplifies the lives of millions through unique supports, such as aiding individuals in unfamiliar languages when writing job applications for new locations or assisting those with dietary restrictions in creating suitable meal plans [1].

The impact of ChatGPT extends to education, where its automatic generation of responses and solutions to user queries makes learning and teaching more straightforward and convenient than ever. For students, ChatGPT enhances learning engagement through interactive conversations, allowing questions, explanations, and prompt feedback, fostering active participation and a deeper understanding [2]. Additionally, ChatGPT adapts and personalizes the learning experience for each student. For teachers, it aids in content creation, suggests innovative teaching techniques, and provides real-time feedback, lightening their workload and enabling them to focus on inspiring and guiding students [3].

Despite the substantial benefits that AI offers users, its role in higher education remains a topic of debate. Some see AI as a tool to enhance learning and reduce workload, while others perceive AI and ChatGPT as potential threats to academic integrity, information security, and facilitators of cheating and plagiarism [4]. Hence, it is crucial to investigate the potential use of ChatGPT in education, taking into consideration the ethical and academic integrity concerns associated with its utilization [5].

Existing research has begun to address these issues, but important gaps remain. For instance, Maheshwari [6] examined ChatGPT adoption in the Vietnamese context, but the analysis centered on students rather than educators. Parker *et al.* [7] explored graduate instructors' experiences with ChatGPT in Western institutions, while Al-Mughairi and Bhaskar [8] analyzed adoption drivers among teachers in the Middle East. These studies show the breadth of contexts where ChatGPT is being studied, yet they highlight the lack of evidence on how educators in Vietnam where digital transformation is rapid but uneven perceive and adopt this technology. To fill this gap, the present study focuses on Vietnamese educators and examines the factors shaping their satisfaction (SF) and intention to use (IU) ChatGPT. Grounded in the technology acceptance model (TAM), it explores the roles of information quality (IQ), system quality (SQ), and service quality (SRQ), as well as the mediating influence of SF. Specifically, the research addresses three questions:

- How do information, system, and SRQ influence SF with ChatGPT?
- Does SF mediate the relationship between these qualities and IU?
- Which factors most strongly predict adoption intention among educators?

By addressing these questions, this study contributes novel insights to the educator focused ChatGPT literature. It expands prior student-centered or non-Vietnamese analyses by providing evidence from a distinctive and underexplored national context. The findings offer valuable guidance for policymakers and technology developers seeking to improve AI-assisted teaching tools and ensure that educators can effectively integrate ChatGPT into academic practice.

2. LITERATURE REVIEW

2.1. ChatGPT in education

ChatGPT has gained significant attention in education for its ability to generate responses and solutions and simplifying learning. For instance, Foroughi *et al.* [1] studied factors affecting student engagement with ChatGPT, while Bilquise *et al.* [2] explored student perceptions of chatbots in academic advising. Maheshwari [6] examined ChatGPT adoption in Vietnamese higher education, focusing on perceived usefulness, ease of use, and social influence.

While most prior studies emphasize students' experiences with ChatGPT, fewer examine educators. Study by Parker *et al.* [7] reported on graduate teaching assistants in Western contexts, while Al-Mughairi and Bhaskar [8] analyzed teachers' adoption in the Middle East, highlighting both benefits and concerns. Yet, little is known about how educators in Vietnam perceive ChatGPT or how technical quality shapes their adoption decisions. This study addresses that gap by applying the TAM to investigate how information, system, and SRQ affect Vietnamese educators' SF and IU ChatGPT, as shown in Figure 1.

