Accountants vs. AI: Collaboration or Competition?

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Abstract: *The advent of Artificial Intelligence (AI) in Industry 4.0 and Society 5.0 automates routine accounting tasks via Robotic Process Automation (RPA), prompting debates on whether AI competes with or collaborates alongside accountants, unlike prior fragmented reviews. This study aims to analyze AI's role in Accounting Information Systems (AIS) as competitor or partner via Systematic Literature Review (SLR). SLR follows PRISMA 2020; population: articles from Scopus, SINTA, Google Scholar (2021-2026); sample: 18 purposive articles (41 initial to 18 final). Instrument: keyword protocol ("AI accounting", "human-AI collaboration"); analysis: interactive thematic (reduction, display, verification). Results show 67% studies favor collaboration (AI handles data, accountants focus strategically) with 60-80% efficiency gains, while 33% highlight competition in administrative roles. In conclusion, a human-AI hybrid "AIS Collaboration" framework optimizes outcomes, recommending AI curriculum and ethics training..*

How to Cite: Widanti Retno Palupi, Rina TjandraKirana DP.(2024). *Accountants vs. AI: Collaboration or Competition?*. *1*(3). pp. 205-211 https://doi.org/10.61536/escalate.v1i03.455

Introduction

Major changes in the way accounting works have occurred due to technological disruption during the Industrial Revolution 4.0 and Society 5.0. Technologies such as Artificial Intelligence (AI) and the Internet of Things (IoT) are being used to collect large amounts of data, enabling financial processes to be automated. This is evident in the use of Robotic Process Automation (RPA), which has reduced manual errors by up to 70%, as well as the implementation of ChatGPT in predictive analytics at an international accounting firm (**Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.**. Quick data shows AI adoption is increasing rapidly, with a 2024 KPMG survey recording that

72% of companies are already using AI in financial reporting. Gartner's 2024 predictions estimate that 99% of companies will implement AI within the next three years. Firms like Deloitte and PwC are also leveraging RPA for live audits (**Error! Reference source not found.Error! Reference source not found.**.

While there has been a lot of research on the use of AI in accounting, the results are mixed. Some suggest that AI could lead to job losses as routine tasks could be replaced by machines (**Error! Reference source not found.**, while others emphasize that AI can increase efficiency by working with humans (**Error! Reference source not found.**However, the lack of a systematic literature review that broadly maps this debate, especially in accredited national journals, leaves a gap in the overall understanding of the dynamics between competition and collaboration.

This study aims to identify, categorize, and summarize the main roles of AI technology in Accounting Information Systems (AIS) based on the latest academic studies, namely whether AI acts as a threat or as a partner. The uniqueness of this study is the creation of a new conceptual framework entitled "Collaboration" in AIS, which is based on a combination of various previous studies, and provides concrete directions in adapting the duties of the accounting profession in the digital age (**Error! Reference source not found.**.

Literature review
Disruptive Innovation Theory

The Disruptive Innovation Theory, developed by Clayton Christensen (1997), explains how new technologies such as AI enter the market by targeting smaller segments or simple jobs that are usually not given attention by large companies, then grow to the point where they can disrupt the position of these companies.

In accounting, AI was initially used to automate administrative tasks such as data entry, and this could change the role of traditional accountants if not updated, as explained in research on replacing manual processes with RPA (**Error! Reference source not found.Error! Reference source not found.**.

Research findings**Error! Reference source not found.**revealed that the use of artificial intelligence in accounting can maximize work efficiency by automating various repetitive tasks. As a result, the time spent recording transactions can be reduced by up to 50%. However, this use of AI also carries competitive risks, as it could lead to job cuts or replacements for accounting staff with simpler roles.

Meanwhile,**Error! Reference source not found.**found that AI can improve AIS by reducing human errors by up to 70%, although this also creates a skills gap that could potentially disrupt the work of traditional accountants.

***Task-Technology Fit*(TTF)**

According to the Task-Technology Fit (TTF) framework, proposed by Goodhue and Thompson (1995), the success of technology in supporting work depends on the extent to which the technology's features match the needs of the task. In the field of accounting, artificial intelligence such as Machine Learning (ML) is suitable for tasks that require large volumes of work such as analyzing data, while humans are better at assessing matters related to ethics. This combination of human and machine work can improve overall work output without completely replacing human roles, as explained in several studies related to the synergy between humans and machines (**Error! Reference source not found.Error! Reference source not found.**. Study**Error! Reference source not found.**revealed that the use of artificial intelligence can optimize efficiency in routine activities such as internal audits by up to 60%. However, this requires accountants to develop new skills to collaborate with AI, shifting the role of accountants to that of strategic advisors. On the other hand,**Error! Reference source not found.**found that simple AI applications like Robotic Process Automation (RPA) can reduce administrative time by up to 80%, but there are major challenges such as opacity and bias. Therefore, the TTF emphasizes the importance of maintaining a balance between technology and human work to avoid over-reliance on technology.

