
Critical and Reflective Analysis of the Evolution of the Audit Process in the Digital Age

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Abstract:

Analysing the evolution of the audit process in the digital era, evaluating the implications of technology on methodology, quality, auditor competence, ethics, and the effectiveness of internal controls, with a focus on opportunities and challenges in developing countries. A Systematic Literature Review (SLR) of 29 articles (2015-2025) from Scopus, ScienceDirect, Publish and Pearish, and Google Scholar using thematic analysis to identify patterns, contradictions, and trends. Technologies such as AI, Big Data, Blockchain, RPA, and Continuous Auditing are transforming auditing into an automated, real-time, and predictive model, increasing efficiency and reducing costs. Risks include algorithmic bias, lagging regulations, and the need to transform the role of auditors into strategic advisors with digital competencies. Recommendations include strengthening auditor competencies through digital education, regulatory adaptation, and RPA implementation in developing countries to maintain audit relevance, improve governance, and stakeholder confidence in financial reporting. A multidimensional critical-reflective approach that integrates technology, profession, control, and ethics with a unique focus on the context of developing countries.

Keywords: Digital Audit, Audit Technology, Process Evolution, AI in Audit, Auditor Ethics.

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1. Introduction

In today's digital age, changes in information technology have brought profound transformations to many aspects of the auditing profession. The phenomenon of digitalisation, including the use of big data, artificial intelligence (AI), automation (RPA), *blockchain*, and the *Internet of Things* (IoT), has influenced the mechanisms of evidence collection, risk analysis, and continuous monitoring in the audit process. For example, Ruslaini Ruslaini et al. (2024) show that new technologies enable auditors to handle much larger volumes of data and increase the transparency of audit evidence. Meanwhile, Rahman et al. (2023) emphasise that challenges such as data privacy and lack of technological competence are real obstacles in the field.

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These changes mark a shift from traditional manual sampling-based auditing to auditing that is more population-based, real-time, and predictive in nature. Hind & Omar (2024) state in their research that the auditing profession must adapt not only technically but also in terms of competence and professionalism due to the emergence of digital elements in auditing. Thus, the audit process is no longer limited to retrospective and static activities but is moving towards *continuous auditing* and digital risk-based analysis.

This phenomenon is accompanied by increasing expectations from stakeholders that the audit function must be able to guarantee digital data integrity, cybersecurity, and IT governance in an increasingly complex environment. As literature studies mention, digital transformation in internal auditing also contributes to the creation of business value and improved financial reporting quality (Tharouma & Oudai, 2022). However, the adoption of this technology also brings new risks, such as vulnerability to big data, excessive automation without human supervision, and audit regulations and standards that have not fully adapted to the digital landscape.

A number of studies have conducted literature reviews or empirical analyses related to the digital audit process. For example, Bani et al. (2025) conducted *a systematic literature review* and identified AI, data analytics, blockchain, and RPA as the main innovations in digital auditing and revealed challenges such as infrastructure, organisational resistance, and regulations. Furthermore, Fitriani et al. (2025) examined the role of information technology in improving audit performance effectiveness in the digital era and highlighted the opportunities and challenges faced by digital auditors.

However, the literature review revealed several gaps. First, many studies emphasise the description of technological transformation in auditing (what has changed) rather than critical reflective analysis of the long-term implications for auditing methodology, audit quality control, and the role of auditors as strategic advisors. Second, the integration between technological aspects and auditor professionalism (competence, ethics, independence) has not been explored in depth. Third, research that combines a critical-reflective approach (rather than merely descriptive) to the evolution of the audit process in the digital age, particularly in the context of developing countries or Indonesia, is still relatively limited.

