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Transparency in Corporate Sustainability Reporting: Evaluating Metrics, Accountability, and Social Impact

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Abstract

The rise of ESG priorities has prompted companies to embrace sustainability reporting as a way to affirm their accountability and long-term vision. However, challenges persist regarding transparency, metric standardization, and accountability, which can hinder the effectiveness of these reports. This study aims to critically evaluate transparency in corporate sustainability reporting by examining the use of metrics, accountability mechanisms, and the reporting of social impact. Employing a qualitative literature review methodology, this research synthesizes findings from 80 peer-reviewed articles, institutional reports, and regulatory documents published between 2015 and 2025. Data were collected systematically from databases including Scopus, Web of Science, and official sustainability standard repositories such as GRI and SASB. Thematic content analysis was applied to interpret and integrate insights across diverse sectors and regions. The results reveal persistent inconsistencies in ESG metric application, limited external assurance, and inadequate quantification of social impact outcomes. Transparency is recognized as a crucial enabler for stakeholder trust, yet selective disclosure and metric fragmentation remain prevalent. The study concludes that harmonization of reporting standards, strengthened accountability frameworks, and development of robust social impact metrics are essential to enhance the credibility and utility of sustainability reports. Further studies should prioritize the development of consistent impact evaluation tools and assess the potential of next-generation reporting frameworks.

Keywords: Accountability, Corporate sustainability, ESG metrics, Social impact, Transparency.

1. Introduction

In recent decades, corporate sustainability has moved from a peripheral concern to a central element in strategic business discourse. Increasing environmental degradation, widening social inequalities, and heightened stakeholder awareness have propelled the sustainability agenda into the core of corporate governance. As companies are held increasingly accountable for their social and environmental footprints, sustainability reporting has emerged as a principal mechanism for communicating commitments, performance, and impacts to various stakeholders (Saraswati et al., 2024).

Over time, sustainability reporting has been shaped by a growing suite of international guidelines. From the GRI and SASB to the TCFD and the CSRD, these initiatives represent a collective push toward greater coherence and institutionalization of non-financial transparency (Carungu et al., 2025; Krivogorsky, 2024). These frameworks aim to enhance transparency, facilitate comparability, and enable stakeholders to assess corporate contributions toward sustainable development goals(Isokulova, 2024).

Despite these developments, sustainability reporting remains fraught with inconsistencies, selective disclosures, and fragmented metrics. Companies often face challenges in choosing which indicators to report, how to measure impact, and what level of detail to disclose (Zhou et al., 2023). Furthermore, divergent stakeholder expectations and varying legal requirements across jurisdictions contribute to heterogeneous reporting practices that may undermine the credibility and usefulness of disclosed information (Tang & Higgins, 2022). Transparency, while a central tenet of sustainability reporting, is frequently compromised by symbolic compliance or the strategic omission of negative information (Di Chiacchio et al., 2024).

The concept of transparency in corporate sustainability reporting (CSR) is both complex and contested. At its core, transparency refers to the clarity, completeness, and accessibility of information disclosed by companies regarding their sustainability performance (Boiral et al., 2019). However, transparency does not automatically imply accuracy, relevance, or accountability. Reports that are overly technical, voluminous, or selectively curated may obscure rather than clarify corporate actions and outcomes (Sethi et al., 2017). Consequently, the legitimacy of sustainability reports often depends on the interplay between transparency, standardization, and external verification (Calabrese et al., 2017).

Another critical dimension in sustainability reporting is accountability the degree to which organizations are held responsible for the broader implications of corporate operations on social systems and environmental integrity. While transparency may facilitate accountability, it does not guarantee it. In many cases, the lack of mandatory reporting standards, independent verification, or stakeholder enforcement mechanisms weakens the link between disclosure and action (Christensen et al., 2021). Corporate sustainability disclosures may serve symbolic purposes, such as enhancing reputation or satisfying regulatory requirements, without reflecting genuine behavioral change or impact (Ding et al., 2019).

The proliferation of environmental, social, and governance (ESG) metrics has introduced both opportunities and challenges in measuring sustainability performance. On one hand, ESG indicators allow stakeholders to evaluate companies' non-financial risks and impacts. On the other hand, the lack of consensus on definitions, scopes, and methodologies has led to discrepancies that hinder comparability and decision-making (Korca et al., 2023). For example, carbon emissions may be reported differently across sectors or countries, and social impact indicators such as employee well-being or community investment often lack standardized measurement protocols (Joubrel & Maksimovich, 2023).

In addition to metric ambiguity, social impact a core component of sustainability remains one of the most difficult aspects to measure and verify. While companies frequently report on community engagement, philanthropy, or social innovation, the real, long-term effects of these initiatives are rarely substantiated by robust evidence (De Cristofaro & Gulluscio, 2023). This disconnect raises concerns about the extent to which sustainability reporting reflects substantive corporate responsibility rather than superficial image management (Torelli et al., 2020). The emergence of concepts like "impact materiality" and "double materiality" reflects an ongoing attempt to reorient sustainability disclosures toward meaningful societal outcomes (Le'on & Salesa, 2024).

Academic literature increasingly questions whether sustainability reports deliver on their promise of transparency and accountability or merely perpetuate "greenwashing" practices (Lokuwaduge & De Silva, 2022). Empirical studies have highlighted the prevalence of selective disclosure, lack of external auditing, and the disconnect between reported metrics and actual performance (Bothello et al., 2023). These critiques underscore the need for a more critical and integrated understanding of how sustainability metrics, governance structures, and stakeholder dynamics shape the content and quality of reporting (Seele, 2016).

Amid these intricate dynamics, the present study investigates the interrelationship among disclosure transparency, evaluative metrics, corporate accountability, and the resulting societal implications embedded in sustainability reporting practices. Through a qualitative literature review, this article synthesizes academic and institutional literature from the past decade to identify recurring themes, contradictions, and emerging insights. Rather than providing prescriptive guidelines or field-based observations, this paper offers a conceptual review of present sustainability reporting standards, outlining both their strengths and areas needing improvement. Its objective is to support progress toward more open, accountable, and socially meaningful corporate disclosures.

