

AUDITING IN THE AGE OF AI: READINESS AND ROLES OF PROSPECTIVE ACCOUNTANTS, ACCOUNTING EDUCATORS, AND CAMPUS INTERNAL AUDITORS

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ABSTRACT

The main purpose of this study is to examine the perspectives of prospective accountants, educational accountants, and campus internal auditors on AI usage in the audit process using a qualitative phenomenological approach with interview methods. The findings show varying levels of familiarity with AI across groups. While AI is recognized for its potential to improve audit efficiency and accuracy, concerns remain regarding adaptation challenges and possible job displacement. Key competencies identified for future auditors include data analytics, critical thinking, and technological proficiency. The study highlights the need for accounting education to integrate AI concepts and strengthen these competencies, alongside fostering collaboration between academia and industry. Overall, this research provides insights into the impact of AI on auditing and offers recommendations for both educational and professional adaptation.

Keywords: Artificial Intelligence; Audit; Internal Audit, Accounting Education; Technology.

ABSTRAK

Tujuan utama penelitian ini adalah untuk mengkaji secara kualitatif pandangan calon akuntan, akuntan pendidikan, dan auditor internal kampus mengenai penggunaan AI dalam proses audit melalui pendekatan fenomenologis dan metode wawancara. Hasil penelitian menunjukkan adanya perbedaan tingkat familiaritas dan pengetahuan AI antar kelompok. Meskipun AI diakui mampu meningkatkan efisiensi dan akurasi audit, terdapat kekhawatiran terkait tantangan adaptasi dan potensi perpindahan pekerjaan. Keterampilan utama yang dibutuhkan meliputi analisis data, berpikir kritis, dan kemahiran teknologi. Oleh karena itu, pendidikan akuntansi perlu mengintegrasikan konsep AI serta mengembangkan keterampilan tersebut, disertai kolaborasi antara dunia pendidikan dan praktik. Penelitian ini memberikan wawasan tentang dampak AI pada audit serta menawarkan rekomendasi untuk adaptasi dalam bidang pendidikan dan profesional.

Kata kunci : Kecerdasan Buatan; Audit; Audit Internal, Pendidikan Akuntansi; Teknologi

1. INTRODUCTION

Rapid advances in science and technology require continuous adaptation and innovation in professional work practices (Shamaya et al., 2023). The presence of Artificial Intelligence (AI) in the era of Industrial Revolution 4.0 has made automation

and control easier and improved the audit process efficiently (Adawiyah, 2022). The goal of computing with AI is to create processing systems that are easier to manage, to make the work of its users more manageable, and to analyze a problem or document (Shamaya et al., 2023).

Today, AI supports the automation of accounting processes, reconciliations, and various auditing activities through continuously evolving technological innovations (Shamaya et al., 2023). The increasingly rapid development of digital technology has meant that most accounting firms have used AI in making audit assessments as part of an integrated audit automation system (Omoteso, 2012). Based on empirical results among eight models in Taiwan, the going concern prediction has the highest accuracy with 95.65% (Chi & Shen, 2022). However, in some conditions, it may face difficulties regarding the lack of data that the firm stores, because this will lead to inaccuracy in the audit process (Fedyk et al., 2022)

How does AI affect audit quality and the auditing profession? Many firms have already been investing in AI in the past few years (Talwar & Koury, 2017) The impact of AI on an audit process may vary (Fedyk et al., 2022). Shamaya et al. (2023) also mentioned that if AI takes the auditor role, the auditing process will be quicker, more accurate, and more efficient. AI can analyze data automatically and more quickly than humans, allowing it to spot possible mistakes and fraud more quickly. On the other hand, auditors will face another impact of implementing AI in the audit process, such as a lack of ability and experience among auditors. The reason for this is that the auditors only conclude based on the result that is generated from AI, meanwhile, auditors may have a different perspective regarding the interpretation of the audit result (Adawiyah, 2022). Because AI performs better than the auditors themselves based on accuracy, the demand for professional auditors may decrease over time; therefore, this phenomenon will be a threat to the continuity of the profession (Shamaya et al., 2023).

This study mainly focuses on the views of prospective accountants, educational accountants, and campus internal auditors' opinions regarding the AI implementation in the audit process. The analysis process will expose the impact of AI implementation and find any proof regarding the hypothesis. Therefore, the research will provide a solution to the issue.

