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DIGITALIZATION AND OPENNESS AS DETERMINANTS OF ACCOUNTING STUDENTS' READINESS FOR AI-BASED SYSTEMS

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ABSTRACT

Objective: This study aims to analyze how digital exposure in the learning process and personality characteristics interact in shaping accounting students' readiness to use Artificial Intelligence (AI) based accounting systems. The study integrates three main constructs digitalization of the learning environment (X_1), the personality dimension of *openness to experience* (X_2), and students' psychological readiness (Z) into a unified structural model framework. This approach is developed to address the limitations of previous studies that generally examined these three variables separately, and therefore have not been able to comprehensively explain how digital technology exposure and individual characteristics simultaneously shape readiness to adapt to AI technology.

Methodology/Approach: This study employs a quantitative approach with an explanatory research design aimed at testing the relationships among variables within the proposed model. A total of 150 accounting students from several universities in Indonesia participated as research respondents. Data were collected through structured questionnaires and analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method. The analysis stages included testing both the measurement model and the structural model, including indicator reliability, composite reliability, Average Variance Extracted (AVE), and discriminant validity using the Heterotrait–Monotrait Ratio (HTMT) approach. The structural model was evaluated through model fit indices such as SRMR and NFI, multicollinearity analysis using the Variance Inflation Factor (VIF), and model explanatory

power through the R-square value and effect size (f^2). To ensure the absence of common method bias, this study also applied the Harman single factor test and the full collinearity test. In addition, the testing of direct and indirect relationships, as well as the mediating role, was analyzed using the Variance Accounted For (VAF) calculation.

Findings: The findings indicate that students' readiness to adopt Artificial Intelligence (AI) based accounting systems is shaped through the interaction between digital learning exposure, the level of openness to experience, and students' psychological readiness. A digitized learning environment contributes to enhancing students' understanding and confidence when using AI-based tools, while the openness trait encourages the development of a more constructive attitude toward technological innovation. These findings affirm that readiness for AI implementation in accounting education is not determined solely by the availability of digital infrastructure, but is also strongly influenced by students' emotional readiness and cognitive capacity. In this context, psychological readiness plays an important role as a connecting mechanism that transforms technological experiences and personality characteristics into actual adaptive capability.

Practical Implications: This study provides recommendations for universities seeking to accelerate digital transformation in accounting education. Such efforts can be implemented through the development of AI integrated learning platforms, the optimization of Learning Management Systems (LMS), and the integration of cloud-based accounting applications into learning practices. In addition to strengthening technological infrastructure, educational institutions also need to pay attention to students' psychological readiness, including the development of emotional regulation skills, the reduction of technology-related anxiety, and the enhancement of confidence in using AI based systems. Learning strategies should also consider students' personality characteristics so that the process of technological adaptation can occur more effectively. Furthermore, improving lecturers' competencies, providing AI literacy training, and establishing collaborations with industry are important steps to ensure alignment between academic competencies and technological demands in the workplace.

Originality/Value: This study offers an integrative framework that simultaneously connects the digitalization of learning, personality factors, and psychological

readiness in explaining readiness to adapt to AI an area that has rarely been comprehensively examined in accounting education research. The study not only strengthens the validity of theoretical pathways derived from the UTAUT theory, Big Five Personality, and Emotional Intelligence, but also provides a conceptual contribution by emphasizing the role of partial mediation as a key mechanism in shaping AI adaptation readiness among accounting students.

Keywords: Accounting Education, Artificial Intelligence, Learning Digitalization, Openness, Psychological Readiness, Technology Adaptation.

ABSTRAK

Tujuan penelitian: Penelitian ini bertujuan untuk menganalisis bagaimana paparan digital dalam proses pembelajaran dan karakteristik kepribadian berinteraksi dalam membentuk kesiapan mahasiswa akuntansi untuk menggunakan sistem akuntansi berbasis Artificial Intelligence (AI). Penelitian ini mengintegrasikan tiga konstruk utama, yaitu digitalisasi lingkungan pembelajaran (X_1), dimensi kepribadian openness to experience (X_2), serta kesiapan psikologis mahasiswa (Z) ke dalam satu kerangka model struktural yang terpadu. Pendekatan ini dikembangkan untuk menjawab keterbatasan penelitian sebelumnya yang umumnya menelaah ketiga variabel tersebut secara terpisah sehingga belum mampu menjelaskan secara menyeluruh bagaimana paparan teknologi digital dan karakteristik individu secara simultan membentuk kesiapan adaptasi terhadap teknologi AI.

Metode/pendekatan: Penelitian ini menggunakan pendekatan kuantitatif dengan desain explanatory research yang bertujuan untuk menguji hubungan antar variabel dalam model yang dikembangkan. Sebanyak 150 mahasiswa akuntansi dari beberapa perguruan tinggi di Indonesia dilibatkan sebagai responden penelitian. Data dikumpulkan melalui penyebaran kuesioner terstruktur dan dianalisis menggunakan metode Partial Least Squares Structural Equation Modeling (PLS-SEM). Tahapan analisis mencakup pengujian model pengukuran dan model struktural, termasuk uji reliabilitas indikator, composite reliability, Average Variance Extracted (AVE), serta validitas diskriminan menggunakan pendekatan Heterotrait–Monotrait Ratio (HTMT). Evaluasi model struktural dilakukan melalui pengujian indeks kelayakan model seperti SRMR dan NFI, analisis multikolinearitas menggunakan Variance Inflation Factor (VIF), serta

pengujian daya jelas model melalui nilai R-square dan ukuran efek f^2. Untuk memastikan tidak terjadi common method bias, penelitian ini juga menerapkan uji Harman single factor dan full collinearity test. Selain itu, pengujian hubungan langsung, tidak langsung, serta peran mediasi dianalisis melalui perhitungan Variance Accounted For (VAF).

Hasil: Hasil penelitian menunjukkan bahwa kesiapan mahasiswa dalam mengadopsi sistem akuntansi berbasis Artificial Intelligence (AI) terbentuk melalui interaksi antara paparan pembelajaran digital, tingkat openness to experience, serta kesiapan psikologis mahasiswa. Lingkungan pembelajaran yang terdigitalisasi berkontribusi dalam meningkatkan pemahaman serta rasa percaya diri mahasiswa ketika menggunakan perangkat berbasis AI, sementara karakter openness mendorong terbentuknya sikap yang lebih konstruktif terhadap inovasi teknologi. Temuan ini menegaskan bahwa kesiapan implementasi AI dalam pendidikan akuntansi tidak hanya ditentukan oleh ketersediaan infrastruktur digital, tetapi juga sangat dipengaruhi oleh kesiapan emosional serta kapasitas kognitif mahasiswa. Dalam konteks ini, kesiapan psikologis memiliki peran penting karena berfungsi sebagai mekanisme penghubung yang mentransformasikan pengalaman teknologi dan karakteristik kepribadian menjadi kemampuan adaptasi yang nyata.

Implikasi praktik: Penelitian ini memberikan rekomendasi bagi perguruan tinggi yang berupaya mempercepat transformasi digital dalam pendidikan akuntansi. Upaya tersebut dapat dilakukan melalui pengembangan platform pembelajaran yang terintegrasi dengan AI, optimalisasi Learning Management System (LMS), serta integrasi aplikasi akuntansi berbasis cloud dalam praktik pembelajaran. Selain penguatan infrastruktur teknologi, institusi pendidikan juga perlu memperhatikan kesiapan psikologis mahasiswa, termasuk pengembangan kemampuan regulasi emosi, pengurangan kecemasan terhadap teknologi, serta peningkatan kepercayaan diri dalam penggunaan sistem berbasis AI. Strategi pembelajaran juga perlu mempertimbangkan karakteristik kepribadian mahasiswa agar proses adaptasi teknologi dapat berlangsung lebih efektif. Selain itu, peningkatan kompetensi dosen, pelatihan literasi AI, serta kolaborasi dengan industri menjadi langkah penting untuk memastikan keselarasan antara kompetensi akademik dan kebutuhan teknologi di dunia kerja.

