



Organizational Sustainability in the Era of Internal Auditing and Digital Accounting Information Systems

Irdi Agustin Kustiwi

Universitas 17 Agustus 1945 Surabaya, Indonesia

*Author correspondence: irdakustiwi@untag-sby.ac.id

Abstract. This research aims to examine the role of internal audit and digital-based accounting information systems in supporting organizational sustainability. The research approach uses a qualitative method with a literature study design. The research population includes international scientific articles that discuss internal auditing, digital accounting information systems, and sustainability, with a sample of Scopus Q1, Q2, Q3, and Q4 indexed articles and journals as well as reputable international journals. The data collection technique was carried out through a search of the Scopus and Google Scholar databases with publication inclusion criteria for the 2020–2025 period. The data analysis method uses thematic analysis and narrative synthesis to identify the relationship patterns, strategic roles, and contribution mechanisms of internal audit and digital accounting information systems to sustainability. The results of the study show that internal audits play a role in strengthening governance, risk management, and sustainable internal control, while digital accounting information systems improve the transparency, accuracy, and timeliness of financial information. The integration of the two strengthens data-driven decision-making and supports the achievement of economic, social, and environmental sustainability. The implications of this research provide a conceptual contribution to the development of a sustainability framework based on internal audit and accounting digitization and become a practical reference for organizations in designing sustainability-oriented control and reporting systems.

Keywords: Accounting Transparency; Digital Accounting Information; Internal Audit; Organizational Governance; Sustainability.

1. INTRODUCTION

Organizational sustainability is a strategic issue as the demands for accountability and transparency from stakeholders increase. Organizations are faced with the need to ensure sustainable economic performance without neglecting social and environmental aspects. Accounting practices and internal controls play an important role in answering these challenges (Elkington, 2020).

Digital transformation is driving significant changes in accounting information systems. The use of digital technology allows the presentation of financial information in real-time, accurate, and integrated. This condition improves the quality of reporting and supports sustainability-oriented strategic decision-making (Romney & Steinbart, 2021).

Internal audit evolved from a traditional oversight function to a strategic partner of management. The role of internal audit includes risk management evaluation, internal controls, and organizational governance. These contributions are considered relevant in ensuring sustainability through continuous business process supervision and compliance.

The integration of internal audits with digital accounting information systems strengthens the effectiveness of organizational controls. Digital systems provide reliable and traceable data, while internal audits ensure the quality and integrity of the information. This

synergy has the potential to increase transparency and accountability of organizations in a sustainable manner (Al-Shetwi et al., 2021) shown in Table 1.

Table 1. The Role of Internal Audit and Digital Accounting Information Systems on Sustainability.

Aspects	Audit Internal	Digital Accounting Information System	Contribution to Sustainability
Governance	Governance and compliance evaluation	Integrated data provision	Strengthening accountability
Risk management	Risk identification and mitigation	Real-Time Monitoring	Operational sustainability
Transparency	Assurance and independence	Digital reporting	Stakeholder trust

Source: Researcher, 2025

Various previous studies have highlighted the influence of internal audit on the quality of governance and organizational performance. Another study emphasizes the role of accounting digitization in improving the quality of financial statements. However, studies that integrate these two aspects in the context of sustainability are still limited (Appelbaum et al., 2020; Salehi et al., 2022).

The research gap can be seen in the unmapped simultaneous role of internal audit and digital accounting information systems in supporting sustainability. Most studies are still partial and focus on a single variable. This condition opens up space for a more comprehensive conceptual study based on reputable international literature.

The literature study approach was chosen to synthesize empirical and conceptual findings from various organizational contexts. The analysis of the Scopus Q1–Q4 article allows the mapping of trends, roles, and contribution mechanisms of internal audit and digital accounting information systems. This approach is relevant for building a conceptual framework for sustainability based on governance and digitalization.

This research is expected to make an academic and practical contribution. Academic contributions are in the form of enrichment of literature related to sustainability based on internal audits and digital accounting information systems. Practical contributions are intended for organizations in designing control and reporting systems that support long-term sustainability.

2. METHODOLOGY

Research Design

This study uses a qualitative method with a literature study design. Literature study design is a description of theories, findings, and other research materials obtained from references as the basis for conducting research (Sugiyono, 2018). This literature study contains reviews, summaries, and authors' thoughts on various literature sources (scientific articles, books, documents, and online information) that are relevant to the research topic. The literature reviewed must be up-to-date, relevant, and adequate to support the research objectives.

