Journal of Asian Business and Economic Studies

AI adoption: a new perspective from accounting students in Vietnam

Hung Quang Bui, Quyen Thi Bao Phan and Ha Thanh Nguyen
School of Accounting, University of Economics Ho Chi Minh City, Ho Chi Minh City, Vietnam

Received 13 June 2024
Revised 25 September 2024
6 November 2024
27 November 2024
Accepted 29 November 2024

Abstract

Purpose – This study aims to examine the factors affecting accounting students' adoption of artificial intelligence (AI) in Vietnam.

Design/methodology/approach – This study employs an empirical analysis based on hand-collected data from 275 accounting students in Ho Chi Minh City, Vietnam. The study model was performed using the partial least squares structural equation modelling methodology, facilitated by SmartPLS 4.0.

Findings – The study results show that perceived usefulness, perceived ease of use (PEOU), AI literacy, social influence (SI), facilitating conditions and technology readiness are positively associated with AI adoption by accounting students. The findings suggest the important role of SI in shaping the relationship between PEOU and AI adoption.

Research limitations/implications – This study is limited to universities in Ho Chi Minh City, Vietnam, with a small sample size, which may reduce the generalisability of findings to other cities in Vietnam or other countries due to different regulations. Future research could examine comparative and cross-country analyses within similar institutional settings.

Practical implications – The study findings suggest that universities should consider offering more AI-related subjects to improve students' AI proficiency and capacity.

Originality/value – This study examines the determinants of AI adoption by accounting students in Vietnam, addressing a previously unexplored area in the literature.

Keywords Artificial intelligence, AI adoption, University students

Paper type Research paper

1. Introduction

> It's going to be interesting to see how society deals with artificial intelligence, but it will definitely be cool. – Colin Angle – Co-founder of iRobot

Artificial intelligence (AI) is one of the most important and outstanding issues of the 21st century. According to McKinsey's report on the state of AI, 56% of respondents use AI for at least one function, with this figure rising to 57% in emerging economies such as China, the Middle East and North Africa. Bloomberg News estimated that AI has the potential to generate $4tn across global industries. Lareina Yee, chair of McKinsey

JEL Classification — A20, O33, M41

Ethics statement: This study was conducted in accordance with ethical guidelines and approved by the University of Economics Ho Chi Minh City (No 53621). Informed consent was obtained from all participants, ensuring voluntary participation and confidentiality. The authors declare no conflicts of interest and confirm compliance with relevant ethical standards.

Funding: This study constitutes a segment of the research outcomes from a project financially supported by the Vietnamese Ministry of Education and Training (No. B2022-KSA-10), titled "Research on digital transformation models in higher education institutions in Vietnam-barriers and challenges". Additional funding for this research was provided by the University of Economics Ho Chi Minh City, Vietnam (UEH).

Journal of Asian Business and Economic Studies
Emerald Publishing Limited
2515-964X
DOI 10.1108/JABES-06-2024-0300

Technology, described AI as providing humans with a newfound "superpower" that considerably boosts economic productivity. Depending on how the technology is adopted and implemented, productivity could rise by 0.1%–0.6% over the next 20 years. This rapid advancement in AI is creating unprecedented opportunities to reshape society and transform the future.

In Vietnam, AI is rapidly being developed and adopted across various fields. The application of AI is transforming the working environment by automating tasks previously performed manually, resulting in new employer requirements for candidates, including improved qualifications, capacity and the ability to collaborate with AI. Therefore, university students must acquire the necessary skills to meet these requirements. In accounting, a field focused on recording, analysing, summarising and reporting business transactions, AI can automate structured and repetitive tasks, potentially replacing human accountants in these areas (Rapoport, 2016). According to the World Economic Forum's 2015 report, 75% of 816 surveyed chief information officers predicted that 30% of corporate audits would be conducted using AI by 2025.

AI has become a critical development in the accounting and auditing industry due to its ability to process large volumes of data accurately and cost-effectively, without human intervention. The adoption of AI is now a prominent trend, yet accounting education has not kept pace with technological improvements despite substantial investments by accounting firms (Damerji and Salimi, 2021). Recently, Damerji and Salimi (2021) examined the effect of technology readiness (TR) on AI adoption among accounting students in the USA and emphasised the need for further research into other factors beyond TR, perceived usefulness (PU) and perceived ease of use (PEOU) that may affect AI adoption. In this context, Mazman and Usluel's (2010) comprehensive framework identifies social influence (SI) and facilitating conditions (FC) as additional key determinants of technology adoption among university students. Given Vietnam's status as a developing country experiencing rapid growth in AI acceptance and utilisation, this study aims to examine how factors such as PU, PEOU, TR, SI, FC and AI literacy (AL) affect AI adoption by accounting students from a developing country perspective.

Using survey data from 275 university students in Ho Chi Minh City, our findings reveal that PU, PEOU, AL, SI, FC and TR are positively associated with AI adoption among accounting students. Additionally, the results highlight the important role of SI in strengthening the relationship between PEOU and AI adoption.

