

THE ROLE OF SUSTAINABILITY AUDIT IN PROVIDING ASSURANCE ON THE VALIDITY AND ACCOUNTABILITY OF ESG DISCLOSURE

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ABSTRACT

This study aims to analyze the role of sustainability audit in providing assurance on the validity and accountability of Environmental, Social, and Governance (ESG) disclosure. The research employs a Systematic Literature Review (SLR) approach by examining 30 articles published between 2015 and 2025 from databases such as Scopus, ScienceDirect, SpringerLink, and MDPI. The selection process was conducted using Covidence, with inclusion criteria focusing on peer-reviewed articles related to sustainability audit and ESG assurance. The findings reveal that sustainability audit plays a crucial role in enhancing the validity of ESG disclosures through independent verification of non-financial data and strengthening corporate accountability through external assurance mechanisms. However, its effectiveness is influenced by auditor quality and independence, the strength of regulatory frameworks and international standards, and the integration between internal and external audits. The study also identifies significant differences between assurance practices in developed and developing countries, where developing nations still face limitations in regulations and auditor competence. Overall, the results highlight that sustainability audit functions as a key governance mechanism that improves corporate credibility, transparency, and accountability in ESG reporting. The study recommends harmonizing assurance standards across countries and enhancing the capacity of sustainability auditors to ensure consistency, reliability, and quality of ESG reporting globally.

Key words: Sustainability Audit; ESG Assurance; Accountability; Corporate Governance; Transparency

INTRODUCTION

Over the past two decades, attention to sustainability has increased in line with growing demands for transparency and accountability. Companies are now evaluated not only based on financial performance but also on their environmental, social, and governance (ESG) responsibilities. Sustainability reporting has become a primary medium for communicating these commitments (Bosi et al., 2022). However, its credibility is often questioned since not all reports are independently verified, creating opportunities for greenwashing. Audited ESG reports, on the other hand, provide more consistent and reliable information (Gipper et al., 2025). Sustainability auditing has therefore emerged as a crucial mechanism to enhance the transparency of ESG reporting for stakeholders. Through assurance, independent parties assess the conformity of disclosed information with actual conditions and reporting standards (Dai, 2025). Assurance also strengthens perceptions of accuracy and corporate accountability (Harymawan et al., 2020), improves reporting integrity (Hazaea et al., 2022), reduces information risk (Zhang et al 2023) and enhances audit process efficiency (Reimsbach et al., 2018).

Despite these recognized benefits, the effectiveness of sustainability audits continues to face challenges, particularly related to auditor competence, standard diversity, and consistency of implementation across countries (Rusu, 2024). The limitations of prior studies reveal a gap in understanding how sustainability audits genuinely ensure the validity and accountability of ESG disclosures in both practice and theory. Therefore, this study aims to map empirical and conceptual evidence regarding the role of sustainability auditing in ensuring the validity and accountability of ESG reporting, thereby strengthening the theoretical foundation and policy recommendations for sustainability assurance in the future.

METHOD

This study employs a Systematic Literature Review (SLR) approach to identify, review, and synthesize research related to the role of sustainability audits in providing assurance on the validity and accountability of ESG disclosures. This method was chosen because it enables a comprehensive understanding of prior empirical findings (Snyder, 2019). Data were collected from scientific databases such as Scopus, ScienceDirect, SpringerLink, and MDPI for the publication period 2015–2025, ensuring the relevance and currency of the reviewed studies. The selection process was conducted using the Covidence software, which facilitates the stages of screening, data extraction, and quality assessment. The inclusion criteria comprised peer-reviewed articles focusing on sustainability audits and ESG assurance. From an initial pool of 75 articles, a total of 33 studies met the inclusion criteria and were analyzed based on their research characteristics, methodologies, and key findings

RESULTS AND DISCUSSION

Demographic Trend Analysis

Before examining the geographical distribution of the studies, it is important to understand that the geographic distribution of articles provides an overview of the research focus on sustainability auditing and ESG assurance across different countries or regions. This analysis helps identify the areas that have received the most research attention as well as the existing research gaps in certain regions. The distribution of regions and research focuses can be seen in Table 1.

