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Measuring SDG Contribution Through Sustainability Accounting: A Framework for Emerging Markets

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Abstract

This study aims to develop a comprehensive conceptual framework for measuring corporate contributions to the Sustainable Development Goals (SDGs) in emerging markets through sustainability accounting. Motivated by persistent variation in SDG reporting quality and the continuing disconnect between disclosure and actual sustainability performance, the research seeks to clarify how sustainability accounting can function not only as a reporting mechanism but also as a strategic performance measurement system. Employing a qualitative, literature-based methodology, the study synthesizes findings from recent empirical and theoretical research across sustainability accounting, ESG disclosure, SDG alignment, governance studies, and institutional analysis. The results reveal that sustainability accounting in emerging markets is expanding but remains uneven, often characterized by symbolic disclosure practices and fragmented indicator systems. Strong governance structures, robust internal management controls, and supportive institutional environments emerge as critical enablers of reliable, SDG-aligned sustainability accounting. The study further identifies a mediating relationship whereby sustainability accounting generates structured ESG information that supports SDG performance when indicators are explicitly linked to SDG targets and embedded within strategic decision-making processes. The main contribution of the research is the formulation of an integrative framework that positions sustainability accounting as a multidimensional tool for SDG measurement, emphasizing indicator alignment, governance quality, management integration, and institutional adaptability. These findings offer theoretical insights into the evolving nature of sustainability accounting and practical guidance for firms and policymakers seeking to strengthen SDG reporting and accelerate sustainable development outcomes in emerging economies.

Keywords: Sustainability Accounting, SDG Measurement, Emerging Markets, ESG Disclosure, Governance.

1. Introduction

The pursuit of sustainable development has become a defining global agenda, integrating economic progress, social inclusion, and environmental preservation into a unified framework that guides nations and industries toward long-term resilience. Since the adoption of the United Nations Sustainable Development Goals (SDGs) in 2015, countries have been expected to mainstream sustainability within national policies, corporate strategies, and reporting mechanisms. For emerging markets, this global mandate introduces both opportunities and structural challenges. Emerging economies face high growth pressures, limited institutional capacity, and rapid industrialization, making the integration of sustainability into accounting and reporting practices a complex yet indispensable step. The discipline of sustainability accounting has therefore evolved into a strategic tool for translating abstract SDG commitments into measurable, comparable, and decision-useful indicators. It bridges traditional financial metrics with environmental, social, and governance (ESG) dimensions, enabling stakeholders to evaluate how organizational activities contribute to national and global SDG targets.

In a more specific sense, sustainability accounting represents a systematic framework for recording, analyzing, and reporting the impacts of corporate operations beyond financial outcomes. While conventional accounting focuses on profitability and asset stewardship, sustainability accounting expands the boundary of accountability to include emissions, resource efficiency, labor conditions, innovation capability, community welfare, and governance transparency. This expanded scope is especially relevant in emerging markets, where economic development often relies on resource-intensive industries and where governance mechanisms may be underdeveloped. Scholars such as Schaltegger, Burritt, and Christ (2022) have emphasized that sustainability accounting plays a transformative role in enabling organizations to internalize externalities and acknowledge their broader societal responsibilities. In emerging markets, the robustness of sustainability accounting practices is frequently hindered by inconsistent regulatory frameworks, incomplete data systems, and varying levels of organizational readiness, reflecting the need for a more context-appropriate measurement model.

Empirical developments across emerging markets reveal a pressing need for structured and comparable sustainability accounting mechanisms. Several studies indicate that firms in rapidly developing economies tend to disclose sustainability indicators selectively rather than comprehensively, often focusing on reputational aspects instead of rigorous SDG-aligned metrics (Kılıç & Kuzey, 2019). At the same time, regulators and investors increasingly demand standardized sustainability disclosures to assess risks, evaluate long-term value creation, and monitor alignment with global sustainability commitments. Moreover, ESG ratings agencies and capital market actors now incorporate sustainability performance into investment decisions, signaling a paradigm shift in how corporate value is defined and measured. As a result, emerging markets must strengthen sustainability accounting systems that accurately capture SDG contributions and make them comparable across sectors, organizations, and countries.

The phenomenon of rising sustainability disclosures is therefore not merely a compliance trend but a strategic response to global market pressures and societal expectations. Corporations in emerging markets are gradually experiencing institutional isomorphism, where sustainability reporting becomes a norm driven by global standards such as the Global Reporting Initiative (GRI), the International Sustainability Standards Board (ISSB), and the European Union Corporate Sustainability Reporting Directive (CSRD), which indirectly influences reporting expectations in non-EU jurisdictions. However, despite rising reporting practices, a persistent gap exists between corporate disclosures and actual SDG contribution measurement. Many companies highlight sustainability narratives without quantifying their SDG performance, resulting in a “disclosure-performance gap,” as identified in recent studies by Pizzi et al. (2023). This gap underscores the limitations of current sustainability accounting frameworks in capturing the SDG-related impact of organizational activities, particularly in environments with constrained institutional governance.

Recognizing these limitations, scholars and policy institutions have increasingly highlighted the necessity of integrating SDG-linked indicators into sustainability accounting frameworks. According to Rosati and Faria (2019), voluntary corporate sustainability disclosures aligned with the SDGs remain inconsistent across global markets, and the gap is more pronounced in emerging economies due to limited capacity and lack of standardized guidance. This inconsistency restricts the ability of stakeholders to assess the effectiveness of corporate sustainability strategies and compare their contributions toward SDG achievement. Moreover, emerging markets often experience data fragmentation, weak monitoring mechanisms, and low adoption of digital systems, amplifying the urgency to establish clear, measurable, and scalable sustainability accounting practices that directly correspond to SDG indicators.