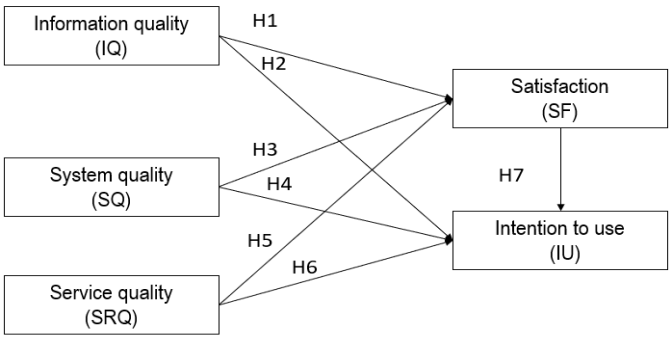

Figure 1. Research model

2.2. Influencing factors and hypothesis development

2.2.1. Information quality (IQ)

The term IQ encompasses the precision, dependability, comprehensiveness, timeliness, and interrelation of data generated by an information system [9]. In this research context, IQ refers to the relevance, adequacy, accuracy, and timeliness of information based on feedback from ChatGPT [10], [11]. Numerous studies have established a reliable connection between IQ and user SF. For instance, Suzianti and Paramadini [12], research demonstrates that IQ influences perceived usefulness, subsequently impacting user SF with the information system. Conversely, insufficient IQ can compromise the user experience as individuals must invest significant effort in scrutinizing information [13]. Consequently, enhanced IQ significantly influences perceived usefulness, leading to enhanced users' intention to persist in adopting online banking services [14], [15]. Therefore, we hypothesize that:

- H1: IQ positively influences SF.
- H2: IQ positively influences the IU ChatGPT.

2.2.2. System quality (SQ)

The quality of a system is contingent upon the users' requirements, as delineated during the system's analysis and development phases. With advancements in web technologies, more sophisticated and user-friendly features have been integrated. In this study, SQ is gauged by the reliability, user-friendliness, response time, and availability of ChatGPT systems [16], [17]. This evaluation extends to the overall performance of the ChatGPT system on the website, with educators' perceptions serving as a measure of its quality. Various studies have affirmed the positive influence of SQ on user SF and IU e-learning systems [18], [19]. However, there's a dearth of studies assessing how SQ impacts user SF and their willingness to use ChatGPT platforms. Therefore, this paper proposes the following hypotheses:

- H3: SQ positively influences SF.
- H4: SQ positively influences the IU ChatGPT.

2.2.3. Service quality (SRQ)

SRQ reflects dimensions such as reliability, responsiveness, assurance, and personalization, indicative of the service providers' capability and goodwill [20]. The significance of SRQ as a determinant of user SF is well-established [21], [22]. Its capacity to meet user requirements, manifested through reliability, assurance, responsiveness, and a superior interface, plays a pivotal role. Effective design that comprehends user concerns and addresses problems promptly has the potential to elevate SRQ, consequently enhancing user SF and fostering an IU [23]–[25]. Therefore, we posit the following hypotheses:

- H5: SRQ positively influences SF.
- H6: SRQ positively influences the IU ChatGPT.

2.2.4. Satisfaction (SF) and intention to use (IU)

SF embodies the cumulative sentiments formed through numerous interactions with a service provider [26]. Akdim *et al.* [27] underscores its pivotal role as a determining factor influencing users' IU technology. Across various research contexts, SF consistently emerges as a crucial factor affecting users' IU [13], [28]. Thus, this paper proposes the following hypothesis:

- H7: SF positively influences the IU ChatGPT.

3. RESEARCH METHOD

3.1. Measurement and data collection

3.1.1 Measures

The measurement instrument for this study was developed through an extensive literature review focused on information technology and ChatGPT. Scales utilized in the study were sourced from previous literature. For instance, IQ was evaluated using 7 items adapted from the study by Ashfaq *et al.* [13] and SQ was assessed with 3 items adopted from Abbasi *et al.* [14]. Additionally, SRQ was measured using 6 items sourced from Ashfaq *et al.* [13], and SF was evaluated with 4 items from Wang *et al.* [29]. IU was assessed with 5 items adapted from Abbasi *et al.* [14]. Each statement was rated on a 5-point Likert-type scale, ranging from 1=strongly disagree to 5=strongly agree. Table 1 presents the details on the variables, descriptions, and sources of the items.

A pilot test was conducted to ensure the readability, validity, and relevance of the study measures. A comprehensive questionnaire was formulated to encompass various aspects of users' experiences with ChatGPT. The questions underwent translation and back-translation by experts proficient in Vietnamese and

English. Subsequently, the questionnaire underwent rigorous review by two university faculty members to assess its readability, validity, clarity, and relevance. Moreover, group discussions involving a small cohort of teachers led to several modifications to the wording, ensuring enhanced comprehension and effectiveness.