Research Approach

The implementation of this study used a scoping review approach. Various literature sources were collected with the aim of mapping the development of the role of internal audit and digital accounting information systems in supporting organizational sustainability. Article searches were conducted through the Google Scholar database and international journal databases in the period 2015–2025. Keywords used include internal audit, digital accounting information systems, and organizational sustainability.

The research population includes international scientific articles that discuss internal audits, digital accounting information systems, and sustainability. Samples are determined based on inclusion criteria that limit the number of articles to be relevant and adequate. These criteria include publication period, language, research subject, type of journal, availability of full text, and indexation of Scopus Q1–Q4 as well as international journals.

Table 2. Data Inclusion Criteria.

Criteria	Inclusions
Period	Maximum last 10 years (2015–2025)
Language	English and/or Indonesian
Subject	Internal audits, digital accounting information systems, and organizational sustainability
Journal Type	Original research articles (not reviews)
Text Availability	Full text / Open access
Indexation	Scopus Q1, Q2, Q3, Q4 and international journals

Source: Researcher, 2025

The data used is secondary data, namely data obtained from the results of previous research and scientific articles that have been scientifically tested. The data source consists of articles or journals indexed by Scopus Q1–Q4 as well as reputable international journals.

Data analysis is carried out through three main stages: 1) studying the content of the journal, 2) coding the content of the journal, and 3) synthesizing using the narrative method. The encoded data is analyzed to find similarities, differences, and patterns of relationships

between internal audits, digital accounting information systems, and organizational sustainability. The results of the analysis are then summarized in a table containing the author's name, year of publication, research title, method, and main findings. This synthesis is used to answer the research objectives as well as to develop a conceptual framework and hypothesis development.

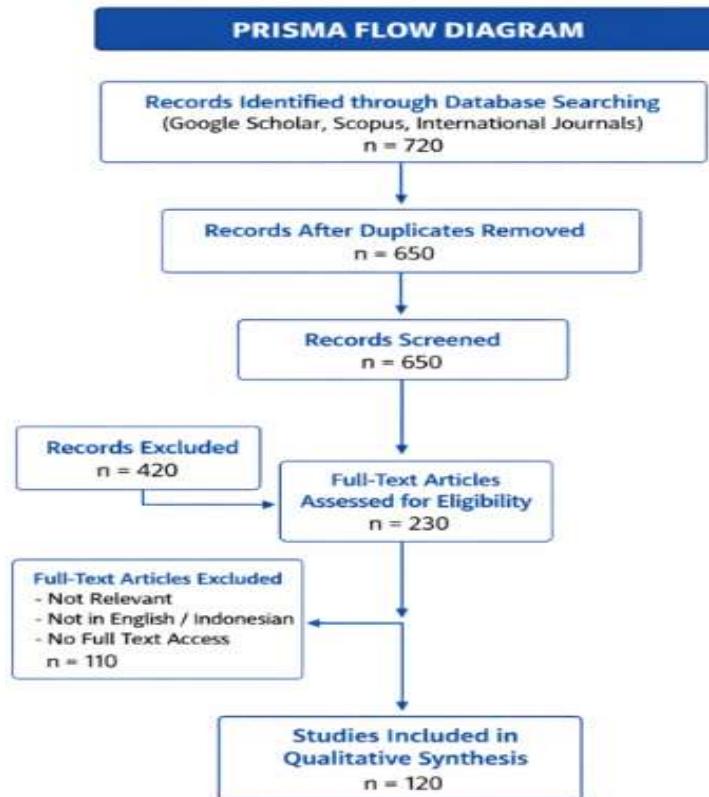


Figure 1. The PRISMA Flow Diagram.

This study employed a PRISMA-based scoping review to systematically identify, screen, and select relevant literature on internal audit, digital accounting information systems, and organizational sustainability. Articles were identified from Google Scholar, Scopus, and reputable international journals published between 2015 and 2025, followed by duplicate removal and title–abstract screening. Full-text articles were then assessed based on predefined inclusion criteria, including relevance, language, and full-text availability.