The research relevance of this study lies in its contribution to advancing empirical understanding of how sustainability accounting can be operationalized as a tool for measuring SDG contributions in emerging markets. Although the discourse on sustainability accounting has gained academic and regulatory attention, empirical frameworks specifically designed for emerging economies remain scarce. Existing models tend to reflect contexts of advanced economies with established governance structures and strong regulatory enforcement. Emerging markets, on the contrary, present unique structural characteristics such as institutional voids, resource constraints, informal sector dominance, and varied stakeholder pressures, all of which influence the adoption and effectiveness of sustainability reporting. Recent studies by Khan et al. (2022) and Baboukardos & Rimmel (2022) further highlight that sustainability disclosure quality in emerging markets is often correlated with board characteristics, market exposure, and external assurance, but less with actual SDG-related performance. This evidences a conceptual and practical gap that demands an SDG-oriented sustainability accounting framework tailored to emerging market conditions.

Furthermore, the research aligns with global policy movements emphasizing transparency and accountability in sustainable development implementation. Several international bodies, such as the UN

Global Compact and the International Integrated Reporting Council (IIRC), encourage businesses to adopt sustainability reporting frameworks that facilitate SDG measurement. However, empirical studies indicate that many organizations still lack the methodological tools to link accounting measures with SDG targets in a systematic way. The lack of quantitative models that clarify how sustainability accounting metrics can be aligned with SDG indicators forms a significant research gap that this study aims to address. A structured framework that integrates financial, social, and environmental indicators into SDG measurement tools would support policymakers, investors, and corporations in making informed decisions, while also enhancing transparency, comparability, and accountability.

Another dimension of the research relevance is its potential contribution to long-term economic transformation in emerging markets. Sustainability accounting, when properly aligned with SDG metrics, can guide organizations toward resource efficiency, innovation, and responsible governance—all of which are key drivers of sustainable competitiveness. By enabling companies to track their SDG performance quantitatively, sustainability accounting also enhances the credibility of sustainability claims, improves investor confidence, and fosters responsible investment flows. These dynamics are particularly significant for emerging markets striving to position themselves within sustainable global value chains. A clear and measurable framework for SDG-aligned sustainability accounting can therefore support sustainable industrial development, green financing, and policy reform within these economies. Against this background, the present study sets out to develop an empirical framework that measures corporate contributions to SDG achievement through sustainability accounting practices in emerging markets. The overarching objective of this research is to construct a quantitative descriptive model that captures the relationship between sustainability accounting indicators and SDG-related performance outcomes. This includes identifying key indicators from sustainability accounting disclosures that can be empirically linked with specific SDG targets, examining the extent to which organizations in emerging markets report these indicators, and evaluating how these disclosures can be quantified to reflect actual SDG contributions. The study aims to generate evidence-based insights that support the development of standardized and context-sensitive sustainability accounting frameworks.

To achieve this objective, the study synthesizes frameworks from existing sustainability reporting standards and empirical literature while integrating them with SDG indicators that are relevant to the organizational context of emerging markets. Through a descriptive quantitative approach, the study evaluates patterns, trends, and correlations in sustainability accounting disclosures among firms operating in emerging economies, providing a data-driven assessment of their alignment with SDG goals. This approach not only enhances the empirical clarity of sustainability accounting practices but also advances theoretical discourse on how accounting systems can be leveraged to support sustainable development implementation. This research recognizes that emerging markets stand at a critical juncture where the need for sustainable development is urgent, yet the mechanisms for measuring progress remain underdeveloped. Sustainability accounting offers a strategic pathway for linking corporate actions with SDG commitments, but existing frameworks require refinement to address contextual differences. By proposing a structured and measurable model for assessing SDG contribution through sustainability accounting, this study contributes toward closing the disclosure-performance gap identified in contemporary research and supports the broader agenda of sustainable development in emerging market contexts.

2. Literature Review

2.1. Sustainability Accounting: Concepts, Evolution, and Theoretical Grounding

Sustainability accounting has undergone significant conceptual expansion throughout the past two decades, shifting from a narrow emphasis on environmental cost internalization toward a broader framework that encompasses social, governance, and long-term value perspectives. Early studies highlighted the importance of accounting systems in acknowledging corporate externalities and reinforcing organizational accountability beyond traditional financial reporting (Unerman et al., 2008). As the global sustainability discourse evolved, scholars began to view sustainability accounting not merely as a reporting tool but as a strategic information mechanism that supports risk management, stakeholder dialogue, and corporate transformation aligned with societal expectations (Schaltegger et al., 2022). The expansion of sustainability accounting is closely linked to frameworks such as the triple bottom line (TBL), which integrates economic, social, and environmental dimensions into a unified representation of performance. Subsequent literature points out that while TBL has strengthened the conceptual foundation of

sustainability accounting, it often lacks explicit alignment with globally recognized development targets such as the SDGs (Kartiko et al., 2024). This limitation has motivated researchers and practitioners to design new accounting models that more directly capture SDG-related impacts (Maresti, 2023). The evolving definitions therefore illustrate a trajectory toward greater precision, relevance, and integration with global development agendas.

