Multicore Int. J. Multidiscip, Vol 1, No 1, May 2025
e-ISSN: 3108-933X

OPEN ACCESS

MIMP
Marasofi International Media and Publishing

A Systematic Review of the Impact of Technological Advancements on Modern Accounting Practices

Sulaiman Taiwo Hassan[1], Abdullahi Ya'u Usman[2*]
[1]Crown University International Chartered Inc., Faculty of Social Science, United States,
staiwohassan99@yahoo.com
[2]ANAN University, Kwall, Nigeria, ayau.absedu@gmail.com
[*]Corresponding author, e-mail: ayau.absedu@gmail.com

Abstract— With the emergence of Industry 4.0, advanced technologies such as artificial intelligence (AI), data analytics, and automation have profoundly transformed the field of accounting. This paper presents a systematic review of recent literature to investigate the evolving landscape of accounting practices influenced by these technological advancements. The study emphasizes the impact of information technology and data analytics on accounting processes and managerial decision-making. Employing a rigorous systematic literature review methodology, relevant academic sources and premier journals were examined under strict inclusion and exclusion criteria. Findings reveal a notable rise in the integration of IT and data analytics within the accounting profession, alongside challenges related to implementation, including the necessity for specialized training and organizational adaptability. The paper concludes by advocating for the creation of comprehensive training programs to support accounting professionals in navigating technological transitions. This review aims to enhance the understanding of current trends in accounting and to guide future research directions in this evolving domain.

Keywords: AI Trends in Accounting, Implementation of AI in Accounting, Systematic Literature Review.

1. Introduction

Artificial intelligence (AI) stands as one of the most influential technological breakthroughs of the current century. It involves the deployment of algorithms and machine learning techniques that empower computers to replicate human cognitive functions such as decision-making, predictive analytics, and interpreting complex datasets (Schneider & Richard, 2020). The rise of AI has led to substantial transformations within the accounting sector, revolutionizing traditional workflows and service delivery models. This shift has moved the industry away from labor-intensive manual operations towards more automated, efficient processes, enabling organizations to concentrate more on strategic insights and data-driven decisions (Davenport & Kirby, 2016).

Current trends in the adoption of AI in accounting include leveraging machine learning algorithms to uncover patterns and detect irregularities in financial information. For example, AI-powered systems can identify potential fraudulent activities by analyzing transactions that deviate from typical patterns. In addition, AI facilitates the automation of routine tasks such as bookkeeping, tax computations, and the preparation of financial reports (Kokina & Davenport, 2017). This automation not only boosts operational

Received: 05 May 2025, Revised: 10 May 2025, Accepted: 23 May 2025
https://doi.org/10.64123/mijm.v1.i1.1

efficiency but also minimizes errors commonly associated with manual accounting work.

Robotic Process Automation (RPA), as described by Moffitt et al. (2018), is a prevalent AI application in accounting that enables continuous and automated data processing. This technology accelerates tasks traditionally requiring manual effort, improving accuracy and freeing auditors to engage in more analytical and strategic responsibilities. AI-driven auditing has also introduced higher standards of objectivity, precision, and efficiency in audit procedures.

Despite the clear benefits, integrating AI into accounting is not without challenges. Ethical considerations and data security risks are major concerns due to the extensive and automated handling of sensitive information, which raises the possibility of privacy breaches or misuse (Brynjolfsson & McAfee, 2014). Moreover, uncertainty remains about how AI will affect employment within the accounting profession. While some professionals worry about job displacement—particularly for administrative roles—research suggests that the nature of accounting work will evolve rather than disappear. Future roles will likely emphasize strategic analysis and interpretation skills to support decision-making processes driven by data (Davenport & Kirby, 2016; Schneider & Richard, 2020).

This article seeks to investigate current trends in AI adoption across various accounting functions and examine the implications for the profession's future. It also addresses the ethical, security, and social challenges that accompany the use of AI in accounting. A thorough understanding of these developments aims to guide professionals and organizations in maximizing AI's benefits while upholding the ethical standards and integrity central to the accounting field. Building on this foundation, the study explores the influence of information technology and data analytics on accounting practices and managerial decision-making.

2. Method

This article employs a systematic literature review (SLR) as its primary research method. An SLR is a rigorous and methodical process used to identify, assess, and integrate findings from existing studies within a particular research area. This approach facilitates a thorough understanding of current advancements, emerging trends, significant outcomes, and research gaps in the field (FEB Unair, 2024).