Key Findings and Trends

Internal Audit and Organizational Sustainability

The results of the literature review show that internal audit has a strategic role in supporting organizational sustainability. The internal audit function includes ongoing governance evaluation, risk management, and internal controls. Internal audit improves organizational accountability by providing assurance on business processes and regulatory

compliance (IIA, 2020; Messner, 2013).

Internal audits also play a role in mitigating long-term risks that can disrupt sustainability. Continuous monitoring allows organizations to conduct early risk identification and sustainability-oriented improvement recommendations (Koopmans et al., 2017; Thevanes and Dirojan, 2018). Thus, internal audits not only maintain compliance, but it is also a strategic mechanism to promote economic, social, and environmental sustainability.

Table 3. Synthesis of the Role of Internal Audit on Sustainability.

Author	Research Focus	Key Findings
Messner (2013)	Governance and sustainability	Internal audits strengthen organizational control and accountability
Koopmans et al. (2017)	Effectiveness of internal audits	Internal audit has a positive effect on performance and governance
Stuart & Stuart (2018)	Internal audit and risk	Internal audits help mitigate strategic risks for sustainability
IIA (2020)	Professional standards of internal audit	Internal audits ensure the integrity, accuracy, and compliance of the organization

Source: Researcher, 2025

Digital Accounting Information System and Sustainability

Literature review shows that digital accounting information systems contribute significantly to the transparency and quality of organizational information. Digital systems enable real-time, integrated, and accurate data processing, thus supporting data-driven decision-making (Romney & Steinbart, 2021; Salehi et al., 2022).

Organizations that utilize digital accounting information systems have better ability to monitor economic and non-financial performance on an ongoing basis. Digitization of accounting helps reduce recording errors, improve the accuracy of financial statements, and support transparent sustainability reporting (Appelbaum et al., 2020; Al-Shetwi et al., 2021).

Table 4. Synthesis of the Role of Digital Accounting Information Systems on Sustainability.

Author	Research Focus	Key Findings
Romney & Steinbart (2021)	Accounting Information System	Digitalization improves reporting accuracy and efficiency
Salehi et al. (2022)	Digital accounting & sustainability	Digitalization supports sustainable decision-making
Appelbaum et al. (2020)	Big data and audits	Digital systems strengthen transparency and accountability

Source: Researcher, 2025

Integration of Internal Audit and Digital Accounting Information Systems

The results of the study show that the integration between internal audits and digital accounting information systems improves the effectiveness of organizational control and supports sustainability. Digital systems provide accurate and traceable data, while internal audits verify data quality, reliability, and compliance. This integration allows for more effective practices of continuous auditing and early warning systems (Al-Shetwi et al., 2021; Thevanes and Dirojan, 2018).

The literature shows that organizations that implement this integration are able to improve data-driven decision-making, reduce the risk of errors or fraud, and support the simultaneous achievement of economic, social, and environmental sustainability. The integration of internal audits and digital accounting information systems is a key mechanism for organizations to build sustainability-oriented governance.

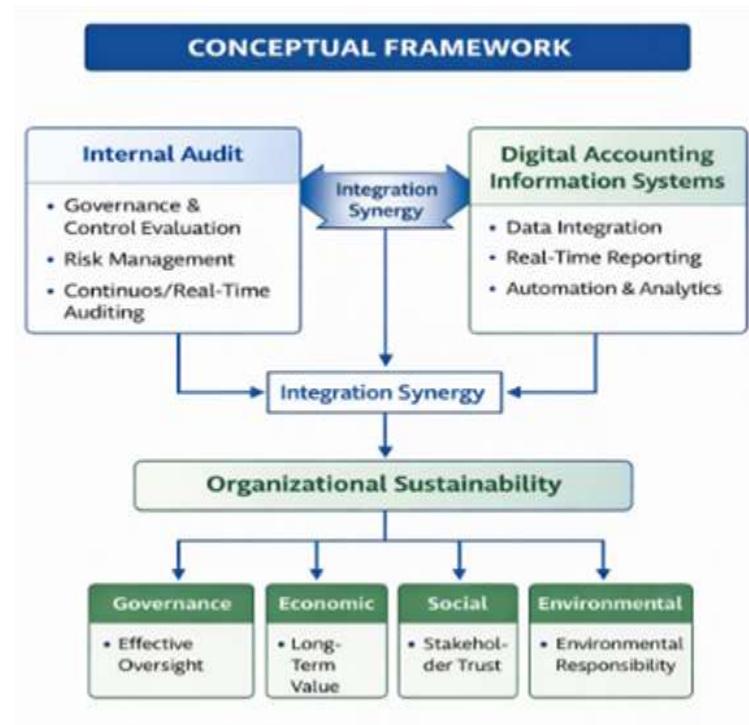


Figure 2. Conceptual Framework.