Orisinalitas/kebaharuan: Penelitian ini menawarkan kerangka integratif yang menghubungkan digitalisasi pembelajaran, faktor kepribadian, serta kesiapan psikologis secara simultan dalam menjelaskan kesiapan adaptasi terhadap AI suatu area yang masih relatif jarang diteliti secara komprehensif dalam kajian pendidikan akuntansi. Penelitian ini tidak hanya memperkuat validitas jalur teoritis yang berasal dari teori UTAUT, Big Five Personality, dan Emotional Intelligence, tetapi juga memberikan kontribusi konseptual dengan menegaskan peran mediasi parsial sebagai mekanisme utama dalam membentuk kesiapan adaptasi AI pada mahasiswa akuntansi.

Kata Kunci: Adaptasi Teknologi, Digitalisasi Pembelajaran, Kecerdasan Buatan, Kesiapan Psikologis, Openness, Pendidikan Akuntansi.

INTRODUCTION

In recent years, accounting practices have undergone significant changes alongside the increasing use of digital technology in various operational activities. Many tasks that were previously performed manually are now increasingly automated through integrated digital systems. Technologies such as Artificial Intelligence (AI), data analytics, and business process automation are now widely used in everyday accounting activities and are no longer limited to experimental or developmental stages.

Accounting activities that previously relied on manual procedures such as journal recording, account classification, fraud detection, and audit trail tracking can now be performed automatically through algorithms and real-time data processing. This shift indicates that modern accounting information systems are becoming increasingly dependent on the capacity of digital technologies to process data quickly and accurately.

Industry reports indicate that approximately 50-60% of routine activities in accounting are expected to be automated by 2030. In addition, many multinational companies have begun utilizing AI technologies in financial reporting and internal audit processes (Deloitte, 2024; McKinsey Global Institute, 2023). This transformation marks a fundamental change in the competencies required in the accounting profession, shifting from a focus on transaction recording toward competencies that emphasize analytical capabilities, data processing, and technology-assisted decision making supported by AI.

These changes also affect higher education, particularly accounting study programs. Accounting students, as future professionals, need to be prepared to adapt to an increasingly digitalized work environment. Therefore, the learning process can no longer rely solely on conventional curricula but must integrate digital technologies and AI-based systems into students' learning experiences.

Despite the rapid advancement of technology, the level of readiness among accounting students in Indonesia to engage with AI-based systems remains relatively low. National survey data indicate that only a small proportion of students feel confident in using Artificial Intelligence based accounting systems (UNICEF & Kemendikbudristek, 2021). This

condition is influenced by several factors, including limited access to industry-used software, low levels of digital literacy, and anxiety when interacting with new technologies (Tailor & Tailor, 2025).

Several cross-university studies also reveal disparities in the quality of digitalized learning environments, which ultimately influence students' readiness to face AI-based accounting systems. Similar findings have been reported in studies conducted in developing countries, indicating the persistence of a skills gap in the use of AI-supported accounting systems. These conditions highlight the importance of research that specifically examines students' readiness to adapt to AI technology in the context of accounting education.

Conceptually, this phenomenon can be explained through the Unified Theory of Acceptance and Use of Technology (UTAUT), which states that technology acceptance is influenced by perceived usefulness (performance expectancy), perceived ease of use (effort expectancy), and available environmental support (Venkatesh et al., 2003). In learning contexts, the intensity of exposure to digital technologies plays a role in shaping these perceptions (Sallam et al., 2025). Learning environments integrated with AI have the potential to enhance students' technological literacy while strengthening their confidence in using digital systems.

In addition to technological factors, psychological dimensions and individual characteristics also play an important role in determining successful technology adaptation. Within the Big Five Personality framework, the dimension of openness to experience is considered one of the primary characteristics that encourage the acceptance of innovation and new technologies. Individuals with high levels of openness tend to have stronger curiosity, greater cognitive flexibility, and a greater tendency to explore new approaches in the learning process (Lee & Wai, 2023).

However, personality characteristics alone may not sufficiently explain successful technological adaptation without adequate psychological readiness. Emotional Intelligence Theory emphasizes that individuals' ability to manage emotions, reduce anxiety, and maintain motivation plays an important role in sustaining cognitive resilience, particularly in complex and technology-based learning environments (Shengyao et al., 2024). Several studies indicate that students' emotional readiness is one of the key factors influencing their ability to adapt to AI-based learning systems (Bolívar-Cruz & Verano-Tacoronte, 2025).

In addition to individual factors, the successful integration of AI technologies is also influenced by the readiness of educational institutions. Institutional Readiness Theory suggests that systemic support such as the availability of digital infrastructure, supportive institutional policies, access to technological platforms, lecturers' competencies, and curriculum alignment constitutes an important factor in ensuring effective AI implementation in higher education. Without adequate structural support, students' individual readiness may be hindered even when they have high motivation to use technology.

Although the literature on educational digitalization and AI technology adoption continues to expand, most previous studies have examined learning digitalization, personality characteristics, and psychological readiness separately. As a result, the integrative mechanism explaining how these three factors simultaneously influence readiness to adapt to AI remains insufficiently understood.

Based on this research gap, this study positions itself at the intersection of three major theoretical frameworks UTAUT, Big Five Personality, and Emotional Intelligence by

proposing that psychological readiness functions as the key mechanism linking learning digitalization and openness to experience with AI adaptation readiness.

Therefore, this study develops an integrative conceptual model that examines the influence of learning digitalization (X_1) and openness to experience (X_2) on students' readiness to adapt to Artificial Intelligence based accounting systems (Y), with psychological readiness (Z) serving as a mediating variable. This conceptual model is constructed through the integration of UTAUT, Big Five Personality, Emotional Intelligence, and Institutional Readiness theories.

Based on this theoretical framework, this study proposes several research hypotheses that will be empirically tested.

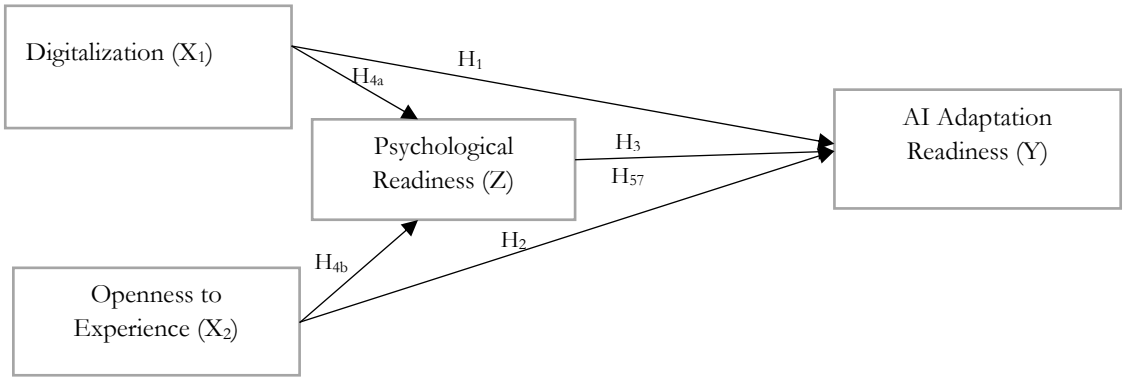

Figure 1. Conceptual Framework

H_1: Digitization of learning (X_1) positively affect AI adaptation readiness (Y)

From the perspective of the Unified Theory of Acceptance and Use of Technology (UTAUT), positive interactions with technology can increase perceived usefulness (*performance expectancy*) and perceived ease of use (*effort expectancy*), which ultimately encourage individuals' intention to use the technology (Venkatesh et al., 2003). When students become accustomed to using various digital tools in the learning process, they tend to develop higher levels of confidence in using new technologies.