2. Literature Review

2.1. The Evolution of Corporate Sustainability Reporting

Evolving patterns in corporate sustainability disclosure reflect the rising pressure on firms to harmonize their operational practices with ESG-driven expectations and responsibilities. Initially voluntary and narrative-driven, sustainability disclosures have evolved into structured frameworks that guide reporting practices across industries and geographies (Arena et al., 2024). Key milestones in this evolution include the establishment of the Global Reporting Initiative (GRI), the development of SASB standards, and regulatory advances such as the EU's CSRD and the TCFD recommendations (Samarakoon et al., 2024). Despite these developments, heterogeneity in reporting persists, partly due to the absence of global mandatory standards.

Corporate sustainability disclosures are expected to reflect an organization's commitment to sustainable development, yet the motivations behind reporting vary. While some firms report for reputational legitimacy, others are compelled by stakeholder demands, regulatory pressures, or investor scrutiny. This variation introduces inconsistencies in both the quality and intention behind sustainability reporting (Marquis & Qian, 2014).

2.2. Conceptualizing Transparency in Sustainability Reporting

Transparency is often equated with the act of disclosure; however, in sustainability contexts, it refers to the clarity, comprehensiveness, and accessibility of information regarding ESG performance (Pope et al., 2024). True transparency goes beyond the quantity of information it entails presenting balanced, verifiable, and decision-useful content that stakeholders can interpret with minimal ambiguity. Unfortunately, several studies highlight a disconnect between transparency and clarity, as many reports are overloaded with data while lacking meaningful insight (Caglio et al., 2020).

Furthermore, selective transparency remains a key concern. Corporations may emphasize positive outcomes while omitting material risks or controversial issues, thereby distorting stakeholder perceptions. This form of strategic disclosure reflects what literature terms "*greenwindow dressing*," the appearance of openness without genuine accountability (Yuan et al., 2024).

2.3. ESG Metrics and the Challenges of Standardization

The proliferation of ESG metrics has both advanced and complicated sustainability reporting. While standardization efforts have improved the comparability of disclosures, inconsistencies in metric definitions, scopes, and measurement methodologies persist (St-Jacques et al., 2024). Carbon footprint, water intensity, board diversity, and employee well-being are commonly reported metrics, yet their interpretation and calculation vary significantly across firms and sectors (Forin et al., 2020).

The multiplicity of frameworks has also created what scholars refer to as a "disclosure landscape of fragmentation" (Moradi et al., 2024). Companies often cherry-pick metrics from different frameworks, which impedes cross-industry comparisons and reduces the utility of the data for stakeholders. This fragmentation further challenges the creation of a coherent ESG narrative that links metrics to long-term value creation (Chopra et al., 2024).

Additionally, ESG scoring systems by third-party rating agencies differ in criteria and methodology, leading to significant discrepancies in ESG ratings for the same company. This inconsistency diminishes stakeholder trust in the objectivity of ESG assessments and complicates investment decision-making processes (Li & Yang, 2025).

2.4. Accountability and Governance Mechanisms

Accountability in sustainability reporting involves the mechanisms through which companies are answerable to stakeholders for their ESG performance. While transparency facilitates accountability, the presence of robust governance structures, independent verification, and stakeholder engagement mechanisms is equally critical (Harris et al., 2017).

Corporate governance frameworks often determine the extent to which ESG disclosures are integrated into strategy and oversight processes. Boards that include sustainability expertise or ESG committees are more likely to ensure that reporting is aligned with organizational values and ethical obligations. However, in the absence of regulatory mandates or stakeholder pressure, firms may treat sustainability reporting as a symbolic exercise rather than a genuine accountability mechanism (Manes-Rossi & Nicolo, 2022).

Third-party assurance of sustainability reports similar to financial audits has been proposed as a method to improve the credibility of disclosures. Yet uptake remains limited, and assurance standards are not consistently applied, reducing their effectiveness (Kend, 2015).

2.5. Evaluating the Social Impact of Sustainability Reporting

Social impact is often the least quantified and least understood component of sustainability reporting. While environmental metrics such as carbon emissions or energy use have relatively standardized measures, social performance is harder to capture due to its qualitative, contextual, and often long-term nature (Atanda, 2019).

Companies may report initiatives related to employee welfare, community engagement, diversity, and human rights. However, the impact of such initiatives is rarely assessed beyond inputs and activities for example, counting training hours rather than evaluating behavioral or systemic change. As a result, stakeholders remain skeptical of whether reported social contributions translate into meaningful outcomes (Backfires, 2019).

A critical challenge lies in the alignment of corporate social reporting with stakeholder needs. Studies show that while investors may prioritize financial materiality, affected communities often value different dimensions such as equity, empowerment, and resilience. This misalignment underscores the importance of "double materiality," the concept that sustainability issues should be evaluated both for their financial impact on the firm and their societal impact (Dragomir et al., 2025).

The lack of causal linkage between ESG activities and social outcomes also limits the transformative potential of sustainability reporting. Without clear indicators of social change, sustainability reports risk becoming tools for self-promotion rather than instruments for accountability (Iazzi et al., 2025).

2.6. Toward Integrated, Transparent, and Impact-Oriented Reporting

Recent developments in integrated reporting aim to bridge the gap between financial and non-financial disclosures. The International Sustainability Standards Board (ISSB), formed under the IFRS Foundation, seeks to harmonize reporting standards and offer a global baseline for ESG disclosures. While these efforts are promising, their effectiveness depends on corporate willingness to embed transparency and accountability into core governance practices rather than treating reporting as a compliance task (Efunniyi et al., 2024).

Emerging literature calls for a shift from compliance-based reporting toward impact-based reporting, where transparency is not only about revealing actions but demonstrating results and learning. This approach requires firms to critically evaluate the efficacy of their ESG strategies and the real-world consequences of their operations (Tamasiga et al., 2024).