Based on the background of this research, the main purpose of this research is to conduct a qualitative study regarding the opinions of prospective accountants, educational accountants, and campus internal auditors on the use of AI in the audit process. Educational accountants, campus internal auditors, and accounting students play the main role in creating a new generation of professional accountants. Higher quality will lead to increased performance of audits in the future. Because of the development of technology, especially AI in the audit process, there will be threats and challenges that they may face in the future. Based on the research problem, there will be some questions regarding this research. The first one is, how do firms implement AI in the audit process? Second, what is the impact of AI implementation on the audit process? Third, what are the advantages and difficulties that prospective accountants, educational accountants, and campus internal auditors may face in the future? Finally, how should these stakeholders respond to the challenges and opportunities arising from AI adoption?

The study's significance is to identify the advantages and the difficulties that they may face regarding AI implementation audits. This research also analyzes responses related to the phenomenon that happens in the current time. This research provides more exposure regarding AI in the auditing process in Indonesia for further studies. This study

elaborates on the readiness to face AI integration in their work process and provides professional exploration of technological advancement.

2. LITERATURE REVIEW

Artificial Intelligence (AI)

According to (Dennis, 2024) AI is a program that can simulate human intelligence, which has the capability to perform automated tasks such as accounting, tax, and audit. Currently, firms are starting to use AI to support the auditing process by improving auditors' work in terms of accuracy, efficiency, time, and reliability (Dogar & Scorte, 2023; (Soeprajitno, 2019) states that AI has a very broad capacity and knowledge within a limited domain. Using structured analysis, AI can help the economic sector in many ways and bring benefits; however, it also presents challenges across firms, developers, governments, and auditors (Talwar & Koury, 2017).

The development of AI has also been driven by the increasing availability of big data and computational power, enabling organizations to transform traditional business processes into more data-driven decision-making systems (Vasarhelyi et al., 2015) This transformation highlights AI not only as a technological tool but also as a strategic resource that reshapes professional practices, including accounting and auditing.

Recent academic discussions further emphasize the strategic importance of AI in professional fields. Stratopoulos and Wang (2025) propose that AI is reshaping accounting research, professional competencies, and knowledge development, particularly with the emergence of generative AI technologies that influence how accounting tasks and analytical processes are conducted.

AI in Audit

AI has increasingly been implemented in business, accounting, and auditing practices, offering significant support in identifying unusual transactions and reducing human error (Hasan, 2022; Dennis, 2024; Soeprajitno, 2019). Studies show that AI can greatly improve audit accuracy, with going-concern predictions reaching up to 95.65% (Chi & Shen, 2022). Additionally, AI enables continuous monitoring and advanced analytics, allowing auditors to focus on complex judgment-based tasks (Issa et al., 2016; Appelbaum et al., 2017). The rapid growth of AI adoption in auditing research further highlights its role in enhancing efficiency, accuracy, and risk detection through automation and predictive analytics (Guo, 2025).

Despite these advantages, AI also presents challenges. Its reliance on input data quality can lead to unreliable outcomes, while security threats such as hacking and malware remain concerns (Shamaya et al., 2023). Moreover, AI-driven fraud introduces new risks, including data manipulation and algorithm exploitation, requiring advanced technical competencies and updated audit approaches (Zweers et al., 2025). These limitations indicate that successful AI adoption in auditing requires both technological readiness and organizational as well as professional adaptation.

Auditors in Higher Education Institutions

ACFE (2024) reports 1,921 fraud and corruption cases across 138 countries with total losses exceeding \$3.1 billion, underscoring the critical role of auditing in ensuring fair transactions and preventing fraud (Shamaya et al., 2023). At the same time, AI is

emerging as a transformative force shaping the future of accounting students and professionals (Hsiao & Han, 2023).

Accounting education continues to evolve alongside technological advancements, requiring educators to equip students with relevant skills and knowledge (Riczqi et al., 2012; Kavanagh & Drennan, 2010). This includes integrating not only technical competencies but also organizational and data analytics capabilities (Riczqi et al., 2012). Recent studies confirm that AI is reshaping accounting education globally by influencing curriculum, learning strategies, and competency requirements, with greater emphasis on analytical thinking, digital literacy, and interdisciplinary knowledge (Christiani & Widuri, 2025).

Within organizations, including universities, internal auditors play a key role in ensuring effective internal control, evaluating efficiency, and delivering value-added services (Haron et al., 2004). While AI may reduce demand for routine audit tasks, it can also complement internal auditors to enhance audit effectiveness and outcomes (Wassie & Lakatos, 2024).