This research provides both theoretical and practical contributions. In particular, it adds to the literature on AI adoption determinants by moving beyond the theorising and conceptualising focus of studies like Almufadda and Almezeini (2022). Instead, it emphasises the importance of examining the underlying factors affecting AI adoption among accounting students within the Vietnamese context. The study also addresses the scarcity of empirical research on this topic and responds to calls from prior studies to examine the determinants of AI adoption among university students. Moreover, by examining AI adoption factors in Vietnam – a developing country – this research helps to fill the gap in AI-related studies in such contexts. The findings suggest practical implications, encouraging universities to give more consideration to preparing students for AI adoption to adopt AI.

2. Literature review and hypothesis development

2.1 Artificial intelligence (AI)

In the context of the rapid advancements of the Industrial Revolution 4.0, AI is no longer a novel concept. In his seminal work in 1956, John McCarthy defined AI as "the science and engineering of creating intelligent machines". From an economic perspective, Ovaska-Few, a government journalist, characterises AI as the replacement of humans with machines and technology capable of performing tasks previously done by humans. The emergence of AI is reshaping and transforming industries that need to process large volumes of data, such as

finance, accounting and auditing. For instance, Flexi's 2018 research highlights AI as an effective tool for preparing month-end financial statements.

According to the Finance and Accounting Women's Alliance, businesses are increasingly investing in developing business models to leverage big data and adopt a more analytical approach. AI technology has become fundamental in modern business operations, designed to think, feel and react similarly to a living organism. AI also emerges with a new class of products and services tailored specifically to accounting (Greenman, 2017). This technology has the potential to replace tasks involving repetitive structures, information analysis, report preparation and complex processes like bookkeeping and transaction encryption. However, AI presents challenges, particularly security and privacy risks that accounting professionals must address (Schweitzer, 2024). Security risks refer to potential threats affecting the confidentiality, integrity and availability of AI data and systems (AICPA and IMA, 2023). Privacy risks involve potential violations affecting the rights and interests of individuals and organisations whose data are collected, processed and shared by AI-based systems (Veale and Binney, 2017).

With the integration of AI, education can be tailored to address the unique needs of individual students, offering personalised learning approaches. AI-powered libraries improve the educational experience by providing better access to resources in higher education institutions (Cox *et al*., 2019). AI-enabled chatbots can accurately respond to student inquiries, even outside regular class hours, helping with admission-related queries and administrative decisions as the technology improves (Chrisinger, 2019). Additionally, AI is helpful in creating "smart content," including digitised textbook guides and customisable digital learning interfaces across all education levels (Kumar, 2019; Ahmad, 2019).

2.2 Unified theory of acceptance and use of technology

The unified theory of acceptance and use of technology (UTAUT) is considered an effective model for understanding technology adoption across various fields, including information and communication technology (Attuquayefio, 2014) and mobile banking (Sarfaraza, 2017). Developed by Venkatesh *et al*. (2003), the UTAUT model integrates insights from eight prior theories and models: the technology acceptance model (TAM), the theory of reasoned action, the theory of planned behaviour (TPB), the motivation model, a combined TAM and TPB model (C-TAM-TPB), the model of PC utilisation, innovation diffusion theory and social cognitive theory.

The UTAUT model has become a widely used framework to predict users' technology acceptance behaviour. Initially, it was developed to examine four main determinants of technology adoption: performance expectancy (PE), effort expectancy, SI and FC (Venkatesh *et al*., 2003). Recent research has adapted the UTAUT model by integrating additional factors from other theoretical frameworks, such as PE and attitude towards the use of AI and related technologies (Andrews *et al*., 2021). For instance, the quality and satisfaction of customer relationship management (CRM) systems have been shown to considerably affect employees' attitudes and intentions to use AI-integrated CRM systems (Chatterjee, 2023). With the rise of technologies like AI and the Internet of Things, assessing whether the current UTAUT model remains relevant or requires modification is critical (Raman *et al*., 2014). Damerji and Salimi (2021) examined how TR affects AI adoption among accounting students in the USA, emphasising the need for updated models. As traditional acceptance frameworks may not completely capture the unique opportunities and challenges posed by AI, and considering the framework of Mazman and Usluel (2010), which highlights the roles of SI and FC in university students' technology adoption, this study extends the literature by re-examining the UTAUT model. It incorporates additional determinants, specifically AL, FC and SI, to address the evolving dynamics of AI adoption.

2.3 Hypothesis development

2.3.1 Facilitating conditions. FCs refer to "the degree to which an individual believes that an organisational and technical infrastructure exists to support the use of the system" (Venkatesh *et al*., 2003). These conditions encompass the knowledge, resources and opportunities necessary for individuals to perform a particular behaviour (Shaw and Sergueeva, 2019). For technology adoption, FC may include access to resources, adequate training and technical support (Cabrera-Sánchez *et al*., 2021). Ng *et al*. (2021) highlighted that inadequate learning technologies are a major barrier for non-computer science students in learning AI. Support from university management, such as providing AI training programs and consulting services, can help students develop the skills and knowledge needed to use AI effectively. Consequently, FCs play an important role in shaping behavioural intentions to adopt technology (Taylor and Todd, 1995). The first hypotheses are formulated as follows:

H1a. Facilitating conditions are positively associated with PU.

H1b. Facilitating conditions are positively associated with PEOU.

H1c. Facilitating conditions are positively associated with AI adoption.