Table 1. Details of questionnaire items

Latent variable	Manifest indicator	Description	Study
IQ	IQ1	ChatGPT provides sufficient information	Ashfaq *et al.* [13]
	IQ2	Through ChatGPT, I get the information I need on time	
	IQ3	Information provided by ChatGPT is in a useful format	
	IQ4	Information provided by ChatGPT is clear	
	IQ5	Information provided by ChatGPT is accurate	
	IQ6	Information provided by ChatGPT is up-to-date	
	IQ7	Information provided by ChatGPT is reliable	
SQ	SQ1	ChatGPT site is easy to use	Abbasi *et al.* [14]
	SQ2	ChatGPT system is user friendly	
	SQ3	I find it easy to get to ChatGPT to search what I want it to do	
SRQ	SRQ1	ChatGPT has a modern-looking interface	Ashfaq *et al.* [13]
	SRQ2	ChatGPT provides the right solution to my request	
	SRQ3	ChatGPT gives me a prompt response	
	SRQ4	ChatGPT has visually appealing materials	
	SRQ5	ChatGPT gives me individual attention	
	SRQ6	ChatGPT has an excellent interface to communicate my needs	
SF	SF1	I am generally pleased with ChatGPT	Wang *et al.* [29]
	SF2	I am very satisfied with ChatGPT	
	SF3	I am happy with ChatGPT	
	SF4	Overall, I am very satisfied with ChatGPT	
IU	IU1	I will keep use ChatGPT in the future	Abbasi *et al.* [14]
	IU2	I will use ChatGPT on a regular basis in the future	
	IU3	I will frequently use ChatGPT in the future	
	IU4	I will use ChatGPT rather than other websites for my academic job	
	IU5	I will recommend others to use ChatGPT	

3.1.2. Participants and data collection

This study focuses on investigating the relationship between perceived IQ, SQ, and SRQ on user SF and IU, particularly in the field of education in Vietnam. Therefore, the participants in this study included Vietnamese researchers, teachers, and faculty members Data collection utilized online survey methods. A total of 120 responses were collected, with participants lacking experience in using ChatGPT being excluded. The final dataset comprised 96 responses, with 12% postdoctoral researchers, 70% lecturers/instructors, 10% assistant professors, and 8% pursuing associate professor positions.

Descriptive analysis showed that 61 respondents were male, accounting for 63.54% of the sample, while 35 respondents were female, contributing 36.46%. Most lecturers participating in the survey were between the ages of 31 to 40, accounting for 52.08% of the total. Meanwhile, 32.29% of the participants were under 30, and the rest were between 41 to 50 years old.

3.2. Data analysis and results

Partial least squares structural equation modeling (PLS-SEM) served as the analytical framework to assess the research model, with data analysis conducted using Smart PLS software version 3.0. PLS-SEM is well-suited for examining causal relation models and navigating complex structures comprising numerous constructs [30]. To ensure robustness, consistent PLS bootstrapping was adopted, with 5000 subsamples subjected to testing, following the guidelines proposed by Hair and Alamer [31]. The primary objective of the bootstrapping procedure was to ascertain the significance levels of loadings, weights, and path coefficients within the model.

3.2.1. Measurement model assessment

To assess the measurement model, tests for convergent and discriminant validity were conducted. Initially, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) were examined to establish convergent validity. According to Hair *et al.* [30], Cronbach's alpha, CR, and item loading values should surpass a threshold of 0.7, while the AVE value should exceed 0.5 for all constructs in the model.

Measurement model analysis showed that all observable items had outer loading values above 0.7. The 5 latent variables also achieved Cronbach's alpha and CR coefficients greater than 0.7, with AVE values exceeding 0.5, confirming the reliability and convergent validity of the constructs. In line with recent SEM recommendations, discriminant validity was further assessed using the heterotrait-monotrait (HTMT) ratio [32]. Results indicated that the HTMT between IQ and SRQ was 0.910, slightly above the suggested

threshold of 0.90. To address this issue, the dataset was re-examined, and responses with zero standard deviation across the items of these two constructs were identified as problematic and removed. After excluding six such responses, the HTMT values for all construct pairs fell within acceptable limits, confirming discriminant validity.

The reliability and validity of the measurement model was re-tested. The results showed that the factor loading of all items were higher than 0.6. The Cronbach's alpha and CR of all latent variables were higher than 0.8 and the AVE values were greater than 0.5, as shown in Table 2. The HTMT values were less than the threshold of 0.9, as seen in Table 3. Thus, the reliability, convergent and divergent validity of latent constructs is established.