The conceptual framework illustrates that internal audit and digital accounting information systems act as key enablers of organizational sustainability through an integration synergy. Internal audit contributes by strengthening governance, risk management, and continuous auditing, while digital accounting information systems provide integrated, real-time, and accurate data to support transparency and analytics. The synergy between these two functions enhances the effectiveness of control and decision-making processes. As a result, organizations are better positioned to achieve sustainable governance and long-term economic, social, and environmental performance.

Differences and Debate

The literature shows contrasting views on the role of internal audit in supporting sustainability. Some scholars perceive internal audit as mainly compliance-oriented, with limited strategic impact on sustainability initiatives. In contrast, other studies emphasize its transformation into a value-adding function that strengthens governance, risk management, and long-term sustainability. This difference reflects varying levels of audit maturity and organizational support.

Similar debates arise regarding digital accounting information systems. While many studies highlight their ability to enhance transparency, real-time reporting, and sustainability-oriented decision-making, others argue that technology alone is insufficient without strong governance, user competence, and ethical controls. Moreover, scholars debate whether sustainability outcomes are driven primarily by technological capabilities or by institutional and human factors such as audit quality, management commitment, and organizational culture. These perspectives suggest that sustainability emerges from the interaction of digital systems, internal audit effectiveness, and organizational context.

Gaps and Literature

The existing literature widely acknowledges the individual roles of internal audit in strengthening governance and risk management and of digital accounting information systems in enhancing transparency and reporting quality for sustainability. However, significant gaps remain, particularly the lack of integrative empirical studies that simultaneously examine the synergistic effects of internal audit and digital accounting information systems on organizational sustainability. Most prior studies adopt a partial perspective, focusing on a single variable, specific industry, or short-term performance outcomes, thereby limiting comprehensive understanding. In addition, the literature is still dominated by conceptual reviews, with limited longitudinal and cross-country evidence, and insufficient exploration of advanced digital technologies such as artificial intelligence, continuous auditing, and ESG-based reporting frameworks. These gaps indicate the need for more robust empirical models and multi-dimensional sustainability measures to advance theory and practice in sustainability-oriented accounting and auditing research.

Future Research Directions

Future research should move beyond conceptual and literature-based approaches by conducting empirical studies to test the causal relationships between internal audit effectiveness, digital accounting information systems, and organizational sustainability outcomes across different sectors and organizational sizes. Further studies are encouraged to incorporate quantitative methods, mixed-method designs, or longitudinal data to capture dynamic impacts over time, as well as to integrate emerging technologies such as artificial intelligence, big data analytics, and continuous auditing in sustainability governance frameworks. Additionally, expanding sustainability indicators to include ESG performance, regulatory compliance, and stakeholder trust will enrich the robustness of findings and provide more practical insights for policymakers and practitioners in designing sustainability-oriented audit and digital accounting systems.

3. CONCLUSIONS

This research shows that internal audits and digital accounting information systems have a strategic role in supporting organizational sustainability. Internal audits contribute through strengthening governance, internal controls, and ongoing risk management, while digital accounting information systems improve the transparency, accuracy, and timeliness of financial information. The integration of the two creates more effective oversight mechanisms and supports data-driven decision-making, allowing organizations to achieve economic, social, and environmental sustainability simultaneously.

This literature review makes a conceptual contribution to the development of a sustainability framework based on accounting governance and digitization. The results show that there are gaps in empirical studies related to the integration of internal audits and digital accounting information systems in the context of sustainability, so that future research can focus on empirical testing and the application of more specific models to various organizational sectors. The limitation of this study lies in the use of secondary data that only comes from Scopus Q1–Q4 indexed scientific articles and international journals, so it is possible that there are other relevant literature that has not yet been reached.