2.3.2 AI literacy. AL is defined as "learners' capacity to apply AI knowledge and technology in their lives" (Chen *et al*., 2022). Connecting AL to students' personal lives and future goals can enhance their motivation to learn AI and better prepare them for making informed decisions in an AI-driven world (Dai *et al*., 2020). A foundational understanding of AI enables learners to make independent AI-related judgements (Kong *et al*., 2021). Lin *et al*. (2021) show that interactive discussions and hands-on experiences considerably improve students' AI knowledge and skills. The level of AI knowledge is recognised as the key factor determining their intention to learn AI (Chai *et al*., 2021). Similarly, Dai *et al*. (2020) showed that AL forms the foundation for understanding AI technology, enhancing readiness and fostering appreciation for AI's potential. Consequently, students with higher AL are more likely to adopt AI, recognising its benefits and its capacity to improve work efficiency. Based on evidence from prior studies, the following hypotheses are proposed:

H2a. AI literacy is positively associated with perceived usefulness

H2b. AI literacy is positively associated with perceived ease of use

H2c. AI literacy is positively associated with AI adoption

2.3.3 Technology readiness. TR is defined as "an organisation's infrastructure being at an appropriate level so that people can apply new technology to their work" (Pham *et al*., 2023). Pham *et al*. (2020) highlighted the important impact of TR on technology adoption. Similarly, Damerji and Salimi (2021) documented its positive effect on university students' adoption of technology. With access to appropriate infrastructure and necessary tools, university students can interact effectively with AI applications and platforms. Consequently, they are more likely to perceive AI as useful and easy to use, motivating them to adopt and apply AI in their future careers. Based on the above discussion, the following hypothesis is proposed:

H3a. Technology readiness is positively associated with perceived usefulness

H3b. Technology readiness is positively associated with perceived ease of use

H3c. Technology readiness is positively associated with AI adoption

2.3.4 Perceived usefulness. PU is defined as "the degree to which users believe that using a particular system will improve their work performance" (Davis, 1989). The PU of a technology considerably influences users' adoption and continued use of that technology (Ma and Liu, 2004).

In the context of AI, it enables faster and more accurate processing of data and information, particularly in data-intensive industries such as finance, banking, accounting and auditing. From the perspective of the technology adoption model (TAM), an individual's intention to adopt and use a new technology is affected by the benefits it provides (Venkatesh *et al*., 2003). Similarly, Sudaryanto *et al*. (2023) found that students are more likely to adopt AI if they perceive it as useful for improving their work performance. Based on the above discussion, the fourth hypothesis is proposed:

H4. Perceived usefulness is positively associated with AI adoption

2.3.5 Perceived ease of use. PEOU is defined as "the degree to which a person believes that using a particular system will be easy" (Davis, 1989). According to Damerji and Salimi (2021), the ease of using AI considerably affects its adoption, as users who find AI challenging to use may not perceive it as beneficial for their work. Mazman and Usluel (2010) highlight that technical competence and skills are critical factors affecting an individual's adoption of new technology. Similarly, Sharma *et al*. (2021) showed that ease of use plays an essential role in shaping attitudes and intentions towards AI adoption in accounting. Alamri *et al*. (2019) further claim that AI's ease of use positively affects students' willingness to adopt it. Based on evidence from prior studies, the next hypothesis is proposed:

H5. Perceived ease of use is positively associated with AI adoption

2.3.6 Social influence. SI is defined as "the extent to which an individual perceives that significant others believe they should use the new system" (Venkatesh *et al*., 2003). It encompasses the impact of interpersonal relationships and peer recommendations on decision-making (Bagozzi, 2000) and involves changes in thoughts, feelings, attitudes or behaviour due to interaction with others (Raven, 1964). Individuals are more likely to perform a particular behaviour when important people in their lives think positively about it (Owusu *et al*., 2019). For university students, perceiving support and encouragement from peers and mentors regarding AI usage can motivate them to adopt AI applications. Taiwo and Downe (2013) suggested that SI is also exerted by senior management and colleagues, while Wang *et al*. (2013) stated its role in enhancing technology skills. Based on evidence from prior studies, the following hypotheses are proposed:

H6a. Social influence is positively associated with AI adoption

H6b. The positive association between perceived ease of use and AI adoption is more pronounced for university students with a higher level of social influence

The hypotheses in this study are illustrated in Figure A1 [1].

3. Methodology

3.1 Measures

Prior to collecting the main data, survey items were selected to identify factors considerably affecting students' adoption of AI. These items were adopted from previously validated studies and adapted to fit the context. The authors slightly modified the items for our study to align with the specific context of studying AI adoption among university students in Vietnam.

For measuring PU, PEOU and AI adoption, the authors adopted and modified survey items from Damerji and Salimi (2021) [2]. AL variables were measured using indicators developed by Chen *et al*. (2022). TR was assessed by adapting items from Pham *et al*. (2023). SI and FC were measured using a questionnaire derived from Owusu *et al*. (2019).

Before collecting data, the authors invited four industry experts with over 15 years of experience and three academic experts with more than 10 years of experience in the allied field to review the readability and comprehensiveness of the survey items. These experts, knowledgeable in the domain of this study, provided feedback that was incorporated into the

survey. After modifications, all experts reached a consensus that the measurement items were appropriate. Details of all survey items are presented in Table A1 [1].