Based on these gaps, research can (1) conduct a critical and reflective analysis of the evolution of the audit process in the digital era, not merely describing the changes but evaluating how these changes affect audit methodology, audit quality, auditor competence, and the relevance of the audit function in modern organisational governance; (2) focus on a broader context, including the specific challenges and opportunities of countries or organisations undergoing digitalisation, thereby providing a more contextual empirical contribution; and (3) integrate a multi-dimensional perspective (technology × profession × control × ethics) into a single analytical framework, enabling a more holistic understanding of the evolution of the audit process in the digital age.

The urgency of this research is very high because with the rapid adoption of digital technology in business and finance, audit functions that do not adapt risk losing relevance, which in turn can reduce stakeholder confidence in financial reporting and internal control of the organisation. Secondly, digital transformation brings great opportunities for auditing to become more efficient, effective, and strategic so that if managed properly, it can improve audit quality and add value to the organisation (Tharouma & Oudai, 2022). Thirdly, in many developing countries such as Indonesia, obstacles such as limited IT infrastructure, immature auditor competencies, and non-adaptive regulations have prevented the digital audit function from reaching its full potential, making contextual research essential for providing practical recommendations.

The purpose of this study is to critically analyse how the audit process has evolved in the digital era, in terms of methodology, technology utilisation, and changes in the auditor's work environment. This study also aims to reflect on the implications of digital transformation on audit quality, professional competence, auditor ethics, and the effectiveness of an organisation's internal control system. In addition, this study seeks to identify various opportunities and challenges faced by the auditing profession in adapting to the rapid development of digital technology. Through a critical and reflective approach, this study is expected to develop a conceptual framework that can be used to understand, evaluate, and direct the transformation of the audit process in the future so that it remains relevant, adaptive, and competitive amid technological disruption.

2. Methodology

This study uses a *Systematic Literature Review* (SLR) approach to examine the evolution of the audit process in the digital era in depth. This method was chosen because it allows for the collection, evaluation, and synthesis of previous research results in a structured and accountable manner. The research process consists of three main stages: planning, conducting a literature review, and analysing and synthesising the findings.

The first stage is planning, in which researchers formulate the focus of the study based on the main research questions. This study explores how the audit process has changed in the digital era, as well as the implications of these changes for the audit profession, audit quality, and organisational governance.

The second stage is conducting a literature review through searches in academic databases such as Scopus, ScienceDirect, Emerald Insight, Publish and Pearish, and Google Scholar. The search covered articles published between 2015 and 2025 to capture the latest developments in audit digitalisation. From the initial search results of around 250 articles, a screening was conducted based on inclusion and exclusion criteria, resulting in 29 articles that were deemed relevant.

The third stage was the analysis and synthesis of findings, in which the selected articles were evaluated using thematic analysis. The synthesis was conducted

narratively to identify patterns, contradictions, and trends in the literature. This process also included a critical evaluation of gaps in previous research to determine the contribution of this study.

