

INTEGRATING GREEN ACCOUNTING INTO SUSTAINABLE BUSINESS STRATEGIES: EFFORTS TO ACHIEVE THE SUSTAINABLE DEVELOPMENT GOALS (SDGs)

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Abstract

Business evolves from short-term profit-maximizing calculation towards value creation. One major reason is the inability of the traditional accounting system to internalize environment-related externality. Therefore, green accounting should be put into consideration when developing business strategies. The purpose of this research is to evaluate green accounting incorporation types in sustainable business strategy development and how they link micro actions to macro values in achieving Sustainable Development Goals (SDGs). This research employed the Systematic Literature Review (SLR) technique following PRISMA 2020 guideline on 31 scientific journals published between 2016-2026 from the Scopus, ScienceDirect, and Google Scholar database. Thematic Analysis was used to qualitatively and argumentatively analyze the data extracted. Results from literature review reveal that green accounting through Environmental Management Accounting (EMA) tools, Material Flow Cost Accounting (MFCA), and carbon accounting served as calculative capabilities to turn perceived environmental costs into business opportunities. Moreover, companies that have incorporated environment costs were found to encourage green innovation, lower cost of equity, and discourage greenwashing activities. This research also develops a public value linkage integration model that shows how corporate calculations affect the achievement of SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 17 (Partnerships for the Goals). This research suggests policy makers to make environmental costs disclosures compulsory and management to consider environment accounting-based public reform of management control.

Keywords: *Green Accounting, Environmental Management Accounting, Sustainable Business Strategy, Sustainable Development Goals (SDGs)*

1. INTRODUCTION

Accountability towards society is prompting companies to shift from single bottom-line profit-focus to a triple-bottom line outlook in favour of stakeholders over shareholders. Companies are increasingly being viewed as "the cause of many environmental problems and the key to the solution" (Elkington, 2020). Operating on an international scale, addressing the 2030 agenda (adopting the SDGs 12,13,17; Sustainable Development Goals: Responsible Consumption and Production, Climate Action, and Partnerships respectively)

requires corporates to establish accountable, quantifiable and cohesive sustainability efforts (Bebbington & Unerman, 2020). Traditional accounting mechanisms have shown themselves to be ineffective, able to recognise only those costs which can be explicitly measured against financial outlay. Environmental harm, meanwhile, has been accepted as "the dirty secret that nobody admits" (Deegan, 2023). Recognising environmental costs continues to fall beyond the scope of traditional accounting methods, thus it is the inadequacy of these tools which propels green accounting initiatives.

Green accounting should not be understood solely as a technical tool of reporting which complements the yearly report cycle. On the contrary, it is best seen as a strategic calculative tool that incorporates environmental costs into organizational decision-making processes (Schaltegger & Burritt, 2021). When businesses recognize, measure, allocate, and disclose their environmental costs, they provide monetary transparency around issues of material efficiency, waste impacts, and externalized ecological damage mitigation. From legitimacy theory and stakeholder theory perspectives, green accounting internalized as part of corporate strategy and operations is a critical mechanism to decrease informational asymmetries between leadership and the general public, and improve license to operate as market sentiment continues to favor ESG (Environmental, Social and Governance) compliance and adherence (Freeman et al., 2020; Gray et al., 2022). Organizations that actively and substantively engage with green accounting have been found to increase longevity, lower cost of capital, and limit risk associated with future regulations (Latan et al., 2022).

Although green accounting has gained importance at the theoretical level, empirical applications continue to show ambiguity. For example, some businesses perceive environmental expenses as an economic cost (sunk cost) incurred that sacrifices profitability instead of acknowledging them as investment towards sustainable competitive advantage (Al- T uwaijri et al., 2020). As a result, environmental disclosures across industries tend to succumb to greenwashing, using green accounting figures ceremonially with no real changes implemented operationally (Lauwo et al., 2022). Moreover, inconsistencies in reporting approaches and a lack of connection between environmental accounting metrics and SDG targets have led to differences in methodological interpretations between scholars and practitioners (Adams et al., 2021).

This gap is further intensified by the scattered characteristics of existing literature reviews. Prior empirical studies primarily focus on testing incomplete causal linkages between green accounting practice and financial performances within local levels or industry-specific scopes, lacking thorough investigations on the overall mechanism through which green accounting practices convert into a firm-wide business strategy to achieve SDGs. (Sari et al., 2023; Gunawan & Hapsari, 2022) Though several literature reviews that summarize the conceptual development, pathway integration, and future research direction of this topic exist, they are far from enough. As such synthesis is not available, our

understanding of the procedures through which green accounting transitions from mere computation to sustainable performance toward SDGs will continue to be incomplete and biased.