REFERENCE

Amoako, G. K., Bawuah, J., Asafo-Adjei, E., & Ayimbire, C. (2023). Internal audit functions and sustainability audits: Insights from manufacturing firms. *Cogent Business & Management*, 10, 2192313. <https://doi.org/10.1080/23311975.2023.2192313>

Arwani, A., Sandi, P. F., & Rahmatika, D. N. (2024). Literature review: Internal audit 5.0: Navigating the digital era with artificial intelligence-based transformation and the Internet of Things. *Journal of Research in Business Management and Accounting*, 2(3), 66–93. <https://doi.org/10.61132/rimba.v2i3.1038>

Azah Tul Muazah, A., Sumarni, A., & Rahmatika, D. N. (2024). The importance of internal audits and technology implementation to prevent fraud in the era of digital transformation. *MUQADDIMAH: Journal of Economics, Management, Accounting and Business*, 2(3), 154–168. <https://doi.org/10.59246/muqaddimah.v2i3.933>

Fatimah, R. N., & Jefri, R. (2024). Digital transformation of internal audit: Increasing effectiveness and efficiency through accounting information systems. *Jupiter: Journal of Management, Accounting, and Economics*, 10(9), 51–60. <https://doi.org/10.8734/musytari.v10i9.7283>

Hanifah, A. M., Kuntadi, C., & Pramukty, R. (2023). Literature review: The influence of internal control systems, the role of internal audit, and management's commitment to good corporate governance. *Journal of Economics*, 2(6), 1318–1330. <https://doi.org/10.55681/economina.v2i6.605>

Harseno, D. F. (2025). Integration of ESG in audit practice: A systematic literature review of the role of auditors in sustainability accountability. *Performance: Journal of Economics and Management*, 22(2).

Institute of Internal Auditors. (2020). *International standards for the professional practice of internal auditing*. IIA Global.

Koopmans, R., Berghout, E., & Driessen, J. (2017). Internal audit effectiveness and organizational performance: A systematic review. *Accounting, Auditing & Accountability Journal*, 30(6), 1241–1266. <https://doi.org/10.1108/AAAJ-08-2015-2166>

Kustiwi, I. A. (2025). Factors influencing the adoption of digital accounting in MSMEs in the era of digital transformation. *JEA17: Jurnal Ekonomi Akuntansi*, 10(2), 41–51.

Kustiwi, I. A., Trihastuti, A., & Calosa, K. G. (2025). Madura batik MSMEs in digital business accounting, risk audit, and transparency. *Proceedings of the International Conference on Economics, Business, Management and Accounting (ICOEMA)*, 4(1), 1139–1151. <https://conference.untag-sby.ac.id/index.php/icoema/article/view/5692>

Lan, T. T. P., Khue, D. H. N., & Van, T. H. (2025). Internal audit and accounting information security in listed companies: Enhancing governance for sustainable development goals. *Journal of Lifestyle and SDGs Review*, 5(4), e05846. <https://doi.org/10.47172/2965-730X.SDGsReview.v5.n04.pe05846>

Messner, M. (2013). Accounting, control and sustainability: A critical review. *Critical Perspectives on Accounting*, 24(7–8), 455–467. <https://doi.org/10.1016/j.cpa.2012.06.003>

Rahman, A. R. (2024). Literature review: The influence of the role of internal audit, internal control system and management audit on good corporate governance (GCG) in SOEs

in Indonesia. *JEMSI (Journal of Economics, Management, and Accounting)*, 10(5), 2985–2992. <https://doi.org/10.35870/jemsi.v10i5.3074>

Romney, M. B., & Steinbart, P. J. (2021). *Accounting information systems* (14th ed.). Pearson.

Salehi, M., Nejati, M., & Shafiei, R. (2022). Digital accounting and sustainable organizational performance: Evidence from emerging markets. *Sustainability Accounting, Management and Policy Journal*, 13(2), 243–265. <https://doi.org/10.1108/SAMPJ-03-2020-0064>

Suwandi, E. D., & Syarifudin, A. (2025). The impact of digital transformation on internal audit, risk management, and controls: A literature review. *Journal of Economics and Business (JEBS)*, 5(1), 1–13. <https://doi.org/10.47233/jebs.v5i1.2565>

Wulandari, D., & Sisdianto, E. (2024). Analysis of the role of internal audit and digital internal audit in efforts to prevent accounting fraud. *Tax Accounting and Digital Economy Policy*, 1(2), 97–119.