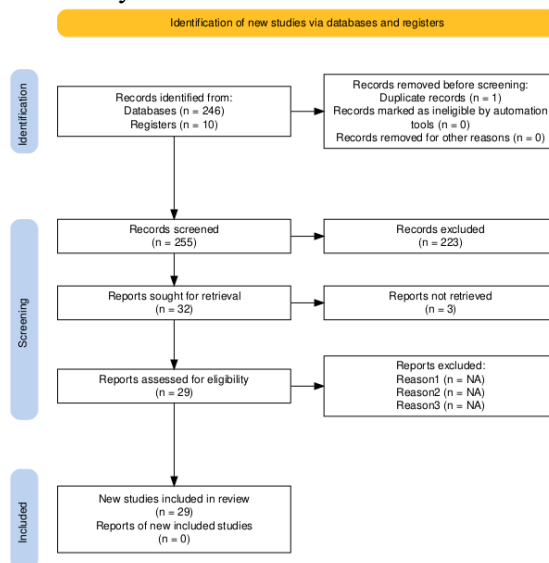


Figure 1. PRISMA Flow Diagram

3. Empirical Findings/Results and Discussion

Based on the Systematic Literature Review (SLR) process, this study analysed 29 relevant articles published between 2015 and 2025. The articles were obtained through systematic searches in academic databases such as Scopus, ScienceDirect, Publish & Pearish, and Google Scholar, focusing on the evolution of the audit process in the digital era. Article selection was based on inclusion criteria (reputable academic articles discussing audit technology, audit processes, and the implications of digitalisation) and exclusion criteria (non-academic articles or those not directly relevant to auditing). From more than 250 initial articles, 29 articles passed the screening after quality and relevance evaluation. Thematic analysis identified key patterns related to technological innovation, changes in auditor competencies, ethical challenges, and the impact on audit quality. These findings are presented narratively and reflectively, integrating multidimensional perspectives (technology, profession, control, and ethics) to answer the three main research questions.

Technological Evolution in the Audit Process

The analysis results show that digital technology has transformed the audit process from a traditional manual sampling-based approach to a more automated, real-time, and predictive model. Some of the key technologies that dominate the literature include Artificial Intelligence (AI), Big Data Analytics, Blockchain, Robotic Process Automation (RPA), and Continuous Auditing (CA).

1. Artificial Intelligence (AI) and Machine Learning (ML)

Several articles emphasise the role of AI in improving audit efficiency. For example, Leocádio et al. (2024) developed a conceptual framework for AI in auditing that shifts the auditor's role from retrospective examination to proactive real-time monitoring. Minkkinen et al. (2022) introduced the concept of Continuous Auditing of AI (CAAI), which enables automated auditing of AI systems. Hou (2025) reported a 69% reduction in audit processing time and an increase in anomaly detection from 45% to 74% through a dual-cycle AI framework for auditing natural resource assets. Sayal et al. (2025) highlight AI and ML in risk classification and anomaly detection, while Huang & Liu (2024) propose four innovative AI pathways in auditing, including data processing and approach transformation.

2. Big Data Analytics

This technology enables large-scale data analysis to improve audit quality. Hezam et al. (2023) synthesise literature showing Big Data's potential to reduce errors, increase transparency, and build stakeholder trust. Isa & Subramanian (2024) analyse Big Data's benefits in auditing, despite risks such as inadequate infrastructure. Vitali & Giuliani (2024) found that Big Data and AI enable auditors to focus on value-added activities, although auditor perceptions vary.

3. Blockchain and Related Technologies

Blockchain has emerged as a tool for sustainable auditing and data integrity. Devianto et al. (2025) explain how blockchain provides real-time access to immutable financial records, reducing manual tasks. Secinaro et al. (2021) use bibliometric analysis to reveal the impact of blockchain on accounting audits with a focus on multidisciplinary. Yawalkar et al. (2023) present a blockchain-based integrated identification system for audit automation. Gauthier & Brender (2021) highlight the incompatibility of audit standards with blockchain developments, while Ajili Ben Youssef et al. (2025) integrate a technology acceptance model for blockchain adoption intentions in Big Four firms.

4. Robotic Process Automation (RPA) and Other Technologies

RPA and cloud computing also contribute significantly. Patrício et al. (2025) developed an audit framework for RPA projects based on the technology lifecycle, ensuring accuracy and compliance. Raihan & Kurniawati (2025) demonstrated that the cloud improves efficiency through real-time data access and AI integration. Rus (2015) discussed database audit tools relevant to IT evolution in auditing.

Changes in the Role and Competencies of Auditors

The literature indicates that technological evolution requires the transformation of the auditor's role from a manual examiner to a digitally competent strategic advisor. Competencies such as IT literacy, ethics, and adaptability are key.

1. Transformation of the Auditor's Role

Leocádio et al. (2024) emphasise a shift towards proactive monitoring, while Minkkinen et al. (2022) integrate CA with AI for automated auditing. Vitali & Giuliani (2024) report that technologies such as RPA and AI are changing audit

organisational structures and recruitment patterns, with the potential to widen the gap between large and small firms. Matta & Chamoun (2025) found that auditors with high IT literacy are more adaptive, while Wiyantoro et al. (2025) show that empowering auditors and digital innovation improve the quality of e-audits.

