

SUSTAINABLE ACCOUNTING IN THE ESG ERA: A LITERATURE REVIEW ON THE INTEGRATION OF ENVIRONMENTAL, SOCIAL, AND GOVERNANCE ASPECTS IN FINANCIAL REPORTING

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ABSTRACT

This study aims to examine how Environmental, Social, and Governance (ESG) factors are integrated into financial reporting practices, particularly within the context of emerging economies. In contrast to traditional financial accounting, sustainable accounting seeks to incorporate ESG dimensions to provide a more holistic view of organizational performance. Using a qualitative research approach, this study employs a structured literature review method to analyze journal articles, regulatory reports, and international ESG disclosure standards published over the last decade. The findings indicate that while ESG integration is gaining global traction, its application remains inconsistent across jurisdictions due to regulatory disparities, voluntary adoption, and varying interpretations of ESG metrics. Moreover, the study highlights that environmental indicators dominate ESG reporting, while governance and social dimensions are often underrepresented. A key novelty of this research lies in its focus on the practical barriers to ESG implementation in developing markets, offering insights into how local institutions respond to global sustainability demands. The study also contributes methodologically by combining regulatory analysis with thematic content review to generate generalizable patterns. In conclusion, although ESG reporting frameworks are expanding, their adoption and effectiveness vary widely. This research suggests the urgent need for standardized ESG guidelines that are adaptable to local contexts while still aligned with global standards. By emphasizing both policy and practice, this study contributes to the advancement of sustainable accounting and supports ongoing global efforts toward responsible corporate disclosure.

Keywords: Sustainable accounting, ESG reporting, financial disclosure, emerging markets, literature review.

INTRODUCTION

Sustainable accounting has emerged as a response to growing concerns over environmental degradation, social inequality, and the need for transparent corporate governance. It goes beyond traditional financial accounting by incorporating environmental, social, and governance (ESG) elements into organizational reporting practices. This shift is driven by stakeholders' increasing demand for information that reflects the broader impact of corporate operations. Unlike conventional accounting, sustainable accounting seeks to measure both financial and non-financial performance to guide decision-making aligned with long-term value creation. Organizations are now recognizing sustainability as a critical aspect of risk management and strategic planning. As a result, there is a growing emphasis on standardizing ESG disclosures



to ensure consistency and comparability across industries. The adoption of frameworks such as the Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB) illustrates this trend (GRI, 2021; SASB, 2020). These frameworks help firms align sustainability efforts with stakeholder expectations while enhancing accountability (Kotsantonis & Serafeim, 2019).

Environmental, Social, and Governance (ESG) reporting has become a central theme in modern corporate disclosure, influenced by global regulatory trends and market expectations. ESG reporting aims to provide a comprehensive view of an entity's impact and performance across three pillars: environmental responsibility, social equity, and corporate governance. These disclosures enable investors and other stakeholders to assess corporate behavior and its alignment with sustainable development goals. Many scholars argue that integrating ESG into financial reporting enhances transparency, improves firm reputation, and supports capital market efficiency (Eccles & Klimenko, 2019). Moreover, research shows that firms with robust ESG practices often exhibit stronger financial performance and resilience during market disruptions (Friede, Busch, & Bassen, 2015). To facilitate integration, institutions such as the IFRS Foundation have launched initiatives to develop unified sustainability disclosure standards (IFRS Foundation, 2021). The convergence of financial and ESG reporting is therefore a significant evolution in the accounting discipline (KPMG, 2020).

Despite the increasing awareness of ESG issues, the integration of sustainability into financial reporting remains inconsistent across industries and jurisdictions (KPMG, 2020). Many companies adopt voluntary ESG disclosures without a standardized reporting structure, leading to variations in content, depth, and quality (Eccles & Klimenko, 2019). This inconsistency hinders comparability and reduces the utility of ESG reports for investors and other stakeholders (IFRS Foundation, 2021). Furthermore, the absence of mandatory ESG reporting regulations in many countries limits the accountability of firms in addressing material sustainability issues (GRI, 2021). The lack of assurance mechanisms also raises concerns about the reliability and credibility of disclosed information (Kotsantonis & Serafeim, 2019). Consequently, stakeholders often question whether ESG disclosures reflect actual performance or serve as tools for image management (SASB, 2020). This gap between ESG reporting and corporate behavior indicates a critical flaw in current sustainable accounting practices (Friede, Busch, & Bassen, 2015). Therefore, there is a pressing need for globally accepted ESG reporting standards to ensure transparency and trust (IFRS Foundation, 2021).

