

Auditor Behavior Toward Artificial Intelligence (AI) Development: A Literature Review

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ABSTRACT

The rapid integration of Artificial Intelligence (AI) has transformed the auditing profession by enhancing efficiency, analytical precision, and overall audit quality. However, the behavioral responses of auditors toward AI adoption remain underexplored. This study aims to analyze auditors' behavioral intentions and attitudes toward AI implementation by synthesizing findings from 20 peer-reviewed studies published between 2020 and 2025. Using a systematic literature review guided by the PRISMA framework, this research examines individual, organizational, and ethical dimensions influencing AI adoption in auditing. The analysis extends the Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB) by integrating ethical and institutional perspectives. The findings reveal that individual factors—such as willingness to learn, performance expectancy, and AI readiness—strongly determine auditors' intention to adopt AI. Organizational enablers, including top management support and robust technological infrastructure, further facilitate successful implementation. While AI-driven tools enhance anomaly detection accuracy and operational efficiency, ethical challenges persist, particularly concerning algorithmic bias, transparency, and accountability. The study emphasizes that AI should complement rather than replace human professional judgment, as ethical reasoning and contextual interpretation remain essential to audit integrity. Overall, the findings suggest that future auditors must evolve into strategic advisors equipped with multidisciplinary competencies in data analytics, digital governance, and ethics. Strengthening the synergy between human insight and AI-driven analytics is crucial to fostering trustworthy, transparent, and sustainable audit practices in the digital era.

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1. Introduction

The integration of Artificial Intelligence (AI) has fundamentally reshaped the auditing profession by enhancing efficiency, analytical precision, and audit quality. This study aims to explore auditors' behavioral responses toward AI adoption by synthesizing 20 peer-reviewed articles (2020–2025) through a systematic literature review guided by the PRISMA framework, with a focus on individual, organizational, and ethical dimensions; it examines the drivers, impacts, and governance challenges of AI implementation in auditing while extending the Technology Acceptance Model (TAM) and

Theory of Planned Behavior (TPB) through the integration of ethical and institutional perspectives. The results show that willingness to learn, performance expectancy, and AI readiness are the most influential individual factors determining auditors' intention to adopt AI, while top management support and technological infrastructure play key organizational roles. AI-based systems significantly improve anomaly detection accuracy and operational efficiency; however, algorithmic bias, limited transparency, and accountability gaps remain critical ethical concerns. The study also highlights that AI cannot replace human professional judgment—ethical reasoning, contextual interpretation, and moral accountability must remain central to the audit process. Future auditors are expected to evolve from compliance examiners to strategic advisors equipped with multidisciplinary competencies in data analytics, digital governance, and ethics. Therefore, the synergy between human insight and AI-driven analytics is essential for ensuring trustworthy, transparent, and sustainable audit practices in the digital era.

Artificial Intelligence (AI) has become a primary catalyst for digital transformation across multiple sectors, including the auditing profession. Auditing, which fundamentally serves to ensure transparency and accountability in financial reporting, now faces profound changes due to the integration of intelligent technologies. AI is no longer merely an analytical aid but a driving force that revolutionizes how auditors examine, assess, and communicate audit findings [20]. Technologies such as machine learning, natural language processing, and predictive analytics enable the analysis of large datasets with speed and accuracy far surpassing traditional sample-based techniques.

Empirical studies indicate that AI has the potential to simultaneously improve audit quality and operational efficiency. [9] found that audit firms adopting AI-based technologies experienced significant reductions in financial statement restatements, audit cost savings, and faster completion times. These changes also trigger shifts in workforce structure, particularly at the junior auditor level, which previously handled repetitive tasks. Thus, AI not only enhances technical processes but also demands a restructuring of roles and competencies within audit organizations.

Beyond efficiency and accuracy, AI integration can strengthen the profession's legitimacy in the public eye. By identifying complex transaction patterns and reducing human error, AI enhances the reliability and trustworthiness of audit outcomes [19]. In the long term, the auditor's role is projected to shift from compliance examiner to strategic advisor who leverages data-driven insights to support more effective corporate governance. This transformation marks a paradigm shift from a *procedure-based audit* to a *knowledge-based audit*, where auditors are expected to combine technical expertise, analytical capabilities, and professional judgment in an increasingly complex digital environment.