The study applies the SLR methodology to explore key research questions concerning the trends, practical applications, and consequences of artificial intelligence in accounting. This involves the systematic collection, critical appraisal, and synthesis of relevant literature from diverse academic sources. The review process follows the five-step framework proposed by Denyer and Tranfield (2009).

Phase 1: Pilot Search and Formulation of Research Questions
The initial phase consists of conducting a pilot search and defining the research questions guiding the review. The literature search was carried out using the Watase Uake database—a journal indexing platform linked to Scopus—employing predetermined keywords listed in Table 1. The search strategy involved the use of specific search strings designed to retrieve articles pertinent to the study's focus. Selection criteria were based on article titles and keywords to ensure relevance.

The overarching objective of this search was to address the central research question regarding the trends, implementation, and implications of AI in accounting. To deepen the analysis, this main question was further divided into three sub-questions:

- SRQ 1: What are the current trends in artificial intelligence within accounting?
- SRQ 2: How is artificial intelligence implemented in accounting practices?
- SRQ 3: What are the implications of artificial intelligence adoption in accounting?

Investigating these sub-questions allows for a comprehensive exploration of the trends, underlying factors, and approaches to fraud detection and governance within the accounting domain.

Table 1. Search Protocol for Selected Literature Sources

Database	Article Section Searched	Keywords	Time Range
Watase Uake	Title, Keywords	Trends Artificial Intelligence in Accounting Implementation Artificial Intelligence in Accounting Implication Artificial Intelligence in Accounting	2014–2024

Phase 2: Locating Studies

In this phase, relevant studies were identified by searching appropriate academic databases. This research utilized a single database, Watase Uake, which offers comprehensive access to scholarly literature pertinent to the research questions. A standardized search protocol was applied uniformly across databases; for instance, searches within Watase Uake focused on article titles to ensure relevance. Watase.web.id is an online platform created to promote collaborative research among scholars. Established in 2018 and gaining wider engagement from university researchers since 2020, Watase supports collaborative studies by providing tools for conducting systematic literature reviews using PRISMA guidelines, simple meta-analyses, article categorization, and data visualization (Wahyudi, 2024).

Phase 3: Study Selection and Evaluation

This phase involved carefully selecting and assessing the articles retrieved during the previous stage. The goal was to ensure the inclusion of high-quality and relevant literature aligned with the research focus. Initially, 532 articles were identified through the search process. These were then screened based on predetermined inclusion and exclusion criteria.

The selection process involved three rounds of elimination:

1. **First elimination:** Removal of 111 duplicate articles found across two keyword searches.
2. **Second elimination:** Exclusion of 25 articles published outside the date range of 2014 to 2024.
3. **Third elimination:** Omission of 53 articles that were not classified within the Q1 to Q4 tiers in the Scopus database.

Following elimination, two additional filtering rounds were conducted:

- **First filtering:** Manual review and exclusion of 223 articles whose titles and abstracts did not meet the established criteria.
- **Second filtering:** Removal of 71 articles lacking accessible data.

Ultimately, 50 articles satisfied the selection criteria. However, after excluding 11 articles for various reasons, a final set of 39 articles was included for detailed analysis in this study.

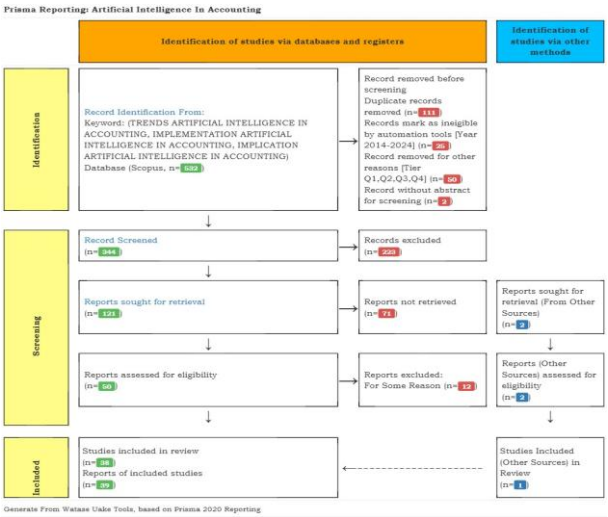

Figure 1. PRISMA Reporting: Artificial Intelligence in Accounting

Phase 4: Analysis and Synthesis
During this phase, the 39 selected studies were thoroughly examined, and relevant data were extracted and combined to uncover key factors and recurring themes concerning the trends, adoption, and effects of artificial intelligence within accounting. The goal was to gain insights into the progression of AI applications, how AI is being integrated into accounting practices, and the resulting consequences. Additionally, a bibliometric analysis was performed to track the evolution of research on this topic, focusing on aspects such as:

1. The volume of articles published over the past decade.
2. The distribution of articles across various academic journals and databases.
3. The geographical distribution of research contributions by country.