Previous studies have also shown that learning experiences within digital environments contribute to improving technological literacy and students' readiness to engage with AI-based systems (Gaviria Rodríguez et al., 2025). Continuous exposure to technology helps students understand how automated systems function and reduces uncertainty when they interact with AI-based tools.

Based on these theoretical arguments, the higher the level of digitalization in the learning process, the greater the likelihood that students will demonstrate readiness to adopt Artificial Intelligence-based accounting systems.

H_2: Openness to experience (X_2) positively influences AI adaptation readiness (Y).

Within the Big Five Personality framework, the dimension of openness to experience reflects an individual's tendency to be receptive to new ideas, possess a high level of curiosity, and be willing to explore innovative approaches. Individuals with high levels of openness are generally more receptive to change and demonstrate greater cognitive flexibility when facing technological developments.

Several empirical studies have shown that this personality characteristic is positively associated with the adoption of digital technologies in academic environments. Students with higher levels of openness tend to be more interested in trying new technologies and are more active in exploring technology-based learning methods (Mustafa et al., 2022).

Such characteristics encourage the development of more positive attitudes toward technological innovation, including the use of AI-based accounting systems. Therefore, students with higher levels of openness to experience are expected to demonstrate greater readiness to adapt to Artificial Intelligence-based accounting systems.

H_3: Psychological readiness (Z) positively influences AI adaptation readiness (Y).

In addition to technological and personality factors, psychological dimensions also play an important role in determining individuals' success in adopting new technologies. Emotional Intelligence Theory explains that an individual's ability to manage emotions, reduce anxiety, and maintain motivation plays a crucial role in sustaining cognitive performance in complex environments (Shengyao et al., 2024).

In the context of AI-based learning, students are not only required to understand technology but also need to possess mental readiness when interacting with complex and dynamic systems. Students with higher levels of psychological readiness tend to be more capable of overcoming technology-related anxiety and demonstrate greater confidence when using digital systems.

Previous studies have shown that emotional readiness and psychological stability are important factors influencing students' ability to adapt to technology-based learning environments (Bolívar-Cruz & Verano-Tacoronte, 2025; Engin, 2017).

Therefore, psychological readiness is expected to have a direct influence on students' readiness to adopt Artificial Intelligence-based accounting systems.

H_{4a}: Learning digitalization (X_1) positively influences psychological readiness (Z).

Exposure to digital technologies in the learning process not only enhances students' technical competencies but may also influence their psychological condition when interacting with technology. The use of Learning Management Systems (LMS), cloud-based accounting platforms, and AI integrated learning tools helps students become more familiar with digital technologies.

From the perspectives of UTAUT and Institutional Readiness, repeated exposure to technology can increase individuals' confidence and reduce technology-related anxiety. As students become more accustomed to using various digital tools, they tend to develop stronger emotional stability and confidence in dealing with more complex technological systems (Gaviria Rodríguez et al., 2025; Zhang et al., 2025).

Thus, the level of learning digitalization is expected to contribute to increasing students' psychological readiness to interact with Artificial Intelligence-based accounting systems.

H_{4b}: Openness to experience (X_2) positively influences psychological readiness (Z).

The openness to experience dimension is also closely related to individuals' ability to deal with new and uncertain situations. Individuals with high levels of openness tend to perceive change as an opportunity for learning and development rather than as a threat.

From the perspective of Emotional Intelligence, such characteristics are associated with emotional flexibility and the ability to manage psychological pressure. Individuals who are

open to new experiences generally exhibit lower levels of anxiety when confronted with technological changes (Bolívar-Cruz & Verano-Tacoronte, 2025).

In the context of AI-based accounting education, students with higher levels of openness are expected to demonstrate better emotional readiness when interacting with new technologies. This allows them to adapt more effectively to Artificial Intelligence-based accounting systems.

H_5: Psychological readiness (Z) mediates the influence of learning digitalization (X_1) and openness to experience (X_2) on AI adaptation readiness (Y).

Although learning digitalization and personality characteristics may provide exposure and motivation to use technology, the process of adapting to AI technology does not always occur directly. Effective adaptation requires internal readiness, including confidence, the ability to manage anxiety, and motivation to learn new technologies.

From the perspective of mediation theory, individuals' psychological conditions can function as a connecting mechanism that channels the influence of external and personal factors into adaptive behavior. In other words, technological experiences and personality characteristics may influence AI adaptation readiness through individuals' psychological conditions (Rijnhart et al., 2021).

Based on this argument, psychological readiness is expected to serve as a mediating variable that bridges the relationship between learning digitalization, the openness personality dimension, and readiness to adapt to Artificial Intelligence-based accounting systems.

METHODOLOGY

This study employed a quantitative approach with an explanatory survey design to examine the structural relationships among learning digitalization, openness to experience, psychological readiness, and readiness to adapt to Artificial Intelligence (AI) based accounting systems. This approach was chosen because it enables researchers to analyze both direct and indirect relationships among variables and to test the mediating role within the proposed conceptual model.

The population of this study consisted of accounting students from several universities in Indonesia who had taken courses utilizing digital learning technologies or accounting information systems. The sampling technique used was purposive sampling, with respondent criteria including students who had experience using Learning Management Systems (LMS), digital accounting software, or technology-supported learning platforms that incorporate AI.

Referring to recommendations in Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis, the minimum sample size was determined based on the ten-times rule, which suggests that the sample size should be at least ten times the number of indicators in the most complex structural path of the model. Based on this consideration, the study involved 150 respondents to ensure adequate reliability and robustness of the statistical analysis.

Variable	Operational Definition (Short)	Indicators (Measurement Items)	Scale

Digitalization in Learning (X_1)	The extent of students' use of digital learning technologies such as LMS, cloud-based materials, accounting software, and AI-supported tools in accounting courses.	X_1.1 Use of LMS for accounting learning X_1.2 Use of digital accounting software X_1.3 Experience with AI-based tools X_1.4 Availability of interactive digital materials (Al-Hattami, 2025; Gaviria Rodríguez et al., 2025b; Tettamanzi et al., 2023)	Likert 1–5
Openness to Experience (X_2)	Students' tendency to be open to new ideas, innovations, and willingness to explore and adopt new technologies.	X_2.1 Willingness to try new technologies X_2.2 Interest in exploring innovative learning methods X_2.3 Positive attitude toward digital change X_2.4 Flexibility and acceptance of new ideas (Budhathoki et al., 2024; Tailor & Tailor, 2025; Uludağ et al., 2025)	Likert 1–5
Psychological Readiness (Z)	Students' emotional readiness, confidence, and ability to manage anxiety, emotions, and motivation when using AI-based accounting systems.	Z_1.1 Confidence in using AI tools Z_1.2 Ability to manage technology-related anxiety Z^1.3 Emotional regulation during digital learning Z^1.4 Motivation and resilience when using AI systems (Bolívar-Cruz & Verano-Tacoronte, 2025; Engin, 2017; Lee & Wai, 2023; Susanto et al., 2024; H. Zhang et al., 2025)	Likert 1–5
AI Adaptation Readiness (Y)	Students' perceived cognitive, affective, and behavioral preparedness to adopt and use AI-based accounting systems in learning and future professional contexts.	Y_1.1 Perceived readiness to use AI accounting systems Y_1.2 Intention to adopt AI tools Y_1.3 Behavioral readiness to use AI Y_1.4 Perceived usefulness and ease of AI systems (Chounta et al., 2024; Deja et al., 2021; Kim et al., 2019)	Likert 1–5

Table 1. Operational Definitions, Indicators, and Measurement Scales

The research data were collected through an online questionnaire distributed using the Google Forms platform. The research instrument was designed in the form of structured statements to measure four main constructs: learning digitalization (X_1), Openness to Experience (X_2), psychological readiness (Z), and readiness to adapt to Artificial Intelligence (AI) (Y). All items were measured using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. The measurement items were adapted from previous studies that had established validity and reliability in order to maintain the quality of the research instrument.