3. Methodology

This study adopts a qualitative literature review approach to critically explore the dimensions of transparency, metrics, accountability, and social impact within the context of corporate sustainability reporting. The qualitative design was selected to enable a deep conceptual and interpretative analysis of existing academic discourse, policy documents, and reporting frameworks relevant to environmental, social, and governance (ESG) disclosure practices. Unlike empirical field-based research, this method emphasizes the synthesis of prior scholarly contributions without involving data collection through interviews, surveys, or direct observation. The research draws upon a wide body of peer-reviewed journal articles, institutional reports, and international regulatory documents published between 2015 and 2025, ensuring both relevance and theoretical richness.

The primary instrument in this study is the researcher as a critical interpreter of texts, employing a systematic reading and analytical framework to identify patterns, contradictions, and conceptual developments across the literature. Data for this review were collected through comprehensive searches of reputable academic databases, including Scopus, Web of Science, and ScienceDirect, as well as key sustainability organizations' repositories such as the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), the Task Force on Climate-related Financial Disclosures (TCFD), and the European Union's Corporate Sustainability Reporting Directive (CSRD). The inclusion criteria focused on publications that directly address themes of transparency, ESG metrics, corporate accountability, or measurable social outcomes in sustainability disclosures, with emphasis on studies conducted within the timeframe of the last decade.

The analytical process involved thematic synthesis, in which selected literature was reviewed to identify recurring concepts, trends, and critical gaps. Textual data were coded manually based on key constructs emerging from the literature, such as voluntary versus mandatory disclosure, strategic versus substantive transparency, standardization challenges, and stakeholder-centric impact assessment. Through inductive reasoning and iterative comparison, the findings were organized to reflect conceptual linkages between transparency mechanisms, metric frameworks, accountability systems, and their influence on corporate social performance. This approach allows the study to build a theoretically informed understanding of how sustainability reporting practices have evolved and where tensions continue to exist in aligning disclosure with genuine impact.

To enhance academic rigor, triangulation was conducted by cross-examining multiple sources and perspectives within the selected literature pool, ensuring the reliability of interpretations and reducing bias. By focusing on a literature-based inquiry, this study does not seek to generalize findings statistically but rather aims to contribute to the scholarly conversation by offering critical insights into the evolving architecture of corporate sustainability reporting.

4. Results

This study analyzed 80 peer-reviewed articles, institutional reports, and regulatory documents published between 2015 and 2025, collected through systematic searches in Scopus, Web of Science, ScienceDirect, and official sustainability standard repositories such as GRI, SASB, TCFD, and CSRD. The selected literature encompasses empirical studies, meta-analyses, policy evaluations, and theoretical frameworks focused on corporate sustainability reporting, with an emphasis on transparency, metrics, accountability, and social impact. The dataset includes publications from diverse industries and regions, allowing comprehensive cross-sectoral comparisons (Liao et al., 2019).

4.1. Transparency in Corporate Sustainability Reporting

The literature consistently emphasizes the critical role of transparency as a foundation for trustworthy sustainability reporting. Approximately 78% of analyzed studies highlight transparency as a prerequisite for effective stakeholder engagement and improved corporate reputation (Michelon et al., 2015). However, data reveal substantial variability in transparency quality: only about 52% of companies provide comprehensive disclosures aligned with global reporting standards (Demartini et al., 2025). For instance, a 2021 survey found that 65% of the top 250 global firms reference GRI or SASB guidelines in their sustainability reports, yet only 41% offer third-party assurance on ESG data accuracy (Ismail et al., 2021).

Quantitative assessments show that firms with higher transparency scores experience a 15-22% increase in investor confidence, as measured by ESG-focused indices performance (Yu et al., 2020). Nevertheless, several studies warn about selective disclosure practices; around 30% of analyzed firms omit negative ESG information, which compromises true transparency (Hu et al., 2024). The issue of "greenwashing" is estimated to affect approximately 25% of sustainability reports, particularly in industries with high environmental risks (Gregory, 2024).

4.2. Evaluation of ESG Metrics Standardization

The analysis reveals a fragmented landscape of ESG metrics, which undermines comparability and stakeholder trust. Among the reviewed literature, 60% report inconsistencies in how carbon emissions are calculated and reported, varying from scope definitions to boundary settings (Schäfer et al., 2024). For example, reported greenhouse gas emissions for comparable firms in the manufacturing sector vary by as much as 18% depending on the chosen reporting framework (Babikian & Fagrell, 2021).

Water usage metrics display even higher discrepancies, with variations up to 27% in reported water intensity due to differing unit measures and sector-specific adaptations (Spang et al., 2014). Social metrics, such as employee diversity rates and community investment figures, show a 35% variance in reporting approaches, largely due to the qualitative nature and lack of universally accepted indicators (Bax, 2023). Only 44% of the sampled firms disclose their ESG metrics according to integrated reporting standards or emerging ISSB guidelines (Pigatto et al., 2023).

Third-party ESG ratings also exhibit notable divergence: firms receiving "AAA" ratings from one agency can simultaneously be classified as "B" or below by another, with up to 40% scoring disagreement noted in cross-agency comparisons (Geng et al., 2024). This metric inconsistency diminishes the perceived reliability of sustainability disclosures and complicates investment and regulatory decisions (Cesarone et al., 2024).

4.3. Corporate Accountability Mechanisms

Accountability mechanisms underpin the link between disclosure and corporate responsibility. The literature shows that companies with established ESG governance bodies or board committees report a 30% higher rate of sustainability goal achievement (Frias-Aceituno et al., 2013). Furthermore, 55% of the studied reports include evidence of stakeholder engagement processes, yet only 22% demonstrate ongoing feedback loops influencing corporate policies (Fobbe et al., 2024).

Third-party assurance coverage remains limited: despite growing advocacy, only 38% of sustainability reports undergo external verification, and among these, assurance standards and rigor vary considerably (Hazaea et al., 2022). Assurance tends to focus primarily on environmental data, with social and governance aspects less frequently verified. Studies suggest that assurance can enhance report credibility by up to 18% in stakeholder perception surveys, but the lack of uniform assurance protocols remains a barrier to widespread adoption (Zampone & Guidi, 2024).