Table 2. Construct reliability and validity test results

Latent variable	Cronbach's alpha	CR	AVE
IQ	0.892	0.896	0.607
SQ	0.881	0.882	0.808
SRQ	0.888	0.896	0.642
IU	0.904	0.911	0.730
SF	0.929	0.935	0.825

Table 3. HTMT ratio – matrix

Latent variable	IQ	IU	SF	SRQ	SQ
IQ					
IU	0.766				
SF	0.809	0.867			
SRQ	0.874	0.796	0.848		
SQ	0.648	0.783	0.745	0.723	

3.2.2. Structural model assessment

After the measurement model was approved, the structural model's quality was assessed following the procedure recommended by Hair *et al.* [30]. This evaluation involved three criteria: variance inflation factor (VIF), R^2 coefficient, and Q^2 coefficient. The results of data analysis indicated that all the latent variables had VIF coefficients less than 5, as presented in Table 4; hence, a serious multicollinearity problem may not occur in the structural model [30]. Besides, R^2 values of SF and IU were 69.2% and 70.1% respectively. IQ, SQ, and SRQ can explain 69.2% of the variance of SF, while the whole model is accountable for 70.1% variance of IU. Thus, it can be concluded that the research model can moderately explain the endogenous variables [31].

Table 4. The result of VIF test

Variable	VIF
IQ → SF	2.693
IQ → IU	2.990
SQ → SF	1.776
SQ → IU	1.982
SRQ → SF	3.048
SRQ → IU	3.514
SF → IU	3.247

Lastly, the Blindfold test was employed to calculate the Q^2 coefficient, which indicates the predictive accuracy of the structural model. The result showed that SF and IU had Q^2 coefficients of 0.558 and 0.493, respectively. Thus, the research model exhibited a high level of accuracy in predicting SF and IU [30].

3.2.3. Hypothesis testing results

A bootstrapping test with 5,000 subsamples was conducted to determine the significance of each relationship in the research model, as presented in Figure 2. At a confidence level of 95%, SF was significantly positively influenced by IQ, SQ, and SRQ with regression coefficients of 0.303, 0.252, and 0.379, respectively (p-value<0.05), as shown in Table 5, supporting H1, H3, and H5. However, H2 and H6 were not supported as IQ and SQ did not have a significant impact on IU (p-value>0.05).

Interestingly, IU was significantly predicted by SQ (β=0.256 and p-value<0.05), supporting H4. Moreover, the relationship between SF and IU was also found to be significant, supporting H7 (β=0.430 and p-value<0.05). These findings indicate that while IQ, SQ, and SRQ significantly influence SF, only SQ directly affects IU. Additionally, there is a strong positive relationship between SF and IU, suggesting that higher levels of SF with ChatGPT use are associated with a greater intention to continue using it.