Auditor's Perception on AI

Artificial Intelligence is increasingly shaping auditors' perceptions of their roles by enhancing audit effectiveness through advanced analytics, automation, and continuous monitoring (Vasarhelyi, Kogan, & Tuttle, 2015; Issa, Sun, & Vasarhelyi, 2016). It enables more efficient processing of large datasets, improving anomaly detection and risk assessment.

However, perceptions of AI adoption remain mixed. While some auditors highlight its potential to improve productivity and audit quality, others raise concerns about technological complexity, costs, and possible deskilling (Appelbaum et al., 2017; Kokina et al., 2025). These differences are influenced by technological readiness, prior experience, and organizational support.

Research also emphasizes the importance of governance and collaboration in AI-based auditing. Deng et al. (2025) stress the need for human-in-the-loop systems to ensure accountability, transparency, and ethical decision-making. Moreover, AI cannot fully replace auditors due to the importance of professional judgment, ethics, and contextual understanding (Brynjolfsson & McAfee, 2014). Instead, AI serves as a complementary tool, shifting auditors' roles toward more analytical, strategic, and advisory functions, which requires stronger competencies in data analytics, digital literacy, and critical thinking.

3. RESEARCH METHOD

Type of Research and Data Collection Technique

This study employed a qualitative research approach. By using a qualitative exploratory approach, the data obtained can be more focused on a certain group of people and add more depth to the perspective regarding the phenomenon that is being researched. In collecting data for this research, the method that was used is an interview, because the focus of this research is on the primary method. Interviews were used to dig deeper into the information that we are gathering.

Research Object

This research was conducted at Satya Wacana Christian University (SWCU) in 2025, selected due to its established internal audit function and comprehensive audit-related courses from introductory to practical levels. Additionally, SWCU is impacted by the rapid development of artificial intelligence, raising both academic and ethical challenges. The study focuses on the perspectives of accounting students, educational accountants, and campus internal auditors regarding AI implementation in auditing. Prospective accountants represent the future workforce, making their views on audit careers highly important. Educational accountants provide academic perspectives shaped by teaching and financial reporting contexts, while campus internal auditors play a critical role in ensuring accountability and risk management through independent assurance and advisory functions. These three groups offer diverse and valuable insights into the phenomenon of AI adoption in auditing.

Table 1 :Stakeholder Perspectives and Concerns Regarding AI Integration

Point of view	Information and concerns
Prospective Accountants / Accounting Students	<ul style="list-style-type: none"> - Unfamiliarity with AI integration in audit. - Concern regarding the AI replacement in the audit assignments. - Difficulties that students face in learning AI implementation. - Lack of resources to adapt.
Educational Accountants	<ul style="list-style-type: none"> - Unfamiliarity with AI technologies. - Difficulties in adaptation and integration. - Lack of exploration. - Lack of awareness of technological advancements. - Low resources available to adapt.
Campus Internal Auditors	<ul style="list-style-type: none"> - Some familiarity with technological advancements in audit

The research seeks to analyze the opinions of research objects concerning the implementation of AI in the audit process. By focusing on this specific object, the research aims to provide a nuanced understanding of the impact of AI implementation in audit on the career prospects of auditors.

Sampling

This study employed a snowball sampling technique, in which initial respondents who met the research criteria were asked to recommend other potential participants with relevant knowledge and experience. This approach was considered appropriate given the specific and specialized characteristics of the respondents involved. Through this process, a total of 19 participants were recruited, consisting of 12 students who had completed an auditing course or undertaken an internship at a public accounting firm (CPA's Firm), 5 lecturers who teach auditing courses or possess professional experience in a public accounting firm, and 2 members of the Satuan Pengendalian dan Audit Internal (SPAI) with expertise in auditing (the head and a staff of SPAI). Snowball sampling enabled the researcher to access a network of respondents who were directly engaged in auditing education and practice, thereby enhancing the depth and relevance of the data collected.

Stages of Research

The methods used to collect the data for this research were collected from interviews. There are several steps in the data collection technique. First, identify reliable data sources. Second, develop open-ended questions that the research aims to answer. Third, define and determine the research object that will be used. Fourth step, create a semi-structured or unstructured interview guide. Fifth, conduct in-depth, open-ended interviews, ensuring to record and transcribe them accurately. Sixth, analyze the data and compare it to other data across different sources. The aim is to explore the variety of responses that have been collected from various sources and confirm that the data we get is relevant and can be used for further analysis. The next step is to identify and analyze any gap that comes from the data compared to the previous research. After all the analysis is constructed, create a coherent narrative that integrates findings and draws conclusions.