Table 1. Regional Distribution and Research Focus

Region	Country	Main Focus	Studies
America	United States	ESG assurance regulations (SEC, CSRD, IFRS), voluntary audits, and the role of internal audit	Gipper et al. (2025); Center for Audit Quality (2024); Rao et al. (2025); IIA (2021)
Europe	Italy	The role of external assurance in enhancing legitimacy and the quality of ESG reports	Pizzi et al., (2024)
	Germany & Austria	The impact of audit and internal auditors on ESG reporting and CSRD implementation; sustainability assurance under CSRD	Grommes (2025); Eulerich et al. (2022) ; Strakova et al (2025)
	Netherlands	Relationship between assurance, organizational legitimacy, and reporting transparency; impact of integrated reporting on investor decisions	de Leeuw & De Draaijer (2025) ; Canning et al (2019) ; Reimsbach et al (2018)
	Finland, Sweden, Norway	External audit quality and its effect on valuation and ESG performance	Vaihekoski & Yahya, (2025)
	Spain	Assurance quality, ESG media legitimacy, and board reputation	Emma et al. (2024)
Asia	China	ESG assurance, audit fees, financing, and labor structure	Li & Meng, (2025) ; Bu et al. (2024); Dai (2025); Cheng & Gao (2025); Zhang et al. (2023); Zahid et al.(2024)
	Indonesia	ESG audit and assurance, report quality, risk, and governance	Arfiansyah et al., 2024); Larassati et al. (2024); Nuraini & Amrulloh (2024)
	Malaysia	Bibliometric analysis of global ESG and sustainability reporting	Bosi et al., 2022
	India	Review and bibliometric analysis of global ESG research	Khamisu & Paluri (2024) K Oware & Moulya (2023)
	Jordan	Earnings management and ESG disclosure moderated by audit quality	Alharasis et al. (2025)
Africa	South Africa	Integration of ESG and decision-making	Emmanuel, (2025)
Oseania	Australia	Board characteristics and the selection of financial audit firms	Liu et al. (2025);
Cross Country	Global	Global assurance trends, internal audit transformation, and ESG integration into strategic decision-making	Hazaea et al., 2022) ; Gavriel Faith Nangoy et al., (2024)

(Source: Processed from 30 articles)

Based on Table 1, which discusses the relationship between ESG, auditing, and sustainability reporting, research generally focuses on the role of audit and assurance in enhancing the credibility of ESG reports, the impact of ESG performance on audit costs and quality, and the effects of new regulations such as the CSRD and ISSB. Europe and Asia dominate the studies, while global research highlights trends and future directions in the development of sustainability assurance.

Sustainability Audit as a Mechanism for Ensuring the Validity of ESG Disclosure

The literature findings show that the presence of sustainability assurance has been proven to strengthen the validity of ESG disclosures, as it provides independent verification of non-financial data that are often difficult to measure. Various empirical studies indicate that audited ESG reports produce more consistent and reliable information (Gipper et al., 2025; Nuraini & Amrulloh, 2024).

This phenomenon occurs because assurance compels companies to make methodological adjustments in ESG data collection to align with standards such as ISAE 3000 or AA1000AS (Gavriel Faith Nangoy et al., 2024). In other words, sustainability audits encourage companies to enhance the integrity of their internal reporting systems. However, such validity is not automatic. Grommes (2025) and Gavriel Faith Nangoy et al (2024) found that a high level of assurance does not always guarantee report quality, especially when the assurance provider lacks substantive competence in sustainability issues. This means that the validity of ESG disclosure is only achieved when assurance is conducted by independent parties with a deep understanding of ESG risks, rather than as a mere symbolic compliance effort (“symbolic assurance”).

This tendency explains why companies in countries with strict regulations such as the European Union and the United States have shown significant improvements in ESG report quality following the implementation of mandatory assurance (Strakova et al., 2025; CAQ, 2024). Conversely, developing countries such as Indonesia continue to face challenges due to limited regulations and auditor capacity (Larassati et al., 2024).