Learning digitalization (X_1) describes the extent to which students utilize digital technologies in their academic activities. This includes the use of Learning Management Systems (LMS), cloud-based learning materials, digital accounting software, and AI supported learning tools. The measurement indicators assess the frequency of LMS usage, utilization of digital accounting software, interaction with AI based systems, and access to interactive digital learning resources (Gaviria Rodríguez et al., 2025).

The Openness to Experience variable (X_2) represents students' tendency to be receptive to new ideas, innovations, and technological developments. This construct was measured using several indicators, including willingness to try new technologies, interest in innovative learning methods, positive attitudes toward digital transformation, and flexibility in accepting unfamiliar ideas (Lee & Wai, 2023).

Meanwhile, psychological readiness (Z) refers to students' mental and emotional preparedness when interacting with AI-based systems. This construct includes confidence in using technology, the ability to manage emotions, the ability to cope with technology-related anxiety, as well as motivation and resilience when facing digital challenges.

AI adaptation readiness (Y) reflects students' cognitive, emotional, and behavioral readiness to adopt and utilize Artificial Intelligence-based accounting systems, both in learning contexts and in future professional practice (Bolívar-Cruz & Verano-Tacoronte, 2025). The indicators include perceived readiness to use AI systems, intention to adopt AI technology, behavioral readiness to implement AI, and perceptions of the usefulness and ease of use of such systems (Chounta et al., 2024).

Before testing the structural model, the measurement model was first evaluated through the outer model assessment in PLS-SEM. Convergent validity was analyzed through factor loading values and Average Variance Extracted (AVE), while discriminant validity was examined using the Heterotrait Monotrait Ratio (HTMT) approach. The internal consistency reliability of constructs was measured using Composite Reliability (CR) and Cronbach's Alpha. Indicators were considered acceptable when factor loadings exceeded 0.70, AVE values were above 0.50, CR values were greater than 0.70, and HTMT values were below 0.85.

All analyses were conducted using SmartPLS software. The Partial Least Squares Structural Equation Modeling (PLS-SEM) method was chosen because it is suitable for analyzing research models involving complex relationships, mediating variables, and relatively limited sample sizes (Adachi & van de Velden, 2025). Structural model evaluation included the assessment of the coefficient of determination (R^2), predictive relevance (Q^2), and overall model fit. The significance of relationships among variables was tested using a bootstrapping procedure with 5,000 resamples to obtain t-statistics and p-values.

Furthermore, mediation analysis was conducted by evaluating the indirect effects within the research model. This approach was used to assess the extent to which psychological readiness acts as a mediating variable in the relationship between learning digitalization, Openness to Experience, and readiness to adapt to Artificial Intelligence.

RESULTS AND DISCUSSION

Descriptive Statistical Results

The results of the descriptive statistical analysis of the 150 respondents indicate that all research variables fall within the moderate to high categories. These findings suggest that, in general, accounting students already possess a reasonably strong foundation for adapting to Artificial Intelligence (AI)-based accounting systems.

The Learning Digitalization variable (X_1) obtained a mean value of 3.82 with a standard deviation of 0.68, indicating that students relatively frequently utilize various digital learning platforms such as Learning Management Systems (LMS), cloud-based learning materials, and digital accounting applications. The range between the minimum value of 2.20 and the maximum value of 4.95 indicates variation in students' levels of exposure to digital

technology. Meanwhile, the mode value of 4.00, with a frequency of 18 respondents, suggests that most students provided positive evaluations of their digital learning experiences.

For the Openness to Experience variable (X_2), the highest mean value of 3.94 was obtained, reflecting students' tendency to accept new ideas, innovations, and technological changes. The standard deviation of 0.63 and the mode value of 4.20 with a frequency of 21 respondents indicate a consistent level of openness among respondents toward new experiences. Overall, these data suggest that students possess a relatively adaptive orientation toward continuously evolving technological developments.

Table 2. Descriptive Statistics of Research

Variable	N	Mean	Std. Dev	Minimum	Maximum	Mode	Mode Frequency
Learning Digitalization (X_1)	150	3.82	0.68	2.20	4.95	4.00	18
Openness to Experience (X_2)	150	3.94	0.63	2.30	4.90	4.20	21
Students' Psychological Readiness (Z)	150	3.76	0.71	2.00	4.85	3.80	16
AI Adaptation Readiness (Y)	150	3.88	0.66	2.25	4.90	4.00	24

The Psychological Readiness variable (Z) shows a mean value of 3.76 with a standard deviation of 0.71. This value indicates that most students demonstrate a fairly good level of emotional readiness, reflected in their confidence and ability to manage anxiety when interacting with digital technologies. The mode value of 3.80 suggests that, in general, students' psychological readiness falls within an adequate category. However, the relatively greater data variation compared to other variables indicates that some students still experience difficulties in adjusting to the demands of using Artificial Intelligence-based technologies.

Meanwhile, the AI Adaptation Readiness variable (Y) obtained a mean value of 3.88, reflecting students' perceptions that they are sufficiently prepared, both psychologically and behaviorally, to interact with AI-based accounting systems. The mode value of 4.00, with the highest frequency of 24 respondents, further confirms that most students feel capable of using AI-supported tools, both in the context of university learning and in future professional practice.

Overall, the results of this descriptive analysis indicate that accounting students in Indonesia demonstrate a relatively strong level of digital technology exposure, supportive personality characteristics, and adequate psychological readiness. These conditions provide a solid foundation for proceeding with the structural analysis in this study and reinforce the assumption that digitalization and psychological dimensions play an important role in shaping students' readiness to adopt Artificial Intelligence-based accounting systems.

Data Analysis and Discussion

The findings of this study provide strong empirical support in explaining the factors influencing accounting students' readiness to adopt Artificial Intelligence (AI) based accounting systems. The results indicate that learning digitalization (X_1) has a positive and significant effect on AI adaptation readiness (Y). This finding is consistent with the Unified

Theory of Acceptance and Use of Technology (UTAUT) framework, which suggests that perceptions of technological benefits (performance expectancy) and perceived ease of use (effort expectancy) are key determinants influencing individuals' intention to adopt new technologies.

Furthermore, these results align with recent studies demonstrating that learning experiences within digital environments contribute to improving students' technological competence and self-confidence when using AI-based tools (Abdo-Salloum & Al-Mousawi, 2025). Students who actively utilize Learning Management Systems (LMS), cloud-based learning resources, and digital accounting applications tend to demonstrate higher levels of adaptability toward accounting systems integrated with AI technologies.

