

Artificial Intelligence and the Evolution of the Accounting Profession: Toward A Responsible AI-Enabled Accounting Framework

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ABSTRACT

Artificial Intelligence (AI) is transforming the accounting profession by automating regular operations, providing assistance with data analysis, and accelerating financial reporting. However, the development of AI also brings up important ethical issues such as professional identity, automation bias, objectivity, algorithmic bias, transparency, data privacy, accountability, and the importance of human judgement. This paper presents a conceptual literature review of these ethical implications, which are presented under five broad themes: the evolution of professional identity and behaviour in accounting, key ethical challenges presented by integrating AI, accountability issues and the responsibility gap, the influence of personal values and the importance of accounting education, and the need for adaptive governance frameworks and oversight by humans. The analysis emphasises that the implementation of AI should be seen not only as a technological upgrade but also as an evolution affecting professional judgement, ethical responsibility, and public trust. The study calls for a responsible approach to AI-enabled accounting that combines AI literacy, professional ethics, common accountability, explainable processes, effective data governance and monitoring by humans. Furthermore, it implies moving the governance from theoretical ethical standards to real adaptive mechanisms across the AI system development life cycle. This research provides a conceptual framework for integrating technical innovations in accounting with professional and ethical duties.

Keywords: artificial intelligence; accounting profession; accounting ethics; accountability; AI governance; human oversight

INTRODUCTION

Artificial intelligence (AI) has emerged as an important technological development influencing the accounting profession by transforming operational processes, enhancing efficiency, and supporting data-driven decision-making. The landscape of accounting has undergone a significant evolution, shifting from traditional, manual, and labor-intensive processes to sophisticated, AI-driven approaches (Odonkor et al., 2024). AI technologies, which simulate and augment human intelligence, are increasingly being utilized for complex tasks ranging from data analysis and fraud detection to predictive analytics and anomaly detection (Abdulameer, 2025). By automating routine tasks and enabling real-time financial reporting, AI allows accountants to pivot towards more strategic and value-added functions (Odonkor et al., 2024). However, as the practice of accounting continues to mature alongside these rapid technological advancements, it is essential to recognize that AI introduces a new dimension of ethical considerations that must be addressed to maintain the profession's integrity and public trust (Abdulameer, 2025). The rapid adoption of artificial intelligence in accounting is increasingly outpacing the governance, controls, and ethical frameworks designed to guide its usage (Munoko et al., 2020). As institutions rely more heavily on AI systems for financial reporting, auditing, and managerial accounting, profound ethical dilemmas emerge. Critical questions arise regarding the impact of algorithmic decision-making on transparency

and integrity. Furthermore, uncertainty remains regarding responsibility allocation when AI systems produce inaccurate outcomes and how organisations can balance operational efficiency with confidentiality requirements (Abdulameer, 2025). Furthermore, the opacity of complex algorithms, often referred to as the "black box" problem, creates significant challenges for accountability, while embedded biases risk perpetuating discrimination and flawed financial judgments (Celestin, 2024; Murikah et al., 2024; Schweitzer, 2024). Therefore, the core problem facing the modern accounting profession is the urgent need to redefine and adapt existing ethical frameworks to successfully reconcile the disruptive technological capabilities of AI with the foundational accounting principles of objectivity, accountability, and public trust (Abdulameer, 2025; Thewelis et al., 2025).

Existing research has identified several ethical and professional challenges associated with AI adoption; however, these issues are often examined separately rather than as interconnected dimensions of responsible AI-enabled accounting. In particular, there is a need to conceptualise further the relationship between changes in professional identity and behaviour, ethical risks, accountability, professional values and education, and governance systems. This generates a need for a more holistic understanding of how these characteristics might function together to enable responsible use of AI in the accounting profession.

The gap is particularly critical because the moral ramifications of AI adoption cannot be resolved by technological constraints alone. Moreover, the proper use of AI depends on the accounting professional's capacity to use professional judgement, maintain professional scepticism, recognise the limitations of AI-generated outputs, and take responsibility for decisions employing AI. Therefore, competent AI-enabled accounting demands an integrated approach, taking into account both the technological capabilities and the human, professional, educational and governance aspects.

Accordingly, this study aims to conceptualise how artificial intelligence adoption influences the accounting profession by examining five interconnected dimensions: professional identity and accountant behaviour; ethical risks and challenges; accountability; personal values and accounting education; and adaptive governance and human oversight.