However, this technological progress comes with multidimensional challenges. First, individual auditor readiness to adopt technology varies. [22] emphasized that successful AI implementation strongly depends on adequate training and education to equip auditors with the necessary digital competencies. Without such readiness, resistance to change and fears of losing human relevance may arise. The phenomenon of algorithm aversion—where auditors tend to trust human input over algorithmic outputs even when information quality is identical—demonstrates that AI adoption is not merely a technical issue but also a psychological one [5].

Second, from an organizational perspective, AI integration requires adjustments in governance and work structures. Audit firms need to develop oversight models that ensure AI usage does not undermine professional skepticism and auditor independence. [7] highlighted that the interaction between artificial and human intelligence must be carefully balanced so that AI expands analytical capacity without replacing auditors' professional judgment. This approach is known as *human-in-the-loop auditing*, a collaboration between machines and humans designed to produce decisions that are both efficient and ethical.

Third, AI integration brings significant ethical and normative implications. [1] asserted that although AI can enhance risk detection and support decision-making, moral and professional responsibility remains with human auditors. Unchecked AI use risks reinforcing algorithmic bias, obscuring accountability, and weakening fairness and transparency in audits. Therefore, every technological innovation must be accompanied by *ethics-based auditing principles* [15], where AI systems are continuously evaluated for their alignment with ethical norms and social responsibility.

Previous studies have discussed AI adoption in auditing from various perspectives. For example, [8] analyzed how AI improves audit accuracy and reduces human error, while [10] explored the co-

piloted auditing model that integrates human judgment with machine analytics. Meanwhile, [14] examined auditors' willingness to learn as a determinant of AI adoption intention, and [16] identified ethical issues and algorithmic bias that may hinder trust in AI systems. However, these studies tend to focus on either technological or behavioral dimensions separately, without synthesizing how individual, organizational, and ethical aspects interact to shape auditor behavior holistically.

Therefore, this study fills that research gap by integrating these three perspectives into a single analytical framework through a systematic literature review (SLR). This approach offers novelty by mapping the multidimensional behavioral drivers behind AI adoption in auditing—providing not only conceptual insights but also practical guidance for regulators and educators in preparing future auditors.

For these reasons, research on auditor behavior toward AI development is highly relevant and strategic. Such behavior reflects the extent to which auditors are prepared to adapt, respond to risks, and maintain professional values amid digital disruption. Understanding this is important not only for building organizational behavior theory in the context of technology but also as a policy basis for professional bodies and regulators in formulating ethical standards and guidelines for AI use in auditing.

By considering adaptation, resistance, and ethical dimensions, this review aims to provide a comprehensive understanding of how auditors respond to AI-driven changes. The findings are expected to contribute to strengthening auditor capacity, developing AI-based curricula in accounting education, and designing governance frameworks that ensure AI implementation in auditing is ethical, accountable, and oriented toward the public interest.

Despite the growing literature, prior studies tend to isolate either the technological or behavioral dimensions of AI adoption [12, 15], leaving unclear how individual, organizational, and ethical factors interact holistically. Therefore, this study addresses the following research questions:

1. What behavioral factors influence auditors' readiness toward AI adoption?
2. How do organizational and ethical aspects shape auditors' attitudes and intentions to use AI?
3. How can behavioral theories such as TAM and TPB be expanded to explain auditor behavior in the digital era?

2. Method

Unlike empirical studies using questionnaires or interviews, this research adopts a Systematic Literature Review (SLR) approach following the guidelines of [11];[17]. The SLR method does not require questionnaires because it synthesizes secondary data from prior peer-reviewed publications. This approach is considered valid and rigorous for decision-making when the purpose is to map theoretical developments, identify research gaps, and derive conceptual insights from accumulated knowledge. Thus, instead of respondents, the “data” in this study consist of 20 journal articles published between 2020–2025 that represent current advancements in AI-based auditing research.