4. RESULTS AND DISCUSSION

Prospective Accountants' Perspective

The respondents' opinions indicate they are not very familiar with the current AI technology used in auditing. Student 1 states that he's not familiar with the implementation of AI in audit because it has never been in his studies. It shows that not all students are aware of the rise in AI usage either in audit or accounting, as stated below:

“Saya tidak familiar terhadap implementasi AI dalam audit dikarenakan saya belum pernah mempelajarinya dalam kurikulum saya” (Bahasa Indonesia).

“I am not familiar with the implementation of artificial intelligence in auditing, as it has not been covered in my academic curriculum” (English).

This also implied that they've observed manual processes and have not yet studied or practiced AI in audit. They also have not seen AI integrated directly into their accounting curriculum, as they focus on basic accounting concepts. Meanwhile, according to Student 3's opinion regarding his understanding and awareness toward AI usage in auditing, as stated below:

“Walaupun dalam perkuliahan, saya belum pernah diperkenalkan mengenai AI dalam audit, saya memiliki kesadaran akan fenomena kemajuan AI dalam bidang audit” (Bahasa Indonesia).

“Although I have not been formally introduced to the use of artificial intelligence in auditing during my coursework, I am aware of the ongoing advancements of AI in the field of auditing” (English).

According to this statement, some students may have some knowledge from a basic understanding of its role in data analysis automation to a limited understanding and reliance on manual processes. There is a consensus on AI's growing importance for enhancing audit efficiency by rapidly analyzing large datasets. All respondents acknowledge the positive impacts, such as increased skills, new opportunities, reduced errors, and improved accuracy. The negative impacts include the need for auditor adaptation, potential displacement of routine tasks, increased job competition, and potential over-reliance on technology. On the other hand some students state some strategies to address the negative impacts. Student 2 states that students have to focus on self-improvement to overcome the challenge regarding AI development:

“Untuk menghindari dampak negatif dari fenomena ini perlu adanya pelatihan skill analisis, serta pengenalan sistem AI, kemampuan berpikir kritis yang baik, pengembangan soft skill, kemampuan pengambilan keputusan, dan skill adaptasi yang baik” (Bahasa Indonesia).

“To mitigate the negative impacts of this phenomenon, it is necessary to provide training in analytical skills, introduce artificial intelligence systems, foster strong critical thinking abilities, develop soft skills, enhance decision-making capabilities, and cultivate strong adaptability skills” (English).

Meanwhile, Student 5 thinks about the importance of developing an AI-based curriculum, implementation in training and seminars is a mandatory issue to be implemented by the faculty/study program, as stated below:

“Perubahan dalam metode pembelajaran dan penyesuaian kurikulum dengan tren masa kini sangatlah diperlukan. Termasuk kurikulum yang dapat mengadaptasi AI dalam prosesnya, studi kasus, pengembangan soft skill, serta seminar mengenai perkembangan teknologi” (Bahasa Indonesia).

“Changes in teaching methods and curriculum adjustments in line with current trends are highly necessary. This includes curricula that can integrate artificial intelligence into learning processes, the use of case studies, soft-skill development, and seminars on technological advancements” (English).

Many respondents agree that AI technology is valuable, including online learning platforms and data analysis software. Key skills identified for students include data analysis, programming, use of technology tools, problem-solving, and critical thinking. Practical experience is gained through projects, workshops, and direct training with relevant applications.

Challenges in AI integration in auditing include data quality issues, security and privacy concerns, over-reliance on AI, and limited technological understanding. At the same time, opportunities arise in improving efficiency, practicality, and the use of AI for realistic simulations in accounting education. Respondents view AI as a driver of innovation that enhances audit speed, accuracy, and effectiveness without fully replacing auditors. To better prepare students, accounting programs should provide continuous training, build collaborations with organizations using AI, and offer practical exposure such as internships. Additionally, guest lectures on relevant trends can help students gain professional insights into current developments in auditing.

Educational Accountants’ Perspective

The findings indicate varied familiarity with AI technologies in auditing among the respondents. Some respondents demonstrated awareness of AI's application in big data analysis, anomaly detection, and audit process automation. Educational Accountants 2 states that older generations are not familiar with the usage of AI:

“Di generasi yang lebih senior, pengetahuan akan adaptasi AI dalam audit masih sangat kurang” (Bahasa Indonesia).

“Among the more senior generation, knowledge regarding the adaptation of artificial intelligence in auditing remains very limited” (English).