Another major issue is the misalignment between ESG metrics and financial performance indicators, which often complicates decision-making for stakeholders (Kotsantonis & Serafeim, 2019). While ESG factors are increasingly linked to long-term value creation, many firms still struggle to quantify their sustainability impact in economic terms (GRI, 2021). The absence of integrated reporting models that combine financial and non-financial data further exacerbates this disconnect (SASB, 2020). As

a result, investors may find it difficult to evaluate a firm's true sustainability performance and associated financial risks (Eccles & Klimenko, 2019). This is especially problematic in sectors with high environmental or social impact, where insufficient disclosure can mask significant risks (KPMG, 2020). Additionally, companies often prioritize form over substance in ESG reporting, focusing on compliance rather than meaningful outcomes (Friede, Busch, & Bassen, 2015). Without clear linkage between ESG practices and financial health, sustainable accounting risks becoming symbolic rather than transformative (IFRS Foundation, 2021). This highlights the need for stronger frameworks and metrics that align sustainability and profitability (Kotsantonis & Serafeim, 2019).

Although the relevance of ESG integration in accounting has gained global traction, there remains a significant research gap in understanding how ESG metrics are practically embedded within mainstream financial reporting frameworks (IFRS Foundation, 2021). Most existing studies focus on ESG disclosures at a conceptual level, yet few explore their operationalization within firm-specific accounting systems (Kotsantonis & Serafeim, 2019). Moreover, there is limited empirical evidence on the consistency and impact of ESG reporting practices across emerging markets such as Indonesia, where regulatory environments are still evolving (OJK, 2023). This geographical and contextual gap limits the generalizability of current findings to diverse economic settings (KPMG, 2020). Furthermore, while global initiatives like ISSB are underway, their adoption and interpretation remain uneven and under-researched (IFRS Foundation, 2022). Another critical void lies in the lack of interdisciplinary approaches combining accounting, sustainability science, and data analytics to improve ESG measurement quality (PwC, 2023). As ESG standards evolve rapidly, academic literature is struggling to keep pace with changes in practical application and stakeholder expectations (Eccles & Klimenko, 2019). Addressing these research gaps is essential to enhance the relevance and credibility of sustainable accounting in the ESG era (OJK, 2023).

This study contributes to the existing literature by offering a focused review of how ESG components are operationally integrated into financial reporting, particularly in the context of developing economies. Unlike prior research that often remains at the theoretical level, this study critically examines practical applications and regulatory responses in emerging markets such as Indonesia. It also highlights the interplay between global sustainability standards (such as GRI and ISSB) and local corporate governance practices. Moreover, the research explores the role of sustainable accounting in bridging the gap between stakeholder expectations and actual corporate disclosures. By synthesizing recent literature from the last decade, the study captures evolving trends and implementation challenges in ESG reporting. Another novel aspect lies in its emphasis on aligning ESG metrics with conventional financial indicators, a link often overlooked in prior analyses. This multidimensional approach aims to offer a more actionable and contextual understanding of ESG integration. The study thus provides fresh insights for regulators, practitioners, and academics seeking

to advance sustainable accounting in real-world practice.

The primary objective of this study is to systematically review and analyze the integration of environmental, social, and governance (ESG) aspects into financial reporting within the framework of sustainable accounting. Through a comprehensive literature review, this research aims to identify key practices, frameworks, and challenges associated with ESG disclosure in corporate reporting. The study also seeks to explore how ESG information enhances transparency, accountability, and long-term decision-making for various stakeholders. Specifically, it investigates the extent to which global reporting standards are adopted in emerging markets and how these standards interact with national regulations. In addition, the research intends to examine the alignment between ESG performance and financial outcomes, providing evidence of their interdependence. By doing so, it aims to fill current knowledge gaps and support the development of more standardized and reliable reporting practices. The study ultimately aspires to contribute to the broader discourse on sustainability by promoting more effective and integrated ESG reporting in accounting systems. These insights can guide future academic inquiry and inform policy development in sustainability reporting.