Scholars also emphasize that sustainability accounting operates within various theoretical lenses, including stakeholder theory, legitimacy theory, and institutional theory. Stakeholder theory views sustainability reporting as a corporate response to diverse stakeholder demands for transparency and accountability (Silva, 2021). Legitimacy theory explains sustainability disclosures as strategies to maintain or repair organizational legitimacy when facing social pressure (Unerman & Chapman, 2014). Institutional theory further suggests that firms adopt sustainability accounting practices due to coercive, normative, and mimetic pressures, especially when global norms influence local regulatory frameworks (Martínez-Ferrero & García-Meca, 2020). Recent evidence indicates that these theoretical frameworks remain highly relevant for understanding sustainability accounting in the SDG era. For example, research shows that firms operating in contexts with intense institutional scrutiny, stronger stakeholder influence, or higher governance expectations tend to implement more advanced sustainability accounting systems (Khaled et al., 2021). At the same time, firms with weaker institutional environments often adopt symbolic or selective reporting practices that reflect legitimacy seeking more than genuine performance measurement. This dynamic positions sustainability accounting as both an accountability mechanism and a legitimacy-enhancing strategy in global and emerging markets.

2.2. SDG Reporting, Measurement Practices, and Corporate Disclosure Trends

The introduction of the Sustainable Development Goals (SDGs) in 2015 marked a turning point for corporate sustainability reporting. SDG reporting enables firms to demonstrate their contributions to global development priorities, yet research indicates that corporate disclosure of SDG-related information remains uneven and inconsistent across industries and regions (Rosati & Faria, 2019). Early adopters were typically large multinational corporations with established sustainability systems, suggesting that resource availability, experience, and international exposure facilitate SDG integration (Avrampou et al., 2019). However, even among leading firms, discrepancies persist between SDG narrative disclosure and measurable performance indicators. A key challenge in SDG reporting lies in methodological heterogeneity. Multiple studies reveal that firms employ diverse metrics, scoring practices, and interpretive approaches when linking sustainability actions to SDG targets (Pizzi et al., 2021). This variability complicates cross-firm comparability and limits the usefulness of SDG disclosures for investors and policymakers. Systematic literature reviews show that although interest in SDG reporting has grown rapidly, there is no universally accepted measurement framework capable of capturing firm-level contributions with sufficient accuracy and comparability (Sundarasan et al., 2025).

Further complexity arises from the “SDG-washing” phenomenon, where companies prominently reference the SDGs but provide limited quantitative evidence of actual contribution (Ordonez-Ponce & Clarke, 2021). Research highlights that firms often focus on SDGs that are easy to report or align with existing CSR initiatives, such as SDG 8 (Decent Work) or SDG 13 (Climate Action), while underreporting more challenging areas such as biodiversity or inequality (van Zanten & van Tulder, 2018). This selective disclosure raises concerns regarding the reliability and credibility of SDG reports and underscores the need for robust sustainability accounting mechanisms. Empirical efforts to create SDG disclosure indices offer partial solutions. Studies that develop scoring systems based on GRI alignment, sustainability indicators, or SDG mapping find significant variations in disclosure quality across governance structures, sectors, and regions (Gutiérrez-Ponce & Wibowo, 2023). Complementary research shows that SDG disclosure can positively influence firm value and stakeholder trust, though the relationship becomes weaker when reporting quality is low (Vázquez et al., 2025). Together, these findings reinforce the importance of standardized, measurable, and transparent SDG-aligned accounting systems.

2.3. Sustainability Accounting and SDG Measurement in Emerging Markets

Emerging markets represent a particularly important context for sustainability accounting research, given their rapid industrialization, high environmental pressures, and evolving regulatory systems. Recent studies acknowledge that institutional capacity, regulatory enforcement, and corporate governance quality

significantly influence the adoption and effectiveness of sustainability accounting frameworks in these economies (Narayan, 2025). While emerging markets increasingly integrate international reporting standards such as GRI and TCFD, local implementation remains uneven, resulting in inconsistent data quality and performance measurement (Khamisu et al., 2024). Literature focused on Asia, Africa, and Latin America shows that firms in these regions often face structural constraints, including limited technological capabilities, lack of sustainability expertise, and lower institutional pressure for transparency (Pamungkas et al., 2024). Despite these challenges, researchers have documented substantial progress in sustainability accounting adoption, especially in sectors exposed to global supply chains or international investors (Ifada et al., 2025). In Indonesia, for example, green accounting indicators and sustainability disclosures have been increasingly linked to SDG-related outcomes, particularly in manufacturing and energy sectors (Maresti, 2023).

Studies comparing developed and emerging economies also reveal that sustainability accounting tends to have stronger impacts on performance outcomes in emerging markets due to higher baseline inefficiencies. For instance, sustainability accounting practices have been found to improve resource efficiency, environmental performance, and long-term productivity, demonstrating their strategic role in supporting SDG achievement (International Journal of Sustainable Development and Planning, 2023). Moreover, multi-country research suggests that improvements in ESG disclosure and sustainability accounting can contribute to national SDG performance, especially in countries such as Indonesia, India, China, and Brazil (Demystifying ESG–SDG Linkages, 2023). Nevertheless, scholars caution that without rigorous measurement frameworks, sustainability accounting in emerging markets risks being reduced to compliance-oriented reporting rather than transformative performance management. This concern is reinforced by evidence that many firms still prioritize symbolic disclosure, providing narrative explanations that lack concrete SDG-linked metrics (Gutiérrez-Ponce & Wibowo, 2023). Consequently, the literature emphasizes the need for refined sustainability accounting frameworks tailored to emerging economies, with clear indicators that align corporate practices with national SDG progress.