2. Competencies and Digital Literacy

Mirwali Azizi et al. (2024) explore the impact of digital transformation on IT audits, highlighting global opportunities and challenges. Fotoh & Mugwira (2025) analysed Large Language Models (LLMs) in external audits, which assist with routine tasks but are weak in complex contexts. Abdullah & Almaqtari (2024) investigated the impact of AI and Industry 4.0 on audit practices, with variables such as technology acceptance influencing adoption.

3. Institutional Readiness

Anomah (2025) in a Ghana case study shows that e-Government readiness and institutional pressure predict AI adoption in public audit institutions in developing countries. Fang et al. (2025) find that business strategy and digitalisation influence audit efforts with alignment reducing risk.

Ethical, Regulatory, and Risk Challenges

Critical analysis identifies ethical and regulatory risks as major barriers to the evolution of digital auditing, including algorithmic bias, transparency, and standard inconsistencies.

1. Ethical Risks and Bias

Murikah et al. (2024) conducted a systematic review highlighting the ethical challenges of AI in auditing, such as algorithmic bias, accountability, and fairness. Fotoh & Mugwira (2025) emphasised the issues of objectivity, privacy, and auditor responsibility when using LLMs.

2. Regulation and Standards

Gauthier & Brender (2021) revealed the incompatibility of audit standards with blockchain, citing regulatory inertia as a problem. Henriques et al. (2023) introduced a forensic framework for auditing critical infrastructure, combining forensic analysis and compliance.

3. Other Risks

Faccia et al. (2022) compare permissioned and public blockchains to support open innovation in external auditing. Almaqtari et al. (2024) find that internal and external determinants influence the adoption of AI-based information auditing in developing countries.

Impact on Audit Quality and Organisational Governance

1. Quality Improvement

Lai (2025) in an empirical study in China found that AI adoption reduces audit costs and improves financial reporting quality, especially in non-state-owned enterprises. Martinez et al. (2025) developed an audit methodology for the Smart Readiness

Indicator, focusing on energy efficiency. Wiyantoro et al. (2025) demonstrated that sustainable digital innovation improves e-audit quality.

2. Governance Implications

Technologies such as blockchain and CA support data integrity and internal control. Devianto et al. (2025) emphasise the reduction of manual tasks and increased integrity. However, Fang et al. (2025) found that high digitalisation requires more audit effort if it is not aligned with business strategy.

Critical and Reflective Discussion

This study critically and reflectively answers three research questions by integrating multidimensional perspectives. First, the evolution of audit processes in the digital era has shifted methodologies from manual sampling to population-based and predictive analysis, improving audit quality through efficiency and transparency (as found in Hou, 2025, and Lai, 2025). However, reflectively, these changes pose the risk of reduced human oversight, which could threaten auditor independence and professional ethics. Digital competence is crucial, but gaps in developing countries such as Indonesia demonstrate the need for investment in education and infrastructure to keep auditing relevant in modern organisational governance.

Second, in the context of developing countries, specific challenges include limited IT infrastructure and regulations that are not yet adaptive (Abdullah & Almaqtari, 2024; Anomah, 2025). Opportunities such as increased efficiency through AI and blockchain can support transformation, but organisational resistance and ethical risks require a contextual approach (Murikah et al., 2024). Reflectively, this study reveals that without adaptation, auditing risks losing stakeholder trust, so practical recommendations such as an RPA-based audit framework (Patrício et al., 2025) can be applied to enhance competitiveness.

Third, the integration of multidimensional perspectives indicates that technology (AI, blockchain) must be balanced with the profession (auditor competencies), controls (sustainable audit systems), and ethics (transparency and accountability). Findings such as the conceptual framework by Leocádio et al. (2024) and the ethical analysis by Murikah et al. (2024) indicate the need for a holistic framework to address contradictions, such as increased efficiency versus the risk of bias. Reflectively, this evolution is not merely technical but a strategic transformation that requires balance to ensure audits remain competitive and ethical in the future.