Phase 5: Reporting Results
The study's findings were presented using a combination of tables, statistical summaries, and narrative discussions, adopting a method consistent with that of Pontoh et al. (2024). This involved a transparent description of the search strategy, criteria for inclusion and exclusion, study selection process, quality assessment, data extraction, and synthesis of results. The outcomes were then systematically documented in scientific publications and detailed reports, providing a comprehensive overview of the current trends, implementation practices, and implications of AI in the accounting field.

Table 2. Article Classification

No.	Topic / Keyword	Researcher Name (Year)
1.	Trends Artificial Intelligence in Accounting	(Rabbani, 2024), (Rautiainen et al., 2024), (Anriva, 2024), (Kumar et al., 2023), (Yi et al., 2023), (Grosu et al., 2023), (Vărzaru et al., 2022), (Cai, 2022), (Atayah & Alshater, 2021), (Shaffer et al., 2020), (Demchak, 2019)
2.	Implementation Artificial Intelligence in Accounting	(Pantea et al., 2024), (Almaqtari, 2024), (Butler & Brooks, 2024), (Yi et al., 2023), (Yang & Yin, 2023), (Vărzaru, 2022), (Jia et al., 2022), (Coman et al., 2022), (Ping, 2021), (Mökander & Floridi, 2021), (Chen, 2021), (Dhamija & Bag, 2020), (Qasim & Kharbat, 2020)
3.	Implication Artificial Intelligence in Accounting	(Abu Afifa et al., 2024), (Kureljusic & Karger, 2024), (Rabbani, 2024), (Ahmad et al., 2024), (Arnold et al., 2023), (Fülöp et al., 2023), (Faulconbridge et al., 2023a), (Dumitru et al., 2023), (Peng et al., 2023), (Lehner et al., 2022), (Leitner-Hanetseder et al., 2021), (Gambhir & Bhattacharjee, 2021), (Losbichler & Lehner, 2021), (Shaffer et al., 2020), (Munoko et al., 2020a), (Frank et al., 2019)

Article Classification Based on Keywords
As shown in Table 2, the reviewed articles are grouped into three categories according to their main topics or keywords. Out of the total, 11 articles concentrate on exploring trends in artificial intelligence within accounting. Meanwhile, 12 articles focus on the practical implementation of AI in accounting processes. The largest group, comprising 16 articles, discusses the implications of AI in the accounting profession. This distribution suggests that the implications of AI have attracted the greatest scholarly attention.

Bibliometric Analysis
The bibliometric analysis investigates research trends and the development of the topic over time, illustrated through visual representations of article distribution by year, country, and journal database for publications spanning 2014 to 2024. The number of scientific articles published on AI trends, applications, and implications in accounting fluctuates yearly, with periods of both growth and decline in publication volume. Research productivity reflects the contributions made by individual researchers or institutions, commonly assessed by the number and quality of publications produced.