2.4. Integrating Sustainability Accounting into SDG Performance Frameworks

Recent theoretical and empirical developments converge toward the argument that sustainability accounting offers a promising mechanism for bridging micro-level corporate performance with macro-level SDG indicators. Sustainability accounting's ability to generate standardized environmental, social, and governance metrics makes it a valuable tool for aggregating firm-level data into national SDG monitoring systems (Pizzi et al., 2021). This integration, however, requires harmonized indicators and consistent measurement protocols, which are still lacking in most emerging markets (OECD, 2023). Scholars propose embedding SDG targets directly into sustainability accounting processes, such as cost allocation, performance measurement, managerial control systems, and investment evaluations (Maresti, 2023). Such internal integration would move organizations beyond disclosure-oriented practices toward performance-driven sustainability strategies. Research suggests that firms with advanced internal sustainability accounting systems are more capable of generating meaningful SDG contributions, as their internal decision-making is guided by measurable sustainability criteria (Khaled et al., 2021).

Governance quality emerges as a crucial factor influencing the extent to which sustainability accounting improves SDG performance. Board diversity, sustainability committees, reporting assurance, and ethical leadership all strengthen the reliability of sustainability data and the credibility of SDG reporting (Martínez-Ferrero & García-Meca, 2020). These governance mechanisms also enhance strategic alignment between accounting practices and SDG outcomes, allowing sustainability information to influence capital allocation, innovation investments, and long-term planning. Ultimately, the literature identifies sustainability accounting as both an enabler and a catalyst for SDG progress. Its ability to quantify corporate contributions, inform policy decisions, and support sustainable finance initiatives makes it integral to achieving the 2030 Agenda. Yet, the full potential of sustainability accounting will only be realized when emerging markets adopt frameworks that are contextually relevant, data-driven, and aligned with national development priorities. This research addresses precisely this gap by proposing an SDG-aligned sustainability accounting model suitable for emerging economies.

2.5. Hypothesis Development

Given the literature reviewed above, the following hypotheses are logically derived:

- H1: Firms with more comprehensive sustainability accounting practices exhibit higher measurable contributions to the Sustainable Development Goals in emerging markets.*
- H2: Corporate governance quality positively moderates the relationship between sustainability accounting practices and firms' measurable contributions to the Sustainable Development Goals.*

3. Research Methodology

This study employs a qualitative research design grounded in a systematic and integrative literature-based methodology aimed at exploring, interpreting, and synthesizing the conceptual, empirical, and methodological developments related to sustainability accounting and its role in measuring contributions to the Sustainable Development Goals (SDGs) within emerging markets. The qualitative orientation of this research reflects the epistemological assumption that complex social and organizational phenomena—such as sustainability reporting practices, SDG alignment, and institutional dynamics—are best understood through interpretive analysis rather than through numerical quantification alone. By using a literature-based qualitative design, the study seeks to develop a deep conceptual understanding of sustainability accounting frameworks and their applicability to emerging market contexts, identify gaps in the existing knowledge base, and construct an analytical model that explains how sustainability accounting practices may serve as mechanisms for SDG performance measurement at the firm level.

The methodological foundation of this research is rooted in interpretivism, which recognizes that knowledge about sustainability accounting and SDG measurement is socially constructed through scholarly debate, institutional norms, regulatory evolution, and corporate practices. Interpretivism positions the researcher as an active agent who interprets texts, theories, and empirical findings to develop new meanings and insights rather than merely summarizing or counting existing literature. Accordingly, the study adopts a hermeneutic approach in which literature is examined contextually, iteratively, and reflexively. This approach aligns with contemporary qualitative methodologies frequently employed in strategic management, sustainability research, and accounting scholarship, where the aim is to develop conceptual clarity, theoretical integration, and context-sensitive interpretation.

The research process begins with the formulation of a clear analytical focus: understanding how sustainability accounting can be employed to measure SDG contributions in emerging markets and what methodological or conceptual frameworks are currently available to support such measurement. The decision to adopt a literature-based design is driven by the recognition that sustainability accounting and SDG reporting remain evolving fields, with substantial theoretical discourse and empirical inquiry already available across diverse academic sources. Literature offers a comprehensive foundation for interpreting these developments, enabling the researcher to draw from global perspectives, cross-regional comparisons, and interdisciplinary insights. Because this study seeks not to measure firm-level data directly but to conceptualize measurement frameworks applicable across contexts, literature-based qualitative analysis is the most appropriate and rigorous methodological choice.

A systematic literature search strategy was employed to ensure the breadth and depth of source material. This strategy mirrors the principles of a systematic literature review but is adapted to qualitative interpretive goals. Academic databases such as Scopus, Web of Science, ScienceDirect, JSTOR, and Google Scholar were accessed to identify peer-reviewed articles, conceptual papers, regulatory documents, institutional reports, and relevant books. The search included terms such as “sustainability accounting,” “SDG measurement,” “SDG reporting,” “sustainability disclosure,” “emerging markets,” “accounting frameworks,” “ESG reporting,” and “sustainable performance indicators.” Boolean operators were employed to refine search precision, ensuring that retrieved studies addressed both sustainability accounting and SDG relevance directly or contributed theoretically to measurement challenges in emerging markets.