Sustainability Audit and the Accountability of ESG Disclosure

From the accountability perspective, sustainability auditing serves as an external accountability mechanism that deters manipulative practices and strengthens stakeholder trust. Several empirical studies have shown that the presence of ESG audits or assurance can reduce earnings management and greenwashing (Rao et al., 2025 ; Bu et al., 2024). This occurs because the ESG audit process shifts organizational behavior from merely symbolic reporting to risk-based and performance-oriented reporting. When ESG reports are verified by independent parties, reputational risk increases if discrepancies arise between commitments and actual performance. As a result, companies are encouraged to enhance internal controls and compliance with governance principles (Eulerich et al., 2022 ; IIA, 2021).

Findings from Vaihekoski & Yahya (2025) indicate that high audit quality strengthens the relationship between ESG performance and firm value, as markets perceive audited reports as more credible. Thus, sustainability auditing reinforces corporate accountability through market mechanisms: the more credible the ESG report, the greater the investor trust. On the other hand, internal audit plays a dual role as both an assurance provider and a strategic advisor in managing ESG risks (de Leeuw & de Draaijer, 2025). This transformation positions internal audit as a central actor in strengthening long-term accountability.

Variations in Practice and Implementation Challenges

A cross-article analysis reveals a significant disparity between assurance practices in developed and developing countries. European nations and the United States have entered a phase of *institutionalized sustainability assurance* with regulations such as the CSRD and the SEC Climate Disclosure Rule, while developing countries remain at the stage of *voluntary assurance* (Hazaea et al., 2022). This disparity has a direct impact on the quality and credibility of ESG disclosures. In developing countries, ESG reports are often used as tools for social legitimacy rather than for substantive accountability. In this context, sustainability audits tend to be symbolic, conducted merely to meet external expectations without systemic improvements to reporting processes (Grommes (2025). Furthermore, the literature indicates methodological differences among assurance providers. Accounting-based providers tend to focus on compliance and documentary evidence, whereas non-accounting providers emphasize strategic and social aspects (Gavriel Faith Nangoy et al., 2024) These differing paradigms explain why the effectiveness of assurance practices remains inconsistent across the globe.

Dynamics, Current Trends, and Scientific Findings

The prominent variables identified in the literature include audit quality, board effectiveness, and regulatory frameworks as key determinants of sustainability audit effectiveness. According to Liu et al (2025), boards with greater gender diversity are more likely to select independent assurance providers, while Emma et al (2024) emphasize that high-quality assurance is often used as a strategic response to legitimacy threats. Another emerging trend is the rise of digital auditing and AI- or blockchain-based verification technologies, which are increasingly employed to enhance transparency and minimize human bias (Emmanuel, 2025) This supports the argument that the future of sustainability auditing is moving toward the integration of technology and data-driven governance. Consequently, the evolving direction of research indicates that the effectiveness of sustainability audits is no longer measured merely by the level of assurance, but by the audit’s ability to build an integrated and sustainable accountability system.

Overall, the findings suggest that sustainability auditing functions both as a verification instrument and a governance mechanism that ensures the validity and accountability of ESG disclosures. However, its effectiveness is influenced by three key factors: the quality and independence of assurance, which determine whether auditors

can provide substantive assurance rather than mere formal compliance; the strength of regulatory frameworks and international standards, which ensure consistency in audit practices across jurisdictions; and the integration between internal and external audits, which establishes a multilayered oversight system for ESG risks. From a scientific perspective, these findings reinforce legitimacy theory and governance theory, demonstrating that sustainability auditing serves as a mechanism linking social accountability and corporate economic value through verifiable transparency.

CONCLUSION

This study concludes that sustainability audits play a crucial role in ensuring the validity and accountability of Environmental, Social, and Governance (ESG) disclosures. Through a Systematic Literature Review approach, the findings reveal that the presence of external assurance strengthens the credibility of ESG reports by providing independent verification of non-financial data and enhancing stakeholder confidence in corporate transparency and accountability. The effectiveness of sustainability audits is largely influenced by auditor quality, independence, and the robustness of applicable regulations and international standards. Moreover, there remains a notable gap between developed and developing countries, particularly regarding auditor capacity and regulatory obligations. Theoretically, this study reinforces the role of sustainability audits as a governance mechanism that links corporate legitimacy and economic value through verifiable transparency. For future research, it is recommended to further explore the impact of digital audit technologies, artificial intelligence, and blockchain on the effectiveness of sustainability audits in ensuring ESG reporting in the coming years.

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