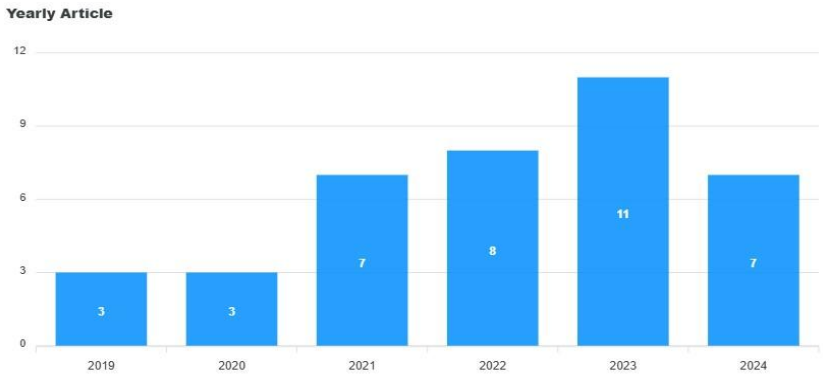

Figure 2. Distribution Graph by Year of Publication

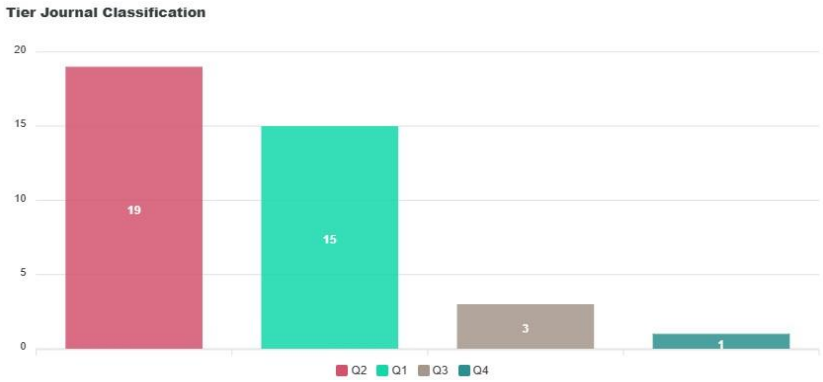

Figure 3. Distribution by Article Tier Classification

An analysis of the 39 selected articles indicates that publication activity began to increase notably in 2021, rising from 3 articles in the 2019–2020 period to 7 articles. This upward trend continued in 2022 with 8 articles published. According to Figure 3, research output reached its highest point in 2023, with a total of 11 articles. Data for 2024 already accounts for 7 publications, with the likelihood of more forthcoming. It is expected that the number of articles focusing on the trends, implementation, and implications of artificial intelligence in accounting will exceed the 2023 figures in both 2024 and 2025, thereby further expanding the body of knowledge in this area.

According to Figure 5, which illustrates the distribution of articles based on Scopus indexing tiers, 19 of the articles included in this study are classified as Q1, 15 fall under Q2, 3 are in Q3, and 1 is categorized as Q4. This distribution indicates that the majority of research in this field is published in top-tier (Q1) journals. This emphasizes the significant academic interest and dedicated efforts toward advancing and sharing knowledge on the trends, implementation, and implications of artificial intelligence in accounting.

Publication Development on AI in Accounting

Figure 6 illustrates the publication trends related to artificial intelligence in accounting, highlighting contributions from ten different countries over the past decade. China and Romania lead with five articles each, followed by the United Kingdom, Finland, the United States, Australia, Indonesia, and Saudi Arabia, each contributing one article. This distribution reflects the global spread of research interest across Europe, America, Asia, and Australia.

SRQ 1: Trends in Artificial Intelligence in Accounting

Digitalization and evolving regulations have reshaped the accountant's role at OP Financial Group in Finland. Accountants, referred to as "controllers," are adapting to challenges from robotic automation and AI, operating within agile, cross-functional teams. They are required to acquire new competencies, such as data analytics and IT knowledge, supported by continuous professional development. Their

responsibilities now extend beyond traditional accounting to strategic business partnership roles, emphasizing adaptability to maintain relevance in the digital era (Rautiainen et al., 2024).

Emerging technologies like blockchain, AI, and cloud computing are revolutionizing accounting, auditing, and reporting by improving efficiency, reducing errors, and increasing transparency. However, their integration poses challenges including skill gaps, infrastructural limitations, and cybersecurity concerns. Areas such as FinTech, cloud data security, ESG reporting, and regulatory compliance are pivotal to overcoming these challenges and sustaining the profession's relevance (Rabbani, 2024).

Accounting Information Systems (AIS) research has garnered global attention, with significant contributions from the U.S. and Indonesia. Critical topics include technology acceptance models, AI, big data, and AIS implementation in SMEs. Enhanced research investment and international partnerships could elevate Indonesia's role in AIS development worldwide (Anriva, 2024).

Studies on accountants' attitudes towards digitalization reveal that training readiness varies depending on perceptions of digital tools, organizational culture, and regulatory environment. Younger accountants tend to embrace digital technologies more readily, while experienced professionals recognize associated challenges. Educational reforms and ongoing training are essential to mitigate risks in regulation and cybersecurity (Grosu et al., 2023).

AI applications in accounting and finance cover financial report analysis, fraud detection, credit risk evaluation, and portfolio management. Despite challenges such as complex data handling and subjective judgments, AI techniques improve efficiency and predictive accuracy, showing transformative potential though requiring further research to address limitations (Yi et al., 2023).