Inclusion criteria were established to ensure relevance, conceptual rigor, and contemporary significance. Only sources published within the last fifteen years were included, with particular emphasis on literature produced between 2015 and 2025, reflecting the period following the adoption of the SDGs. Foundational theoretical works predating this timeline were included selectively when they contributed essential conceptual grounding for sustainability accounting or the theoretical frameworks that underpin reporting behavior, such as stakeholder theory, legitimacy theory, and institutional theory. Exclusion criteria removed non-peer-reviewed commentaries, non-academic opinion pieces, and sources lacking methodological transparency or empirical relevance. Grey literature produced by international organizations such as the United Nations, the OECD, the World Bank, and the International Integrated Reporting Council was included when such documents provided conceptual frameworks or policy insights directly shaping SDG-related reporting.

The qualitative analysis process followed an iterative coding procedure inspired by grounded theory methodology, although adapted to a literature-based dataset rather than primary empirical data. Each selected document was read multiple times to identify key concepts, emerging themes, theoretical tensions, and methodological insights. Coding categories emerged inductively from the literature, capturing constructs such as sustainability accounting practices, environmental and social performance indicators, SDG reporting frameworks, institutional pressures, governance influences, methodological inconsistencies, and performance measurement gaps. These categories were further refined through constant comparison, allowing the researcher to integrate emerging patterns across diverse academic sources.

Throughout the coding and analysis process, particular attention was given to the contextual characteristics of emerging markets, including institutional voids, regulatory variability, economic development pressures, governance structures, and exposure to global supply chain expectations. These contextual factors were analyzed interpretively to understand how they may shape the adoption, design, and effectiveness of sustainability accounting frameworks. Themes related to regulatory enforcement, stakeholder demands, and reporting incentives were examined to identify how firms in emerging markets may differ from their counterparts in advanced economies regarding SDG-oriented reporting. This interpretive contextualization is a core strength of qualitative literature-based research because it enables the researcher to capture the nuances, contradictions, and contextual contingencies often overlooked by purely quantitative approaches.

During synthesis, the coded themes were organized into conceptual clusters that facilitated integrative analysis. These clusters included macro-level considerations such as global sustainability reporting trends, meso-level mechanisms such as industry practices and institutional pressures, and micro-level factors such as internal governance structures and sustainability accounting systems. The synthesis process aimed not only to map existing knowledge but also to interpret its implications for SDG measurement. This interpretive synthesis enabled the development of a conceptual model illustrating how sustainability accounting can be positioned as an SDG measurement tool in emerging markets. The model was constructed by connecting themes identified across the literature, identifying causal pathways, and highlighting the relationships between accounting practices, governance, institutional environments, and SDG outcomes.

To ensure methodological rigor, the study followed criteria of qualitative trustworthiness: credibility, dependability, confirmability, and transferability. Credibility was strengthened through triangulation across a wide range of academic sources representing multiple disciplines and perspectives. Dependability was supported by the systematic documentation of search procedures, coding steps, and analytical decision-making. Confirmability was enhanced by reflexive analysis, in which the researcher critically examined assumptions and potential biases while interpreting literature. Transferability was reinforced by the development of a conceptual framework that can be applied to various emerging market contexts while remaining sensitive to local institutional variations. Ethical considerations were addressed by ensuring accurate citation, avoiding misrepresentation of theoretical positions, and respecting intellectual property norms. As a literature-based study, no human participants were involved, eliminating concerns over informed consent or confidentiality. However, ethical rigor remained central in the interpretive process to ensure fair, balanced, and honest representation of scholarly debates, conceptual arguments, and empirical evidence.

The qualitative methodological design also recognizes that literature-based research contributes not only to knowledge synthesis but also to theory building. Through integrative review and interpretive synthesis, this research aims to clarify ambiguous constructs, reconcile inconsistencies across studies, and propose new conceptual linkages that advance scholarly understanding. In the context of sustainability accounting and SDG measurement, the literature reveals a lack of consensus on indicators, measurement models, and frameworks suitable for emerging markets. The interpretive approach taken in this study seeks to contribute to this academic conversation by offering a theoretically grounded model that draws on empirical insights and conceptual developments identified across the literature base. Furthermore, the methodological orientation of this study supports the development of hypotheses for future empirical testing. The qualitative analysis uncovers patterns and relationships that suggest meaningful connections between sustainability accounting practices, governance quality, and SDG-related performance outcomes. Although this study does not test these hypotheses quantitatively, the identification of theoretical relationships forms an essential foundation for future research. This aligns with the exploratory and theory-building objectives of qualitative literature-based methodology, which seeks to advance conceptual clarity and identify research gaps that warrant further empirical investigation.

In conclusion, the qualitative literature-based research method adopted in this study provides a robust and rigorous foundation for analyzing sustainability accounting and SDG measurement frameworks in emerging markets. Through systematic search strategies, interpretive coding, thematic synthesis, and contextual analysis, the study integrates diverse scholarly perspectives into a coherent conceptual understanding of how sustainability accounting may function as a mechanism for SDG performance measurement. The method enables deep engagement with complex theoretical and empirical debates, while also supporting the development of a conceptual framework and hypotheses that can inform both academic scholarship and practical advancements in sustainability reporting. This methodological approach not only enhances theoretical knowledge but also offers practical implications for policymakers, regulators, and organizations seeking to strengthen sustainability accounting and contribute more effectively to SDG achievement in emerging markets.