These respondents also reported integrating AI-related content into their accounting curricula by introducing AI tools, techniques, and relevant case studies. Educational

Accountant 1 thinks that AI or any other online technology was mostly developed during the COVID-19 Era:

“Adaptasi AI secara masif dimulai pada era pandemi COVID di tahun 2020. Dimana banyak sekali tuntutan untuk menyelesaikan segala pekerjaan secara online atau Work From Home (WFH)” (Bahasa Indonesia).

“The large-scale adoption of artificial intelligence began during the COVID-19 pandemic in 2020, a period in which there were significant demands to complete most work activities online or through a work-from-home (WFH) arrangement. (English).”

However, a significant portion of respondents indicated limited familiarity with current AI technologies in auditing, which is caused by not all of them coming from a practitioner background. These respondents reported observing primarily manual audit processes and a few formal instructions on AI in this context. Educational Accountant 3 mentioned that AI exposure to accounting still has not it is supposed to:

“Fokus edukasi pada saat ini lebih menitikberatkan pada konsep dasar akuntansi seperti pencatatan jurnal dan pelaporan, sehingga pengenalan pada teknologi AI dalam audit masih minim” (Bahasa Indonesia).

“The current focus of education places greater emphasis on fundamental accounting concepts, such as journal entries and financial reporting; consequently, exposure to artificial intelligence technology in auditing remains limited” (English).

Most respondents generally acknowledge the growing importance of AI in the future of auditing. AI is primarily viewed as a tool to enhance efficiency by enabling the rapid analysis of large volumes of data. Many educational accountants also recognize AI's potential to improve accuracy and facilitate fraud detection. During the interview, an interesting phenomenon was emphasized regarding the sustainability of the auditors' profession. Based on previous studies, many researchers state that massive technological advancements, including AI, the profession of accountants and auditors is likely to end. Interestingly, contradicting the previous phenomenon, many firms find it difficult to obtain a sufficient auditor. The lack of auditors available in the market causes this. The respondents' opinion regarding the phenomenon is:

“Fenomena tersebut tidak sepenuhnya benar, memang banyak metode tradisional audit sudah digantikan oleh kemajuan teknologi. Namun, AI tidak dapat sepenuhnya memenuhi kebutuhan auditor dalam proses kerja secara teknis seperti menjamin kelengkapan data dan AI juga tidak bisa memberikan professional judgment seperti auditor. AI sangatlah membantu dalam tugas kuantitatif, tapi sekarang AI belum bisa menggantikan kinerja kualitatif auditor” (Bahasa Indonesia).

“It is half true. Indeed, many of the traditional audit methods have already been replaced by AI. But AI cannot help auditors with technical processes such as ensuring data completeness and auditors' professional judgment. AI is very effective in quantitative assignments but not in qualitative assignments.” (English).

This finding suggests that human judgment remains indispensable in the auditing process. To address the lack of availability of auditors, many firms have set a higher standard for the prospective auditor. Currently, many of the prospective auditors are still not familiar with the current technology implementation, making it hard for them to acquire sufficient skills to compete for a profession in the market.

In learning about the impacts of this phenomenon, they expressed mixed views regarding the effect of AI on accounting careers. Some positive impacts were identified,

including the potential for AI to reduce errors, improve the accuracy of data analysis, increase efficiency, and create new opportunities. Respondents also believe that AI can enhance auditors' skills. Meanwhile, when mentioning the negative impacts, Educational Accountant 1 states that analytical skills will suffer if we rely very much on AI, as stated below:

“Potensi ketergantungan pada teknologi mengakibatkan kurangnya skill analisis, perubahan dalam pola kerja audit, serta kompetisi kerja yang tinggi dapat disebabkan oleh adaptasi AI dalam pembelajaran” (Bahasa Indonesia).

“Potential overreliance on technology may lead to a decline in analytical skills, changes in auditing work patterns, and increased job competition, all of which may arise from the adaptation of artificial intelligence in the learning process” (English).

Some respondents also noted the need for auditors to adapt to AI technologies. Respondent 3 emphasized the importance of developing data analysis skills, critical thinking abilities, and adaptability to technological advancements.

In the interview, respondents discussed some strategies that may prepare students for the integration of AI in their future careers. Some respondents reported integrating AI concepts into their curriculum through AI introduction as a tool for auditors, case studies, and skill development. The importance of combining theoretical knowledge with practical application was also emphasized. Other than improving hard skills, students need to practice professional judgment and their justification to work with AI effectively. On a university scale, the campus is trying to develop and establish an adaptable curriculum system that may facilitate the students to learn and be more familiar with the current technology trend.