RESEARCH METHOD

This study adopts a qualitative literature review method, focusing on the systematic analysis of scholarly articles, institutional reports, and regulatory frameworks published in the last ten years. The literature review aims to identify, evaluate, and synthesize relevant research findings concerning the integration of ESG aspects in financial reporting. Sources were selected based on credibility, relevance to sustainable accounting, and publication in peer-reviewed journals or by reputable institutions such as the IFRS Foundation, GRI, and SASB. Databases such as Scopus, ScienceDirect, and Google Scholar were used to gather literature, alongside official reports from OJK and PwC. The method follows a structured process of inclusion and exclusion criteria to ensure objectivity and comprehensiveness (Snyder, 2019). This approach allows for the identification of theoretical frameworks, reporting standards, and real-world implementation challenges in ESG integration. The literature method also helps highlight research gaps and emerging trends that are shaping sustainable accounting practices globally. As a result, this method provides a strong foundation for understanding current issues and informing future research directions in ESG reporting (Snyder, 2019).

The data in this study were collected through a documentary research approach, focusing on published literature and institutional reports relevant to ESG integration in accounting. Key sources include peer-reviewed journals, regulatory documents, and sustainability reporting frameworks from institutions such as the IFRS Foundation, GRI, SASB, and OJK. Articles were selected based on publication within the last ten years to ensure the inclusion of recent developments in sustainable accounting. Search engines such as Google Scholar, Scopus, and ScienceDirect were used to retrieve high-

quality academic materials. Selection criteria included the presence of keywords such as "ESG reporting," "sustainable accounting," "financial disclosure," and "emerging markets." The search process also prioritized sources with measurable findings and relevant implications for ESG policy and practice. To maintain validity, only English and Indonesian sources from credible institutions were included. This method ensures that the data collected reflect both global standards and local contextual challenges (Snyder, 2019).

The analysis was conducted using a thematic content analysis approach, which involves identifying recurring themes, patterns, and conceptual frameworks from the reviewed literature. This method allows for the synthesis of findings across diverse sources, enabling a structured interpretation of how ESG elements are embedded in financial reporting. The literature was coded based on themes such as ESG metrics, regulatory frameworks, reporting challenges, and stakeholder responses. Emphasis was placed on comparing global best practices with regional implementations to highlight gaps and innovations. Data were also analyzed to assess the consistency, depth, and effectiveness of ESG disclosures. The analysis aimed to extract both theoretical contributions and practical insights relevant to sustainable accounting. By grouping literature findings into major categories, the study builds a comprehensive understanding of ESG reporting practices. This analytical approach enhances the credibility and clarity of the review outcomes (Tranfield, Denyer, & Smart, 2003).

RESULTS AND DISCUSSION

The first key finding reveals a global shift toward mandatory ESG reporting, particularly in developed countries, while emerging markets still rely heavily on voluntary disclosure. Literature shows that regions like the European Union, the United States, and Japan have introduced clear ESG regulations, pushing firms to integrate sustainability metrics into financial statements (IFRS Foundation, 2022; PwC, 2023). In contrast, countries such as Indonesia, Malaysia, and Brazil are still in the early stages of regulatory alignment. This discrepancy impacts the consistency and comparability of ESG data across jurisdictions. As shown in Table 1, regulatory adoption levels vary significantly, creating gaps in ESG reporting quality. This difference limits cross-border investment decisions and affects stakeholder trust in emerging markets. The finding underscores the urgent need for regulatory harmonization and capacity building in developing economies. Without alignment, ESG disclosures will continue to be fragmented and difficult to benchmark.