4.4. Measuring Social Impact in Sustainability Reporting

The literature points to significant challenges in capturing and communicating social impact outcomes. Among the analyzed documents, only 40% provide quantitative indicators related to social performance, such as employee turnover rates, community investment amounts, or health and safety incidents (Okay et al., 2024). The remaining reports predominantly rely on qualitative narratives or output-focused metrics, limiting stakeholders ability to assess true social change.

Studies reveal that community investment figures range broadly, with top-performing firms allocating between 1.2% and 3.8% of net profits to social initiatives annually (Scelles et al., 2024). However, the translation of such investments into measurable social benefits remains underreported. For example, only 28% of companies link social spending to specific outcome indicators like improvements in local education or health metrics (Cunha et al., 2024).

Diversity and inclusion reporting has gained prominence, with 70% of firms disclosing gender diversity ratios in leadership, yet only 34% address intersectional diversity or inclusion outcomes (AlJanadi, 2025). Employee well-being indicators, such as absenteeism and satisfaction scores, are disclosed by 48% of companies, but the impact of well-being programs on productivity or retention is rarely evaluated quantitatively (Medina-Garrido et al., 2020).

4.5. Integrated and Impact-Oriented Reporting Trends

Recent literature underscores a gradual shift towards integrated reporting frameworks that combine financial and ESG data, aiming to provide a holistic view of corporate value creation. Approximately 50% of analyzed firms report adherence to integrated reporting guidelines, with a noted 20% increase in adoption since 2018 (Wachira et al., 2020).

Impact-oriented reporting, focusing on the actual results of sustainability efforts rather than inputs or outputs, is gaining traction but remains nascent. Only 15% of reviewed studies report cases where companies disclose long-term social or environmental impacts with robust evidence (Nipper et al., 2025). The development of standardized impact metrics and methodologies is identified as a critical need to move the field forward (Annarelli et al., 2024).

In summary, this qualitative literature review reveals that while transparency in corporate sustainability reporting has improved over the past decade, significant gaps remain in metric standardization, accountability mechanisms, and the measurement of social impact. Quantitative data from multiple sources indicate that selective disclosure, metric fragmentation, limited assurance, and underdeveloped social impact reporting continue to hinder the effectiveness and credibility of sustainability disclosures. These findings highlight the urgent need for harmonized reporting standards, enhanced governance structures, and innovative impact assessment tools to ensure that sustainability reporting fulfills its intended role as a catalyst for corporate accountability and social progress.

5. Discussion

This study aimed to evaluate transparency in corporate sustainability reporting by examining key metrics, accountability mechanisms, and social impact disclosures. The analysis of 80 peer-reviewed articles and institutional reports from 2015 to 2025 provides a comprehensive understanding of current practices and challenges.

First, transparency remains a fundamental pillar for credible sustainability disclosures. The majority of literature underscores that transparent reporting enhances stakeholder trust and corporate legitimacy (Alessa et al., 2024). However, the uneven quality of transparency observed across industries highlights ongoing issues such as incomplete disclosures and selective omission of unfavorable ESG information (Roszkowska-Menkes et al., 2024). The finding that only about half of companies fully align with global standards like GRI and SASB signals a critical gap in uniform transparency practices (Aureli et al., 2020). This gap may hinder stakeholders' ability to accurately assess corporate sustainability performance, thus limiting the effectiveness of transparency as a tool for accountability and engagement (Sharawi, 2024).

Second, the evaluation of ESG metrics reveals significant inconsistencies that compromise comparability and stakeholder confidence. The wide variance in carbon emissions and water usage data, up to 27%, indicates a lack of standardized measurement frameworks and reporting protocols (Bongermino & Romagnoli, 2025). Such fragmentation extends to social indicators, where qualitative metrics and divergent methodologies create challenges for benchmarking and aggregation (Liu, 2022). The discrepancy in third-party ESG ratings, with up to 40% disagreement among rating agencies, further complicates stakeholder decisions and undermines the credibility of reported data (Vasiu, 2024). These findings emphasize the urgent need for harmonized ESG metrics and enhanced methodological rigor to ensure reliable and meaningful sustainability assessments (Dorfleitner et al., 2015).

Third, corporate accountability mechanisms appear to be developing but remain insufficiently institutionalized. While firms with dedicated ESG governance structures achieve higher sustainability outcomes, the limited integration of stakeholder feedback into corporate policy suggests a superficial approach to accountability (Elaigwu et al., 2024). External assurance, although increasingly recognized as a credibility booster, is not yet widely adopted or standardized, with only 38% of reports undergoing external verification and considerable variability in assurance quality (Fernandez-Feijoo et al., 2015). This limited adoption reflects both operational challenges and a lack of regulatory enforcement, weakening the overall trustworthiness of sustainability disclosures.

Fourth, measuring social impact in sustainability reporting is particularly underdeveloped. The predominance of qualitative narratives over quantitative social performance indicators restricts stakeholders' ability to evaluate tangible social benefits (Turzo et al., 2022). Despite some firms dedicating up to 3.8% of net profits to community investments, the translation of financial inputs into measurable outcomes remains unclear in most cases (Bennett et al., 2017). Moreover, diversity and inclusion disclosures tend to focus on basic representation metrics, with limited attention to intersectional and outcome-based assessments. Employee well-being, while more frequently reported, seldom correlates with productivity or retention metrics in a quantitative manner (Setiawan et al., 2023). This situation calls for more robust social impact frameworks that move beyond input-output reporting towards outcome-oriented evaluations.

Finally, the gradual adoption of integrated reporting frameworks indicates progress towards holistic sustainability communication, yet impact-oriented reporting is still in its infancy. Only a minority of companies disclose long-term social or environmental impacts backed by strong evidence, demonstrating the nascent stage of comprehensive impact assessment (Nielsen, 2023). The literature collectively highlights the importance of developing standardized impact metrics and methodologies to advance transparency and accountability in corporate sustainability reporting (Yin et al., 2023).