4. Result And Discussion

The results and discussion presented here synthesize a broad body of contemporary scholarship on sustainability accounting, SDG reporting, ESG disclosure practices, and institutional dynamics in emerging markets. Instead of reporting statistical outcomes, this qualitative literature-based study provides analytical findings that emerge from thematic convergence across numerous empirical and conceptual studies. These findings collectively reveal that sustainability accounting is gradually shifting from a symbolic reporting practice to a more structured and performance-oriented framework capable of measuring corporate contributions to the Sustainable Development Goals. Yet, the full potential of sustainability accounting remains constrained by institutional variability, methodological fragmentation, and inconsistent governance quality across emerging economies. The following four sub-sections elaborate the major thematic results that underpin the proposed conceptual framework.

4.1. Empirical Patterns of Sustainability Accounting and SDG Disclosure in Emerging Markets

Across the literature, there is strong evidence that sustainability accounting and SDG disclosure practices have expanded significantly within emerging markets over the past decade. Scholars studying Indonesia, India, Brazil, South Africa, the Gulf region, and several ASEAN countries consistently report an increase in sustainability reporting adoption and a growing number of firms referencing SDG objectives within their disclosures. Much of this growth is attributed to rising pressure from global supply chains, the spread of voluntary reporting standards such as GRI and Integrated Reporting, and the accelerated influence of investors who increasingly evaluate firms based on ESG performance. While disclosure volumes have risen, the depth and quality of sustainability accounting indicators vary significantly across sectors and countries. Studies frequently observe that the disclosed indicators tend to focus on easily measured or reputationally advantageous metrics—such as carbon emissions, charitable activities, or workforce diversity—while more complex SDG-linked impacts, particularly those related to biodiversity, inequality, and responsible consumption, are often underreported.

In analyzing these emerging patterns, researchers note that sustainability accounting functions as a structural backbone for organizing reported information. Firms with established environmental accounting practices or formal sustainability management systems tend to disclose richer sets of indicators and demonstrate greater alignment with SDG-relevant performance outcomes. Several empirical studies in Indonesia and Southeast Asia show that firms utilizing green accounting frameworks exhibit stronger environmental performance and higher sustainability scores, indicating that accounting-based processes contribute to measurable improvements. Other studies across Africa and South Asia similarly find that companies integrating structured sustainability accounting into their operations produce more comprehensive ESG disclosures and are more likely to articulate the specific SDGs to which their activities contribute. Despite this progress, a recurrent finding in the literature is the persistence of a disclosure–performance gap. Many companies that publish extensive sustainability or SDG disclosures do not always demonstrate proportional improvements in actual environmental or social performance indicators. Scholars attribute this inconsistency to symbolic reporting practices, legitimacy-seeking behavior, insufficient internal data systems, and the absence of standardized SDG measurement frameworks. As a result, SDG references in corporate reports are often descriptive rather than data-driven, making it difficult to evaluate whether firms genuinely contribute to national SDG progress. The literature further notes that in emerging

markets, the absence of consistent regulatory enforcement exacerbates the gap, allowing firms to selectively report favorable indicators while omitting critical but unfavorable ones.

The results also highlight a need for long-term and sector-specific research to better understand the effectiveness of sustainability accounting in emerging markets. Scholars emphasize that sustainability accounting practices evolve differently across high-impact sectors such as mining, energy, agriculture, and manufacturing. Sectoral case studies show that while some industries demonstrate strong environmental accounting maturity and measurable progress toward SDG indicators, others exhibit fragmented reporting practices with substantial room for improvement. These findings underscore the necessity of building a more harmonized and context-adapted sustainability accounting framework capable of capturing both sector variability and national development priorities.

4.2. Linking Sustainability Accounting, ESG Disclosure, and SDG Performance

The literature reveals an increasingly interconnected relationship between sustainability accounting, ESG disclosure, and SDG performance. Sustainability accounting generates structured environmental, social, and governance data, which are transformed into ESG disclosures for external audiences. Numerous empirical studies in emerging markets show that strong ESG disclosure tends to correlate with higher financial performance, stronger market valuation, and enhanced investor confidence. These outcomes suggest that ESG metrics derived from robust accounting systems are perceived by markets as reliable signals of long-term strategic capability and risk management competency. Building on this connection, a growing body of research investigates whether ESG disclosure contributes to SDG achievement. Multi-country studies examining regions such as India, China, Indonesia, and Brazil demonstrate that firms with higher ESG transparency tend to score better on composite sustainability indices that approximate SDG-related performance. While these correlations do not necessarily imply causation, they provide persuasive evidence that aggregated ESG disclosure—originating from sustainability accounting practices—plays a meaningful role in shaping national SDG outcomes. In particular, environmental indicators connected to SDG 12 (Responsible Consumption), SDG 13 (Climate Action), and SDG 15 (Life on Land) are found to be among the most measurable and responsive to structured accounting systems.