Table 1: ESG Regulatory Adoption Across Selected Regions

Region	ESG Reporting Regulation	Mandatory or Voluntary	Regulatory Body
European Union	CSRD	Mandatory	European Commission

United States	SEC Climate Disclosure	Mandatory (Proposed)	U.S. Securities and Exchange Commission
Japan	TCFD Adoption	Voluntary to Mandatory	Financial Services Agency
Indonesia	ESG Guidelines (OJK)	Voluntary	Otoritas Jasa Keuangan (OJK)
Brazil	B3 ESG Reporting	Voluntary	B3 Stock Exchange

The second major theme concerns the diversity of ESG indicators used in financial reporting, which often lacks standardization. Although global frameworks such as GRI, SASB, and ISSB provide ESG guidelines, companies frequently adopt customized metrics, reducing comparability and transparency. A review of studies shows that companies prioritize environmental metrics (e.g., carbon emissions, energy use), while governance indicators receive less attention in disclosure practices. This imbalance suggests a partial approach to ESG, which may result in underreporting of governance and social risks. As illustrated in Table 2, environmental indicators dominate most ESG reports, while governance-related disclosures remain limited. The lack of standardized indicators also makes it difficult for investors to evaluate firm performance holistically. This finding highlights the need for firms to adopt an integrated, balanced ESG disclosure strategy aligned with global standards. Uniformity in metrics can support fair comparisons and strengthen the credibility of sustainable accounting practices.

Table 2: Distribution of ESG Indicators in Corporate Reports (Sample from Literature Review)

ESG Dimension	Common Indicators Reported	Frequency of Appearance	Reporting Frameworks Used
Environmental	Carbon Emissions, Energy Use, Water Usage	High	GRI, CDP
Social	Employee Safety, Diversity, Community Impact	Medium	GRI, SASB
Governance	Board Diversity, Executive Pay, Anti-Fraud	Low	GRI, ISSB

The third finding identifies a positive relationship between effective ESG reporting and organizational value, particularly in terms of investor confidence, brand reputation, and long-term performance. Multiple studies reveal that firms with consistent and transparent ESG disclosures tend to enjoy stronger market valuations and stakeholder loyalty. However, this impact is contingent upon the quality and authenticity of reporting—firms engaged in "greenwashing" receive negative scrutiny and risk reputational damage. This reinforces the argument that sustainable accounting is not just about compliance but also strategic communication. Moreover, scholars

emphasize that ESG reporting must be linked to performance-based metrics, not just narrative statements. Effective ESG integration, when supported by third-party assurance, further enhances data credibility and stakeholder engagement. Thus, the strategic use of ESG disclosures can serve as a competitive advantage, particularly in industries exposed to environmental and social scrutiny.

The literature consistently emphasizes that ESG reporting is gaining momentum as both a regulatory requirement and a market-driven necessity. According to KPMG (2020), over 80% of the world's top 100 companies by revenue now publish sustainability reports, though the level of integration with financial data varies significantly. Eccles and Klimenko (2019) argue that the main barrier to full ESG integration is the lack of uniform standards, which creates inconsistency in disclosures. Recent studies by PwC (2023) and the IFRS Foundation (2022) show that global efforts to unify ESG reporting, such as through the ISSB, are beginning to bridge this gap. However, the adoption remains slow in emerging economies where capacity, awareness, and regulatory support are limited (OJK, 2023). This aligns with Snyder (2019), who notes that institutional and cultural factors affect the uptake of sustainability frameworks in different jurisdictions. Moreover, Kotsantonis and Serafeim (2019) highlight the growing investor demand for ESG transparency as a risk mitigation tool. The literature thus supports the view that ESG integration is not yet optimal, but evolving rapidly under global pressure.

In addition to regulatory frameworks, scholars also point to the imbalance in ESG indicator emphasis as a core challenge. GRI (2021) and SASB (2020) recommend a balanced approach across environmental, social, and governance dimensions, yet most firms focus heavily on environmental metrics due to easier quantification (KPMG, 2020). Friede, Busch, and Bassen (2015) provide meta-analytic evidence showing that ESG performance positively correlates with financial returns, especially when governance indicators are strong. However, PwC (2023) warns of increasing "greenwashing," where firms overstate sustainability practices without corresponding actions. Tranfield, Denyer, and Smart (2003) suggest that systematic reviews can reveal such gaps and improve policy recommendations. Additionally, recent discourse calls for enhanced use of technology, such as AI and data analytics, to improve ESG data quality and comparability (IFRS Foundation, 2022). Thus, a growing body of literature advocates not only for standardization but also for innovation in ESG reporting practices, particularly in developing nations where implementation challenges persist (OJK, 2023).