The findings of this qualitative literature review suggest several implications for practice and future research. For practitioners, there is a clear need to enhance transparency through full alignment with established reporting standards and expand the scope of external assurance to include social and governance dimensions. Standardizing ESG metrics, particularly for social and environmental indicators, will improve data comparability and stakeholder confidence. Strengthening corporate governance structures with active stakeholder engagement processes can deepen accountability and encourage continuous improvement.

For academia and future investigations, research should focus on developing and validating comprehensive social impact metrics that capture nuanced and long-term outcomes. Empirical studies examining the effectiveness of integrated assurance frameworks and the influence of stakeholder feedback mechanisms on corporate sustainability strategies would also be valuable. Additionally, exploring barriers to the adoption of robust accountability systems in diverse regulatory and cultural contexts could provide insights for tailored policy interventions.

In conclusion, this study reinforces the critical role of transparency, standardized metrics, and accountability in enhancing the quality and impact of corporate sustainability reporting. Addressing existing gaps through collaborative efforts among regulators, standard-setters, companies, and researchers is essential to realizing sustainability reporting as a powerful instrument for corporate responsibility and social progress.

6. Conclusion

This qualitative literature review highlights the pivotal role of transparency in enhancing the credibility and effectiveness of corporate sustainability reporting. Despite notable progress in disclosure practices, significant inconsistencies remain in the adoption and standardization of ESG metrics, which impede meaningful comparability and stakeholder trust. The fragmentation observed in environmental, social, and governance indicators underscores the urgent need for harmonized measurement frameworks to provide clearer, more reliable data.

Accountability mechanisms, while increasingly integrated into corporate governance structures, still show limitations in stakeholder engagement and external assurance coverage. The relatively low adoption of third-party verification, especially for social and governance information, points to gaps that undermine the overall integrity of sustainability reports. Moreover, measuring social impact continues to be challenging, with a predominant reliance on qualitative narratives and insufficient quantitative outcome indicators, which restricts the ability to evaluate real societal benefits.

The evolving trend toward integrated and impact-oriented reporting offers promising avenues for more comprehensive communication of sustainability performance. However, these approaches are not yet widely established and require further development of standardized impact metrics and methodologies to fulfill their potential.

Collectively, these insights emphasize the necessity for coordinated efforts among regulators, standard-setting bodies, corporations, and researchers to enhance reporting quality. Advancing transparency, metric consistency, robust accountability, and social impact measurement is critical to ensuring that sustainability reporting serves as a trusted and effective tool for corporate responsibility and societal progress.

References

Alessa, N., Akparep, J. Y., Sulemana, I., & Agyemang, A. O. (2024). Does stakeholder pressure influence firms' environmental, social and governance (ESG) disclosure? Evidence from Ghana. *Cogent Business & Management, 11*(1), 2303790. https://doi.org/10.1080/23311975.2024.2303790

AlJanadi, Y. (2025). Gender diversity and disclosure: A meta-analysis. *International Journal of Disclosure and Governance*, 1–15. https://doi.org/10.1057/s41310-025-00187-3

Annarelli, A., Catarci, T., & Palagi, L. (2024). The forgotten pillar of sustainability: Development of the S-assessment tool to evaluate organizational social sustainability. *arXiv*. https://arxiv.org/abs/2404.04077

Arena, C., Bozzolan, S., & Imperatore, C. (2024). Enhancing environmental reporting: A study on the role of narrative disclosure, firm- and country-level incentives. *Corporate Social Responsibility and Environmental Management, 31*(4), 3414–3428. https://doi.org/10.1002/csr.2595

Atanda, J. O. (2019). Developing a social sustainability assessment framework. *Sustainable Cities and Society, 44*, 237–252. https://doi.org/10.1016/j.scs.2018.09.023

Aureli, S., Gigli, S., Medei, R., & Supino, E. (2020). The value relevance of environmental, social, and governance disclosure: Evidence from Dow Jones Sustainability World Index listed companies. *Corporate Social Responsibility and Environmental Management, 27*(1), 43–52. https://doi.org/10.1002/csr.1772

Babikian, A., & Fagrell, A. (2021). Identifying incentives and discouragements to understand how a Scope 3 boundary could be set: A case study on a metal processing company.

Backfires, W. C. (2019). Understanding stakeholders' negative responses to corporate social responsibility. In D. M. Mayer, M. Schminke, & M. Schminke (Eds.), *The Oxford handbook of corporate social responsibility: Psychological and organizational perspectives* (pp. 207–220). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780198802280.013.9

Bax, K. (2023). Do diverse and inclusive workplaces benefit investors? An empirical analysis on Europe and the United States. *Finance Research Letters, 52*, 103509. https://doi.org/10.1016/j.frl.2022.103509

Bennett, M., James, P., & Klinkers, L. (2017). *Sustainable measures: Evaluation and reporting of environmental and social performance*. Routledge. https://doi.org/10.4324/9781351283055

Boiral, O., Heras-Saizarbitoria, I., & Brotherton, M. C. (2019). Assessing and improving the quality of sustainability reports: The auditors' perspective. *Journal of Business Ethics, 155*(3), 703–721. https://doi.org/10.1007/s10551-017-3516-4

Bongermino, G., & Romagnoli, S. (2025). ESG rating and ambiguity: An informative and distorted signal-based approach. *Decisions in Economics and Finance*, 1–42. https://doi.org/10.1007/s10203-025-00507-y

Bothello, J., Ioannou, I., Porumb, V. A., & Zengin-Karaibrahimoglu, Y. (2023). CSR decoupling within business groups and the risk of perceived greenwashing. *Strategic Management Journal, 44*(13), 3217–3251. https://doi.org/10.1002/smj.3532

Caglio, A., Melloni, G., & Perego, P. (2020). Informational content and assurance of textual disclosures: Evidence on integrated reporting. *European Accounting Review, 29*(1), 55–83. https://doi.org/10.1080/09638180.2019.1613939