Main Variables	Indicator Item	Code	Outer Loading	Information
Learning Digitalization (X_1)	Use of LMS platforms	$X_1.1$	0.812	Valid
	Use digital accounting software	$X_1.2$	0.846	Valid
	Use of cloud-based materials	$X_1.3$	0.799	Valid
	Experience with AI-supported learning tools	$X_1.4$	0.873	Valid
Openness to Experience (X_2)	Willingness to try new technologies	$X_2.1$	0.831	Valid
	Interest in innovative learning methods	$X_2.2$	0.804	Valid
	Positive attitude toward technological change	$X_2.3$	0.859	Valid
	Flexibility in learning new tools	$X_2.4$	0.817	Valid
Psychological Readiness (Z)	Confidence in using AI-based tools	Z1	0.874	Valid
	Ability to manage digital anxiety	Z2	0.821	Valid
	Emotional regulation in digital learning	Z3	0.839	Valid
	Motivation and resilience in using AI systems	Z4	0.862	Valid
AI Adaptation Readiness (Y)	Perceived readiness to use AI accounting systems	Y1	0.853	Valid
	Intention to adopt AI tools	Y2	0.887	Valid
	Behavioral readiness to use AI	Y3	0.834	Valid
	Perceived usefulness & ease of use	Y4	0.812	Valid

Table 3. Outer Loadings and Indicator Validity of Research Constructs

Further analysis reveals that Openness to Experience (X_2) also has a significant influence on students' readiness to adopt AI technologies. This finding is consistent with the Big Five Personality framework, where the openness dimension reflects curiosity, cognitive flexibility, and a positive attitude toward innovation. Students with higher levels of openness are generally more willing to experiment with new digital tools and more actively explore learning methods supported by AI technologies (Tailor & Tailor, 2025). Previous studies have also shown that this personality characteristic can accelerate individuals' adaptation to the continuously evolving technological landscape in the accounting profession.

Among all predictor variables examined in this study, psychological readiness (Z) demonstrates the strongest influence on AI adaptation readiness (Y). This result indicates that emotional stability and cognitive preparedness play a crucial role in enabling students to interact effectively with AI based systems. From the perspective of Emotional Intelligence Theory, individuals' abilities to manage emotions, cope with anxiety, and maintain motivation

are critical when navigating complex digital environments (Shengyao et al., 2024). Empirical evidence also suggests that students with higher emotional resilience are better able to manage the cognitive demands associated with the use of AI applications (Bolívar-Cruz & Verano-Tacoronte, 2025; Susanto et al., 2024).

The mediation analysis further confirms the important role of psychological readiness within the proposed research model. Learning digitalization and openness to experience not only exert direct effects on AI adaptation readiness but also generate indirect effects through students' psychological readiness. In other words, exposure to digital technologies and individual personality characteristics produce stronger outcomes when students possess adequate emotional and mental readiness to cope with technological changes.

From a theoretical perspective, these findings strengthen the integration of UTAUT, Big Five Personality, and Emotional Intelligence frameworks, demonstrating that psychological readiness acts as a linking mechanism between technological experience, individual personality characteristics, and adaptive behavior toward technology. Students who are accustomed to using various digital tools and who possess open personality traits tend to demonstrate greater confidence and stronger emotional preparedness when interacting with complex AI-based accounting systems.

Overall, students' readiness to adapt to AI technologies can be understood as the result of interactions among several factors, including technological exposure, personality characteristics, and individual psychological conditions. The proposed research model contributes to the literature by offering a more integrated explanation of technology adaptation processes, particularly within the context of accounting education in developing countries.

From a practical perspective, the findings suggest that higher education institutions should not only enhance the availability of digital infrastructure, but also provide psychological support and guidance to students. Additionally, learning strategies that consider differences in students' personality characteristics may help ensure that the integration of AI technologies in accounting education can be implemented more effectively.

In addition, the evaluation of the measurement model indicates that the research constructs meet the required reliability and validity criteria. All factor loading values exceed 0.70, while the Average Variance Extracted (AVE) ranges between 0.64 and 0.71, indicating satisfactory convergent validity. The Composite Reliability and Cronbach's Alpha values above 0.80 further demonstrate strong internal consistency (Adachi & van de Velden, 2025). Therefore, the measurement model used in this study is considered sufficiently robust and appropriate for testing the structural model using the PLS-SEM approach.

Composite Reliability

The Composite Reliability (CR) values presented in Table 4 indicate that all constructs in this study meet the reliability criteria recommended in PLS-SEM analysis. The CR values for each variable Digital Learning (0.90), Openness to Experience (0.89), Psychological Readiness (0.92), and AI Adaptation Readiness (0.91) are all above the recommended minimum threshold of 0.70. This result indicates that the indicators used are able to measure the latent constructs consistently and reliably (Cisneros-Barahona et al., 2023).

The high reliability values reflect strong internal consistency among the measurement items. Thus, the questionnaire instrument used in this study is capable of producing stable and trustworthy data. This condition strengthens the quality of the measurement model and

provides an adequate basis for proceeding to the structural model analysis and hypothesis testing. In addition, the high Composite Reliability values are also consistent with the results of the Average Variance Extracted (AVE) test, which are above the threshold value of 0.50. This indicates that each construct is able to explain a sufficient proportion of the variance of its indicators, suggesting that convergent validity in the research model has been achieved.

Table 4. Composite Reliability of Research Constructs

Variables	Composite Reliability	Information
Learning Digitalization (X_1)	0.90	Reliable
Openness to Experience (X_2)	0.89	Reliable
Psychological Readiness (Z)	0.92	Reliable
AI Adaptation Readiness (Y)	0.91	Reliable

Average Variance Extracted (AVE)

High reliability values indicate good internal consistency, meaning that the measurement items are capable of producing stable and consistent data. This condition supports the robustness of the measurement model used in the study and provides an adequate basis for proceeding to the structural model testing, including inner model evaluation and hypothesis testing (Adachi & van de Velden, 2025). Furthermore, the Composite Reliability (CR) values are also aligned with the results of the Average Variance Extracted (AVE), all of which exceed the recommended threshold of 0.50, indicating that each construct is able to adequately explain the proportion of variance in its indicators.

The results of the AVE test presented in Table 5 show that all constructs in this study meet the criteria for convergent validity in PLS-SEM analysis. Each variable has an AVE value above 0.50, meaning that more than half of the variance of the indicators can be explained by the measured latent constructs.

Specifically, the variables Digital Learning (AVE = 0.65) and Openness to Experience (AVE = 0.63) show an adequate level of convergence, indicating that their indicators consistently represent exposure to digital technology and characteristics related to openness to new experiences. The Psychological Readiness variable (AVE = 0.68) demonstrates a stronger level of convergence, reflecting consistency in measuring emotional stability, self-confidence, and students' resilience in facing digital challenges.

Meanwhile, the AI Adaptation Readiness variable (AVE = 0.66) also shows satisfactory results, confirming that the indicators used are capable of representing students' readiness to adopt Artificial Intelligence-based accounting systems effectively. The detailed AVE values can be seen in Table 5.

Table 5. Average Variance Extracted (AVE) of Constructs

Variables	AVE	Information
Learning Digitalization (X1)	0.65	Valid
Openness to Experience (X_2)	0.63	Valid
Psychological Readiness (Z)	0.68	Valid
AI Adaptation Readiness (Y)	0.66	Valid

Discriminant Validity

The results of the Heterotrait–Monotrait Ratio (HTMT) test presented in Table 6 indicate that the discriminant validity criteria in this study have been satisfactorily met. All HTMT values are below the recommended threshold of 0.85, indicating that none of the constructs

exhibit excessive conceptual overlap. Compared to the Fornell–Larcker criterion, the HTMT method is considered more sensitive in detecting potential discriminant validity issues within measurement models (Henseler et al., 2015). Therefore, these results provide strong evidence that the constructs Digital Learning (X_1), Openness to Experience (X_2), Psychological Readiness (Z), and AI Adaptation Readiness (Y) represent conceptually distinct variables.