This study synthesises these five domains to establish a conceptual framework of responsible AI-enabled accounting. The framework is designed to describe how AI adoption could transform the accounting profession, and the ethical concerns that could arise, requiring safeguards such as education, professional values, responsibility, governance and monitoring by humans. The study thus adds a holistic conceptual viewpoint linking technological adoption to professional accountability and ethical accounting practice.

METHODOLOGY

This study adopts a conceptual literature review approach to examine the ethical and professional implications of artificial intelligence (AI) adoption within the accounting profession. Unlike a systematic literature review, this study does not aim to provide an exhaustive identification and quantitative evaluation of all available studies. Instead, the objective is to synthesise recent academic discussions and theoretical insights to develop a conceptual understanding of responsible AI-enabled accounting.

The literature search was conducted through Google Scholar, which was selected due to its broad coverage of peer-reviewed academic publications across accounting, information systems, technology ethics, and business disciplines. The identified publications were screened based on title, abstract, and full-text relevance to ensure alignment with the research objectives. Articles unrelated to AI applications, accounting practices, ethical implications, or professional transformation were excluded.

The literature search covered publications from January 2020 onwards to capture recent developments associated with AI adoption, including the emergence of generative AI applications within professional environments. The reviewed studies were considered regardless of their country of origin or research context, as ethical concerns associated with AI adoption represent global issues affecting the accounting profession.

The main search terms and concepts used included combinations of keywords such as “artificial intelligence”, “AI”, “ChatGPT”, “generative AI”, “AI ethics”, “accounting profession”, “accounting practices”, “accounting professionals”, “auditing”, “AI governance”, “professional judgement”, “accountability”, “algorithmic bias”, “transparency”, “AI literacy”, and “human oversight”. These search terms were selected to capture studies examining both the technological transformation of accounting activities and the ethical, behavioural, educational, and governance implications arising from AI integration.

The types of publications considered included peer-reviewed journal articles, systematic literature reviews, conceptual papers, and scholarly conference proceedings that directly addressed the relationship between artificial intelligence and the accounting profession. Studies were included when they provided theoretical discussion, empirical evidence, or conceptual insights relating to at least one of the following areas: (i) changes in accountants’ professional roles and behaviours, (ii) ethical risks associated with AI implementation, (iii) accountability and responsibility issues, (iv) AI literacy, professional values, and accounting education, and (v) governance mechanisms and human oversight. These criteria ensured that selected literature contributed directly to understanding responsible AI adoption within accounting contexts.

The selection of studies for thematic synthesis was guided by conceptual relevance rather than statistical representativeness. Articles were selected based on their ability to explain, support, or critically discuss the ethical and professional consequences of AI adoption in accounting. Particular attention was given to studies that addressed recurring concepts such as automation bias, algorithmic bias, explainability, privacy and confidentiality, professional judgement, accountability, AI literacy, and governance. These recurring concepts formed the basis for identifying patterns and relationships across the literature.

Through thematic analysis of the selected literature, five interconnected dimensions emerged: (1) transformation of professional identity and accountant behaviour, (2) ethical challenges in AI-enabled accounting, (3) accountability and the responsibility gap, (4) personal values and accounting education, and (5) adaptive governance and human oversight. These dimensions were not developed as isolated categories of ethical concerns but were derived from the recurring relationships identified across prior studies.

The five dimensions are theoretically interconnected because AI adoption represents a technological change that influences accountants’ roles and decision-making processes. Changes in professional identity may increase exposure to ethical risks such as automation bias and reduced professional scepticism. These ethical risks subsequently create accountability challenges regarding responsibility for AI-generated outcomes. Addressing these challenges requires accountants to possess appropriate AI literacy, professional values, and ethical awareness, supported by effective governance mechanisms and human oversight. Therefore, the five dimensions collectively represent a connected pathway towards responsible AI-enabled accounting rather than independent ethical issues.

As this study is based exclusively on conceptual synthesis of existing literature, the proposed framework should be interpreted as a conceptual model developed from existing theoretical discussions and not as an empirically validated framework. The relationships among constructs represent theoretical propositions derived from the literature and require future empirical investigation through quantitative or qualitative research approaches.