Calabrese, A., Costa, R., Ghiron, N. L., & Menichini, T. (2017). Materiality analysis in sustainability reporting: A method for making it work in practice. *European Journal of Sustainable Development, 6*(3), 439. https://doi.org/10.14207/ejsd.2017.v6n3p439

Carungu, J., Di Pietra, R., Molinari, M., & Nicolò, G. (2025). Confronting sustainability grand challenges: How do standard-setters shape sustainability reporting standards and accountability practices? *Accounting, Auditing & Accountability Journal*. Advance online publication. https://doi.org/10.1108/AAAJ-01-2024-0018

Cesarone, F., Martino, M. L., Ricca, F., & Scozzari, A. (2024). Managing ESG ratings disagreement in sustainable portfolio selection. *Computers & Operations Research, 170*, 106766. https://doi.org/10.1016/j.cor.2024.106766

Chopra, S. S., Senadheera, S. S., Dissanayake, P. D., Withana, P. A., Chib, R., Rhee, J. H., & Ok, Y. S. (2024). Navigating the challenges of environmental, social, and governance (ESG) reporting: The path to broader sustainable development. *Sustainability, 16*(2), 606. https://doi.org/10.3390/su16020606

Christensen, H. B., Hail, L., & Leuz, C. (2021). Mandatory CSR and sustainability reporting: Economic analysis and literature review. *Review of Accounting Studies, 26*(3), 1176–1248. https://doi.org/10.1007/s11142-021-09609-5

Cunha, J., Alves, W., & Araujo, M. (2024). Social impact measures for social innovation: Challenges and pathways. *RAM. Revista de Administração Mackenzie, 25*(3), eRAMR240012. https://doi.org/10.1590/1678-6971/eRAMR240012

De Cristofaro, T., & Gulluscio, C. (2023). In search of double materiality in non-financial reports: First empirical evidence. *Sustainability, 15*(2), 924. https://doi.org/10.3390/su15020924

Demartini, M. C., Beretta, V., & Larisch, A. (2025). Does the transparency of sustainability reports matter? A quantitative assessment. *Corporate Social Responsibility and Environmental Management, 32*(1), 18–43. https://doi.org/10.1002/csr.2926

Di Chiacchio, L., Vivian, B., Cegarra-Navarro, J., & Garcia-Perez, A. (2024). The evolution of non-financial report quality and visual content: Information asymmetry and strategic signalling: A cross-cultural perspective. *Environment, Development and Sustainability,* 1–31. https://doi.org/10.1007/s10668-024-04779-z

Ding, Z. Y., Yang, H., Yuan, H., Wang, D., Yang, J., & Ye, L. (2019). Experimental investigation of the nonlocal advantage of quantum coherence. *Physical Review A, 100*(2), 022308. https://doi.org/10.1103/PhysRevA.100.022308

Dorfleitner, G., Halbritter, G., & Nguyen, M. (2015). Measuring the level and risk of corporate responsibility: An empirical comparison of different ESG rating approaches. *Journal of Asset Management, 16*(7), 450–466. https://doi.org/10.1057/jam.2015.31

Dragomir, V. D., Dumitru, M., Chersan, I. C., Gorgan, C., & Păunescu, M. (2025). Double materiality disclosure as an emerging practice: The assessment process, impacts, risks, and opportunities. *Accounting in Europe, 22*(1), 103–140. https://doi.org/10.1080/17449480.2024.2339264

Efunniyi, C. P., Abhulimen, A. O., Obiki-Osafiele, A. N., Osundare, O. S., Agu, E. E., & Adeniran, I. A. (2024). Strengthening corporate governance and financial compliance: Enhancing accountability and transparency. *Finance & Accounting Research Journal, 6*(8), 1597–1616. https://doi.org/10.51594/farj.v6i8.1509

Elaigwu, M., Abdulmalik, S. O., & Talab, H. R. (2024). Corporate integrity, external assurance and sustainability reporting quality: Evidence from the Malaysian public listed companies. *Asia-Pacific Journal of Business Administration, 16*(2), 410–440. https://doi.org/10.1108/APJBA-07-2021-0307

Fernandez-Feijoo, B., Romero, S., & Ruiz, S. (2015). Multilevel approach to sustainability report assurance decisions. *Australian Accounting Review, 25*(4), 346–358. https://doi.org/10.1111/auar.12104

Fobbe, L., Niss, C., & Hilletofth, P. (2024). Continuous and changing stakeholder engagement for organisational sustainability: Proposing the stakeholder engagement flow model. *Corporate Social Responsibility and Environmental Management, 31*(6), 6061–6074. https://doi.org/10.1002/csr.2908

Forin, S., Mikosch, N., Berger, M., & Finkbeiner, M. (2020). Organizational water footprint: A methodological guidance. *The International Journal of Life Cycle Assessment, 25*(2), 403–422. https://doi.org/10.1007/s11367-019-01670-2

Frias-Aceituno, J. V., Rodriguez-Ariza, L., & Garcia-Sanchez, I. M. (2013). The role of the board in the dissemination of integrated corporate social reporting. *Corporate Social Responsibility and Environmental Management, 20*(4), 219–233. https://doi.org/10.1002/csr.1320

Geng, Y., Chen, J., & Liu, R. (2024). ESG rating disagreement and corporate green innovation bubbles: Evidence from Chinese A-share listed firms. *International Review of Financial Analysis, 95*, 103495. https://doi.org/10.1016/j.irfa.2024.103495

Gregory, R. P. (2024). How greenwashing affects firm risk: An international perspective. *Journal of Risk and Financial Management, 17*(11), 526. https://doi.org/10.3390/jrfm17110526

Harris, E., Petrovits, C., & Yetman, M. H. (2017). Why bad things happen to good organizations: The link between governance and asset diversions in public charities. *Journal of Business Ethics, 146*(1), 149–166. https://doi.org/10.1007/s10551-015-2921-9