Over the next decade, the accounting profession is anticipated to transform significantly as AI adoption grows. Accountants will shift from purely data-focused roles to specialized advisory functions, particularly in AI integration for clients. Successful transformation depends on organizational support for retraining and overcoming resistance to change (Shaffer et al., 2020).

Universities have started embedding IT, data analytics, cybersecurity, and database management into accounting curricula. Innovations like private cloud platforms for IT education aim to better align graduates' skills with industry needs (Cai, 2022).

Digital transformation is vital for organizational competitiveness, leveraging AI, blockchain, big data, and cloud computing to enhance financial management, marketing, and decision-making. Each technology plays a specific role—AI for automation, cloud computing for accessibility, and blockchain for security and transparency. These advances boost efficiency, trust, and reputation but require careful integration to maximize benefits (Demchak, 2019; Vărzaru et al., 2022). In taxation, technologies like big data, AI, and blockchain help detect noncompliance and reduce tax avoidance but raise ethical concerns regarding privacy and data security (Atayah & Alshater, 2021).

SRQ 2: Implementation of Artificial Intelligence in Accounting

AI, big data, cloud computing, and deep learning have enhanced efficiency and decision-making in accounting and auditing, improving financial reporting and audit accuracy. Effective IT governance aligns AI technologies with business strategies, managing complexity and facilitating cultural change and training. Issues like data quality, bias, and compliance challenges are mitigated through robust governance frameworks (Almaqtari, 2024).

Digital technologies improve managerial effectiveness and strategic decision-making, though their adoption may be constrained by limited resources. Strategic planning is essential to harness these

technologies for sustainable competitive advantages. Investments in digital transformation correlate with higher organizational performance (Pantea et al., 2024).

Traditional reactive risk management has proven insufficient, as highlighted by cases like Credit Suisse. AI-powered "Risk Accounting" offers transparent risk assessment, enhances accountability, and promotes cultural shifts through improved incentives and clarity (Butler & Brooks, 2024).

Blockchain provides secure, transparent transaction records, while IoT supplies real-time data to support more precise decisions. The integration of these technologies enhances audit reliability, accelerates transaction processing, lowers operational costs, and modernizes accounting information systems (Yang & Yin, 2023).

Digitization has improved communication among economic agents and real-time access to information, influenced by internal factors such as organizational culture and structure, and external factors like telecommunications infrastructure and government e-services (Coman et al., 2022).

The rise of shared service centers for accounting in large firms is driven by increased IT capabilities and entrepreneurial innovation, supported by capital investments in infrastructure and skilled personnel. These centers centralize budgeting, financing, investment, and working capital management, offering accurate, timely data to stakeholders (Chen, 2021).

Ethical auditing frameworks are critical to bridging principles and practice in AI, improving decision quality, user trust, and regulatory compliance. Such frameworks must be sustainable, integrated into AI system design from the outset, and holistic (Mökander & Floridi, 2021).

AI-driven financial decision support systems have significantly enhanced corporate financial management by providing precise analyses and timely decisions. While long used in management accounting, AI's rapid evolution opens new opportunities but also presents challenges such as operational costs and limited decision support, which are addressed through multi-layered AI integration frameworks (Dhamija & Bag, 2020; Vărzaru, 2022; Jia et al., 2022).

XBRL technology facilitates financial data exchange and supports management accounting efficiency, requiring cooperation among management, accountants, and software developers. Despite years of use, its potential remains underutilized, indicating the need for ongoing research and development (Ping, 2021).

The accounting role has evolved from record-keeping to data analysis for decision-making, necessitating integration of AI, blockchain, and robotic process automation into curricula to prepare graduates for a digitalized environment. Blockchain secures accounting data, big data analytics detect anomalies, and AI automates auditing tasks (Qasim & Kharbat, 2020).