Thematic Literature Analysis

The Transformation of Professional Identity and Accountant Behaviour

The integration of AI is not merely a technical upgrade; it is influencing the professional identity and cognitive behaviour of accountants. Empirical evidence shows that accountants are experiencing a role shift from traditional “data processors” to “AI interpreters” and supervisors (Muhammad et al., 2025). This transformation brings both opportunities and psychological challenges. Research indicates that AI integration significantly affects the quality of work life (QoWL) for accounting professionals, influencing job satisfaction, general well-being, and work-related stress (Fulop et al., 2025).

Furthermore, the introduction of AI modifies key behavioural dimensions in human decision-making. Previous studies have identified automation bias as a significant behavioural concern, a cognitive bias where accountants demonstrate a tendency to over rely on and blindly accept machine recommendations without sufficient verification (Muhammad et al., 2025; Murikah et al., 2024). This overreliance subsequently leads to a concerning decline in professional scepticism, a cornerstone of auditing and accounting, particularly when professionals are operating under severe time pressure (Muhammad et al., 2025). The delegation of core accounting tasks to predictive analytics has contributed to changes in professional identity perceptions, as accountants report a decreased sense of ownership over financial decisions (Muhammad et al., 2025).

Based on these findings, it appears that the impact of artificial intelligence on accountants is not restricted to productivity alone. For the purpose of ensuring that automated recommendations are reviewed in an appropriate manner, professional scepticism and judgement continue to be vital, even as accountants move toward interpreting and monitoring the outputs of artificial intelligence.

The findings show that the implementation of AI makes a substantial difference in the work of accountants, especially in the application of professional responsibility and judgement. Accountants will move into roles around the interpretation of, and governance of, the outputs of AI, and the importance of critically evaluating automated advice becomes crucial. It is important to maintain professional scepticism and not to over-rely on AI-generated data, and to ensure that accounting decisions are still guided by human judgement.

The development of professional identity is key to responsible use of AI in accounting. But over-reliance on automation may hinder accountants' ability to recognise errors, biases or inappropriate results. In contrast, accountants are essential safeguards inside AI-driven accounting frameworks due to their professional scepticism and judgement. This emphasises the critical connection between professional development and the ethical issues and safeguards that will be discussed in the next sections.

Core Ethical Challenges in AI-Driven Accounting

The deployment of AI systems introduces several specific ethical challenges that can severely compromise the quality and fairness of accounting practices.

Objectivity, Bias, and Fairness:

AI systems learn from historical data, meaning that biased decisions in the real world result in biased training data, which in turn produces a new generation of biased AI models (Celestin, 2024; Abdulameer, 2025). Five primary sources drive these technical and human biases: inaccurate data deficiencies, demographic homogeneity, spurious correlations, improper comparators, and embedded cognitive biases from system designers (Murikah et al., 2024). In accounting and auditing, relying on these flawed datasets can lead to discriminatory outcomes and financial misjudgments, potentially affecting the objectivity and reliability of financial evaluations (Muhammad et al., 2025; Celestin, 2024).

Transparency and the "Black Box" Challenge:

AI systems, particularly complex neural networks, operate with a high degree of opacity (Schweitzer, 2024). This "black box" nature means that even internal data scientists cannot always fully explain why a system behaved in a certain way (Murikah et al., 2024). The lack of explainability hinders the ability of accountants to justify financial outcomes, prompting debates on whether "explainability" should be added as a foundational fifth ethical principle alongside traditional bioethics principles like autonomy, beneficence, nonmaleficence, and justice (Cortese et al., 2022).

Privacy and Data Governance:

The vast amount of sensitive financial data processed by AI systems escalates the risk of confidentiality breaches and unauthorized exploitation (Murikah et al., 2024; Zhang et al., 2023). Ethical dilemmas arise concerning how AI extracts, stores, and potentially exposes internal and external corporate data (Zhang et al., 2023). Studies

indicate that data privacy concerns consistently remain highly prominent among professionals utilizing AI, escalating significantly as adoption increases (Celestin, 2024).

These ethical challenges, when taken as a whole, suggest that the use of artificial intelligence should be supported by expert examination of data quality, transparency, confidentiality, and justice rather than being motivated solely by increased efficiency.

The ethical issues in AI-enabled accounting are related as they highlight the impact of poor quality or biased data on the fairness of AI outputs, and the difficulty caused by limited transparency, which makes it challenging for accountants to correct inaccurate outcomes. Moreover, the use of sensitive accounting information involves privacy and confidentiality problems that cannot be solved just by technological means. Therefore, responsible AI in accounting involves technical safeguards and continuous professional oversight.