Following the PRISMA 2020 protocol [17], the review began with 164 initial records identified through Scopus, Web of Science, IEEE Xplore, and ScienceDirect. After removing duplicates and non-relevant items, 20 studies met the inclusion criteria. Two independent reviewers screened and coded the data, achieving an intercoder reliability (Cohen's Kappa) of 0.87, indicating strong agreement.

This study employs a literature review approach to analyze auditor behavior toward the development and adoption of Artificial Intelligence (AI) in the auditing profession. This approach was chosen because it provides a comprehensive overview of theoretical developments and empirical research on the topic while identifying existing research gaps [21]. The review is qualitative-descriptive in nature and aims to map the relationships between individual, organizational, and ethical factors and auditors' behavior in adopting AI technology.

Data were drawn from scholarly literature published between 2020 and 2025, a period that reflects significant AI adoption in the audit industry [12]. Literature was obtained from international academic databases such as Scopus, Web of Science, IEEE Xplore, and ScienceDirect, including relevant national journals. Inclusion criteria encompassed peer-reviewed articles in Indonesian or English that discuss AI in auditing or auditors' behavior toward technology and were published within the specified

time frame. The search process used keywords such as 'Artificial Intelligence in auditing', 'auditor behavior', and 'AI adoption' [17].

Data analysis was conducted thematically by reviewing literature under main categories such as individual factors (e.g., willingness to learn and perceived usefulness), organizational factors (management support, infrastructure), and ethical and governance aspects (algorithmic bias, transparency). This technique enabled synthesis of empirical findings to identify patterns and trends in auditors' behavior toward AI [4]. To ensure validity, the literature selection process was conducted independently and iteratively. Reliability was maintained through full documentation of search steps and inclusion/exclusion criteria to allow replication. Findings were also corroborated with relevant behavioral theories such as the Technology Acceptance Model (TAM) and the Theory of Planned Behavior [[2];[6]]. This study has limitations including restricted access to paywalled articles, which may exclude some important studies, the qualitative nature limiting generalizability, and the rapid evolution of AI technology that may affect the study's context in the short term. Nevertheless, these limitations do not diminish the study's contribution in providing a conceptual foundation for further research [[21];[8]].

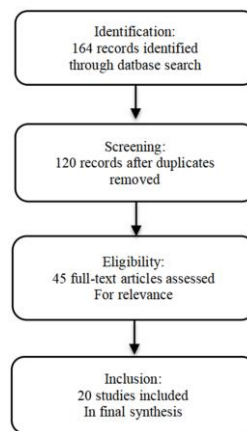


Figure 1. PRISMA Flow Diagram of Study Selection Process

3. Results and Discussion

Main Drivers of Auditor Behavior Toward AI Adoption

There are two main drivers of auditor behavior toward AI adoption: (1) individual factors and (2) organizational and environmental factors. Individual factors indicate that AI adoption in auditing is determined not only by technological readiness but also by auditors' personal attributes. Recent studies emphasize that willingness to learn plays a crucial role in auditors' readiness to use new technologies. Auditors with a high willingness to learn tend to be more open to innovation, including exploring AI's potential to support audit quality. Empirical research by [23] shows that willingness to learn is positively related to auditors' intention to use AI, as this attitude enhances perceived benefits and reduces adoption barriers.

Two constructs from the Technology Acceptance Model (TAM)—performance expectancy and effort expectancy—are also significant in influencing auditors' intention to adopt AI. Performance expectancy refers to auditors' belief that using AI will improve audit effectiveness and quality, while effort expectancy relates to perceived ease of use. Several studies confirm that although ease of use matters, perceived usefulness and auditors' digital readiness (AI readiness) are stronger determinants of adoption [18]. However, AI adoption is also affected by the psychological phenomenon known as algorithm aversion. Auditors often tend to disregard or devalue AI-based recommendations, especially when such recommendations conflict with human judgment. [5] found that auditors receiving evidence from AI systems tend to make smaller audit adjustments compared to when the evidence comes from human experts. This indicates that despite AI's objective analysis, its acceptance is limited by auditors' perceptions and preferences for human authority. Therefore, individual factors encompass not only technical skills but also cognitive perceptions and psychological attitudes toward new technologies.