Overall, this SLR identifies positive trends in the evolution of digital auditing, but with gaps in contextual and ethical research. The main contributions are the development of a multidimensional conceptual framework to guide auditing practices in the digital age with recommendations for adaptive regulation and competency strengthening.

4. Conclusions

This research, through a *Systematic Literature Review* (SLR) of 29 articles, has revealed the evolution of the audit process in the digital era as a profound transformation that goes beyond mere technical changes. Key findings indicate that technologies such as *Artificial Intelligence* (AI), *Big Data Analytics*, *Blockchain*, *Robotic Process Automation* (RPA), and *Continuous Auditing* (CA) have shifted auditing from a manual, sampling-based approach to a more automated, real-time, and predictive model. These changes improve audit efficiency, such as reducing processing time and audit costs, and strengthen data integrity through real-time, immutable access. However, this evolution also poses risks, including algorithmic bias, regulatory mismatches, and reduced human oversight that could threaten auditor ethics and independence.

The main contribution of this research lies in the development of a multidimensional conceptual framework that integrates technological, professional, control, and ethical aspects, providing a holistic understanding of the evolution of digital auditing. Theoretically, this framework fills a gap in the literature with a critical-reflective approach that evaluates long-term implications rather than merely describing phenomena. Practically, this research recommends strengthening auditor competencies through digital education, adapting audit regulations to new technologies, and implementing an RPA-based audit framework in the context of developing countries to maintain the relevance of auditing in modern organisational governance.

However, this research has limitations, such as the dominance of studies from Western contexts, which need to be complemented by local research. Further research is recommended to test the multidimensional framework through empirical studies in Asian countries, as well as to explore the impact of technologies such as the Internet of Things (IoT) on internal auditing. Thus, this research is expected to serve as a foundation for the auditing profession to adapt strategically amid digital disruption, ensuring that auditing remains a pillar of trust in financial reporting and organisational risk control.

References:

- Abdullah, A. A. H., & Almaqtari, F. A. (2024). The impact of artificial intelligence and Industry 4.0 on transforming accounting and auditing practices. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(1). <https://doi.org/10.1016/j.joitmc.2024.100218>
- Ajili Ben Youssef, W., Bouebdallah, N., & EL Bouhali, M. (2025). Blockchain technology adoption intention among the Big Four audit firms. *British Accounting Review*. <https://doi.org/10.1016/j.bar.2025.101692>
- Almaqtari, F. A., Farhan, N. H. S., Al-Hattami, H. M., Elsheikh, T., & Al-dalaïen, B. O. A. (2024). The impact of artificial intelligence on information audit usage: Evidence from developing countries. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(2). <https://doi.org/10.1016/j.joitmc.2024.100298>