The importance of professional scepticism is emphasised as accountants need to understand and verify AI outputs to combat bias and opacity. It stresses the necessary balance between automated AI functions and human judgement. Moreover, the ethical concerns create critical considerations regarding accountability, especially questioning who is held accountable when artificial intelligence systems produce incorrect or biased conclusions. This leads to the issues of accountability and responsibility gap in the application of AI in accounting.

Accountability and the Responsibility Gap

When an automated system makes an error or a fraudulent judgment, pinpointing liability among developers, deployers, managers, and end-users becomes a highly complex puzzle (Schweitzer, 2024). If an AI system acts autonomously and adapts through self-learning, its future behaviour becomes unpredictable, potentially absolving human users of moral responsibility and creating a significant "responsibility gap" (Munoko et al., 2020).

To navigate this, scholars emphasize the concept of "shared accountability," demanding that system developers, client companies, managerial accountants, and regulators all share the ethical burden (Zhang et al., 2023). Using Rest's four-component model of ethical decision-making, which encompasses moral awareness, moral judgement, moral motivation, and moral behaviour, researchers argue that the opacity and complexity of AI can directly inhibit a human's moral awareness and judgment (Lehner et al., 2022). Consequently, AI alone cannot make ethical accounting decisions because it lacks true moral agency, making continuous human oversight a critical requirement (Lehner et al., 2022).

It is consequently recommended that accountability be taken into consideration throughout the entirety of the System Development Life Cycle (SDLC), rather than being allocated only after an AI-related fault has occurred. It is because of this that a shared responsibility model is supported, in which developers, management, accounting experts, and other relevant stakeholders are given specified obligations for the systems that they create, build, monitor, and utilise.

The responsibility gap demonstrates that the operator cannot be held solely accountable for mistakes made by artificial intelligence systems at the time of failure. In AI-enabled accounting, there are a variety of stakeholders participating in different stages such as development, implementation, data management, monitoring and deployment. This needs a distributed accountability strategy, matching obligations to the function of each stakeholder in the lifecycle of the AI system.

Human judgement is necessary as AI is able to do more and more complicated accounting functions, but ethical and professional judgements are still the role of human accountants. They need to judge whether the outputs generated by AI are suitable for the accounting environment in question and show how the joint accountability links the dots between the technology and professional accountability.

To be able to be effective in accountability, the accountants need to have knowledge and ethical beliefs to decide whether the output of AI should be questioned or further probed. Thus, education and professional ethics are important facets of appropriate AI-enabled accounting.

The Role of Personal Values and Accounting Education

Addressing the ethical integration of AI requires a fundamental shift in accounting education and the cultivation of strong professional values.

Research utilizing the Technology Acceptance Model (TAM) and Structural Equation Modeling (SEM) highlights that the personal and organizational values of prospective accountants play a significantly positive role in forming their intentions to engage in ethical AI behaviours (Latifah et al., 2023). However, there is a current misalignment between accounting education and professional needs, as existing curricula fail to fully integrate technological AI literacy with ethical instruction (Thewelis et al., 2025).

To prepare future professionals, educational institutions must proactively implement programs that teach students not only how to operate AI tools but also how to critically evaluate algorithmic outputs and recognize systemic biases (Muhammad et al., 2025). By embedding moral abilities and ethical awareness into the educational framework, the accounting profession can safeguard against the erosion of human skills and judgment (Murikah et al., 2024; Thewelis et al., 2025; Fulop et al., 2025).

It is consequently necessary to have more than just technical expertise in order to employ AI responsibly. In order to challenge automated outputs, uncover potential conflicts, preserve personal information, and recognise when human involvement is required, accountants need to have professional values and an awareness of ethical standards.

The literature demonstrates that the appropriate use of AI in accounting depends on the interaction of technical skill and professional values. AI literacy is important for accountants to know how artificial intelligence systems work and their limitations. Professional values provide an ethical framework to evaluate results and make sound professional judgements. Education is important in reducing the risk of automation bias and encouraging appropriate professional behaviours.

Additionally, accounting education cannot be only focused on the use of artificial intelligence (AI) technology; future accountants must be able to understand the information provided by AI, recognise biases, protect confidential data, and know when to include human input. The integration of AI literacy and ethics improves the ability of accountants to be informed decision makers and diligent stewards of AI-enabled accounting.