Respondents also believe that AI will continue to evolve and play an increasingly important role in auditing. AI is expected to enhance speed, accuracy, and audit effectiveness. However, respondents generally do not believe AI will completely replace human auditors. Therefore, respondents provide several recommendations for accounting programs to better prepare students for working with AI in auditing. As stated by Educational Accountant 1:

“Ada beberapa rekomendasi yang perlu diperhatikan, seperti pelatihan keberlanjutan untuk memfasilitasi dan menjamin kemampuan mahasiswa beradaptasi dengan skill yang relevan” (Bahasa Indonesia).

“Several recommendations should be considered, including continuous training programs to facilitate and ensure students' ability to adapt to relevant and in-demand skills” (English).

Other respondents also emphasized the importance of establishing collaborations with companies that use AI in their audit systems to provide students with practical experience through internships and training.

Campus Internal Auditors' Perspective

From the standpoint of a campus internal auditor, familiarity with current AI technologies in auditing is moderate. AI recognition is potentially revolutionizing auditing practices, particularly in big data analysis, anomaly detection, and process automation. However, due to many documents on campus being in physical form, implementing AI within a university setting is often in the early stages. The Head of SPAI thinks that AI has great potential for assisting SPAI performance:

“Walaupun penggunaan AI belum sepenuhnya diimplementasikan secara maksimal, kami selalu melakukan pengembangan dan eksplorasi dalam penggunaan AI untuk mempermudah kinerja SPAI” (Bahasa Indonesia).

“Although the use of artificial intelligence has not yet been fully implemented to its maximum potential, we continuously engage in development and exploration of AI applications to enhance and facilitate the performance of the Internal Audit Unit (SPAI)” (English).

While not fully integrated into daily audit procedures, active exploration of AI's potential benefits and applications is conducted. For instance, AI is being explored for automating routine tasks, enhancing data analysis, improving risk assessment, and evaluating regulations.

A campus internal auditor perceives AI as a significant force in future auditing, including within the university context. AI's ability to analyze large datasets enhances risk identification, compliance, and decision-making, improving audit accuracy and enabling auditors to focus on more complex tasks, such as detecting unusual patterns or potential fraud. However, negative impacts are also recognized, including the need for staff adaptation and the risk of job displacement for those unable to adjust. Therefore, investment in training and skill development in data analysis, critical thinking, and technology is essential.

The integration of AI also presents challenges, particularly related to data quality, as incomplete, inconsistent, and unstructured data can limit AI's reliability. Additionally, concerns about over-reliance on AI highlight the importance of maintaining professional judgment. As noted by SPAI's Staff 1, “There's the challenge of ensuring that auditors maintain their professional judgment and avoid over-reliance on AI. Auditors must be able to critically evaluate AI-generated findings and make informed decisions.”

“Ada tantangan yang menuntut auditor untuk menjaga professional judgment mereka, serta menghindari ketergantungan akan AI. Auditor juga harus bisa mengkritisi hasil kerja AI untuk mendapatkan informasi yang dibutuhkan.” (Bahasa Indonesia).

“There are challenges that require auditors to maintain their professional judgment and avoid overreliance on artificial intelligence. Auditors must also be able to critically evaluate AI-generated outputs in order to obtain the required information” (English).

A key concern is the potential for AI to be used as a "black box," where auditors may not fully understand how AI arrives at its conclusions. This lack of transparency can erode trust in the audit process and make it difficult to explain audit findings to stakeholders. A similar opinion was stated when the respondent was asked about the unique case of the sustainability of the auditors' profession in the future. The respondent identifies several challenges that are faced by current auditors in the job market, including the lack of adaptability and sufficient skills to fulfil the market demand.

Therefore, the respondent identifies several key skills that are essential for auditors to work with AI tools. These include data analysis, which refers to the ability to interpret and analyze data generated by AI tools, which is fundamental. Critical thinking, the capacity to evaluate AI findings, exercise professional judgment, and make sound decisions, remain crucial. Technology proficiency means having a familiarity with the specific AI tools and software used in auditing, which is necessary for efficient and effective utilization. Problem-solving skills to address complex audit issues that may be identified or flagged by AI systems are highly valued. Regarding this, SPAI's Staff 2

thinks that SPAI should implement AI-based audit using tools that are embedded with specialized AI:

“Untuk menjamin para perangkat auditor memiliki kemampuan yang cukup, kita menggunakan praktik kerja nyata dan penggunaan teknologi AI yang dispesialisasi” (Bahasa Indonesia).