The HTMT coefficient values range from 0.58 to 0.70, indicating moderate relationships among constructs while still maintaining clear conceptual distinctions. For example, the HTMT value of 0.70 between Psychological Readiness (Z) and AI Adaptation Readiness (Y) suggests that the two variables are conceptually related but remain statistically distinguishable. This finding supports the theoretical perspective that emotional resilience contributes to the ability to adapt to AI, without completely overlapping with behavioral readiness in using such technologies (Shengyao et al., 2024).

Similarly, the HTMT value of 0.63 between Digital Learning (X_1) and Openness to Experience (X_2) indicates a meaningful relationship between the two variables. Students who possess a higher level of openness tend to respond more positively to digital learning environments. Within the Big Five Personality framework, the dimension of openness reflects curiosity and flexibility in accepting new ideas rather than directly representing technological competence. This explains why the two constructs show a relevant relationship while still remaining empirically distinct.

Table 6. Discriminant Validity (HTMT)

Variables	Personality Openness X_1	Personality Openness X_2	Psychological Readiness Z	AI Adaptation Readiness Y
Learning Digitalization (X_1)	—	0.63	0.58	0.66
Openness to Experience (X_2)	0.63	—	0.61	0.68
Psychological Readiness (Z)	0.58	0.61	—	0.70
AI Adaptation Readiness (Y)	0.66	0.68	0.70	—

Common Method Bias (CMB)

To minimize the possibility of common method bias (CMB), three complementary diagnostic procedures were applied.

First, Harman's single factor test was conducted using exploratory factor analysis without rotation. The first extracted factor accounted for less than 40% of the total variance, indicating that no single factor dominated the measurement structure. This suggests that common method variance is unlikely to influence the results substantially.

Second, full collinearity variance inflation factors (VIF) were assessed to detect potential multicollinearity. All constructs showed VIF values below 3.3, which is well within the recommended threshold. This indicates the absence of problematic collinearity and reduces concerns regarding systematic method bias.

Third, Kock's Common Latent Factor (CLF) technique was implemented by introducing a common latent factor into the model to assess possible inflation in factor loadings. The differences in loadings before and after the inclusion of the CLF remained below 0.20, suggesting that bias from a common method source is minimal. The stability of the loadings further supports the robustness of the measurement model.

Model Fit Evaluation

To minimize the potential occurrence of common method bias (CMB), this study employed three complementary diagnostic procedures.

First, Harman's single-factor test was conducted using exploratory factor analysis without rotation. The results indicate that the first extracted factor explains less than 40% of the total variance, suggesting that no single dominant factor controls the measurement structure. This finding indicates that common method variance does not significantly influence the research results.

Second, the full collinearity variance inflation factor (VIF) test was performed to detect potential multicollinearity among constructs. The analysis shows that all constructs have VIF values below 3.3, which fall within the recommended threshold. This condition indicates that there is no serious collinearity problem and reduces the potential bias caused by the use of the same measurement method.

Third, this study also applied the Common Latent Factor (CLF) technique developed by Kock by introducing a general latent factor into the model to evaluate the potential inflation of factor loading values. The analysis shows that the difference in loading values before and after the inclusion of the common latent factor remains below 0.20. This indicates that the influence of bias originating from the measurement method is relatively small. The stability of these loading values further strengthens the reliability of the measurement model used in this study.

Fit Index	Value	Threshold Criteria	Model Fit Evaluation
SRMR	0.064	< 0.08	Good Fit
NFI	0.91	> 0.90	Good Fit
Chi-Square / N	0.98	< 3.00	Acceptable Fit
RMS_theta	0.11	< 0.12	Acceptable Fit
d_ULS	0.89	Should not exceed HI_95	Acceptable
d_G	0.76	Should not exceed HI_95	Acceptable

Table 7. Model Fit Evaluation

Coefficient of Determination (R-Square)

The R-Square test results presented in Table 8 indicate that the structural model used in this study has adequate explanatory power. The Psychological Readiness (Z) variable obtained an R^2 value of 0.48, indicating that Learning Digitalization (X_1) and Openness to Experience (X_2) jointly explain 48% of the variance in students' psychological readiness. This value falls into the moderate category, suggesting that exposure to digital technology and personality characteristics contribute significantly to shaping students' emotional stability, self-confidence, and resilience in facing digital challenges.

Meanwhile, the AI Adaptation Readiness (Y) variable shows an R^2 value of 0.62, which is categorized as substantial. This indicates that the combination of learning digitalization, personality dimensions, and psychological readiness has strong predictive power in explaining students' readiness to adapt to Artificial Intelligence based accounting systems. In other words, approximately 62% of the variance in AI adaptation readiness can be explained by these three predictor constructs. This value reflects the strong explanatory capability of the model and is consistent with several recent studies emphasizing the importance of digital competence and psychological readiness in the process of adapting to AI technologies (Budhathoki et al., 2024; Gaviria Rodríguez et al., 2025; Krishnanraw & Kamisah, 2025; Tailor & Tailor, 2025; Uludağ et al., 2025).

Overall, these R-Square findings reinforce that the research model developed in this study has considerable explanatory strength. The moderate value for the Psychological Readiness

variable indicates opportunities for educational institutions to implement pedagogical interventions aimed at strengthening students' psychological aspects. On the other hand, the high value for AI Adaptation Readiness confirms that the integration of technological factors, personality characteristics, and psychological dimensions provides a strong theoretical foundation for explaining students' ability to adapt to Artificial Intelligence based accounting systems.

Table 8. R-Square of Endogenous Variables

Endogenous Variables	R-Square	Category
Psychological Readiness (Z)	0.48	Moderate
AI Adaptation Readiness (Y)	0.62	Substantial

Effect Size (f^2) Analysis

The calculation of effect size (f^2) presented in Table 9 illustrates the contribution of each independent variable to the dependent constructs in the research model. The f^2 values indicate that Learning Digitalization (X_1) has a small to moderate effect (0.14) on Psychological Readiness (Z). This finding suggests that exposure to a digital learning environment plays a meaningful role in enhancing students' emotional stability, self-confidence, and resilience when facing technological challenges.

On the other hand, the Openness to Experience (X_2) variable shows a moderate effect (0.18) on Psychological Readiness (Z). This finding indicates that personality dimensions contribute slightly more strongly than technological factors in shaping students' psychological readiness when dealing with technological change.

In predicting AI Adaptation Readiness (Y), Learning Digitalization (X1) shows a relatively small effect (0.09). This suggests that although exposure to digital technology contributes to the ability to adapt to AI, its influence is not as strong as psychological factors. Meanwhile, Openness to Experience (X_2) has a small to moderate effect (0.12) on AI adaptation readiness, indicating that personality characteristics also play a role in shaping students' readiness to adopt AI technology, although with a moderate level of influence.

The largest effect in the research model is observed in the relationship between Psychological Readiness (Z) and AI Adaptation Readiness (Y), with an f^2 value of 0.29, which falls within the moderate to large category. This finding emphasizes that psychological factors such as emotional regulation ability, level of self-confidence, and lower levels of technology-related anxiety are key determinants in shaping students' readiness to adopt Artificial Intelligence based accounting systems.