Therefore, education and professional values are key to governance in AI: they are mutually reinforcing, with governance providing the framework for controlling AI, and educated professionals providing the judgement needed to make that control effective.

Adaptive Governance, Frameworks, and Human Oversight

The mitigation of AI's ethical risks necessitates the establishment of robust, adaptive governance frameworks. The literature suggests utilizing models like the Anticipatory Technology Ethics (ATE) and ETICA frameworks to forecast and address ethical implications at the technology, artifact, and application levels before they manifest into widespread harm (Munoko et al., 2020). Additionally, the Antecedents, Decisions, and Outcomes (ADO) framework is highly effective for systematically addressing complex ethical phenomena by connecting the root causes of AI dilemmas to strategic implementation decisions and their ultimate outcomes (Daud et al., 2024).

Governance must transition from abstract principles to concrete oversight mechanisms (Murikah et al., 2024). This includes enforcing periodic, independent auditing of AI systems, establishing expert ethical review boards, and implementing "human-in-the-loop" decision-making boundaries to ensure humans maintain reasonable discretion over automated processes (Murikah et al., 2024). Transparent communication among system developers, top management, and accounting end-users is vital throughout the entire System Development Life Cycle (SDLC) to promptly identify and remediate ethical risks (Zhang et al., 2023).

Table 1 presents the thematic synthesis of the reviewed literature, demonstrating how recurring concepts and findings were grouped into five interconnected dimensions. These dimensions represent analytical themes derived from prior studies and provide the theoretical foundation for the proposed conceptual model.

Table 1. Summary of Literature Across the Five Themes

Theme	Key literature	Main issues	Contribution responsible towards AI-enabled accounting
Professional identity and behaviour	Muhammad et al. (2025); Murikah et al. (2024); Fulop et al. (2025)	Role transformation, automation bias, professional scepticism	Human judgement and critical evaluation of AI outputs
Ethical challenges	Celestin (2024); Abdulameer (2025); Schweitzer (2024); Murikah et al. (2024); Zhang et al. (2023)	Bias, objectivity, transparency, privacy and confidentiality	Fairness, transparency and data governance
Accountability	Munoko et al. (2020); Zhang et al. (2023); Lehner et al. (2022)	Responsibility gap and unclear liability	Shared accountability across relevant stakeholders
Education and professional values	Latifah et al. (2023); Thewelis et al. (2025); Muhammad et al. (2025)	AI literacy and ethical preparation	Ethical AI competence and informed professional judgement
Governance and human oversight	Munoko et al. (2020); Daud et al. (2024); Murikah et al. (2024); Zhang et al. (2023)	Monitoring, governance and human intervention	Adaptive governance and continuous human oversight

Source: Authors' synthesis of the reviewed literature.

DISCUSSION

Integration of the Five Dimensions

The literature reviewed in this study demonstrates that the ethical implications of AI in accounting are interconnected rather than isolated. AI adoption transforms accountants' roles and decision-making processes, which may create risks involving automation bias, algorithmic bias, transparency, privacy, and professional judgement. These risks subsequently raise questions concerning accountability and require accountants to possess appropriate AI literacy, professional values, and ethical awareness.

The five dimensions therefore form an interconnected pathway towards responsible AI-enabled accounting. AI adoption creates professional transformation; professional transformation may generate ethical risks; ethical risks create accountability requirements; and effective accountability depends on competent professionals, appropriate education, and adaptive governance. This integration provides the basis for the conceptual framework presented in Figure 1.

Conceptual Framework for Responsible AI-Enabled Accounting

The conceptual model presented in Figure 1 represents the authors' proposed framework developed through thematic synthesis of the reviewed literature. The model is not intended to represent an empirically validated framework. It provides a theoretical explanation of how artificial intelligence (AI) adoption may influence the accounting profession and how responsible AI implementation can be supported through ethical, educational, and governance mechanisms.

The development of this model was guided by five interconnected dimensions identified from the literature: (1) transformation of professional identity and accountant behaviour, (2) ethical risks and challenges associated with

AI-enabled accounting, (3) accountability and the responsibility gap, (4) personal values and accounting education, and (5) adaptive governance and human oversight. These dimensions emerged from recurring themes identified across recent literature examining AI adoption, accounting practices, professional ethics, and governance issues.

Rather than representing independent categories of ethical concerns, these dimensions are theoretically connected through a sequential relationship. AI adoption in accounting represents the initiating factor that drives changes in accounting tasks, professional roles, and decision-making processes. As accountants increasingly interact with AI-enabled systems, their professional identity evolves from performing routine data-processing activities towards interpreting, evaluating, and supervising AI-generated outputs.