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Resource-Based View(RBV)

According to the Resource-Based View (RBV) framework, proposed by Jay Barney (1991), AI and accounting are considered unique strategic resources that are difficult for others to replicate. The combination of AI and accounting can create long-term competitive advantages due to their ability to make accurate predictions and understand context well.

In accounting applications, the RBV supports approaches that incorporate AI to improve efficiency in managing data, while accountants add value by using knowledge that is not explicitly written down, as described in several studies on professional change (**Error! Reference source not found.Error! Reference source not found.**.

Research findings**Error! Reference source not found.**explained that incorporating artificial intelligence into accounting can improve the quality of data analysis by up to 75%. However, the role of accountants remains crucial in assessing ethical aspects and in creating competitive advantage by leveraging a combination of technology and human resources.

Meanwhile,**Error! Reference source not found.**found that the role of accountants is shifting from manual work to a more strategic one. This digital skill enhancement has increased organizational competitiveness by up to 60%, further reinforcing the RBV's role as an appropriate framework for combining AI as an intangible asset with human expertise.

Accounting Information System (AIS)

Accounting Information System (AIS) is a technology framework that integrates the collection, processing, and reporting of financial data to support the strategic decision-making process, with the evolution from manual systems to cloud-based platforms and AI that enable real-time analysis and predictions, as explained in the literature on digital transformation of accounting (**Error! Reference source not found.**
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Artificial Intelligence(AI)

Artificial Intelligence(AI) in accounting is defined as technology that mimics human intelligence to automate complex tasks, such as financial anomaly detection and risk prediction, where AI improves efficiency without completely replacing human judgment (**Error! Reference source not found.Error! Reference source not found.**.

Table 1. Previous Research

Writer	Findings
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(+) positive effect, (-) negative effect

Research methods

This study uses a Systematic Literature Review (SLR) as a qualitative synthetic research method to integrate findings from studies related to the impact of AI on the accounting profession, following

the PRISMA 2020 guidelines that emphasize transparency and reproducibility in the selection and synthesis of literatur (Sugiyono, 2021) The SLR approach was chosen because it is descriptive-interpretive, allowing for an in-depth exploration of the competition versus collaboration debate between AI and accounting through thematic analysis of peer-reviewed articles, as recommended for systematic literature reviews in education and management (Creswell & Poth, 2021)(Sudaryono, 2023).

The main instrument is the SLR search protocol that includes keywords such as "artificial intelligence accounting", "AI accounting profession", and "human-AI collaboration accounting" in the Scopus, Google Scholar, and SINTA databases, equipped with inclusion criteria (articles 2021-2026, peer-reviewed, English/Indonesian, accounting focus) and exclusion criteria (proceedings, non-full text). (Emzir, 2022) The data analysis technique adopted the interactive thematic model of Miles et al. adapted for SLR, including data reduction (screening duplicates/irrelevances), thematic display (table of competition/collaboration themes), and verification through source triangulation and implicit member-checking via article quality (Sugiyono, 2021)(Emzir, 2022)

The study population consisted of all scientific articles indexed in Scopus (Q1-Q2: 2 articles), SINTA 2-5 (total 11), and Google Scholar (5 articles) relevant to the topic of AI in AIS from 2021-2026, with an estimated potential of thousands of articles. [Sudaryono, 2023] A purposive sample of 18 articles was selected after PRISMA screening: 41 initial identification, 32 after de-duplicate, 22 after full-text, and a final 18 high-quality articles based on relevance, strong methodology, and impact (e.g., Ambarita et al., 2026; Bahar, 2025) (Creswell & Poth, 2021).

The research procedure follows an input-process-output cycle: preparation (PRISMA protocol formulation, keyword validation), implementation (2-month search from October to November 2025, phased screening), and output (thematic analysis, SIA collaboration conceptual framework). (Sudaryono, 2023)(Sugiyono, 2021) alidity is maintained through database triangulation, persistence in review, and PRISMA diagram audit trail for transferability and confirmability, ensuring credible findings such as the dominance of collaboration themes from 12/18 studies (Emzir, 2022)(Creswell & Poth, 2021)

Figure 1. PRISMA Flowchart

Results and Discussion
Competition Aspect (Disruptive Innovation Perspective)
Studies have shown that AI is beginning to take over administrative tasks such as data entry, creating simple financial reports, and balancing bank accounts. This suggests that this technology is transforming the role of traditional accounting workers by automating processes that are often repetitive and prone to human error. AI provides greater efficiency and lower costs, as demonstrated in research on the use of RPA, which helps reduce reliance on manual work (**Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.**.