- Anomah, S. (2025). Assessing the institutional readiness and capacity for AI adoption in public audit institutions in developing countries: evidence from Ghana. *Telematics and Informatics Reports*, 20. <https://doi.org/10.1016/j.teler.2025.100260>
- Bani, P., Siregar, N., Subiyanto, B., & Teruna Awaludin, D. (n.d.). *Digital Transformation in the Audit Process: A Systematic Review of Innovation, Challenges, and its Impact on Audit Quality* (Vol. 05, Issue 03).
- Devianto, H., Mediaty, M., & Junus, A. (2025). *A New Era of Audit by Blockchain Technology: Continuous Auditing* (pp. 849–874). https://doi.org/10.2991/978-94-6463-758-8_72
- Faccia, A., Pandey, V., & Banga, C. (2022). Is Permissioned Blockchain the Key to Support the External Audit Shift to Entirely Open Innovation Paradigm? *Journal of Open Innovation: Technology, Market, and Complexity*, 8(2). <https://doi.org/10.3390/joitmc8020085>
- Fang, Q., Wang, Z., & Dang, L. (2025). Audit effort in the digital era: Uncovering the dynamic interplay of business strategy and digital transformation. *International Journal of Accounting Information Systems*, 56. <https://doi.org/10.1016/j.accinf.2025.100747>
- Fitriani, F., Inryani, F., & Masyhuri. (2025). Literature Study: Analysis of the Role of Audit Information Technology in Improving Audit Performance Effectiveness in the Digital Era (Opportunities and Challenges). *JoSES: Journal of Sharia Economics Scholar*, 2(5), 105–112. <https://doi.org/10.5281/zenodo.15489024>
- Fotoh, L. E., & Mugwira, T. (2025). Exploring Large Language Models in external audits: Implications and ethical considerations. *International Journal of Accounting Information Systems*, 56. <https://doi.org/10.1016/j.accinf.2025.100748>
- Gauthier, M. P., & Brender, N. (2021). How do the current auditing standards fit the emergent use of blockchain? *Managerial Auditing Journal*, 36(3), 365–385. <https://doi.org/10.1108/MAJ-12-2019-2513>
- Henriques, J., Caldeira, F., Cruz, T., & Simões, P. (2023). A forensics and compliance auditing framework for critical infrastructure protection. *International Journal of Critical Infrastructure Protection*, 42. <https://doi.org/10.1016/j.ijcip.2023.100613>
- Hezam, Y. A. A., Anthonysamy, L., & Suppiah, S. D. K. (2023). Big Data Analytics and Auditing: A Review and Synthesis of Literature. In *Emerging Science Journal* (Vol. 7, Issue 2, pp. 629–642). Ital Publication. <https://doi.org/10.28991/ESJ-2023-07-02-023>
- Hind, L., & Omar, T. (n.d.). *Adapting to the Digital Era: Transformations in the audit profession and the emergence of new skills. S'adapter à l'ère numérique: Transformations dans le métier d'audit et émergence de nouvelles compétences*. <https://doi.org/10.5281/zenodo.10676759>
- Hou, J. (2025). A Study on Enhancing the Audit Efficiency of Natural Resource Asset Management Using Artificial Intelligence. *Information Resources Management Journal*, 38(1). <https://doi.org/10.4018/IRMJ.387648>
- Huang, L., & Liu, D. (2024). Towards Intelligent Auditing: Exploring the Future of Artificial Intelligence in Auditing. *Procedia Computer Science*, 247(C), 654–663. <https://doi.org/10.1016/j.procs.2024.10.079>