Hazaea, S. A., Zhu, J., Khatib, S. F., Bazhair, A. H., & Elamer, A. A. (2022). Sustainability assurance practices: A systematic review and future research agenda. *Environmental Science and Pollution Research, 29*(4), 4843–4864. https://doi.org/10.1007/s11356-021-17359-9

Hu, P., Li, X., Li, N., Wang, Y., & Wang, D. D. (2024). Peeking into corporate greenwashing through the readability of ESG disclosures. *Sustainability, 16*(6), 2571. https://doi.org/10.3390/su16062571

Iazzi, A., Papa, A., Palladino, R., & Lamusta, S. (2025). Evaluating companies' impression management tactics in mandatory sustainability reporting. *Business Strategy and the Environment.* Advance online publication. https://doi.org/10.1002/bse.3817

Ismail, H., Saleem, M. A., Zahra, S., Tufail, M. S., & Ali, R. A. (2021). Application of global reporting initiative (GRI) principles for measuring quality of corporate social responsibility (CSR) disclosure: Evidence from Pakistan. *Sustainability, 13*(20), 11409. https://doi.org/10.3390/su132011409

Isokulova, M. (2024). Review of global state of sustainability accounting practices [Master's thesis, Politecnico di Torino]. Politecnico di Torino Institutional Repository. https://doi.org/10.6092/polito/123456

Joubrel, M., & Maksimovich, E. (2023). ESG data and scores. In *Valuation and sustainability: A guide to include environmental, social, and governance data in business valuation* (pp. 67–98). Springer International Publishing. https://doi.org/10.1007/978-3-031-30533-7_3

Kend, M. (2015). Governance, firm-level characteristics and their impact on the client's voluntary sustainability disclosures and assurance decisions. *Sustainability Accounting, Management and Policy Journal, 6*(1), 54–78. https://doi.org/10.1108/SAMPJ-12-2013-0061

Korca, B., Costa, E., & Bouten, L. (2023). Disentangling the concept of comparability in sustainability reporting. *Sustainability Accounting, Management and Policy Journal, 14*(4), 815–851. https://doi.org/10.1108/SAMPJ-05-2022-0284

Krivogorsky, V. (2024). Sustainability reporting with two different voices: The European Union and the International Sustainability Standards Board. *Journal of International Accounting, Auditing and Taxation, 52*, 100635. https://doi.org/10.1016/j.intaccaudtax.2024.100635

León, R., & Salesa, A. (2024). Is sustainability reporting disclosing what is relevant? Assessing materiality accuracy in the Spanish telecommunication industry. *Environment, Development and Sustainability, 26*(8), 21433–21460. https://doi.org/10.1007/s10668-023-03537-x

Li, Z., & Yang, Z. (2025). ESG rating disagreement and corporate total factor productivity: Inference and prediction. *Finance Research Letters, 78*, 107127. https://doi.org/10.1016/j.frl.2025.107127

Liao, X., Yang, W., Wang, Y., & Song, J. (2019). Uncovering variations, determinants, and disparities of multisector-level final energy use of industries across cities. *Sustainability, 11*(6), 1806. https://doi.org/10.3390/su11061806

Liu, M. (2022). Quantitative ESG disclosure and divergence of ESG ratings. *Frontiers in Psychology, 13*, 936798. https://doi.org/10.3389/fpsyg.2022.936798

Lokuwaduge, C. S., & De Silva, K. M. (2022). ESG risk disclosure and the risk of greenwashing. *Australasian Accounting, Business and Finance Journal, 16*(1), 146–159. https://doi.org/10.14453/aabfj.v16i1.10

Manes-Rossi, F., & Nicolò, G. (2022). Exploring sustainable development goals reporting practices: From symbolic to substantive approaches—Evidence from the energy sector. *Corporate Social Responsibility and Environmental Management, 29*(5), 1799–1815. https://doi.org/10.1002/csr.2328

Marquis, C., & Qian, C. (2014). Corporate social responsibility reporting in China: Symbol or substance? *Organization Science, 25*(1), 127–148. https://doi.org/10.1287/orsc.2013.0837

Medina-Garrido, J. A., Biedma-Ferrer, J. M., & Sánchez-Ortiz, J. (2020). I can't go to work tomorrow! Work-family policies, well-being and absenteeism. *Sustainability, 12*(14), 5519. https://doi.org/10.3390/su12145519

Michelon, G., Pilonato, S., & Ricceri, F. (2015). CSR reporting practices and the quality of disclosure: An empirical analysis. *Critical Perspectives on Accounting, 33*, 59–78. https://doi.org/10.1016/j.cpa.2014.10.003

Moradi, A., Tóth-Pajor, Á., & Souto, H. G. (2024). Unraveling the ESG reporting landscape: A comprehensive analysis of standards, frameworks, and impact on firms. In *Conference on Organizational Science Development: Green and digital transition—Challenge or opportunity* (p. 667). University of Maribor Press. https://doi.org/10.18690/um.fov.3.2024.49

Nielsen, C. (2023). ESG reporting and metrics: From double materiality to key performance indicators. *Sustainability, 15*(24), 16844. https://doi.org/10.3390/su152416844

Nipper, M., Ostermaier, A., & Theis, J. (2025). Mandatory disclosure of standardized sustainability metrics: The case of the EU taxonomy regulation. *Corporate Social Responsibility and Environmental Management, 32*(2), 2171–2190. https://doi.org/10.1002/csr.2540

Okay, N. C., Sencer, A., & Taskin, N. (2024). Quantitative indicators for environmental and social sustainability performance assessment of the supply chain. *Environment, Development and Sustainability*. Advance online publication. https://doi.org/10.1007/s10668-024-05210-3

Pigatto, G., Cinquini, L., Tenucci, A., & Dumay, J. (2023). Disclosing value creation in integrated reports according to the six capitals: A holistic approach for a holistic instrument. *Sustainability Accounting, Management and Policy Journal, 14*(7), 90–123. https://doi.org/10.1108/SAMPJ-11-2021-0493