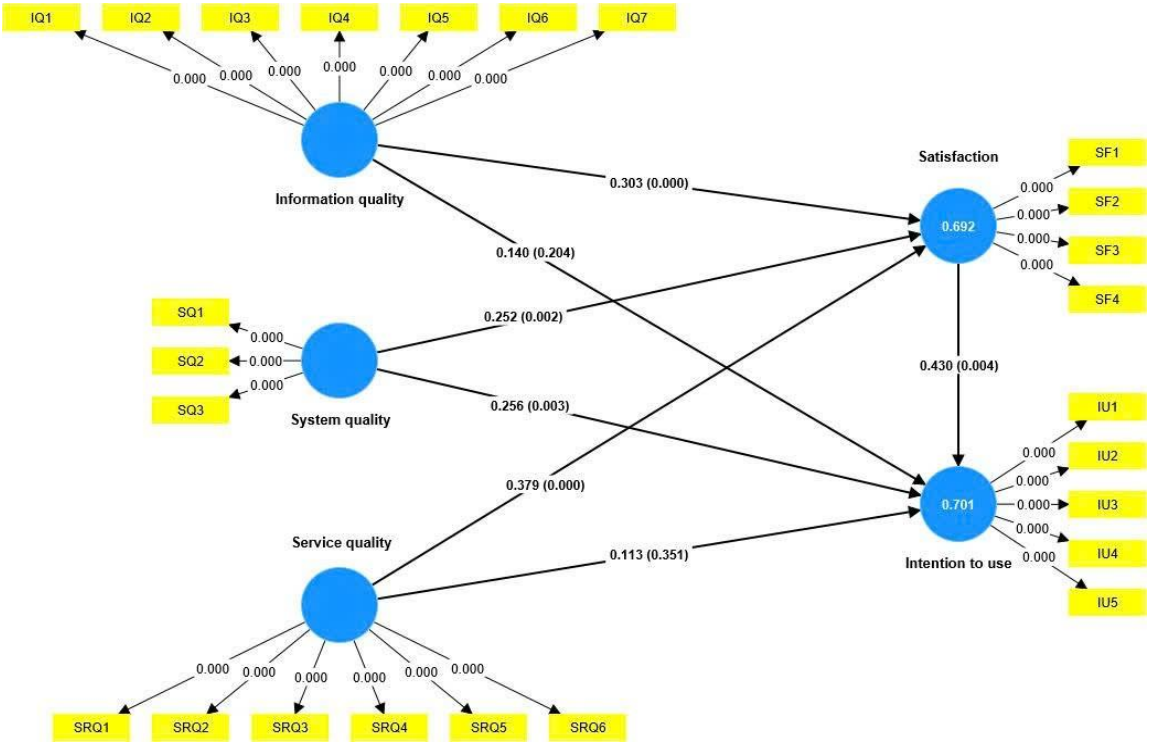

Figure 2. The structural model

Table 5. Bootstrapping test

Variable	Hypothesis	Original sample (O)	Standard deviation	p-values	Decision
IQ→SF	H1	0.303	0.086	0.000	Supported
IQ→IU	H2	0.140	0.110	0.204	Not supported
SQ→SF	H3	0.252	0.081	0.002	Supported
SQ→IU	H4	0.256	0.085	0.003	Supported
SRQ→SF	H5	0.379	0.088	0.000	Supported
SRQ→IU	H6	0.113	0.121	0.351	Not supported
SF→IU	H7	0.430	0.148	0.004	Supported

3.2.4. Indirect effect test results

Table 6 shows the results of the indirect effect test, revealed significant impacts of IQ, SQ, and SRQ on IU through SF (p-value<0.05). However, the direct influences of IQ and SRQ on IU were insignificant in the presence of SF. Hence, it can be concluded that SF fully mediates such relationships. Meanwhile, the relationship between SQ and IU remained significant with the appearance of SF, confirming the partial mediating role of SF in such a relationship. These findings suggest that while IQ, SQ, and SRQ indirectly influence IU through SF; SF fully mediates the relationships between IQ and SRQ with IU. However, SF only partially mediates the relationship between SQ and IU.

Table 6. The result of indirect effect test

Variable	Original sample (O)	Standard deviation	T statistics	p-values
IQ→SF→IU	0.130	0.057	2.295	0.022
SQ→SF→IU	0.108	0.050	2.151	0.032
SRQ→SF→IU	0.163	0.069	2.350	0.019

4. RESULTS AND DISCUSSION

This study reinforces the importance of system functionality, service reliability, and information accuracy in shaping educators' SF with ChatGPT. SF emerged as a key mediator, indicating that technical quality must lead to meaningful user experience to drive continued use. While information and SRQ did not directly influence IU, their indirect influence through SF underscores the need for responsive support systems and reliable content.

The meticulous methods employed for data collection and analysis instilled confidence in the reliability and relevance of the study's findings. The analysis revealed a significant relationship between perceived IQ, SQ, SRQ, and user SF [10], [11], [16], [18], [19]. Specifically, the study demonstrated that when Vietnamese educators and researchers receive high-quality information feedback from ChatGPT, experience smooth functionality within the system, and receive satisfactory service from the platform, their SF with ChatGPT increases. This suggests that the perceived quality of information, system functionality, and service provision are crucial factors influencing user SF with ChatGPT among the academic community in Vietnam.

It is intriguing to note that while IQ, SRQ did not directly impact the IU ChatGPT, this finding diverges from prior research [14], [15], [23], [24]. Instead, these factors exert an indirect influence on IU through user SF. This deviation can be attributed to ChatGPT's novelty in the educational landscape, where concerns regarding the accuracy of its feedback abound [4]. Consequently, user SF with the feedback received from ChatGPT becomes pivotal in driving their intention to continue using it. This underscores the importance of user experience and SF in shaping the adoption and ongoing utilization of ChatGPT within academic settings.

Furthermore, it is essential to highlight that SQ plays a pivotal role not only in directly influencing the IU ChatGPT but also in exerting an indirect effect through user SF [16]. This implies that various factors including portability, ease-of-use, integration, functionality, reliability, and flexibility of the system significantly impact both user SF and the IU ChatGPT within the academic community in Vietnam. The findings of the study also revealed a noteworthy correlation between user SF and the IU ChatGPT. This observation aligns with previous research findings [13], [27], [28], reinforcing the understanding that user SF serves as a significant predictor of intention to utilize ChatGPT. As educators engage with ChatGPT for their academic endeavors, their level of SF with the platform and the overall experience it provides during interactions directly influences their inclination to continue using it.