Researchers also highlight the methodological challenges that currently limit stronger empirical conclusions. There is substantial variation in how studies operationalize and measure SDG performance at the firm level. Some studies construct SDG disclosure indices manually using text analysis, while others rely on third-party ESG ratings, self-reported sustainability indicators, or national SDG dashboards. Due to these inconsistencies, comparing results across studies becomes difficult, and the literature frequently calls for more standardized measurement tools that align accounting indicators directly with SDG targets. Nonetheless, most scholars agree that sustainability accounting occupies a mediating role: it provides the quantitative basis for ESG reporting, which then influences SDG-related outcomes indirectly by shaping corporate decision-making, investor behavior, and regulatory expectations. A critical insight from the literature is that sustainability accounting strengthens the internal capacity of firms to align their strategies with SDG objectives. When the accounting system includes SDG-related metrics within budgeting, cost allocation, environmental cost tracking, and sustainability performance evaluation, firms are more likely to implement substantive environmental and social improvements. This internal integration differentiates symbolic external ESG disclosure from performance-driven sustainability transformations. Studies demonstrate that companies with advanced sustainability accounting systems tend to set clearer environmental targets, measure progress more consistently, allocate more resources to sustainability initiatives, and achieve measurable improvement in SDG-aligned indicators. Thus, sustainability accounting is not merely a reporting mechanism but a managerial tool that, when strategically embedded, can steer organizations toward SDG-oriented decision-making.

From a forward-looking perspective, these findings suggest that future research should explore the mediating and moderating roles of sustainability accounting within the ESG–SDG relationship. There is considerable potential to examine how accounting processes influence ESG score improvements, how these scores translate into SDG achievements, and which contextual variables—such as industry type, country regulations, or governance quality—shape these relationships. Such analysis would substantially deepen the theoretical understanding of sustainable corporate behavior in emerging markets and support the design of more effective SDG-oriented reporting policies.

4.3. Governance, Institutions, and the Quality of SDG-Oriented Sustainability Accounting

A dominant theme across the literature is the crucial role of governance and institutional structures in determining the quality and effectiveness of sustainability accounting for SDG measurement. Studies from regions including Southeast Asia, Sub-Saharan Africa, South Asia, and Latin America consistently demonstrate that strong governance—reflected in board independence, gender diversity, expertise in sustainability, and the presence of dedicated sustainability committees—enhances the credibility, transparency, and strategic relevance of sustainability accounting systems. Firms with stronger governance structures are more likely to produce high-quality ESG disclosures, articulate SDG alignments more comprehensively, and implement internal monitoring systems that reduce the risk of symbolic reporting. Institutional theory perspectives reinforce these findings by explaining how external environments shape corporate sustainability practices. In countries with strong regulatory enforcement, clear sustainability guidelines, active civil society engagement, and robust capital markets, firms experience greater pressure to ensure that sustainability accounting is accurate, complete, and aligned with SDG objectives. Conversely, in institutional environments characterized by weak regulation, corruption risk, fragmented reporting standards, and limited public scrutiny, sustainability accounting often becomes compliance-oriented rather than transformational. Several studies highlight that in such contexts, firms may reference SDGs without integrating them into internal performance measurement processes—a practice commonly referred to as “SDG-washing.”

Research focused on emerging markets further shows that institutional variability deeply influences the pace and trajectory of sustainability accounting evolution. For example, firms operating in export-oriented or globally exposed industries tend to adopt more advanced sustainability accounting practices due to external pressure from international buyers and investors, even when domestic institutions are weak. On the other hand, domestically oriented firms or those in highly regulated but poorly enforced sectors often exhibit minimal adoption of SDG-aligned accounting systems. This variability underscores the importance of designing sustainability accounting frameworks that are adaptable to different institutional conditions while still promoting credible and measurable SDG performance. An important conceptual result is the identification of governance quality as a moderating mechanism between sustainability accounting practices and SDG outcomes. High governance quality enhances the effectiveness of accounting systems by ensuring that sustainability information is not only collected but also acted upon. In firms where governance structures prioritize sustainability, accounting data become strategically embedded in planning, investment decisions, and performance evaluations. These internal dynamics directly influence SDG-related outcomes, making governance a critical component in the proposed measurement framework. Future research could explore how specific governance attributes—such as ownership structure, board sustainability literacy, or external assurance mechanisms—shape the reliability of SDG-oriented sustainability accounting in different emerging markets.

4.4. Toward a Sustainability Accounting Framework for Measuring SDG Contribution and Future Research Directions

Synthesizing the patterns identified in the literature, this study proposes that an effective SDG-oriented sustainability accounting framework for emerging markets must integrate four foundational components: SDG-aligned indicators, governance mechanisms, internal management controls, and context-sensitive institutional adaptation. A key result emerging from the synthesis is that sustainability accounting frameworks must explicitly link environmental and social indicators to specific SDG targets and sub-targets. This alignment requires selecting indicators that are material, measurable, and relevant within local development contexts. The literature shows that many firms reference SDGs in sustainability narratives but do not map their accounting indicators directly onto SDG metrics, resulting in ambiguous claims and limited evaluability. The second component concerns governance. Based on extensive empirical evidence, governance quality enhances the strategic use of sustainability accounting and increases the reliability of SDG measurement. Therefore, the framework should incorporate governance indicators—such as board independence, sustainability committees, and reporting assurance—as essential conditions for credible SDG accounting. These governance indicators do not measure SDG outcomes directly but ensure that sustainability accounting processes are rigorous, transparent, and strategically integrated.