- Isa, H., & Subramanian, U. (2024). The Impact of Big Data in Auditing. *Procedia Computer Science*, 238, 841–848. <https://doi.org/10.1016/j.procs.2024.06.101>
- Lai, J. (2025). Artificial intelligence applications and audit fees: An empirical study. *International Review of Economics and Finance*, 103. <https://doi.org/10.1016/j.iref.2025.104421>
- Leocádio, D., Malheiro, L., & Reis, J. (2024). Artificial Intelligence in Auditing: A Conceptual Framework for Auditing Practices. In *Administrative Sciences* (Vol. 14, Issue 10). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/admsci14100238>
- Martinez, L., Klitou, T., Olschewski, D., Melero, P. C., & Fokaides, P. A. (2025). Advancing building intelligence: Developing and implementing standardised Smart Readiness Indicator (SRI) on-site audit procedure. *Energy*, 316. <https://doi.org/10.1016/j.energy.2025.134538>
- Matta, J., & Chamoun, E. (2025). Exploring auditor adaptability in the digital era through levels of expertise: The role of IT literacy. *Digital Business*, 5(2). <https://doi.org/10.1016/j.digbus.2025.100126>
- Minkinen, M., Laine, J., & Mäntymäki, M. (2022). Continuous Auditing of Artificial Intelligence: a Conceptualisation and Assessment of Tools and Frameworks. *Digital Society*, 1(3). <https://doi.org/10.1007/s44206-022-00022-2>
- Mirwali Azizi, Hakimi, M., Frishta Amiri, & Amir Kror Shahidzay. (2024). The Role of IT (Information Technology) Audit in Digital Transformation: Opportunities and Challenges. *Open Access Indonesia Journal of Social Sciences*, 7(2), 1473–1482. <https://doi.org/10.37275/oaijs.v7i2.230>
- Murikah, W., Nthenge, J. K., & Musyoka, F. M. (2024). Bias and ethics of AI systems applied in auditing - A systematic review. *Scientific African*, 25. <https://doi.org/10.1016/j.sciaf.2024.e02281>
- Patrício, L., Silva, J., Costa, C., Varela, L., Silveira, Z., & Cruz-Cunha, M. M. (2025). Audit framework for control Robotic Process Automation projects. *Procedia Computer Science*, 256, 685–695. <https://doi.org/10.1016/j.procs.2025.02.168>
- Rahman, M., Ming, T. H., Baigh, T. A., & Sarker, M. (2023). Adoption of artificial intelligence in banking services: an empirical analysis. *International Journal of Emerging Markets*, 18(10), 4270–4300. <https://doi.org/10.1108/IJOEM-06-2020-0724>
- Raihan, M., & Kurniawati, H. (2025). Transformation of External Auditors in Audit Practices Through the Use of Cloud Technology. *International Journal of Cloud Applications and Computing*, 15(1). <https://doi.org/10.4018/IJCAC.381895>
- Rus, I. (2015). Technologies and Methods for Auditing Databases. *Procedia Economics and Finance*, 26, 991–999. [https://doi.org/10.1016/s2212-5671\(15\)00921-1](https://doi.org/10.1016/s2212-5671(15)00921-1)
- Ruslaini Ruslaini, Ngadi Permana, & Yessica Amelia. (2024). Modernisation of Audit Process: Utilisation of Technology on Evaluation of Audit Evidence. *Indonesian Economic Review*, 4(1), 01–13. <https://doi.org/10.53787/iconv.v4i1.34>
- Sayal, A., Johri, A., Chaithra, N., Alhumoudi, H., & Alatawi, Z. (2025). Optimising audit processes through open innovation: Leveraging emerging technologies for enhanced accuracy and efficiency. *Journal of Open Innovation:*

- Technology, Market, and Complexity*, 11(3).
<https://doi.org/10.1016/j.joitmc.2025.100573>
- Secinaro, S., Dal Mas, F., Brescia, V., & Calandra, D. (2021). Blockchain in the accounting, auditing and accountability fields: a bibliometric and coding analysis. *Accounting, Auditing and Accountability Journal*, 35(9), 168–203.
<https://doi.org/10.1108/AAAJ-10-2020-4987>
- Tharouma, S., & Oudai, M. (2022). A Review of the Literature on Internal Audit in the Era of Digital Transformation. *Finance and Business Economics Review*, 6(4), 215–225. <https://doi.org/10.58205/fber.v6i4.123>
- Vitali, S., & Giuliani, M. (2024). Emerging digital technologies and auditing firms: Opportunities and challenges. *International Journal of Accounting Information Systems*, 53. <https://doi.org/10.1016/j.accinf.2024.100676>
- Wiyantoro, L. S., Yan, C., & Liu, Y. (2025). How does sustainable audit digital explain the relationship between auditor empowerment and e-audit quality? *Sustainable Futures*, 10. <https://doi.org/10.1016/j.sftr.2025.101229>
- Yawalkar, P. M., Paithankar, D. N., Pabale, A. R., Kolhe, R. V., & William, P. (2023). Integrated identity and auditing management using blockchain mechanism. *Measurement: Sensors*, 27. <https://doi.org/10.1016/j.measen.2023.100732>