Analysis of articles supporting the view that AI is disrupting the role of traditional accountants includes research **Error! Reference source not found.**which discusses competition, conflict, or

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cooperation, with a focus on the risks of routine tasks being replaced by chatbots and algorithms. In addition,**Error! Reference source not found.**also highlighted the challenges posed by automation in shifting the role of accountants. Meanwhile,**Error! Reference source not found.**And**Error! Reference source not found.**confirmed this through a systematic literature review that showed the shift from manual work to technology, which is detrimental to accountants who cannot adapt to a reduction of up to 40% in administrative tasks (**Error! Reference source not found.Error! Reference source not found.**.

Collaboration Aspect (Task - Technology Fit Perspective)

Research on Augmented Intelligence shows that AI acts as a complement to human intelligence. This technology enhances the ability to analyze large amounts of data, while accountants provide business context and ethical considerations. This combination creates a collaborative effort that improves audit and decision accuracy by up to 60%, as described in research on the integration of AI with the strategic role of accountants (**Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.**.

New roles for accountants emerging in the research include data advisors who combine an understanding of AI with business strategy, forensic auditors who use AI to conduct deeper investigations, and ethical management of algorithms to ensure transparency and fairness.**Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.**. There is also a summary comparing traditional accounting tasks such as manual recording and data matching (which are replaced by AI with efficiency reaching 80%) with tasks in the AI era such as predictive analysis and ethical consultation (which are enhanced through collaboration between humans and AI), based on research that emphasizes the use of hybrid models to achieve the highest productivity (**Error! Reference source not found. Error! Reference source not found.Error! Reference source not found.**.

Future Skills

Discussions of future skills in the literature emphasize the importance of accountants understanding big data to analyze financial patterns generated by AI, critical thinking skills to evaluate bias in algorithms and ensure the accuracy of results, and strong communication skills to explain complex information to stakeholders. These skills are considered essential for effective collaboration. Some authors also suggest that ongoing training can increase readiness by up to 70% (**Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.**)(**Error! Reference source not found.**.

Conclusion

The main findings of a systematic literature review of 18 articles from 2021-2026 indicate that Artificial Intelligence does not completely replace accountants, but rather encourages synergistic collaboration in Accounting Information Systems. Twelve studies, or 67 percent, emphasize the collaboration perspective through Task-Technology Fit and Resource-Based View, where AI automates routine tasks such as data entry and reconciliation with up to 80 percent efficiency through Robotic Process Automation, while accountants shift to strategic roles such as predictive analytics, forensic audits, and algorithm ethics management. Disruptive competition is dominant in only six studies, or 33 percent, primarily for low-skilled administrative jobs, with time reductions of up to 50 to 70 percent but the risk of unemployment for those who are not adaptive. The proposed "AIS Collaboration" conceptual framework integrates Disruptive Innovation, TTF, and RBV theories for a human-AI hybrid model that improves decision accuracy by 60 to 75 percent.

However, limitations of the study include a focus on literature from 2021–2026 from Scopus, SINTA, and Google Scholar, which may have missed non-peer-reviewed or non-English and Indonesian studies. Furthermore, it relied on qualitative thematic analysis without quantitative metrics such as meta-analysis. Practical implications include recommendations for accounting universities to integrate AI, data analytics, and digital ethics curricula to prepare graduates as strategic advisors; firms like Deloitte are advised to adopt continuous training to increase future skills competency by up to 70 percent. Suggestions for further research include longitudinal empirical studies in Indonesia using mixed

methods, multinational comparisons, or a focus on AI bias and ethical regulation to validate the collaboration framework more broadly.

Bibliography

Abdo-Salloum, A. M., & Chehade, S. (2026). The role of artificial intelligence in transforming accounting and auditing practices: A systematic review. *SAGE Open*, *16*(1), 1–13. https://doi.org/10.1177/21582440251403296

Abdullah, A. R., Indra, W., Mooduto, S., Hartoyo, A., Umi, T., Hulopi, K., Bina, U., & Gorontalo, M. (2025). Akuntansi dan artificial intelligence: Tinjauan literatur yang komprehensif. *Journal of Innovative and Creativity*, *5*(2).

Ambarita, D. C., Manullang, E. J. R., Trinadia, W., & Darma, J. (2025). Perubahan peran akuntan di era artificial intelligence: Kajian literatur sistematis. *Jurnal Pendidikan Akuntansi dan Keuangan*, *12*(2), 112–128.

Bahar, A. (2025). Dampak kecerdasan buatan pada profesi akuntan. *Indo-Fintech Intellectuals: Journal of Economics and Business*, *5*(4), 7239–7248. https://doi.org/10.54373/ifijeb.v5i4.4392

Christensen, C. M. (1997). *The innovator's dilemma: When new technologies cause great firms to fail*. Harvard Business School Press.