To operationalise concepts and constructs, the authors employed a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). This approach is widely accepted in empirical research, especially when established measures to quantify abstract ideas like resources and capabilities are unavailable (Kumar *et al*., 1993). The measurement model was executed using partial least squares structural equation modelling (PLS-SEM) with the assistance of SmartPLS 4.0.

3.2 Data and sample selection

According to Straub *et al.* (2004), a survey-based approach is suitable for research in exploratory settings and predictive theory. Accordingly, data in our study were collected through an online survey conducted between December 21, 2023, and January 2, 2024, among Vietnamese students from the University of Economics Ho Chi Minh City (UEH) and other universities in Ho Chi Minh City, such as the University of Economics and Law, Foreign Trade University and Ho Chi Minh University of Banking. These universities were chosen for their reputations, degree-bound undergraduate accounting programs and contributions to the accounting and auditing industry in Vietnam. Additionally, they were selected due to geographical convenience, although they were not randomly chosen, which is a limitation of this study. However, including multiple sites increased the sample size, aiding generalisability. The inclusion of multiple universities ensured greater anonymity for participants, addressing potential concerns when examining AI adoption by accounting students. Despite the lack of random selection, this study remains potentially generalisable, as most universities include similar topics in their standard accounting curricula.

A total of 1,000 invitations to complete the questionnaire in Vietnamese were randomly sent to full-time students at UEH and other universities in Ho Chi Minh City. The questionnaire items, originally developed in English, were translated into Vietnamese using the standard translation and back-translation procedure (Brislin, 1980). Experts reviewed the translated items to ensure coherence between the two languages. Survey emails provided students with information about the nature and objectives of the research project. After the survey closed, 296 responses were received, of which 275 complete responses were included in our analysis. To assess potential non-response bias, the profiles of respondents from the mailing list were used to compare gender, university and education level between responding and non-responding students. Chi-square analyses revealed no significant differences in these attributes, indicating no systematic response bias.

Table A2 [1] presents the demographic characteristics of the survey participants. Among the respondents, 217 (78.9%) were female and 58 (21.1%) were male, reflecting the Vietnamese gender structure of accountants, where women constitute the majority. The majority of respondents were from UEH, which has the largest number of accounting students in Ho Chi Minh City, with approximately 5,000 accounting students annually. Regarding academic standing, 36.7% of the participants were freshmen, 10.9% were sophomores, 43.3% were juniors and 9.1% were seniors.

4. Results

4.1 Measurement results

This section outlines the findings from the data analysis of the measurement model, emphasising the evaluation of reliability and validity. The analysis includes (1) assessing item loadings and internal consistency reliability, (2) evaluating convergent validity and (3) examining discriminant validity [3] (Hair *et al*., 2019).

Table A3 [1] presents the description of all survey items and their corresponding item loadings. All item loadings exceed the recommended threshold of 0.70, indicating strong

statistical consistency among indicators, as per the internal consistency reliability standard. Consistent with Hair *et al*. (2019), composite reliability (CR) was employed to assess internal consistency. The results show that all CR values surpass the recommended benchmark of 0.70, confirming robust internal consistency.

Convergent validity measures the extent to which assessments of similar or identical constructs are positively correlated, supporting construct validity. In evaluating convergent validity, the average variance extracted (AVE) is reported. In this analysis, all AVE values ranged from 0.63 to 0.86, exceeding the recommended threshold of 0.50, thereby demonstrating satisfactory convergent validity.

Discriminant validity evaluates the extent to which a construct is distinct from other constructs (Hair *et al*., 2019). This study uses the Fornell and Larcker (1981) criteria for assessment. In Table A4 [1], the square root of the AVE scores (ranging from 0.79 to 0.93) exceeds all corresponding bootstrapped correlation coefficients, and most correlation coefficients are below the cut-off value of 0.7 (Tabachnick *et al*., 2013). These results confirm satisfactory discriminant validity.

In this study, potential issues related to common method bias were considered since the research relies on self-reported data (Podsakoff *et al*., 2003). To test the severity of common method variance, a Harman's single-factor test was conducted. The results show that the first factor accounted for 36.83% of the total variance, indicating that no single factor dominates the variance. Additionally, a common method factor was incorporated into the model to further address common method biases. Results are presented in Table A5 [1]. The authors also evaluate the presence of multicollinearity by calculating the variance inflation factor (VIF). The results indicate that the VIF values in this study range from 1.09 to 1.76, all of which are well below the threshold of 10. Therefore, multicollinearity was not a concern in this study.

4.2 Structural results

The structural model assessment follows the recommendations of Hair *et al*. (2019). The authors employ the PLS-SEM approach, which is known for its higher statistical power compared to covariance-based structural equation modelling under similar conditions (Reinartz *et al*., 2009). The path coefficients between endogenous and exogenous constructs were evaluated using 500 sub-sampling iterations via the bootstrap method. The standardised root mean square residual indicator provides a goodness-of-fit estimate of 0.065, which is below the recommended threshold of 0.08 (Henseler *et al*., 2016), indicating an acceptable model fit. The adjusted R^2 values range from 0.51 to 0.63, exceeding the 0.10 threshold, indicating that the predictors explain a significant proportion of the variance in the dependent variable and that the variances are within an acceptable range.