“To ensure that audit personnel possess adequate competencies, we employ hands-on practical training and the use of specialized artificial intelligence technologies” (English).

The head of SPAI also mentioned that SPAI staff must have experience with AI using hand-on methods to make them familiar with AI:

“Kami menjamin para staff SPAI mendapatkan pengalaman praktikal dalam pelatihan dan penggunaan teknologi AI yang dispesialisasi” (Bahasa Indonesia).

“We ensure that SPAI staff receive practical experience through training and the use of specialized artificial intelligence technologies” (English).

This might involve simulations, case studies, and on-the-job training with AI-powered tools. By ensuring these skills, the auditors may become more adaptable to the current technological trend, especially in auditing.

The integration of AI into campus audit processes presents both challenges and opportunities. Data quality is a significant concern, as AI's effectiveness hinges on the accuracy and completeness of the data it processes. Data security and privacy are also paramount, requiring robust measures to protect sensitive information. Additionally, the challenge to maintain their professional judgment and avoid over-reliance on AI is a key consideration. However, the opportunities presented by AI are substantial. SPAI's Staff 1 that AI can improve the overall performance of audit:

“AI dapat membantu meningkatkan efektifitas dan efisiensi kerja audit, AI juga dapat meningkatkan kualitas manajemen resiko, mempermudah mendeteksi anomali maupun potensi fraud. Teknologi AI mempermudah auditor untuk memberikan evaluasi dan pandangan penting dalam proses kerja mereka sehingga meningkatkan akuntabilitas” (Bahasa Indonesia).

“Artificial intelligence can help enhance the effectiveness and efficiency of audit work. It can also improve the quality of risk management and facilitate the detection of anomalies and potential fraud. AI technology enables auditors to provide more informed evaluations and critical insights in their work processes, thereby enhancing accountability” (English).

For example, AI can automate routine tasks, allowing auditors to focus on higher-level issues, and can analyze large datasets to identify patterns and anomalies that would be impossible for humans to detect. The consensus is that AI will continue to transform the field of internal auditing, becoming increasingly integrated into audit processes. This will involve the routine tasks automation, the provision of more powerful analytical tools, and a shift towards a more data-driven approach to auditing. However, the prevailing view is that AI will augment, rather than completely replace, human auditors. Auditors' professional judgment, critical thinking, and communication skills will remain indispensable in the audit process. In addressing the concern regarding AI advancement, the Head of SPAI states the irrelevance of the fear of AI among the students:

“Menurut saya, ketakutan akan AI dalam konteks kemajuan teknologi merupakan hal yang tidak relevan bagi mahasiswa” (Bahasa Indonesia).

“In my view, fear of artificial intelligence in the context of technological advancement is not relevant for students” (English).

AI integration presents a significant opportunity for future auditors as a tool to improve audit quality. Respondents recommend strengthening students' foundations in data analysis, technology, and critical thinking. Accounting curricula should integrate AI tools and provide practical experience through internships or projects. Collaboration between educational institutions and organizations using AI is essential to ensure real-world exposure and preparedness. Additionally, these programs should emphasize ethical considerations, including maintaining auditor independence and professional skepticism in an AI-driven environment.

Discussion

Cross-Perspective Analysis

All three groups agreed on the increasing significance and transformative potential of AI in auditing. Respondents consistently recognized AI's ability to enhance audit efficiency and accuracy, particularly through rapid analysis of large datasets, automation of repetitive tasks, and improved anomaly or fraud detection. This aligns with prior research highlighting AI's potential to improve audit quality, reduce audit fees, and enhance procedures such as outlier selection, full population testing, confirmations, reconciliations, analytical procedures, and audit inquiries (Kokina et al., 2025). These positive perceptions can be explained by the Diffusion of Innovation Theory, which suggests that adoption is more likely when innovations offer clear relative advantages over existing practices (Rogers, 2003).

Furthermore, all groups agreed that auditors must adapt to evolving technological demands by developing skills such as data analysis, critical thinking, technological competence, problem-solving, and adaptability. However, accounting students demonstrated only moderate awareness of AI, consistent with findings by Mansor (2022), raising concerns about their readiness to adapt. From the Diffusion of Innovation perspective, this indicates that many students remain at the knowledge stage, where awareness exists but practical understanding is limited (Rogers, 2003).