Cosăcescu, L. (2023). The certified accountant and artificial intelligence – Competition, antagonism or partnership? *CECCAR Business Review*, *4*(10), 1–9. https://doi.org/10.37945/cbr.2023.10.01

Creswell, J. W., & Poth, C. N. (2021). *Qualitative inquiry and research design: Choosing among five approaches* (5th ed.). SAGE Publications.

Emzir. (2022). *Metode penelitian kualitatif: Analisis data kualitatif*. Rajawali Pers.

Faridani, M. R., & Aliah, N. (2025). Transforming accounting through artificial intelligence: A systematic literature review of opportunities, challenges, and ethical imperatives. *Proceedings of 2nd International Conference on Islamic Community Studies (ICICS)*, 677–696.

Goodhue, D. L., & Thompson, R. L. (1995). Task-technology fit and individual performance. *MIS Quarterly*, *19*(2), 213–236. https://doi.org/10.2307/249689

Hasan, A. R. (2022). Artificial intelligence (AI) in accounting & auditing: A literature review. *Open Journal of Business and Management*, *10*(1), 440–465. https://doi.org/10.4236/ojbm.2022.101026

Hermina, S. C., Kesuma, S. A., Nasution, F. N., & Erwin, K. (2026). A systematic literature review on ethics and artificial intelligence in the world of business and accounting (2024-2025). *Akua: Jurnal Akuntansi dan Keuangan*, *5*(1), 192–197. https://doi.org/10.54259/akua.v5i1.6006

Kokina, J., Blanchette, S., Davenport, T. H., & Pachamanova, D. (2025). Challenges and opportunities for artificial intelligence in auditing: Evidence from the field. *International Journal of Accounting Information Systems*, *56*, Article 100734. https://doi.org/10.1016/j.accinf.2025.100734

Opoku, P., Konadu Owusu, K., Gomashie, F., & Salifu, A. (2025). Embracing the future: How artificial intelligence is shaping the work of accountants at the University of Professional Studies, Accra. *International Journal of Research and Innovation in Applied Science*, *10*(3), 389–405. https://doi.org/10.51584/IJRIAS.2025.10030030

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., . . . Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, *372*, n71. https://doi.org/10.1136/bmj.n71

Patricia, C., & Putri, A. M. (2025). Pengaruh artificial intelligence terhadap sistem informasi akuntansi. *Jurnal Ekonomika dan Bisnis (JEBS)*, *5*(1), 359–364. https://doi.org/10.47233/jebs.v5i1.2648

Perwiro, E. O., Kaltsum, I. M., Wijaya, M. K., Bagus Arshanjaya Bhuana, & Ramadhan, Y. (2025). Etika profesi akuntan dalam menghadapi disrupsi teknologi dan artificial intelligence (AI). *RIGGS: Journal of Artificial Intelligence and Digital Business*, *4*(4), 3268–3277. https://doi.org/10.31004/riggs.v4i4.4148

Rahmawati, M. I., & Subardjo, A. (2023). Teknologi artificial intelligence dan blockchain: Sebuah keniscayaan pada akuntan dan auditor. *Jurnal Ilmiah Akuntansi dan Keuangan (JIAKU)*, *2*(4),

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403–409. https://doi.org/10.24034/jiaku.v2i4.6355

Rosmiati, D. (2024). Dampak artificial intelligence terhadap bidang audit dan profesi auditor: Systematic literature review. *Akuntoteknologi: Jurnal Ilmiah Akuntansi dan Teknologi*, *16*(2), 1–12. https://doi.org/10.31253/aktek.v16i2.3453

Safarah, N., Aji, G., Negeri Abdurrahman Wahid Pekalongan Jl Pahlawan Km, I. K., Pekalongan, K., & Tengah, J. (2025). The role of artificial intelligence in modern accounting: A systematic literature review. *Finance, and Accounting Research*, *1*(1), 48–65.

Septiyanti, R. D., Wany, E., & Prayitno, B. (2025). Peran akuntan, integrasi inovasi artificial intelligence (AI) dan internet of things (IoT) dalam menghadapi digitalisasi ekonomi menjelang era society 5.0. *Jurnal Ekonomi dan Bisnis*, *6*(1), 11.

Sugiyono. (2021). *Metode penelitian kuantitatif, kualitatif, R&D*. Alfabeta.

Sudaryono. (2023). *Metode penelitian pendidikan*. Pustaka Pelajar.

Yusuf, M. F. M., Garusu, I. A., & Rauf, D. M. (2023). Integrasi teknologi artificial intelligence dalam sistem akuntansi modern. *Journal of Trends Economics and Accounting Research*, *4*(1), 230–234. https://doi.org/10.47065/jtear.v4i1.902