These results are consistent with several contemporary studies emphasizing that emotional stability and psychological readiness play an important role in technology adaptation behavior, particularly in environments requiring high cognitive abilities such as AI-based analysis and the use of digital accounting systems (Bolívar-Cruz & Verano-Tacoronte, 2025; Engin, 2017; Lee & Wai, 2023; Susanto et al., 2024; L. Zhang et al., 2021).

Table 9. Effect Size (f^2) of Predictor Variables

Independent Variables	Dependent Variable	f^2	Category
Learning Digitalization (X_1)	Psychological Readiness (Z)	0.14	Small–Medium
Openness to Experience (X_2)	Psychological Readiness (Z)	0.18	Medium
Learning Digitalization (X_1)	AI Adaptation Readiness (Y)	0.09	Small
Openness to Experience (X_2)	AI Adaptation Readiness (Y)	0.12	Small–Medium
Psychological Readiness (Z)	AI Adaptation Readiness (Y)	0.29	Medium–Large

The results of the direct effect analysis indicate that all hypothesized paths proposed in this study are statistically significant, thereby supporting the theoretical propositions developed in the research model. The variable Learning Digitalization (X_1) was found to have a positive and significant effect on AI Adaptation Readiness (Y) with a path coefficient of 0.21 ($p = 0.002$). This finding reinforces previous empirical evidence suggesting that exposure to digital learning tools can increase students' familiarity with technology and strengthen their readiness to adopt Artificial Intelligence–based accounting systems (Lee & Wai, 2023).

The Openness to Experience (X_2) variable also shows a positive and significant direct effect on AI Adaptation Readiness, with $\beta = 0.24$ ($p = 0.001$). This result aligns with personality literature emphasizing that the openness dimension encourages individuals to be more receptive to exploration, possess a high level of curiosity, and more readily accept technological innovations. Therefore, personality characteristics can be understood as psychological factors that support the process of adapting to technological developments (Lee & Wai, 2023).

The strongest effect in the research model is observed in the relationship between Psychological Readiness (Z) and AI Adaptation Readiness (Y) with $\beta = 0.43$ ($p < 0.001$). This result indicates that emotional stability, levels of self-confidence, and lower levels of technology-related anxiety play a crucial role in enhancing students' ability to interact with AI-based accounting platforms. This finding is consistent with several recent studies highlighting that emotional and cognitive readiness are key determinants of technology acceptance in complex digital environments (Budhathoki et al., 2024; Gaviria Rodríguez et al., 2025; Krishnanraw & Kamisah, 2025; Tailor & Tailor, 2025; Uludağ et al., 2025).

In addition, Learning Digitalization ($X_1 \rightarrow Z$) and Openness to Experience ($X_2 \rightarrow Z$) also demonstrate significant positive effects on Psychological Readiness. Exposure to digital technology has been shown to increase students' confidence in using technological tools ($\beta = 0.29$; $p < 0.001$), while the openness to experience dimension strengthens emotional flexibility and individual resilience in facing change ($\beta = 0.34$; $p < 0.001$). These findings indicate that students' psychological readiness is shaped by a combination of technological experience and personality characteristics.

Overall, the results of the direct effect testing reinforce the conceptual model proposed in this study. Learning digitalization and the openness to experience dimension not only contribute directly to AI adaptation readiness, but also exert indirect effects through students' psychological readiness. This pattern of relationships provides a strong empirical basis for mediation analysis and strengthens the theoretical integration of UTAUT, Big Five Personality, Emotional Intelligence, and Institutional Readiness in explaining students' adaptation processes toward Artificial Intelligence based accounting systems.

Relationship Between Variables	Path Coefficient	t-statistic	p-value	Information
$X_1 \rightarrow Y$ (Learning Digitalization → AI Adaptation)	0.21	3.12	0.002	Significant
$X_2 \rightarrow Y$ (Openness to Experience → AI Adaptation)	0.24	3.45	0.001	Significant
$Z \rightarrow Y$ (Psychological Readiness → AI Adaptation)	0.43	5.98	<0.001	Significant
$X_1 \rightarrow Z$ (Learning Digitalization → Psychological Readiness)	0.29	4.15	<0.001	Significant

Table 10. Direct Effect Results

Relationship Between Variables	Path Coefficient	t-statistic	p-value	Information
$X_2 \rightarrow Z$ (Openness to Experience → Psychological Readiness)	0.34	4.72	<0.001	Significant

The mediation analysis presented in Table 11 indicates that Psychological Readiness (Z) plays an important role as a mediating variable in the relationship between Learning Digitalization and Openness to Experience toward AI Adaptation Readiness. These findings suggest that the influence of the two independent variables on adaptation readiness occurs not only directly but also through internal psychological mechanisms possessed by students.

The indirect effect of Learning Digitalization on AI Adaptation Readiness through Psychological Readiness is positive and significant with a value of $\beta = 0.12$ ($p = 0.001$). This result indicates that exposure to a digital learning environment contributes to building students' emotional readiness, such as increased self-confidence, reduced technology-related anxiety, and the development of digital resilience. These psychological conditions ultimately strengthen students' readiness to adopt Artificial Intelligence–based accounting systems. This finding is consistent with several previous studies showing that digital learning not only enhances cognitive readiness but also affective readiness in the use of technology (Budhathoki et al., 2024; Gaviria Rodríguez et al., 2025; Krishnanraw & Kamisah, 2025; Tailor & Tailor, 2025; Uludağ et al., 2025).

A similar result is also found in the indirect effect of Openness to Experience on AI Adaptation Readiness through Psychological Readiness, which is significant with $\beta = 0.15$ ($p < 0.001$). This finding suggests that students who have higher levels of openness to new experiences tend to develop more positive psychological conditions, such as strong curiosity, emotional flexibility, and an adaptive attitude toward change. These conditions ultimately facilitate the process of accepting AI technology. This result is also consistent with literature that positions personality dimensions as psychological catalysts in shaping technology acceptance behavior (Lee & Wai, 2023).

Table 11. Indirect Effect Results

Indirect Relationship	Path Coefficient	t-statistic	p-value	Information
$X_1 \rightarrow Z \rightarrow Y$ (Learning Digitalization → Psychological Readiness → AI Adaptation)	0.12	3.28	0.001	Significant
$X_2 \rightarrow Z \rightarrow Y$ (Openness to Experience → Psychological Readiness → AI Adaptation)	0.15	3.95	<0.001	Significant

The PLS analysis results show that the structural paths $X_1 \rightarrow Z$, $X_2 \rightarrow Z$, and $Z \rightarrow Y$ are statistically significant. In addition, the indirect effects of $X_1 \rightarrow Y$ and $X_2 \rightarrow Y$ through the mediating variable Z are also significant. Interestingly, the direct relationships between $X_1 \rightarrow Y$ and $X_2 \rightarrow Y$ remain significant even after the mediator variable has been included in the research model.

Based on the mediation classification criteria proposed by (Zhao et al., 2010), this pattern of relationships indicates the presence of partial mediation. This means that psychological readiness (Z) functions as a mediating mechanism that bridges the influence of learning digitalization and personality dimensions on AI adaptation readiness, although both independent variables still exert a direct influence on the dependent variable.