This professional transformation may subsequently create ethical challenges, including automation bias, algorithmic bias, limited transparency, privacy risks, and potential erosion of professional judgement. These ethical challenges raise further concerns regarding accountability, particularly when AI systems generate inaccurate, biased, or inappropriate outcomes. Therefore, responsibility cannot be attributed solely to the AI system or individual users but requires shared accountability among developers, organisations, accounting professionals, and relevant stakeholders.

To address these challenges, the model proposes that AI literacy, professional values, accounting education, adaptive governance, and human oversight function as enabling mechanisms. These relationships represent theoretical propositions rather than causal relationships validated through empirical testing.

These mechanisms support accountants in critically evaluating AI outputs, maintaining professional scepticism, and ensuring that technological efficiency remains aligned with ethical accounting principles.

Accordingly, the proposed conceptual relationships can be summarised as follows:

AI Adoption in Accounting → Transformation of Professional Identity and Behaviour → Ethical Risks and Challenges → Accountability Requirements → Education, Professional Values, Governance and Human Oversight → Responsible AI-Enabled Accounting

The model further incorporates continuous monitoring and feedback mechanisms, recognising that AI-enabled accounting systems, data environments, and professional practices continuously evolve. Continuous evaluation allows organisations to identify emerging risks, improve governance processes, and maintain alignment between technological advancement and professional responsibility.

Figure 1. Proposed Conceptual Model for Responsible AI-Enabled Accounting: Interrelationships among AI Adoption, Professional Transformation, Ethical Risks, Accountability, Education, Governance, and Human Oversight

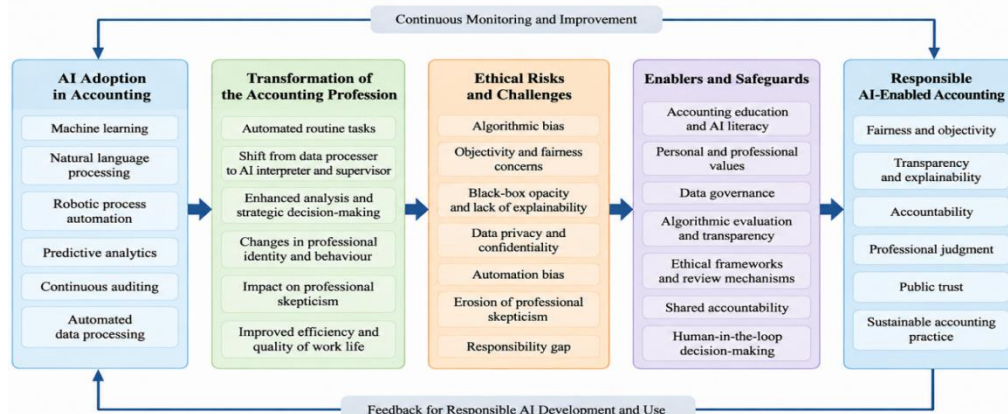


Figure 1. Proposed Conceptual Model for Responsible AI-Enabled Accounting: Interrelationships among AI Adoption, Professional Transformation, Ethical Risks, Accountability, Education, Governance, and Human Oversight

Note: Developed by the authors based on thematic synthesis of the reviewed literature.

Table 2 further illustrates the relationship between the ethical risks identified from the literature, their implications for accounting practices, and the safeguards required to support responsible AI adoption. These risks are not considered isolated issues; instead, they represent interconnected challenges that emerge throughout the AI adoption lifecycle.

For example, automation bias and insufficient AI literacy are closely related, as limited understanding of AI capabilities may increase accountants' tendency to accept AI-generated recommendations without sufficient professional evaluation. Similarly, algorithmic bias, transparency limitations, and privacy concerns highlight the importance of strong data governance and human oversight. Furthermore, accountability challenges arise because AI-supported decisions involve multiple stakeholders across the AI development, implementation, and monitoring processes.

Therefore, the safeguards presented in Table 2 represent complementary mechanisms rather than individual solutions. Responsible AI-enabled accounting requires the combined application of professional scepticism, explainability practices, data governance, shared accountability, AI education, and adaptive governance structures.