Organizational dynamics and external pressures also influence AI adoption. One important aspect is whether AI development within firms is centralized or decentralized. Recent research shows that centralized models tend to facilitate standardization, quality control, and large-scale resource utilization, while decentralized models allow for flexibility, localized innovation, and client-specific adaptation. The chosen structure affects how rapidly and extensively AI can be implemented in everyday audit practice. External factors also play a significant role. Competitive pressure drives audit firms to adopt AI to improve efficiency, reduce costs, and maintain market competitiveness. Conversely, regulatory frameworks can act as either catalysts or inhibitors. Progressive regulations encourage technology use to enhance audit quality, whereas rigid regulations can slow innovation. Standards and guidance from audit supervisory authorities are crucial to ensure AI use does not compromise independence or professional skepticism [7]. In sum, auditors' behavior toward AI adoption is determined by a combination of interacting individual and organizational factors alongside external pressures. Understanding these drivers is critical for formulating effective AI implementation strategies while safeguarding audit quality, integrity, and professional legitimacy in the digital era.

Impact of AI on Auditor Roles and Judgment

AI advancement has revolutionized the modern auditor's role by automating many time-consuming and resource-intensive tasks such as transaction processing, data reconciliation, and basic anomaly detection [22]. This automation enables significant efficiency gains and frees auditors to focus on activities requiring critical reasoning and deeper professional analysis. Machine learning and natural language processing enable AI to analyze large volumes of data rapidly and with remarkable accuracy. According to [22], AI-based anomaly detection accuracy can reach up to 95%, far exceeding manual methods which typically range between 60–70%. These results reinforce AI's importance as a tool to enhance audit reliability and effectiveness in the era of big data. In risk assessment, AI functions as a decision support system that can analyze multiple financial and operational risk factors simultaneously. [7] reports that AI can predict audit risk areas with higher precision than traditional approaches, helping auditors concentrate on genuinely risky areas. Nevertheless, human judgment remains necessary to interpret results and grasp the full business context [22].

Table 1. The Early Impact of AI on the Audit Process

Auditor Aspect	The Impact of AI Automation	Reference
Routine transaction processing	Improve audit efficiency and speed	Vidya (2024)
Data and document matching	Reduce human error and data duplication	Vidya (2024)
Financial anomaly detection	Increased accuracy up to 95%	Vidya (2024)
Risk identification area	Focus sharper on error-prone areas	Deliu (2024)

Source: author's synthesis

Although AI capabilities are impressive, [7] emphasizes that human judgment is irreplaceable, especially for complex, ethical, and contextual decisions. AI cannot comprehend moral values, social contexts, or cultural considerations underlying business transactions. Human auditors assess not only technical compliance with accounting standards but also ethical and responsible practices. [1] stress that human auditors excel at integrating qualitative and quantitative information, including company history, business strategy, and external factors. With holistic understanding, auditors can contextualize audit findings and provide more valuable recommendations. The narrative that AI will replace auditors is shifting toward the view that AI enhances auditors' roles and competencies. [12] and [9] show that AI adoption increases the demand for critical thinking, complex analysis, and unstructured problem-solving skills. Future auditors need not be technology experts but must be able to evaluate and interpret AI outputs effectively.