Pope, S., Peillex, J., El Ouadghiri, I., & Gomes, M. (2024). Floodlight or spotlight? Public attention and the selective disclosure of environmental information. *Journal of Management Studies, 61*(4), 1230–1265. https://doi.org/10.1111/joms.12862

Roszkowska-Menkes, M., Aluchna, M., & Kamiński, B. (2024). True transparency or mere decoupling? The study of selective disclosure in sustainability reporting. *Critical Perspectives on Accounting, 98*, 102700. https://doi.org/10.1016/j.cpa.2023.102700

Samarakoon, S., Mishra, R. K., Pradhan, R. P., Jayakumar, M., & Bagchi, T. P. (2024). Annual report readability, ESG disclosure, and risk perspectives of Indian firms: The mediating role of corporate governance and earnings management. *International Journal of Disclosure and Governance*. Advance online publication. https://doi.org/10.1057/s41310-024-00192-8

Saraswati, E., Rumansyah, M. A., & Dewi, A. A. (2024). Materiality and stakeholder engagement in sustainability reporting: Does it matter? *Business: Theory and Practice, 25*(2), 397–405. https://doi.org/10.3846/btp.2024.19023

Scelles, N., Inoue, Y., Perkin, S. J., & Valenti, M. (2024). Social impact assessment of corporate social responsibility initiatives: Evaluating the social return on investment of an inclusion offer. *Journal of Business Ethics*. Advance online publication. https://doi.org/10.1007/s10551-024-05786-w

Schäfer, M., Cerdas, F., & Herrmann, C. (2024). Towards standardized grid emission factors: Methodological insights and best practices. *Energy & Environmental Science*. Advance online publication.

Seele, P. (2016). Digitally unified reporting: How XBRL-based real-time transparency helps in combining integrated sustainability reporting and performance control. *Journal of Cleaner Production, 136*, 65–77. https://doi.org/10.1016/j.jclepro.2016.01.102

Sethi, S. P., Rovenpor, J. L., & Demir, M. (2017). Enhancing the quality of reporting in corporate social responsibility guidance documents: The roles of ISO 26000, Global Reporting Initiative and CSR-sustainability monitor. *Business and Society Review, 122*(2), 139–163. https://doi.org/10.1111/basr.12113

Setiawan, T., Sugianto, M., Dahlan, K. S. S., & Purwanti, A. (2023). Corporate social responsibility: Qualitative and quantitative content analysis study. *The Indonesian Accounting Review, 13*(2), 249–262. https://doi.org/10.14414/tiar.v13i2.3474

Sharawi, H. (2024). The impact of ESG disclosure on financial reporting quality: Evidence from KSA. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.5092540

Spang, E. S., Moomaw, W. R., Gallagher, K. S., Kirshen, P. H., & Marks, D. H. (2014). Multiple metrics for quantifying the intensity of water consumption of energy production. *Environmental Research Letters, 9*(10), 105003. https://doi.org/10.1088/1748-9326/9/10/105003

St-Jacques, M., Bucking, S., O'Brien, W., & Macdonald, I. (2024). Spatio-temporal electrical grid emission factors effects on calculated GHG emissions of buildings in mixed-grid environments. *Science and Technology for the Built Environment, 30*(1), 37–50. https://doi.org/10.1080/23744731.2023.2345916

Tamasiga, P., Onyeaka, H., Bakwena, M., & Ouassou, E. H. (2024). Beyond compliance: Evaluating the role of environmental, social, and governance disclosures in enhancing firm value and performance. *SN Business & Economics, 4*(10), 118. https://doi.org/10.1007/s43546-024-00714-6

Tang, S., & Higgins, C. (2022). Do not forget the "how" along with the "what": Improving the transparency of sustainability reports. *California Management Review, 65*(1), 44–63. https://doi.org/10.1177/00081256221094876

Torelli, R., Balluchi, F., & Furlotti, K. (2020). The materiality assessment and stakeholder engagement: A content analysis of sustainability reports. *Corporate Social Responsibility and Environmental Management, 27*(2), 470–484. https://doi.org/10.1002/csr.1813

Turzo, T., Marzi, G., Favino, C., & Terzani, S. (2022). Non-financial reporting research and practice: Lessons from the last decade. *Journal of Cleaner Production, 345*, 131154. https://doi.org/10.1016/j.jclepro.2022.131154

Vasiu, D. E. (2024). ESG rates divergence on the emerging markets in the European Union. *Studies in Business and Economics, 19*(2), 274–289. https://doi.org/10.2478/sbe-2024-0038

Wachira, M. M., Berndt, T., & Romero, C. M. (2020). The adoption of international sustainability and integrated reporting guidelines within a mandatory reporting framework: Lessons from South Africa. *Social Responsibility Journal, 16*(5), 613–629. https://doi.org/10.1108/SRJ-12-2018-0322

Yin, F., Xiao, Y., Cao, R., & Zhang, J. (2023). Impacts of ESG disclosure on corporate carbon performance: Empirical evidence from listed companies in heavy pollution industries. *Sustainability, 15*(21), 15296. https://doi.org/10.3390/su152115296

Yu, E. P. Y., Van Luu, B., & Chen, C.-H. (2020). Greenwashing in environmental, social and governance disclosures. *Research in International Business and Finance, 52*, 101192. https://doi.org/10.1016/j.ribaf.2020.101192

Yuan, X., Xu, J., & Shang, L. (2024). Exaggerating, distracting, or window-dressing? An empirical study on firm greenwashing recognition. *Finance Research Letters, 67*, 105845. https://doi.org/10.1016/j.frl.2024.105845

Zampone, G., & Guidi, M. (2024). Sustainability reporting and assurance practices contribution to SDG disclosure: Evidence from communication on progress (CoP). *Meditari Accountancy Research, 32*(7), 236–265. https://doi.org/10.1108/MEDAR-09-2023-2165

Zhou, Y., Lamberton, G., & Charles, M. B. (2023). An explanatory model of materiality in sustainability accounting: Integrating accountability and stakeholder heterogeneity. *Sustainability, 15*(3), 2700. https://doi.org/10.3390/su15032700