Table 2. Ethical Risks and Safeguards in AI-Enabled Accounting

Ethical risk	Accounting concern	Safeguard
Automation bias	Over-reliance on AI outputs	Professional scepticism and human review
Algorithmic bias	Unfair or flawed accounting judgements	Data quality assessment and bias evaluation
Black-box opacity	Difficulty explaining AI-supported decisions	Explainability and documentation
Privacy and confidentiality	Exposure or misuse of sensitive financial data	Data governance and access controls
Responsibility gap	Unclear accountability for AI-related outcomes	Shared accountability
Professional judgement erosion	Reduced human ownership of decisions	Human-in-the-loop decision-making
Insufficient AI literacy	Limited ability to evaluate AI outputs	AI and ethics education
Weak governance	Delayed identification and inconsistent management of AI risks	Continuous monitoring and adaptive governance

Source: Authors' synthesis of the reviewed literature.

Implications for Responsible AI-Enabled Accounting

The findings have implications for accounting professionals, organisations, educators, and professional or regulatory bodies. For accounting professionals, the increasing use of AI reinforces the importance of professional scepticism, judgement, and critical evaluation of AI-generated outputs. Accountants should remain capable of questioning automated recommendations and determining when human intervention is necessary.

For accounting organisations, responsible AI adoption requires more than technological implementation. Organisations should establish clear accountability structures, appropriate data governance procedures, monitoring mechanisms, and human oversight throughout the AI system development life cycle. For accounting education, curricula should integrate AI literacy with professional ethics so that future accountants can understand AI systems, identify bias, assess outputs, protect confidential information, and exercise ethical judgement.

For professional bodies and regulators, the findings suggest the importance of adaptive governance mechanisms that can respond to continuing developments in AI. Overall, responsible AI-enabled accounting requires a balance between technological capability and human professional responsibility, supported by professional judgement, ethical awareness, education, accountability, and effective governance.

Limitations and Future Research

This study has several limitations that should be considered when interpreting its findings. To address these limitations, future research may extend the conceptual framework by empirically examining the interrelationships among the five aspects highlighted. Quantitative research could investigate the impacts of AI literacy, professional values, automation bias, professional scepticism, and oversight by humans on the appropriate use of AI in accounting. Moreover, qualitative studies could explore the experiences of accountants, organisations, and stakeholders concerning accountability and ethical decision-making in AI applications.

Additionally, studying the application of responsible AI governance in various accounting settings such as auditing, financial reporting, management accounting, and accounting education can reveal the framework's adaptability to different organisational and regulatory environments, which may eventually contribute to the creation of more customised governance strategies.

CONCLUSION

AI adoption presents both opportunities and ethical challenges for the accounting profession (Fulop et al., 2023). While AI dramatically enhances operational efficiency, predictive accuracy, and data processing capabilities, it simultaneously introduces profound ethical challenges that threaten the core tenets of the profession (Odonkor et al., 2024; Schweitzer, 2024; Thewelis et al., 2025). Issues such as algorithmic bias, black-box opacity, data privacy vulnerabilities, and the erosion of human accountability pose significant risks to financial integrity and public trust (Murikah et al., 2024; Schweitzer, 2024).

To successfully navigate this technological frontier, the accounting profession requires an appropriate balance between technological capabilities and human ethical oversight. It requires a symbiotic relationship where advanced computational power is continuously guided by rigorous human ethical oversight (Greenman et al., 2024). By cultivating AI literacy within educational curricula, establishing shared accountability structures, and enforcing proactive, multi-disciplinary governance frameworks, the accounting industry can harness the responsible implementation of AI technologies (Zhang et al., 2023; Muhammad et al., 2025; Murikah et al., 2024). Ultimately, the sustainable future of accounting depends not on the technology itself, but on the profession's continued commitment to embedding fairness, transparency, and moral responsibility into every facet of the digital ecosystem (Murikah et al., 2024; Schweitzer, 2024).

This study explores five interconnected dimensions of responsible AI-enabled accounting: professional identity and accountant behaviour, ethical challenges, accountability, personal values in accounting education, and adaptive governance with human oversight. It presents a conceptual framework showing that these dimensions are interdependent and vital for integrating AI into accounting while preserving professional judgment, ethical responsibility, and public trust. The framework underscores that responsible AI is an ongoing process requiring continuous human oversight, education, and governance to tackle emerging ethical risks. Thus, the future of AI-enabled accounting hinges on balancing technological capabilities with human professional responsibility.

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Conflict of Interest

The authors declare no conflict of interest.