Table 2. New Skills of Auditors in the AI Era

Skill Type	Description	Reference
High-level cognitive skills	Critical thinking, analysis, complex, and adaptive decision-making	Law & Shen (2024)
Understanding AI technology	Ability to assess, interpret, and identify algorithmic biases	Fedyk et al. (2022)
Soft skills and communication	Improve relationships with clients and explain complex findings	Fedyk et al. (2022)

Continuous learning

Updating competencies as technology evolves

Law & Shen (2024)

Source: author's synthesis

In addition to technical skills, interpersonal skills are also increasingly important. [9] highlight that effective communication, collaboration, and emotional intelligence will become key competitive advantages. When AI handles the technical aspects of an audit, auditors with high soft skills are able to build trust and bridge the analysis results into a business context that clients can understand. [12] also emphasize the importance of a culture of continuous learning in audit organizations. Firms that provide regular training and encourage technological literacy tend to be better prepared to face digital disruption. Cross-disciplinary understanding—such as data science, information technology, and behavioral psychology—is also a new need for auditors [9]. Nevertheless, traditional audit skills remain an important foundation. A deep understanding of accounting principles and audit standards remains relevant, but is now applied in a digital framework. AI should be treated as an aid to strengthening professional skepticism, not replacing it [12]

Table 3. Model Co-Piloted Auditing

Audit Elements	AI Contribution	Role of Human Auditor	Prime Impact
Audit planning	Analysis of historical data and identification of risk areas	Define audit focus and strategy	Increased efficiency by 40-60%
Audit execution	Big data processing and anomaly detection	Validation and interpretation of results	Accuracy up 25-35%
Evaluation of results	Present data-pattern-based findings	Assess context, ethics, and recommendations	Reinforcement of professional skepticism
AI-Human Collaboration	Continuous automated analysis	Knowledge integration for final decisions	Human-machine synergy

Source: author's synthesis

The main advantage of this model is increased audit efficiency and accuracy. Audit teams that implement a co-piloted approach can work 40–60% faster with a 25–35% higher material error detection rate [22]. However, there is a risk of overreliance on AI, so auditors must continue to carry out professional validation and assessment of system results. In the long term, it is believed that co-piloted auditing will become the foundation of the future audit profession. By combining the analytical advantages of AI and human wisdom, this model strengthens the auditor's position as a strategic advisor who adds value to the organization, while maintaining ethics, accountability and public trust in audit results. AI in auditing offers significant potential for efficiency and accuracy through automation and large-scale data analysis. However, its application also raises risks of algorithmic bias, limited transparency, and accountability challenges that require serious attention.

A major risk is algorithmic bias stemming from unrepresentative training data. As [16] explain, such bias can lead to hidden discrimination in audit outcomes and reduce process integrity. Data imbalances and subjective assumptions by programmers can amplify AI analysis errors. Moreover, AI systems often operate as black boxes, making it difficult to understand the rationale behind recommendations or anomaly detections, even for developers [15]. This hinders transparency and casts doubt on audit validity. Accountability challenges arise because AI is neither a moral nor legal agent. Therefore, responsibility must be assigned to system developers and users [20]. To bridge this gap, ongoing internal audits are needed to ensure AI systems align with ethical and professional principles. Human oversight remains important through representative testing, algorithmic audits, and human decision-makers as the final authority [16]; [15].

In ethical governance, ethics-based auditing is highly recommended to ensure reliability and responsibility in AI usage [15]. This approach emphasizes continual system assessment against moral and social norms. Through continuous monitoring, auditors can detect bias and adverse impacts early, remedy weaknesses, and strengthen AI accountability. Auditors' role in the AI ecosystem is increasingly strategic: they not only evaluate system integrity and accuracy but also ensure compliance with ethical standards and public interest. [16] warn that audit automation brings new risks such as algorithmic bias and reduced auditor independence due to reliance on automated systems. To preserve fairness and objectivity, multidimensional 'guardrails'—covering data protection, algorithms, and ethics—are needed to ensure sustainable audit integrity. [3] emphasize

the importance of incentive designs that encourage auditors to proactively prevent risks rather than merely identify errors. Their concept of Vigilant Incentives rewards efforts to enhance security and innovation in auditing, contrasting with Adversarial Incentives that foster antagonism between auditors and AI developers.

Without adequate policy and incentive support, a sustainable AI audit market is unlikely to form. Auditors need investments in new tools such as causal inference models, algorithmic transparency utilities, and machine-learning-based monitoring systems to effectively evaluate AI security and ethics. Public policy support is needed to balance innovation with social protection.