In Table A6 [1], the coefficients of FC are positive and significant at the 1% level across all columns. These results confirm H1a, H1b and H1c, demonstrating that FCs positively affect PU, PEOU and AI adoption. These findings align with previous research by Chiu *et al*. (2012) about the significant influence of FC on behavioural intentions in technology adoption contexts. Our findings indicate that FCs contribute to creating a supportive learning environment, enabling students to enhance their skills and knowledge for AI application. This fosters a positive attitude towards AI and a better understanding of its potential benefits.

Similarly, the coefficients of AL are positive and significant at least at the 5% level across all columns. These results confirm H2a, H2b and H2c, indicating that AL positively influences PU, PEOU and AI adoption. These findings align with a recent survey by Wood *et al*. (2021), showing that professionals and students consider AI knowledge essential and favour integrating AI courses into regular curricula. Students with AI knowledge are more likely to perceive AI as a useful tool for improving work efficiency. These findings have significant implications for universities, encouraging the integration of AI into curricula to better prepare students for their future careers.

The coefficients of TR are significantly positive across all columns, providing evidence to support H3a, H3b and H3c, which propose that TR positively influences PU, PEOU and AI

adoption. As AI increasingly impacts society, its benefits are becoming more widely recognised. Damerji and Salimi (2021) noted a positive correlation between TR and students' adoption of new technology. When students have opportunities to interact and work within a well-supported infrastructure, they are more likely to develop positive attitudes and confidence in using AI.

The coefficients of PU and PEOU are positive and significant in columns (3) and (4), supporting H4 and H5. These findings indicate that both PU and PEOU are significantly associated with AI adoption among university students in Vietnam. This aligns with prior research by Ma and Liu (2004) that emphasises AI's advantages in specialised fields, noting its ability to automate repetitive tasks, allowing users to focus on professional duties. This increased efficiency and ease of operation positively influence AI adoption by making tasks faster, simpler and more efficient.

To test H6a and H6b, the authors incorporate SI and its interaction variable with PEOU (SI*PEOU) into the regressions. Table A6 [1] shows that the coefficients for SI and SI*PEOU are positive and significant. These results suggest that SI is directly and positively associated with AI adoption, and the relationship between PEOU and AI adoption is amplified when students are influenced by individuals they consider significant. This finding aligns with the findings of Sánchez *et al.* (2014), who identified SI as a key determinant of technology adoption. SI facilitates uncertainty reduction (Oldeweme, 2021) and encourages seeking positive information (Alsyouf *et al.*, 2022). Consequently, SI not only intensifies career-related competition among students but also motivates them to engage with and adopt new technologies.

5. Implications

5.1 Theoretical implications

This study makes several theoretical contributions. While Almufadda and Almezeini (2022) provided a conceptual framework for AI adoption, Damerji and Salimi (2021) recently examined the impact of TR on the AI adoption of accounting students and emphasised the need for further research into additional influencing factors beyond TR, PU and PEOU. Addressing this gap, this study examines how AL, SI, TR and FC contribute to AI adoption by accounting students, mediated through attitudinal belief structures such as PU and PEOU.

This study extends the technology acceptance model (TAM) by explicitly incorporating the behavioural intention of accounting students towards using AI, adding a layer of originality to the proposed theoretical model. The inclusion of behavioural factors in AI adoption is a distinctive contribution, enriching the understanding of how personal attitudes affect technology acceptance. Further, examining AI adoption in the context of Vietnam – a developing country experiencing rapid growth in AI use – introduces a new perspective. The theoretical model uniquely integrates Vietnam's specific characteristics, further distinguishing this study's contributions to the field.

5.2 Practical implications

This study also has several practical implications. First, the proposed model identifies SI and FC as essential predictors of AI adoption among accounting students, mediated by PU and PEOU. This implies that accounting firms' top management should address employees' behavioural intentions by showcasing AI's effectiveness in accounting and auditing tasks. For example, firms could share success stories from other organisations where AI systems have been successfully implemented. Second, our findings highlight the need for collaboration between accounting firms and educational institutions to introduce AI-related courses tailored for employees. Finally, universities should prioritise developing strategies and curricula to enhance AI adoption skills among accounting students, preparing them to meet the evolving demands of the accounting and auditing industry.

6. Conclusion

This study examines the factors affecting AI adoption among university students in Vietnam. Using hand-collected data from students in Ho Chi Minh City, the study findings reveal that PU, PEOU, AL, SI, FC and TR positively affect AI adoption. These insights highlight the need for universities to integrate more AI-focused subjects into their educational programs, aiming to improve students' AI capabilities and better prepare them for the evolving demands of the workforce.

By shedding light on factors affecting AI adoption by accounting students, the findings offer valuable insights for universities and students to consider when embracing AI in the future. Students can leverage this knowledge to examine areas like machine learning, deep learning and natural language processing, gaining a competitive edge in professional tasks. Universities can further support this by organising or hosting workshops, seminars, extracurricular activities and campaigns focused on AI and its practical implementation in the workplace. Consequently, this study aims to enhance students' awareness of AI advancements, equipping them to integrate AI technologies into their future careers.