These findings mirror broader digital adoption trends in Vietnam, where institutional differences and uneven infrastructure shape user engagement, especially between urban and peri-urban campuses. The relatively stronger impact of SQ reflects ongoing challenges in AI infrastructure integration, particularly where technical reliability and language compatibility are inconsistent across regions. The implications extend to educational equity, as educators in less connected regions may lack the same access to AI-powered platforms, exacerbating disparities in teaching innovation and student engagement. Urban planning and education policies should incorporate AI readiness assessments, ensuring that bandwidth, device access, and institutional support are prioritized in underserved areas.

5. CONCLUSION

This study examined how IQ, SQ, and SRQ influence Vietnamese educators' SF and IU ChatGPT in academic contexts. Among these factors, SQ was the only direct predictor of usage intention, while SF acted as a key mediator for the effects of other variables. The findings suggest that enhancing system reliability, user-friendliness, and performance is more critical than improving content or service alone to increase educator adoption of AI tools. SF plays a central role in bridging perceived quality and behavioral intention, offering theoretical insights for technology adoption research in educational settings.

From a practical standpoint, institutions should prioritize building digital infrastructure that supports AI integration. Policymakers can move beyond broad training initiatives by piloting AI literacy workshops tailored for educators, focusing on prompt design, critical evaluation of AI outputs, and ethical classroom use. At the same time, investment in localized Vietnamese natural language processing datasets is needed to enhance the accuracy and cultural relevance of ChatGPT outputs, reducing barriers educators face when working in Vietnamese. Universities and government agencies could form partnerships with local technology firms to co-develop open-source corpora and benchmark tools. These efforts would complement targeted infrastructure programs for underserved regions, ensuring that educators in peri-urban and rural universities are not excluded from AI adoption.

This study is not without limitations. First, while it establishes the importance of SQ for adoption, it does not test moderation effects. For instance, whether younger or less senior educators place greater weight on SQ when deciding to use ChatGPT. Future research could examine such subgroup differences to refine policy interventions. Second, although this study conceptually highlights the importance of spatial

equity, it does not include a direct comparison of urban and rural institutions. Future work should integrate geographic and institutional variables to better understand how infrastructural disparities shape adoption. Finally, longitudinal and qualitative approaches are needed to capture how educators' perceptions evolve over time, offering richer insights into sustainable AI integration in education.

FUNDING INFORMATION

Authors state no funding involved.

AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

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C : **C**onceptualization
M : **M**ethodology
So : **So**ftware
Va : **Va**lidation
Fo : **Fo**rmal analysis
I : **I**nvestigation
R : **R**esources
D : **D**ata Curation
O : Writing - **O**riginal Draft
E : Writing - Review & **E**diting
Vi : **Vi**sualization
Su : **Su**pervision
P : **P**roject administration
Fu : **Fu**nding acquisition

CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

DATA AVAILABILITY

The data that support the findings of this study are available from the corresponding author, [NTKL], upon reasonable request.

REFERENCES

[1] B. Foroughi *et al.*, "Determinants of intention to use ChatGPT for educational purposes: findings from PLS-SEM and fsQCA," *International Journal of Human–Computer Interaction*, vol. 40, no. 17, pp. 4501–4520, Sep. 2024, doi: 10.1080/10447318.2023.2226495.

[2] G. Bilquise, S. Ibrahim, and S. M. Salhieh, "Investigating student acceptance of an academic advising chatbot in higher education institutions," *Education and Information Technologies*, vol. 29, no. 5, pp. 6357–6382, Apr. 2024, doi: 10.1007/s10639-023-12076-x.

[3] M. Javaid, A. Haleem, R. P. Singh, S. Khan, and I. H. Khan, "Unlocking the opportunities through ChatGPT tool towards ameliorating the education system," *BenchCouncil Transactions on Benchmarks, Standards and Evaluations*, vol. 3, no. 2, p. 100115, Jun. 2023, doi: 10.1016/j.tbench.2023.100115.

[4] R. Michel-Villarreal, E. Vilalta-Perdomo, D. E. Salinas-Navarro, R. Thierry-Aguilera, and F. S. Gerardou, "Challenges and opportunities of generative AI for higher education as explained by ChatGPT," *Education Sciences*, vol. 13, no. 9, p. 856, Aug. 2023, doi: 10.3390/educsci13090856.