The third component focuses on internal management control systems. Several studies emphasize that sustainability accounting becomes transformative only when embedded in operational decision-making

processes. This includes integrating SDG-aligned metrics into cost accounting, resource efficiency tracking, performance appraisal systems, capital budgeting, and risk assessment procedures. When internal controls incorporate sustainability data, firms are more likely to achieve improvements in environmental quality, social welfare contributions, and long-term resilience—outcomes that directly reinforce SDG progress. A sustainability accounting framework that merely structures external disclosure cannot deliver these results; internal integration is essential. Finally, the proposed framework must account for institutional diversity across emerging markets. Countries differ widely in regulatory maturity, data infrastructure, enforcement capacity, cultural expectations, and market dynamics. Therefore, a one-size-fits-all sustainability accounting model is neither feasible nor desirable. Instead, the framework should offer adaptable modules that can be customized based on sector characteristics, national development priorities, and institutional capabilities. For example, in countries with weak enforcement, emphasizing external assurance and stakeholder engagement may enhance credibility, whereas in countries with more advanced institutions, digital reporting systems or integrated reporting may offer better SDG alignment.

5. Conclusion

The synthesis of sustainability accounting, SDG reporting, ESG disclosure, and institutional dynamics across emerging markets demonstrates that sustainability accounting has evolved beyond its traditional role as a peripheral reporting mechanism into a potentially transformative system for measuring and guiding corporate contributions to sustainable development. The literature collectively reveals that sustainability accounting serves as a structural foundation for generating quantitative and qualitative information that can be mapped to specific SDG targets, although this mapping remains uneven and underdeveloped in practice. Empirical patterns show increased disclosure activity and broader sustainability engagement across firms in emerging economies, yet the persistence of the disclosure–performance gap highlights critical limitations in current reporting approaches. Theoretical insights drawn from stakeholder theory, legitimacy theory, and institutional theory further illuminate how firms respond to external expectations and internal governance pressures when undertaking sustainability reporting. Sustainability accounting, therefore, occupies a central position within a multi-dimensional ecosystem of corporate responsibility, institutional pressure, market signaling, and performance management. Its conceptual potential to operate as a bridge between micro-level business practices and macro-level sustainable development outcomes becomes evident when aligned with SDG frameworks. However, this potential requires deliberate integration of SDG-aligned indicators, governance mechanisms, and internal management controls to ensure that sustainability accounting can capture not only what firms choose to report, but what they actually contribute to sustainable development. The theoretical implication is that sustainability accounting should no longer be conceptualized merely as an external disclosure practice, but rather as a comprehensive socio-technical system embedded within organizational governance, decision-making, and strategy, serving simultaneously as a measurement tool, an accountability mechanism, and a driver of sustainable transformation.

The discussion also highlights that governance quality and institutional conditions profoundly influence the reliability and usefulness of sustainability accounting for SDG measurement. Strong governance—expressed through board independence, sustainability oversight structures, transparency cultures, and internal monitoring capabilities—strengthens the accuracy and credibility of sustainability information. Conversely, institutional weaknesses, such as low regulatory enforcement, limited data infrastructure, and weak stakeholder scrutiny, reduce the transformative potential of sustainability accounting and create environments in which symbolic reporting flourishes. The comparative insights from emerging economies demonstrate that sustainability accounting evolves most rapidly when both internal governance mechanisms and external institutional pressures converge to create expectations of transparency, consistency, and measurable impact. This dynamic underscores a core theoretical implication: the effectiveness of sustainability accounting cannot be understood in isolation from governance and institutional systems. For sustainability accounting to function as a reliable instrument for SDG measurement, it must operate within an ecosystem that supports rigorous data generation, systematic verification, and strategic utilization. Managerially, this means that firms must treat sustainability accounting not as a communication exercise but as an integrated management function. Organizations must build accounting systems that capture material SDG-linked indicators, invest in governance structures capable of interpreting sustainability information, and adopt internal processes that embed sustainability metrics into resource allocation, performance evaluation, and strategic planning. Moreover, managers in emerging markets must recognize that sustainability accounting is not only an operational tool but also a source of competitive advantage, shaping stakeholder perceptions, investment attractiveness, and long-term

resilience. The process of internalizing SDG-aligned sustainability accounting thus requires capacity building, internal training, technological investment, and cross-functional coordination, all of which elevate accounting from a compliance function to a strategic enabler of sustainability.

Looking ahead, the integrative framework proposed through this study reveals that sustainability accounting holds significant promise as a mechanism for measuring SDG contributions in emerging markets, yet realizing this promise demands methodological innovation, institutional strengthening, and managerial transformation. From a theoretical standpoint, future research must develop clearer operational definitions for SDG-aligned accounting indicators, establish standardized measurement models applicable across sectors and countries, and examine causal pathways that link sustainability accounting practices to measurable SDG outcomes. Emerging markets present an especially fertile context for advancing theory because they encapsulate the tension between rapid economic development and sustainability commitments. Understanding how sustainability accounting functions within these contexts can enrich theories of corporate responsibility, institutional adaptation, and sustainable value creation. From a managerial perspective, the conclusion underscores that firms must move beyond symbolic reporting and cultivate sustainability accounting systems that are deeply embedded in internal governance structures and decision-making processes. Managers must ensure that sustainability reporting reflects substantive performance rather than reputational narratives, and regulators must design policies that encourage transparency, comparability, and accountability. Capacity-building initiatives, assurance mechanisms, digital reporting platforms, and harmonization with international sustainability standards will be essential to strengthen the credibility and usefulness of SDG measurement in emerging markets. Ultimately, sustainability accounting must be understood as a dynamic and evolving framework that supports not only the measurement of corporate SDG contributions but also the strategic transformation of organizations as they adapt to global sustainability imperatives. Through theoretically grounded insights and actionable managerial implications, the discussion reaffirms that sustainability accounting—when properly implemented—can serve as a powerful engine for sustainable development and a cornerstone of future economic systems in emerging markets.

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