Currently, some universities offer well-structured curricula to help students improve their skills and abilities to work with AI. The authors recommend that universities complement academic training programs with practice-related courses to provide students with hands-on interaction and deeper understanding of AI. Additionally, universities should ensure access to advanced learning tools and provide adequate support from administrators and technical staff. These measures will enable students to adapt effectively to working with AI in the future.

Although this research makes several important contributions, it also has potential limitations. First, the study focuses exclusively on universities in Ho Chi Minh City, Vietnam, with a small sample size, limiting the generalisability of findings to other cities in Vietnam or internationally due to different regulations. Future research could examine comparisons and cross-country predictions within similar institutional contexts. Second, respondents may not have clearly understood AI and its applications in the accounting and auditing industry, potentially leading to responses based on values and beliefs rather than knowledge, education or experience. Third, the conceptual model was developed specifically for this study, so the structural results should be interpreted carefully. Additionally, this study employs only the PLS-SEM method to analyse data. Future research should consider other methods to not only identify relationships between variables but also evaluate the relative importance of variables.

Notes

1. Please see it on the Online Appendix.
2. According to Damerji and Salimi (2021), two items to measure the intention to adopt AI technologies were designed specifically for their study with the focus on AI adoption by accounting students. After consulting experts in allied field, the authors decided to adopt these two items to measure AI adoption in our study.
3. The authors also estimate Cronbach's alpha of each construct (construct reliability test) to assess whether identified constructs are consistent. Untabulated results indicate that the Cronbach's alpha of each construct is more than 0.6, confirming that our constructs are reliable.

References

Ahmad, T. (2019), "Scenario based approach to re-imagining future of higher education which prepares students for the future of work", *Higher Education, Skills and Work-based Learning*, Vol. 10 No. 1, pp. 217-238, doi: 10.1108/heswbl-12-2018-0136.

Alamri, M.M., Al-Rahmi, W.M., Yahaya, N., Al-Rahmi, A.M., Abualrejal, H., Zeki, A.M. and Al-Maatouk, Q. (2019), "Towards adaptive e-learning among university students: by applying technology acceptance model (TAM)", *International Journal of Engineering and Advanced Technology (IJEAT)*, Vol. 8 No. 6S3, pp. 270-276, doi: 10.35940/ijeat.F1043.0986S319, available at: https://www.ijeat.org/portfolio-item/f10430986s319/

Almufadda, G. and Almezeini, N.A. (2022), "Artificial intelligence applications in the auditing profession: a literature review", *Journal of Emerging Technologies in Accounting*, Vol. 19 No. 2, pp. 29-42, doi: 10.2308/jeta-2020-083.

Alsyouf, A., Lutfi, A., Al-Bsheish, M., Jarrar, M.T., Al-Mugheed, K., Almaiah, M.A., Ashour, A., Masa'deh, R. and Anshasi, R.J. (2022), "Exposure detection applications acceptance: the case of COVID-19", *International Journal of Environmental Research and Public Health*, Vol. 19 No. 12, 7307, doi: 10.3390/ijerph19127307.

Andrews, J.E., Ward, H. and Yoon, J. (2021), "UTAUT as a model for understanding intention to adopt AI and related technologies among librarians", *The Journal of Academic Librarianship*, Vol. 47 No. 6, 102437, doi: 10.1016/j.acalib.2021.102437.

Attuquayefio, S. and Addo, H. (2014), "Using the UTAUT model to analyze students' ICT adoption", *International Journal of Education and Development Using ICT*, Vol. 10 No. 3, pp. 75-86.

Bagozzi, R.P. (2000), "On the concept of intentional social action in consumer behavior", *Journal of Consumer Research*, Vol. 27 No. 3, pp. 388-396, doi: 10.1086/317593.

Brislin, R.W. (1980), "Translation and content analysis of oral and written material", in Triandis, H.C. and Berry, J.W. (Eds), *Handbook of Cross-Cultural Psychology*, Allyn & Bacon, Boston, Vol. 1, pp. 389-444.

Cabrera-Sánchez, J.P., Villarejo-Ramos, Á.F., Liébana-Cabanillas, F. and Shaikh, A.A. (2021), "Identifying relevant segments of AI applications adopters-expanding the UTAUT2's variables", *Telematics and Informatics*, Vol. 58, 101529, doi: 10.1016/j.tele.2020.101529.

Chai, C.S., Lin, P.Y., Jong, M.S.Y., Dai, Y., Chiu, T.K. and Qin, J. (2021), "Perceptions of and behavioral intentions towards learning artificial intelligence in primary school students", *Educational Technology and Society*, Vol. 24 No. 3, pp. 89-101.

Chatterjee, S., Rana, N.P., Khorana, S., Mikalef, P. and Sharma, A. (2023), "Assessing organizational users' intentions and behavior to AI integrated CRM systems: a meta-UTAUT approach", *Information Systems Frontiers*, Vol. 25 No. 4, pp. 1299-1313, doi: 10.1007/s10796-021-10181-1.