Most respondents viewed AI as a complement rather than a replacement for human auditors, emphasizing the importance of professional judgment, critical evaluation of AI outputs, contextual awareness, and qualitative assessment. However, these competencies remain underdeveloped among students, creating challenges in the learning process. This is supported by Mohamed et al. (2024), who note that limited soft skills and insufficient AI-integrated curricula hinder effective learning. Additionally, concerns across all groups include data security, privacy, data quality, overreliance on technology, and insufficient training. These highlight that despite AI's capabilities, human oversight and interpretation remain essential.

Divergence and Unique Insights

While broad perspectives converged, notable differences remained. Prospective accountants expressed stronger concerns about job competition and potential displacement of entry-level tasks, focusing on acquiring skills to remain competitive. This aligns with the persuasion stage in Diffusion of Innovation Theory, where individuals evaluate the benefits and risks of innovation before adoption (Rogers, 2003).

Educational accountants highlighted academic challenges, including varying levels of AI familiarity due to generational and professional differences, and emphasized ongoing curriculum adaptation to integrate AI with core accounting principles. They also noted that while AI may reduce demand for certain tasks, the overall need for auditors persists but shifts toward higher-level competencies. Human factors—such as training needs, trust in AI, and potential deskilling—further complicate adoption (Kokina et al., 2025). Their efforts reflect movement toward the decision stage, where stakeholders assess how innovations can be integrated within existing constraints (Rogers, 2003).

Campus internal auditors provided a practical organizational perspective, though adoption may be slower due to data complexity, such as reliance on physical documents. Research by Cao et al. (2025) shows that AI enhances auditing education through automated assessment, real-time feedback, and multidimensional evaluation aligned with Outcome-Based Education principles. In practice, they emphasized AI's use in risk assessment and compliance, alongside challenges in data quality and maintaining professional skepticism. Compared to other groups, they are closer to the implementation stage, having applied AI in professional contexts, indicating greater readiness and exposure (Rogers, 2003). Continuous professional development and hands-on experience with AI tools were strongly emphasized.

Addressing Research Questions and Implications

Previous studies indicate strong student interest in AI implementation, with around 65.1% of UNSIKA students showing high interest and perceiving AI as both a tool and an opportunity for future learning (Amal et al., 2025). Although AI adoption remains limited, it is actively explored, particularly in data analysis and automation, offering efficiency and accuracy while requiring significant adaptation. Key challenges include skills gaps, data issues, infrastructure limitations, and integration barriers (Amal et al., 2025). Consequently, there is an urgent need for accounting education to evolve by integrating AI concepts, data analytics, and critical thinking into the curriculum. Technological readiness and adoption have been found to significantly and positively influence AI use in accounting (Ikraharjo & Lestari, 2024).

From the perspective of Diffusion of Innovation Theory, stakeholders are at different adoption stages: students remain in the knowledge and persuasion stages, educators are moving toward the decision stage, and internal auditors are entering the implementation stage (Rogers, 2003). This highlights the importance of educational interventions, practical exposure, and institutional support to accelerate AI diffusion. Collaboration with industry through internships, case studies, and guest lectures is essential to prepare graduates. As noted by Amal et al. (2025), AI should be viewed as an opportunity rather than a threat, shifting the focus from routine tasks to higher-order skills such as analysis, judgment, and strategic thinking to maintain the relevance of the auditing profession.

5. CONCLUSION

This study identifies varying levels of readiness for AI adoption in auditing among prospective accountants, educators, and campus internal auditors. While all groups acknowledge AI's potential to improve efficiency, accuracy, and data analysis, concerns remain regarding technological adaptation, data security, and task displacement. From the Diffusion of Innovation perspective, students are generally in the knowledge and persuasion stages, educators are progressing toward the decision stage through

curriculum development, and internal auditors are closer to implementation due to practical experience. These findings emphasize that successful AI diffusion depends not only on technological progress but also on developing competencies such as data analytics, technological literacy, critical thinking, and professional judgment. Therefore, accounting education institutions should enhance AI-related learning and strengthen industry collaboration.

However, this study has several limitations. Its qualitative design, based on interviews within Satya Wacana Christian University, limits generalizability to broader contexts. The interpretive nature of the research also introduces potential researcher bias, although efforts were made to ensure consistency and data validation. Participant bias, including social desirability and recall bias, may have influenced responses, while the specific institutional setting further constrains applicability.

Future research should explore the evolving role of AI in auditing, particularly its integration into audit processes and best practices for implementation. Further studies are also needed to examine AI's role in accounting curricula and its impact on auditors' responsibilities and required competencies. Additionally, developing effective educational strategies remains essential to prepare future auditors for an AI-driven audit environment.

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