Thus, auditors act as primary guardians of accountability in the AI era. Through mastery of new audit technologies, continuous ethical oversight, and appropriate incentives, the auditing profession can strengthen an AI ecosystem that is safe, transparent, and oriented toward the public good.

Ethical and Institutional Challenges and the Direction of Audit Profession Transformation in the AI Era

AI integration in auditing brings significant benefits in efficiency and accuracy but also raises ethical, governance, and readiness issues. AI can analyze large datasets rapidly but often functions as a black box, where decision-making processes are not fully transparent to auditors [15]. This raises concerns about accountability and fairness because auditors cannot always explain the reasons behind AI recommendations. A primary issue to watch is algorithmic bias arising from unrepresentative training data. [16] argue that bias in AI systems can lead to discriminatory conclusions and undermine audit integrity. Data quality gaps, subjective assumptions in programming, and lack of independent model verification increase the risk of errors. Therefore, human oversight and periodic algorithmic audits are crucial to maintain accuracy and ethics.

Responsibility and accountability in AI use must also be clearly regulated. AI is not a moral or legal entity; thus, responsibility for audit outcomes remains with human auditors [20]. Ethics-based auditing, as proposed by [15], emphasizes continuous supervision of AI systems to ensure compliance with moral and professional standards, supported by transparent ethical evaluation and reporting mechanisms.

However, the implementation of ethical principles cannot be separated from institutional and technological challenges faced by the audit profession. [18] note that in developing countries, the main barriers include limited digital infrastructure, high implementation costs, and data security concerns. Many audit firms struggle to adapt due to insufficient training, organizational resistance, and lack of policy support. Consequently, AI adoption often remains partial and fails to generate optimal benefits.

Another major constraint lies in the competence gap among auditors in understanding and leveraging technology. Many practitioners remain focused on manual methods and are unfamiliar with analytical and algorithmic approaches. A lack of AI literacy training can lead to misinterpretation of algorithmic results and reduce audit quality [18]. Therefore, human resource development becomes a strategic determinant of successful AI integration in audit practice.

At the same time, Artificial Intelligence (AI) is fundamentally redefining the role of auditors, transforming their function from retrospective compliance checks to proactive, real-time monitoring and strategic decision-making in risk assessment, fraud detection, and corporate governance [13]. Rather than focusing solely on historical data verification, auditors are now expected to interpret complex, dynamic datasets to anticipate potential anomalies and emerging risks before they materialize. This paradigm shift positions auditors as strategic partners who contribute to organizational resilience and value creation through data-driven insights. Consequently, future auditors must develop cross-disciplinary competencies—encompassing accounting expertise, data analytics, information systems, and technology ethics—to evaluate risks holistically, ensure algorithmic transparency, and provide higher-value advisory recommendations that align with principles of integrity, accountability, and sustainable governance [13].

From a governance perspective, professional bodies and regulators need to update auditing standards to incorporate principles of algorithmic transparency, accountability, and digital integrity. These principles are essential to ensure that AI use aligns with professional values and does not create conflicts of interest. Collaboration among regulators, academics, and practitioners is therefore required to establish an ethical and sustainable technology-based audit ecosystem [[15]; [16]].

Ultimately, the future direction of the auditing profession depends on auditors' adaptive capacity and ethical commitment. Digital transformation driven by AI should be viewed not merely as a technological innovation but as a professional evolution that reinforces auditors' social responsibility as guardians of public trust. By balancing AI efficiency with human wisdom, the audit profession can progress toward practices that are more accountable, ethical, and data-driven while preserving its integrity in the digital era.

Based on the literature synthesis, the findings consistently indicate that AI adoption in auditing enhances efficiency and anomaly detection accuracy across various empirical contexts [[22]; [7]] Repeated evidence from multiple independent studies supports the robustness of this conclusion, demonstrating that the SLR method effectively identifies reliable behavioral patterns. Furthermore, the review reveals that the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB) remain the most frequently validated frameworks for explaining auditors' adoption behavior toward emerging technologies. These consistent validations confirm the suitability of these models for synthesizing behavioral constructs in technology-related auditing research.