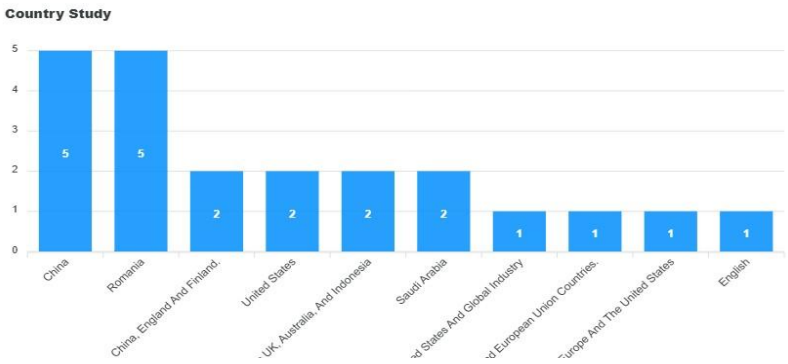

Figure 4. Article Distribution by Country

SRQ 3: Implications of Artificial Intelligence in Accounting

AI adoption in accounting and auditing, supported by technologies like deep learning, big data analytics, and cloud computing, has enhanced accuracy and operational efficiency in countries such as Saudi Arabia and Vietnam. These technologies aid data-driven decision-making and align with national initiatives like Saudi Vision 2030 and Vietnam's modernization efforts. Leadership that fosters innovation and empowers employees is pivotal in driving AI adoption (Abu Afifa et al., 2024; Ahmad et al., 2024).

Knowledge-based AI systems can assist novice accountants in gaining expertise while mitigating deskilling risks from automation (Arnold et al., 2023). AI has proven effective in fraud detection, financial analysis, and bankruptcy prediction but faces challenges in integration and user acceptance (Kureljusic & Karger, 2024).

While AI may reduce certain job roles, it also creates opportunities for collaboration between accountants and technology. Addressing ethical concerns like data privacy and accountability is essential (Faulconbridge et al., 2023a; Rawashdeh, 2023).

Robotic Process Automation enhances sustainability reporting and data efficiency via AI-driven ERP systems, though issues such as cost and skills shortages remain (Dumitru et al., 2023). AI supports Sustainable Development Goals by promoting innovation, economic growth, and institutional capacity but requires multidisciplinary approaches for ethical adoption (Fülöp et al., 2023; Peng et al., 2023).

Although AI automates routine tasks, it is expected to augment rather than replace accounting professionals, creating new roles and increasing demand for skilled workers capable of interpreting AI outputs. Human-AI collaboration will be central, with organizations needing to ensure ethical implementation to foster innovation and productivity. The future accounting workforce will emphasize interdisciplinary collaboration, flexibility, and digital literacy (Gambhir & Bhattacharjee, 2021; Leitner-Hanetseder et al., 2021).

Despite data's growing importance as a strategic asset, current IFRS standards lack frameworks for recognizing and valuing such intangible assets, leading to discrepancies between book and market values. Proposed models such as FAIIBD address data recognition, valuation, and governance to close this gap (Leitner-Hanetseder et al., 2021).

Complexity and system theory highlight AI limitations, including fundamental constraints like the Bremermann limit, partial system control, and biases in human-machine information processing (Losbichler & Lehner, 2021). While AI enhances efficiency and competitiveness, ethical challenges emerge from conflicting stakeholder interests, emphasizing the need for collaborative governance and forward-looking ethical evaluations to prevent adverse impacts (Frank et al., 2019; Munoko et al., 2020).

3. Conclusion

The digital transformation alongside regulatory shifts has reshaped the role of management accountants at OP Financial Group in Finland, demanding greater adaptability and proficiency in emerging skills like data analytics and information technology. Today, accountants not only carry out traditional responsibilities but also serve as strategic business partners. Innovations such as blockchain, artificial intelligence (AI), and cloud computing have contributed to enhanced efficiency, reduced errors, and improved transparency of data. Nonetheless, these advancements introduce new challenges, including the need for skill development, infrastructure limitations, and cybersecurity concerns.

Research worldwide highlights the growing importance of Accounting Information Systems (AIS) in evolving the accounting profession, with notable research contributions from countries including the United States and Indonesia. While younger accountants tend to embrace digital technologies

enthusiastically, more experienced professionals often approach the challenges with greater caution. Despite AI's promising applications in accounting and finance, its widespread adoption still faces significant obstacles.

Looking ahead, the accounting field is poised for profound changes over the next decade, with those integrating technologies like AI expected to excel. Continuous professional development and updates to academic programs are crucial to facilitate this shift. At the organizational level, digital tools have become essential competitive assets, enhancing operational efficiency, reliability, and reputation. In the realm of taxation, advanced technologies aid governments in curbing tax evasion and improving compliance, although this progress must be balanced with ethical concerns such as privacy and data protection.