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Ethics Statement

Formal ethical approval was not applicable because this study is a conceptual literature-based review and involved no human participants or primary data.

Author Contributions

All authors contributed to the conception and development of the study, literature review and synthesis, drafting and revision of the manuscript, and approval of the final version.

Data Availability Statement

Not applicable. This study did not generate or analyse a primary dataset.

REFERENCES

1. Abdulameer, A. N. (2025). The impact of artificial intelligence on professional ethics in accounting. *FAR Journal of Multidisciplinary Studies*, 2(3), 40–58. <https://doi.org/10.5281/zenodo.17711916>
2. Celestin, M. (2024). Ethical implications of artificial intelligence in accounting practices: A Rwandan perspective. *International Journal of Current Research and Modern Education*, 9(2), 57–65.
3. Cortese, J. F. N. B., Cozman, F. G., Lucca-Silveira, M. P., & Bechara, A. F. (2022). Should explainability be a fifth ethical principle in AI ethics? *AI and Ethics*. <https://doi.org/10.1007/s43681-022-00152-w>
4. Daud, D., Kishan, K., & Azhar, Z. (2024). A systematic review on ethical challenges of emerging AI in accounting using the ADO model.
5. Fulop, M. T., Ionescu, C. A., Măgdaş, N., Ştefan, M. C., & Topor, D. I. (2025). Digital transformation of the accounting profession at the intersection of artificial intelligence and ethics. *Economics*, 19, Article 20250155. <https://doi.org/10.1515/econ-2025-0155>
6. Fulop, M. T., Topor, D. I., Ionescu, C. A., Cifuentes-Faura, J., & Măgdaş, N. (2023). Ethical concerns associated with artificial intelligence in the accounting profession: A curse or a blessing? *Journal of Business Economics and Management*, 24(2), 387–404. <https://doi.org/10.3846/jbem.2023.19251>
7. Greenman, C., Esplin, D., Johnston, R., & Richards, J. (2024). An analysis of the impact of artificial intelligence on the accounting profession. *Journal of Accounting, Ethics & Public Policy*, 25(2), 188. <https://doi.org/10.60154/jaep.2024.v25n2p188>
8. Latifah, L., Setiyani, R., Arief, S., & Susilowati, N. (2023). The role of personal values in forming the AI ethics of prospective accountants. *Ethics in Progress*, 14(2), 90-109.
9. Lehner, O. M., Ittonen, K., Silvola, H., Ström, E., & Wührleitner, A. (2022). Artificial intelligence-based decision-making in accounting and auditing: Ethical challenges and normative thinking. *Journal of Business Ethics*.

10. Muhammad, N., Arifuddin, & Mediaty. (2025). Artificial intelligence (AI) on accountant behaviour and ethical decision making: Systematic review on behavioural accounting research. *Economics, Business, Accounting & Society Review*, 4(2), 151–168.
11. Munoko, I., Brown-Liburd, H. L., & Vasarhelyi, M. (2020). The ethical implications of using artificial intelligence in auditing. *Journal of Business Ethics*. <https://doi.org/10.1007/s10551-019-04407-1>
12. Murikah, W., Nthenge, J. K., & Musyoka, F. M. (2024). Bias and ethics of AI systems applied in auditing: A systematic review. *Scientific African*, 25, e02281.
13. Odonkor, B., Kaggwa, S., Uwaoma, P. U., Hassan, A. O., & Farayola, O. A. (2024). The impact of AI on accounting practices: A review: Exploring how artificial intelligence is transforming traditional accounting methods and financial reporting. *World Journal of Advanced Research and Reviews*, 21(1), 172–188. <https://doi.org/10.30574/wjarr.2024.21.1.2721>
14. Schweitzer, B. (2024). Artificial intelligence (AI) ethics in accounting. *Journal of Accounting, Ethics & Public Policy*, 25(1), 67. <https://doi.org/10.60154/jaepp.2024.v25n1p67>
15. Thewelis, F. S., Usman, E., Jurana, & Mustamin. (2025). Artificial intelligence and ethics dilemma on the accountant profession: A systematic literature review. *Proceedings of the 3rd Tadulako International Conference on Economics and Business*.
16. Zhang, C., Zhu, W., Dai, J., Wu, Y., & Chen, X. (2023). Ethical impact of artificial intelligence in managerial accounting. *International Journal of Accounting Information Systems*, 49, 100619.