[5] M. Perkins, "Academic integrity considerations of AI large language models in the post-pandemic era: ChatGPT and beyond," *Journal of University Teaching and Learning Practice*, vol. 20, no. 2, pp. 1–24, Jan. 2023, doi: 10.53761/1.20.02.07.

[6] G. Maheshwari, "Factors influencing students' intention to adopt and use ChatGPT in higher education: a study in the Vietnamese context," *Education and Information Technologies*, vol. 29, no. 10, pp. 12167–12195, 2024, doi: 10.1007/s10639-023-12333-z.

[7] L. Parker, C. Carter, A. Karakas, A. J. Loper, and A. Sokkar, "Graduate instructors navigating the AI frontier: the role of ChatGPT in higher education," *Computers and Education Open*, vol. 6, p. 100166, Jun. 2024, doi: 10.1016/j.caeo.2024.100166.

[8] H. Al-Mughairi and P. Bhaskar, "Exploring the factors affecting the adoption AI techniques in higher education: insights from teachers' perspectives on ChatGPT," *Journal of Research in Innovative Teaching & Learning*, vol. 18, no. 2, pp. 232–247, Sep. 2025, doi: 10.1108/JRIT-09-2023-0129.

[9] M. Aljukhadar, J.-F. Belisle, D. C. Dantas, S. Sénécal, and R. Titah, "Measuring the service quality of governmental sites: development and validation of the e-government service quality (EGSQUAL) scale," *Electronic Commerce Research and Applications*, vol. 55, p. 101182, Sep. 2022, doi: 10.1016/j.elerap.2022.101182.

[10] K. T. Manis and D. Choi, "The virtual reality hardware acceptance model (VR-HAM): extending and individuating the technology acceptance model (TAM) for virtual reality hardware," *Journal of Business Research*, vol. 100, pp. 503–513, Jul. 2019, doi: 10.1016/j.jbusres.2018.10.021.