Technologies including AI, big data, cloud services, and blockchain have contributed substantially to improving accuracy and efficiency in accounting, auditing, and financial decision-making. Effective digital transformation, however, requires robust IT governance to mitigate challenges related to data integrity, bias, and regulatory adherence. While the adoption of these innovations supports competitive advantage, risk management, and reporting quality, resource constraints remain a limiting factor. Collaborative efforts among stakeholders and educational reforms are necessary to maximize benefits and sustain organizational competitiveness.

AI's integration into accounting, finance, and auditing has driven improvements in productivity, accuracy, and innovation through tools like deep learning and cloud computing. It fosters data-driven decision-making and supports digital transformation initiatives. Nonetheless, barriers such as workforce resistance, skill shortages, and ethical dilemmas persist. AI holds the potential to enhance human productivity by fostering collaboration between humans and machines, generating new job roles focused on technology-driven tasks. To fully capitalize on these opportunities, professionals must continuously update their technical and analytical competencies. Ethical AI deployment, backed by coordinated stakeholder collaboration, is vital to effectively address issues of privacy, bias, and governance. Ultimately, AI is revolutionizing accounting practices and inspiring new frameworks for strategic data management, underscoring the need for a multidisciplinary approach to ensure its responsible and sustainable implementation.

References

[1] M. M. Abu Afifa, T. H. Nguyen, M. T. T. Le, L. Nguyen, and T. T. H. Tran, "Accounting going digital: a Vietnamese experimental study on artificial intelligence in accounting," *VINE J. Inf. Knowl. Manag. Syst.*, 2024. [Online]. Available: https://doi.org/10.1108/VJIKMS-10-2023-

[2] E. Brynjolfsson and A. McAfee, *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. New York, NY, USA: W. W. Norton & Company, 2014.

[3] T. Butler and R. Brooks, "Time for a paradigm change: Problems with the financial industry's approach to operational risk," *Risk Anal.*, vol. 44, pp. 1285–1304, 2024. [Online]. Available: https://doi.org/10.1111/risa.14240

[4] C. Cai, "Training mode of innovative accounting talents in colleges using artificial intelligence," *Mob. Inf. Syst.*, vol. 2022, 2022. [Online]. Available: https://doi.org/10.1155/2022/6516658

[5] Y. Chen, "Framework of the smart finance and accounting management model under the artificial intelligence perspective," *Mob. Inf. Syst.*, vol. 2021, 2021. [Online]. Available: https://doi.org/10.1155/2021/4295191

[6] Deloitte, *The Future of Audit: An Evolving Financial Reporting Ecosystem in Singapore*. Singapore: Deloitte Southeast Asia and NTU Singapore, 2021.

[7] C. C. Demchak, "China: Determined to dominate cyberspace and AI," *Bull. At. Sci.*, vol. 75, no. 3, pp. 99–104, 2019. [Online]. Available: https://doi.org/10.1080/00963402.2019.1604857

[8] D. Denyer and D. Tranfield, "Producing a systematic review," 2009.

[9] E. Juniardi, "Peran dan praktik artificial intelligence akuntansi: Systematic literature review," *J. Revenue*, vol. 4, no. 2, pp. 885–898, 2024.

[10] J. Faulconbridge, A. Sarwar, and M. Spring, "How professionals adapt to artificial intelligence: The role of intertwined boundary work," *J. Manag. Stud.*, pp. 1–34, 2023. [Online]. Available: https://doi.org/10.1111/joms.12936

[11] J. Faulconbridge, A. Sarwar, and M. Spring, "How professionals adapt to artificial intelligence: The role of intertwined boundary work," *J. Manag. Stud.*, pp. 1–34, 2023. [Online]. Available: https://doi.org/10.1111/joms.12936

[12] B. Gambhir and A. Bhattacharjee, "Embracing the role of artificial intelligence in accounting and finance: Contemplating the changing skillset expectations," *Dev. Learn. Organ.*, vol. 36, no. 1, pp. 17–20, 2021. [Online]. Available: https://doi.org/10.1108/DLO-01-2021-0016

[13] C. T. Horngren, G. L. Sundem, D. Burgstahler, and J. Schatzberg, *Introduction to Management Accounting*, 17th ed. Pearson, 2022.