Chen, S.Y., Su, Y.S., Ku, Y.Y., Lai, C.F. and Hsiao, K.L. (2022), "Exploring the factors of students' intention to participate in AI software development", *Library Hi Tech*, Vol. 42 No. 2, pp. 392-408, doi: 10.1108/lht-12-2021-0480.

Chiu, Y.T.H., Lee, W.I., Liu, C.C. and Liu, L.Y. (2012), "Internet lottery commerce: an integrated view of online sport lottery adoption", *Journal of Internet Commerce*, Vol. 11 No. 1, pp. 68-80, doi: 10.1080/15332861.2012.650990.

Chrisinger, D. (2019), "The solution lies in education: artificial intelligence & the skills gap", *On the Horizon*, Vol. 27 No. 1, pp. 1-4, doi: 10.1108/oth-03-2019-096.

Cox, A., Pinfield, S. and Rutter, S. (2019), "The intelligent library: thought leaders' views on the likely impact of artificial intelligence on academic libraries", *Library Hi Tech*, Vol. 37 No. 3, pp. 418-435, doi: 10.1108/lht-08-2018-0105.

Dai, Y., Chai, C.S., Lin, P.Y., Jong, M.S.Y., Guo, Y. and Qin, J. (2020), "Promoting students' well-being by developing their readiness for the artificial intelligence age", *Sustainability*, Vol. 12 No. 16, 6597, doi: 10.3390/su12166597.

Damerji, H. and Salimi, A. (2021), "Mediating effect of use perceptions on technology readiness and adoption of artificial intelligence in accounting", *Accounting Education*, Vol. 30 No. 2, pp. 107-130, doi: 10.1080/09639284.2021.1872035.

Davis, F.D. (1989), "Perceived usefulness, perceived ease of use, and user acceptance of information technology", *MIS Quarterly*, Vol. 13 No. 3, pp. 319-340, doi: 10.2307/249008.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50, doi: 10.2307/3151312.

Greenman, C. (2017), "Exploring the impact of artificial intelligence on the accounting profession", *Journal of Research in Business, Economics and Management*, Vol. 8 No. 3, 1451.

Hair, J.F., Risher, J.J., Sarstedt, M. and Ringle, C.M. (2019), "When to use and how to report the results of PLS-SEM", *European Business Review*, Vol. 31 No. 1, pp. 2-24, doi: 10.1108/ebr-11-2018-0203.

Henseler, J., Hubona, G. and Ray, P.A. (2016), "Using PLS path modeling in new technology research: updated guidelines", *Industrial Management and Data Systems*, Vol. 116 No. 1, pp. 2-20, doi: 10.1108/imds-09-2015-0382.

Kong, S.C., Cheung, W.M.Y. and Zhang, G. (2021), "Evaluation of an artificial intelligence literacy course for university students with diverse study backgrounds", *Computers and Education: Artificial Intelligence*, Vol. 2, 100026, doi: 10.1016/j.caeai.2021.100026.

Kumar, S. (2019), "Artificial intelligence divulges effective tactics of top management institutes of India", *Benchmarking: An International Journal*, Vol. 26 No. 7, pp. 2188-2204, doi: 10.1108/bij-08-2018-0251.

Kumar, N., Stern, L.W. and Anderson, J.C. (1993), "Conducting interorganizational research using key informants", *Academy of Management Journal*, Vol. 36 No. 6, pp. 1633-1651, doi: 10.5465/256824.

Lin, C.H., Yu, C.C., Shih, P.K. and Wu, L.Y. (2021), "STEM based artificial intelligence learning in general education for non-engineering undergraduate students", *Educational Technology and Society*, Vol. 24 No. 3, pp. 224-237.

Ma, Q. and Liu, L. (2004), "The technology acceptance model: a meta-analysis of empirical findings", *Journal of Organizational and End User Computing*, Vol. 16 No. 1, pp. 59-72, doi: 10.4018/joeuc.2004010104.

Mazman, S.G. and Usluel, Y.K. (2010), "Modeling educational usage of Facebook", *Computers and Education*, Vol. 55 No. 2, pp. 444-453, doi: 10.1016/j.compedu.2010.02.008.

Ng, D.T.K., Leung, J.K.L., Chu, S.K.W. and Qiao, M.S. (2021), "Conceptualizing AI literacy: an exploratory review", *Computers and Education: Artificial Intelligence*, Vol. 2, 100041, doi: 10.1016/j.caeai.2021.100041.

Oldeweme, A., Märtins, J., Westmattelmann, D. and Schewe, G. (2021), "The role of transparency, trust, and social influence on uncertainty reduction in times of pandemics: empirical study on the adoption of COVID-19 tracing apps", *Journal of Medical Internet Research*, Vol. 23 No. 2, 25893, doi: 10.2196/25893.

Owusu, G.M.Y., Bekoe, R.A., Otoo, D.S. and Koli, A.P.E. (2019), "Adoption of social networking sites for educational use", *Journal of Applied Research in Higher Education*, Vol. 11 No. 1, pp. 2-19, doi: 10.1108/jarhe-04-2018-0069.

Pham, C.T. and Nguyet, T.T.T. (2023), "Determinants of blockchain adoption in news media platforms: a perspective from the Vietnamese press industry", *Heliyon*, Vol. 9 No. 1, e12747, doi: 10.1016/j.heliyon.2022.e12747.