[11] L. Xie, T. Zhu, S. Liu, and T. Huan, "Exploring the impact of mobile app quality on consumers' online intention to transact," *International Journal of Consumer Studies*, vol. 48, no. 5, p. e13085, Sep. 2024, doi: 10.1111/ijcs.13085.
[12] A. Suzianti and S. A. Paramadini, "Continuance intention of e-learning: the condition and its connection with open innovation," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 7, no. 1, p. 97, Mar. 2021, doi: 10.3390/joitmc7010097.
[13] M. Ashfaq, J. Yun, S. Yu, and S. M. C. Loureiro, "I, Chatbot: modeling the determinants of users' satisfaction and continuance intention of AI-powered service agents," *Telematics and Informatics*, vol. 54, p. 101473, Nov. 2020, doi: 10.1016/j.tele.2020.101473.
[14] G. A. Abbasi, T. Sandran, Y. Ganesan, and M. Iranmanesh, "Go cashless! Determinants of continuance intention to use e-wallet apps: a hybrid approach using PLS-SEM and fsQCA," *Technology in Society*, vol. 68, p. 101937, Feb. 2022, doi: 10.1016/j.techsoc.2022.101937.
[15] A. M. M. Badr, B. S. Al-Abdi, M. Rfeqallah, R. Kasim, and F. A. M. Ali, "Information quality and students' academic performance: the mediating roles of perceived usefulness, entertainment and social media usage," *Smart Learning Environments*, vol. 11, no. 1, p. 45, Oct. 2024, doi: 10.1186/s40561-024-00329-2.
[16] M. A. Almaiah and O. A. Alismaiel, "Examination of factors influencing the use of mobile learning system: an empirical study," *Education and Information Technologies*, vol. 24, no. 1, pp. 885–909, Jan. 2019, doi: 10.1007/s10639-018-9810-7.
[17] V. Kumar and O. G. Ayodeji, "E-retail factors for customer activation and retention: an empirical study from Indian e-commerce customers," *Journal of Retailing and Consumer Services*, vol. 59, no. 3, p. 102399, Mar. 2021, doi: 10.1016/j.jretconser.2020.102399.
[18] D. Al-Fraihat, M. Joy, R. Masa'deh, and J. Sinclair, "Evaluating e-learning systems success: an empirical study," *Computers in Human Behavior*, vol. 102, pp. 67–86, Jan. 2020, doi: 10.1016/j.chb.2019.08.004.
[19] H. N. Sabeh, M. H. Husin, D. M. H. Kee, A. S. Baharudin, and R. Abdullah, "A systematic review of the DeLone and McLean model of information systems success in an e-learning context (2010–2020)," *IEEE Access*, vol. 9, pp. 81210–81235, 2021, doi: 10.1109/ACCESS.2021.3084815.
[20] C. Shen and Y. Yahya, "The impact of service quality and price on passengers' loyalty towards low-cost airlines: the Southeast Asia perspective," *Journal of Air Transport Management*, vol. 91, p. 101966, Mar. 2021, doi: 10.1016/j.jairtraman.2020.101966.
[21] E. M. Safitri, A. Pratama, M. A. Furqon, I. R. Mukhlis, Agussalim, and A. Faroqi, "Interaction effect of system, information and service quality on intention to use and user satisfaction," in *2020 6th Information Technology International Seminar (ITIS)*, Oct. 2020, pp. 92–97, doi: 10.1109/ITIS50118.2020.9321002.
[22] Y. Li and H. Shang, "Service quality, perceived value, and citizens' continuous-use intention regarding e-government: empirical evidence from China," *Information & Management*, vol. 57, no. 3, p. 103197, Apr. 2020, doi: 10.1016/j.im.2019.103197.
[23] M. Al-Okaily, M. Al-Kofahi, F. S. Shiyyab, and A. Al-Okaily, "Determinants of user satisfaction with financial information systems in the digital transformation era: insights from emerging markets," *Global Knowledge, Memory and Communication*, vol. 74, no. 3–4, pp. 1171–1190, 2025, doi: 10.1108/GKMC-12-2022-0285.
[24] S. Z. Mustafa, A. K. Kar, and M. F. W. H. A. Janssen, "Understanding the impact of digital service failure on users: integrating Tan's failure and DeLone and McLean's success model," *International Journal of Information Management*, vol. 53, p. 102119, Aug. 2020, doi: 10.1016/j.ijinfomgt.2020.102119.
[25] H. Pang and K. Zhang, "Determining influence of service quality on user identification, belongingness, and satisfaction on mobile social media: insight from emotional attachment perspective," *Journal of Retailing and Consumer Services*, vol. 77, p. 103688, Mar. 2024, doi: 10.1016/j.jretconser.2023.103688.
[26] H. Qin, B. Osatuyi, and L. Xu, "How mobile augmented reality applications affect continuous use and purchase intentions: a cognition-affect-conation perspective," *Journal of Retailing and Consumer Services*, vol. 63, p. 102680, Nov. 2021, doi: 10.1016/j.jretconser.2021.102680.
[27] K. Akdim, L. V. Casaló, and C. Flavián, "The role of utilitarian and hedonic aspects in the continuance intention to use social mobile apps," *Journal of Retailing and Consumer Services*, vol. 66, p. 102888, May 2022, doi: 10.1016/j.jretconser.2021.102888.
[28] A. Gupta, A. Yousaf, and A. Mishra, "How pre-adoption expectancies shape post-adoption continuance intentions: An extended expectation-confirmation model," *International Journal of Information Management*, vol. 52, p. 102094, Jun. 2020, doi: 10.1016/j.ijinfomgt.2020.102094.
[29] W.-T. Wang, W.-M. Ou, and W.-Y. Chen, "The impact of inertia and user satisfaction on the continuance intentions to use mobile communication applications: a mobile service quality perspective," *International Journal of Information Management*, vol. 44, pp. 178–193, Feb. 2019, doi: 10.1016/j.ijinfomgt.2018.10.011.
[30] J. F. Hair, J. J. Risher, M. Sarstedt, and C. M. Ringle, "When to use and how to report the results of PLS-SEM," *European Business Review*, vol. 31, no. 1, pp. 2–24, Jan. 2019, doi: 10.1108/EBR-11-2018-0203.
[31] J. Hair and A. Alamer, "Partial least squares structural equation modeling (PLS-SEM) in second language and education research: guidelines using an applied example," *Research Methods in Applied Linguistics*, vol. 1, no. 3, p. 100027, Dec. 2022, doi: 10.1016/j.rmal.2022.100027.
[32] J. Henseler, C. M. Ringle, and M. Sarstedt, "A new criterion for assessing discriminant validity in variance-based structural equation modeling," *Journal of the Academy of Marketing Science*, vol. 43, no. 1, pp. 115–135, Jan. 2015, doi: 10.1007/s11747-014-0403-8.

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