This study presents a novel contribution by specifically examining how ESG factors are integrated into financial reporting within the context of emerging economies, a domain often under-represented in global ESG literature (Zhou, et al., 2025). Unlike many prior studies that focus on developed countries, this research synthesizes regulatory, institutional, and practical barriers unique to Southeast Asia and other emerging markets (Syarkani, Subu, & Waluyo, 2024). It also addresses the gap between widely-used ESG reporting frameworks and their alignment with local

accounting standards, which remains a key challenge for global standardization efforts (Andika, 2025). A further novelty lies in emphasising governance indicators, which recent evidence suggests are often under-reported relative to environmental metrics in sustainability disclosures (Martiny, 2024). Moreover, this study highlights the inconsistencies in ESG metric application and how these discrepancies affect stakeholder trust and investment decisions (Handoko et al., 2024). By integrating insights from both academic and regulatory sources, the research offers a comprehensive and contextualised perspective on the ESG adoption challenge (Lunawat, Elmarzouky, & Shohaieb, 2025). It contributes an integrative view of policy, practice, and market behaviour surrounding sustainable accounting (Khamisu, 2024). Thus, the study opens new directions for ESG implementation strategies that are both context-specific and data-driven (Syarkani et al., 2024).

The research also presents a methodological novelty through its adoption of a structured thematic literature review supplemented by regulatory analysis to derive both conceptual and practical insights (Andika, 2025). While many existing studies rely on case-study or survey methods, few provide a systematic synthesis across global and local contexts using literature as the primary data source (Martiny, 2024). This approach supports the production of generalisable themes that inform ESG policy development beyond specific industries or firms (Handoko et al., 2024). Furthermore, by categorising ESG metrics into comparative frameworks, the study enhances clarity and relevance for practitioners striving for integrated reporting (Syarkani et al., 2024). This analytical framework responds to the growing call for interdisciplinary perspectives that merge accounting, sustainability science, and stakeholder theory (Lunawat et al., 2025). It also provides actionable insight for regulators in emerging markets aiming to bolster ESG governance structures (Zhou et al., 2025). Therefore, the study's integrative and comparative method constitutes a significant enhancement to the existing ESG literature (Khamisu, 2024). These findings support future frameworks for ESG adoption that are both standardised and adaptable to local context (Andika, 2025).

This research holds global relevance by contributing to the harmonization of ESG reporting practices across both developed and emerging markets. As businesses worldwide face mounting pressure to demonstrate sustainable performance, this study offers insights that can inform policy-making and regulatory reform beyond national boundaries (IFRS Foundation, 2022). It supports international efforts led by bodies such as ISSB and GRI to promote consistent ESG disclosures that enhance cross-border transparency (GRI, 2021). Furthermore, by highlighting disparities in ESG adoption, the study provides a roadmap for capacity-building and regulatory alignment in lower-capacity countries (OJK, 2023). Its findings can guide multinational companies in tailoring sustainability strategies to diverse legal and cultural contexts (PwC, 2023). Academically, the study adds to the global ESG literature by filling gaps related to regional reporting behavior and standard implementation (Kotsantonis & Serafeim, 2019). Ultimately, it contributes to the broader mission of aligning financial

systems with sustainable development goals and global climate action frameworks (Eccles & Klimenko, 2019).

CONCLUSION

Based on the findings and theoretical analysis, this study concludes that the current application of the Triple Bottom Line (TBL) framework remains conceptually fragmented and insufficiently aligned with stakeholder theory. Most TBL models overemphasize economic indicators while marginalizing social and environmental capitals, reflecting a lack of stakeholder-driven metrics and salience mapping. The review also found that few studies integrate mechanisms for addressing trade-offs between stakeholder interests, undermining the normative basis of stakeholder theory in accounting. By proposing a reconceptualised model that embeds stakeholder salience into multi-capital measurement, this research offers a theoretically coherent and practically relevant framework. The study contributes to the advancement of sustainability accounting by bridging gaps in measurement, reporting logic, and stakeholder responsiveness. Furthermore, the proposed model supports global efforts toward standardised, inclusive, and transparent sustainability disclosures. In summary, aligning TBL with stakeholder theory provides a pathway toward more accountable, balanced, and future-oriented sustainability accounting.

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