[14] D. Jurafsky and J. H. Martin, *Speech and Language Processing: An Introduction to Natural Language Processing, Computational Linguistics, and Speech Recognition*, 2nd ed. Pearson, 2008. [Online]. Available: http://www.cs.colorado.edu/~martin/slp.html

[15] J. Kokina and T. H. Davenport, "The emergence of artificial intelligence: How automation is changing auditing," *J. Emerg. Technol. Account.*, vol. 14, no. 1, pp. 115–122, 2017. [Online]. Available: https://doi.org/10.2308/jeta-51730

[16] O. M. Lehner, K. Ittonen, H. Silvola, E. Ström, and A. Wührleitner, "Artificial intelligence based decision-making in accounting and auditing: Ethical challenges and normative thinking," *Account. Audit. Account. J.*, vol. 35, no. 9, pp. 109–135, 2022. [Online]. Available: https://doi.org/10.1108/AAAJ-09-2020-4934

[17] S. Leitner-Hanetseder, O. M. Lehner, C. Eisl, and C. Forstenlechner, "A profession in transition: Actors, tasks and roles in AI-based accounting," *J. Appl. Account. Res.*, vol. 22, no. 3, pp. 539–556, 2021. [Online]. Available: https://doi.org/10.1108/JAAR-10-2020-0201

[18] T. E. Marshall and S. L. Lambert, "Cloud-based intelligent accounting applications: Accounting task automation using IBM Watson cognitive computing," *J. Emerg. Technol. Account.*, vol. 15, no. 1, pp. 199–215, 2018. [Online]. Available: https://doi.org/10.2308/jeta-52095

[19] M. F. Pantea et al., "Optimizing Romanian managerial accounting practices through digital technologies: A resource-based and technology-deterministic approach to sustainable accounting," *Electronics*, vol. 13, no. 3206, pp. 1–20, 2024. [Online]. Available: https://doi.org/10.3390/electronics13163206

[20] Y. Peng et al., "Riding the waves of artificial intelligence in advancing accounting and its implications for sustainable development goals," *Sustainability*, vol. 15, no. 19, 2023. [Online]. Available: https://doi.org/10.3390/su151914165

[21] W. Ping, "Data mining and XBRL integration in management accounting information based on artificial intelligence," *J. Intell. Fuzzy Syst.*, vol. 40, no. 4, pp. 6755–6766, 2021. [Online]. Available: https://doi.org/10.3233/JIFS-189509

[22] A. Qasim and F. F. Kharbat, "Blockchain technology, business data analytics, and artificial intelligence: Use in the accounting profession and ideas for inclusion into the accounting curriculum," *J. Emerg. Technol. Account.*, vol. 17, no. 1, pp. 107–117, 2020. [Online]. Available: https://doi.org/10.2308/jeta-52649

[23] M. R. Rabbani, "Impact of digital advancements on accounting, auditing and reporting literature: Insights, practice implications and future research directions," *J. Account. Organ. Change*, 2024. [Online]. Available: https://doi.org/10.1108/JAOC-01-2024-0028

[24] K. J. Shaffer, C. J. Gaumer, and K. P. Bradley, "Artificial intelligence products reshape accounting: Time to re-train," *Dev. Learn. Organ.*, vol. 34, no. 6, pp. 41–43, 2020. [Online]. Available: https://doi.org/10.1108/DLO-10-2019-0242

[25] A. A. Vărzaru, "Assessing the impact of AI solutions' ethical issues on performance in managerial accounting," *Electronics*, vol. 11, no. 14, 2022. [Online]. Available: https://doi.org/10.3390/electronics11142221

[26] L. Vinet and A. Zhedanov, "A 'missing' family of classical orthogonal polynomials," *J. Phys. A Math. Theor.*, vol. 44, no. 8, 2011. [Online]. Available: https://doi.org/10.1088/1751-8113/44/8/085201
[27] L. Wahyudi, "Watase Uake: Research collaboration tools," 2024. [Online]. Available: https://www.watase.web.id/
[28] Y. Yang and Z. Yin, "Resilient supply chains to improve the integrity of accounting data in financial institutions worldwide using blockchain technology," *Int. J. Data Warehous. Min.*, vol. 19, no. 4, pp. 1–20, 2023. [Online]. Available: https://doi.org/10.4018/ijdwm.320648
[29] Z. Yi, X. Cao, Z. Chen, and S. Li, "Artificial intelligence in accounting and finance: Challenges and opportunities," *IEEE Access*, vol. 11, pp. 129100–129123, 2023. [Online]. Available: https://doi.org/10.1109/ACCESS.2023.3333389