Pham, L., Williamson, S., Lane, P., Limbu, Y., Nguyen, P.T.H. and Coomer, T. (2020), "Technology readiness and purchase intention: role of perceived value and online satisfaction in the context of luxury hotels", *International Journal of Management and Decision Making*, Vol. 19 No. 1, pp. 91-117, doi: 10.1504/ijmdm.2020.104208.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903, doi: 10.1037/0021-9010.88.5.879.

Raman, A., Don, Y., Khalid, R. and Rizuan, M. (2014), "Usage of learning management system (Moodle) among postgraduate students: UTAUT model", *Asian Social Science*, Vol. 10 No. 14, pp. 186-192, doi: 10.5539/ass.v10n14p186.

Rapoport, M. (2016), "Auditing firms count on technology for backup", *The Wall Street Journal*, 7 March, available at: https://www.wsj.com/articles/auditing-firms-count-on-technology-for-backup-1457398380

Raven, B.H. (1964), *Social Influence and Power*, University of California, Department of Psychology, California US.

Reinartz, W., Haenlein, M. and Henseler, J. (2009), "An empirical comparison of the efficacy of covariance-based and variance-based SEM", *International Journal of Research in Marketing*, Vol. 26 No. 4, pp. 332-344, doi: 10.1016/j.ijresmar.2009.08.001.

Sánchez, R.A., Cortijo, V. and Javed, U. (2014), "Students' perceptions of Facebook for academic purposes", *Computers and Education*, Vol. 70, pp. 138-149, doi: 10.1016/j.compedu.2013.08.012.

Sarfaraz, J. (2017), "Unified theory of acceptance and use of technology (UTAUT) model-mobile banking", *Journal of Internet Banking and Commerce*, Vol. 22 No. 3, pp. 1-20.

Schweitzer, B. (2024), "Artificial intelligence (AI) ethics in accounting", *Journal of Accounting, Ethics and Public Policy*, Vol. 25 No. 1, pp. 67-103, doi: 10.60154/jaepp.2024.v25n1p67.

Sharma, M.P., Suthar, M.D. and Maheria, M.S. (2021), "Artificial intelligence accounting technology - perception and acceptance", in *Impact of Smart Technologies and Artificial Intelligence (AI) Paving Path towards Interdisciplinary Research in the Fields of Engineering, Arts, Humanities, Commerce, Economics, Social Sciences, Law and Management-Challenges and Opportunities*, Shanlax Publications.

Shaw, N. and Sergueeva, K. (2019), "The non-monetary benefits of mobile commerce: extending UTAUT2 with perceived value", *International Journal of Information Management*, Vol. 45, pp. 44-55, doi: 10.1016/j.ijinfomgt.2018.10.024.

Straub, D., Boudreau, M.-C. and Gefen, D. (2004), "Validation guidelines for IS positivist research", *Communications of the Association for Information System*, Vol. 13, pp. 380-427.

Sudaryanto, M.R., Hendrawan, M.A. and Andrian, T. (2023), "The effect of technology readiness, digital competence, perceived usefulness, and ease of use on accounting students' artificial intelligence technology adoption", *E3S Web of Conferences*, Vol. 388, 04055, doi: 10.1051/e3sconf/202338804055.

Tabachnick, B.G., Fidell, L.S. and Ullman, J.B. (2013), *Using Multivariate Statistics*, Pearson Boston, MA.

Taiwo, A.A. and Downe, A.G. (2013), "The theory of user acceptance and use of technology (UTAUT): a meta-analytic review of empirical findings", *Journal of Theoretical and Applied Information Technology*, Vol. 49 No. 1, pp. 48-58.

Taylor, S. and Todd, P.A. (1995), "Understanding information technology usage: a test of competing models", *Information Systems Research*, Vol. 6 No. 2, pp. 144-176, doi: 10.1287/isre.6.2.144.

Veale, M. and Binney, K. (2017), *Algorithms and the State*, Routledge, New York, NY.

Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D. (2003), "User acceptance of information technology: toward a unified view", *MIS Quarterly*, Vol. 27 No. 3, pp. 425-478, doi: 10.2307/30036540.

Wang, E.T., Tai, J.C. and Grover, V. (2013), "Examining the relational benefits of improved interfirm information processing capability in buyer-supplier dyads", *MIS Quarterly*, Vol. 37 No. 1, pp. 149-173, doi: 10.25300/misq/2013/37.1.07.

Wood, E.A., Ange, B.L. and Miller, D.D. (2021), "Are we ready to integrate artificial intelligence literacy into medical school curriculum: students and faculty survey", *Journal of Medical Education and Curricular Development*, Vol. 8, doi: 10.1177/23821205211024078.

Further reading

CIMA & CIPFA (2023), *Data Protection and Privacy for Accountants*, Chartered Institute of Management Accountants & Chartered Institute of Public Finance and Accountancy, available at: https://www.aicpa-cima.com/help/privacy-policy

Supplementary material

The supplementary material for this article can be found online.

Corresponding author

Ha Thanh Nguyen can be contacted at: thanhnh@ueh.edu.vn