Nevertheless, the synthesis also suggests that auditor behavior cannot be fully explained by TAM or TPB alone. Ethical accountability and institutional capacity must be integrated to contextualize AI adoption within the broader framework of professional integrity and public interest.

Based on the literature synthesis, this study proposes a conceptual framework illustrating the multidimensional factors influencing auditors' behavior toward AI adoption. As shown in **Figure 2**, auditor behavior is shaped by three interrelated dimensions: individual, organizational, and ethical–institutional. Individual factors reflect auditors' learning motivation and AI readiness; organizational factors emphasize management support and technological infrastructure; and ethical–institutional factors highlight transparency and accountability. Together, these dimensions form an integrated framework explaining auditors' behavioral responses to AI use in auditing.

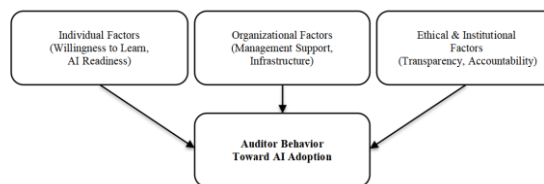


Figure 2. Conceptual Framework of Auditor Behavior Toward AI Adoption

4. Conclusion

This study confirms that the integration of Artificial Intelligence (AI) has revolutionized the auditing profession by enhancing efficiency, accuracy, and audit quality, while also generating multidimensional challenges encompassing technological, behavioral, ethical, and institutional aspects. From the behavioral perspective, AI adoption is significantly influenced by individual factors such as willingness to learn, performance expectancy, and AI readiness [[23]; [18]]. Auditors with high learning motivation and digital preparedness are more likely to embrace new technologies and optimize their use in the audit process.

At the organizational level, successful AI implementation depends on management support, technological infrastructure, and structured digital development [7]. Audit firms with adaptive governance and continuous training systems are better positioned to respond to technological change compared to those adhering to traditional models. Furthermore, human–machine collaboration through co-piloted auditing has been shown to improve efficiency by up to 60% and increase error detection accuracy by approximately 35% [22].

However, these advancements must be balanced with the recognition that AI cannot replace auditors' professional judgment. Ethics, professional skepticism, and moral responsibility remain inherently human-centered [1]. Algorithmic bias, limited system transparency (the “black box” problem), and accountability challenges remain significant issues that demand strict oversight [[7]; [16]]. Therefore, ethics-based auditing is essential to ensure that AI adoption aligns with professional values and serves the public interest.

Methodologically, this study demonstrates that the Systematic Literature Review (SLR) approach is appropriate and effective for exploring behavioral tendencies in a rapidly evolving field such as AI auditing. Through a transparent selection and thematic synthesis process, the SLR identifies

consistent patterns across prior studies, thereby enhancing the reliability of findings. This process also confirms that integrating individual, organizational, and ethical dimensions within a unified analytical framework provides a more holistic understanding of auditor behavior. Beyond its substantive findings, this study contributes methodologically by validating the SLR as a robust tool for analyzing behavioral research in accounting and auditing amid digital transformation.

Nonetheless, this study has certain limitations, particularly related to restricted access to paywalled literature and the qualitative nature of synthesis. Future research could empirically test the proposed conceptual framework through cross-country surveys or experimental designs to validate behavioral factors influencing AI adoption among auditors.

Theoretically, this study extends the Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB) by incorporating ethical responsibility and organizational readiness as mediating variables influencing AI adoption behavior. Practically, audit firms and professional bodies can utilize these insights to develop AI-readiness training programs, ethics-based audit standards, and governance frameworks that promote responsible and sustainable technology use in auditing.

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Author contribution.

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Data and Software Availability Statements

Data and Software availability statements provide a statement about where data and software supporting the results reported in a published article can be found, including hyperlinks to publicly archived datasets and software analyzed and generated during the study/experiments.

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