To assess the strength of the mediation effect, this study uses the Variance Accounted For (VAF) index. The VAF value is calculated to determine the proportion of the indirect effect

relative to the total effect occurring in the relationships among variables. The calculation of the VAF value is conducted using the following formula:

$$VAF = \left(\frac{Indirect\ Effect}{Total\ Effect}\ x\ 100\%\right)$$

Where *Total Effect* = *Direct Effect* + *Indirect Effect*

Based on the direct effect and indirect effect values obtained from the PLS-SEM analysis, several findings were identified as follows:

Table 12. Variance Accounted For (VAF) Results and Mediation Interpretation

Mediation Path	VAF Result	Interpretation
Digitalization → Z → Adaptation to AI	62.4%	Partial Mediation (Substantial)
Personality (Openness) → Z → Adaptation to AI	57.9%	Partial Mediation (Moderate)

The Variance Accounted For (VAF) value indicates that more than half of the total effect of Digitalization of Learning (X_1) and Openness to Experience (X_2) on AI Adaptation Readiness (Y) is transmitted through Psychological Readiness (Z). However, because the direct paths from $X_1 \rightarrow Y$ and $X_2 \rightarrow Y$ remain statistically significant even after the mediator variable has been included in the research model, the mediation pattern cannot be categorized as full mediation (Zhao et al., 2010).

This finding is consistent with the theoretical framework of mediation, which explains that when both the direct and indirect effects are significant and move in a consistent direction, the mediation is classified as partial complementary mediation. In the context of this study, psychological readiness does not replace the role of learning digitalization or personality dimensions; rather, it strengthens their influence by functioning as an affective cognitive bridge that shapes students' adaptive behavior toward Artificial Intelligence technologies.

Discussion

The findings of this study provide strong empirical evidence regarding the factors that influence accounting students' readiness to adapt to Artificial Intelligence (AI)-based accounting systems. The structural model tested using the PLS-SEM approach indicates that the digitalization of learning, the personality dimension of Openness to Experience, and psychological readiness have significant effects on AI adaptation readiness. These findings reinforce the view that students' readiness to face digital transformation in the accounting field results from the interaction between technological factors, individual characteristics, and psychological conditions.

The first finding shows that the digitalization of learning has a positive effect on AI adaptation readiness, thus supporting the proposed hypothesis. Students who interact more frequently with Learning Management Systems (LMS), cloud-based digital accounting applications, and various technology-based learning tools demonstrate higher levels of readiness to adopt AI based accounting systems. This finding is consistent with the Unified Theory of Acceptance and Use of Technology (UTAUT), which explains that positive experiences in using technology increase perceptions of technological usefulness and ease of

use.

The results of this study are also consistent with several previous studies showing that digital learning environments play an important role in enhancing technological literacy and students' readiness to use advanced technologies. Research by (Gaviria Rodríguez et al., 2025b) and (Mustafa et al., 2022) found that the integration of digital technology in the learning process can strengthen students' technological competencies and improve their readiness to face digital transformation in professional fields. In addition, (Tettamanzi et al., 2023) emphasized that the use of digital learning platforms enhances technology based learning experiences, enabling students to become more prepared to engage with AI-based systems in the workplace.

The second finding shows that Openness to Experience has a significant effect on AI adaptation readiness. This result indicates that personality dimensions play an important role in determining how individuals respond to technological innovation. From the perspective of the Big Five Personality framework, individuals with high levels of openness tend to have greater curiosity, better cognitive flexibility, and a more positive attitude toward new ideas. These characteristics make students more receptive to technological change and more interested in exploring AI-based accounting systems.

This finding aligns with the study by (Joshi et al., 2023), which showed that students with higher levels of openness to experience are more likely to try new technologies and adapt more quickly to digital innovations. The results also support the findings of (Lee & Wai, 2023), who emphasized that personality dimensions play an important role in shaping individuals' attitudes toward the adoption of new technologies. Therefore, successful technological adaptation is determined not only by technical competence but also by personality factors that influence individuals' readiness to embrace change.

The most dominant finding in this study is the influence of psychological readiness on AI adaptation readiness. The highest path coefficient indicates that emotional stability, self-confidence, and low levels of technological anxiety are the most decisive factors in shaping students' readiness to use AI-based systems. The perspective of Emotional Intelligence explains that individuals' ability to manage emotions, cope with psychological pressure, and maintain motivation becomes a critical factor in navigating complex digital environments (Shengyao et al., 2024).

This finding is also consistent with studies by (Bolívar-Cruz & Verano-Tacoronte, 2025; Susanto et al., 2024) ,which show that emotional readiness and individual confidence are key determinants in the acceptance of new technologies. Furthermore, (Engin, 2017) demonstrated that technology-related anxiety can become a barrier to technological adaptation if it is not balanced with adequate psychological readiness. Thus, the results of this study emphasize that readiness to adapt to AI technology depends not only on technical capabilities but also on individuals' mental and emotional preparedness to face technological change.

The mediation analysis in this study provides a deeper understanding of the mechanisms underlying the relationships among variables. The findings show that psychological readiness acts as a mediating variable that strengthens the influence of learning digitalization and openness to experience on AI adaptation readiness. This suggests that technological experience and personality characteristics do not automatically result in adaptation readiness unless they are supported by adequate psychological conditions. In other words, psychological readiness functions as an internal mechanism that translates technological exposure and individual characteristics into adaptive technological behavior.

These findings support the mediation classification proposed by (Zhao et al., 2010), which states that when both direct and indirect effects are significant, the mediation pattern is categorized as partial complementary mediation. In this study, learning digitalization and personality dimensions continue to have direct effects on AI adaptation readiness, but these effects are strengthened through students' psychological mechanisms. This indicates that psychological readiness functions as an affective–cognitive bridge that connects technological experiences and individual characteristics with the ability to adapt to AI-based accounting systems.

From a methodological perspective, the research model demonstrates good reliability and validity. The HTMT, SRMR, and VIF values indicate that the model is free from multicollinearity problems and common method bias, suggesting that the findings of this study have a high level of reliability.

In addition to its theoretical contributions, this study also provides practical implications for the development of accounting education in the era of digital transformation. Universities need to strengthen the integration of digital technology in the learning process and provide learning environments that support the development of students' technological competencies. Furthermore, educational programs should also pay attention to students' psychological aspects by providing digital literacy training, simulations of AI-based tools, and learning approaches that encourage technological exploration.

This study would not have been possible without the contribution of the respondents who generously devoted their time to completing the questionnaire. Therefore, the researchers would like to express their sincere appreciation and gratitude to all student respondents who shared their insights and experiences regarding digital learning and readiness to face AI technologies. Their participation played a crucial role in enabling this research to obtain relevant empirical data and to provide a more comprehensive understanding of accounting students' readiness to face technological transformation in the future.

CONCLUSION

This study shows that accounting students' readiness to adopt Artificial Intelligence (AI)-based accounting systems is the result of the interaction between learning digitalization, the personality characteristic of openness to experience, and psychological readiness. The results indicate that while exposure to digital technology and personality dimensions contribute to technology acceptance, psychological readiness emerges as the most dominant factor and as a mediating mechanism that strengthens the influence of both variables on AI adaptation readiness.

These findings emphasize that digital transformation in accounting education requires not only the integration of technology into learning processes but also the strengthening of students' psychological aspects, such as self-confidence, emotional regulation, and the ability to manage technology-related anxiety. Conceptually, this study enriches the literature by integrating perspectives from UTAUT, Big Five Personality, and Emotional Intelligence to explain technological adaptation in accounting education.

However, this study has several limitations, including the use of a cross-sectional design, reliance on self-reported questionnaire data, and a research context limited to accounting students in Indonesia, which may restrict the generalizability of the findings. Future research is therefore recommended to employ longitudinal approaches and expand the model by incorporating additional variables such as digital literacy, AI self-efficacy, techno-stress, and institutional readiness in order to obtain a more comprehensive understanding of students'

adaptation processes to AI-based accounting systems in higher education environments.

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