Rationally and measurably considering the knowledge gap and practical exigency of the topic, this study employed the Systematic Literature Review (SLR) method guided by PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol to critically search, analyze, and synthesize high-quality indexed scientific studies published over the last decade. By applying SLR procedure, this study is able to taxonomically map out the existing body of literature on how green accounting is integrated in business strategy-making processes, what drivers and barriers they encounter, and propose a conceptual model objectively linking green accounting practice to achieving the SDGs free from subjective interpretation presented in typical narrative review papers. The outcome of this systematic mapping and review will fill the theory-gap in sustainability accounting body of knowledge and offer practical reference for corporate top management and policy regulators when designing future impactful environmental accountability policies.

2. RESEARCH METHOD

This study employs a Systematic Literature Review (SLR) approach designed to identify, evaluate, and interpret all relevant empirical evidence in order to answer specific research questions (Kitchenham & Charters, 2007). To ensure the study's transparency, traceability, and replicability, the review protocol was developed in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Page et al., 2021). The research procedure was conducted through four main stages: identification, screening, eligibility, and inclusion (Chamidi et al. 2025).

2.1 Search Strategy and Database Sources

A literature search was conducted on reputable academic databases, namely Scopus, ScienceDirect, and Google Scholar, by limiting the publication range to the last ten years (2016-2026). This temporal limitation is considered relevant to capture the research trajectory since the ratification of the SDGs agenda by the UN in late 2015 to the dynamics of the latest sustainability reporting regulations. The search strategy combines Boolean operators (*AND* , *OR*) and word truncation (*wildcards/truncation*) in the title, abstract, and keywords: (“Green Accounting” OR “Environmental Accounting” OR “Environmental Management Accounting”) AND (“Sustainable Business Strategy” OR “Corporate Sustainability” OR “Business Sustainability”) AND (“Sustainable Development Goals” OR “SDGs” OR “Agenda 2030”).

2.2 Eligibility Criteria (Inclusion and Exclusion)

The definition of literature coverage is strictly regulated through transparent inclusion and exclusion criteria to minimize selection bias.

Table 1 Eligibility Criteria

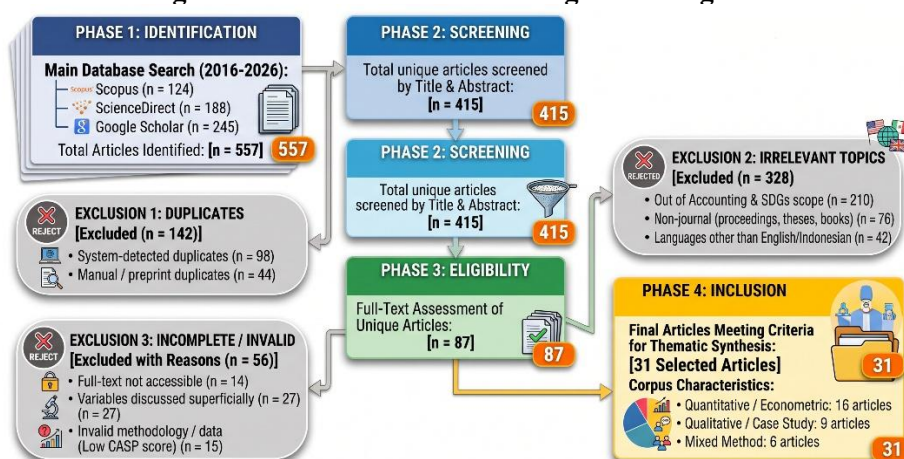
Criteria	Inclusion Criteria	Exclusion Criteria
Document Type	Peer-reviewed scientific journal articles	Proceedings, book chapters , non-peer reviewed reports, editorials, theses
Focus of Study	Discussing the integration/relationship of <i>green accounting</i> , business strategy, and SDGs substantively	Just mentioning the term publicly without any empirical or theoretical analysis
Time Period	Published between 2016 and 2026	Published before 2016
Accessibility	Full text is accessible (<i>Open Access / Full-text available</i>)	Only abstracts or paid articles without access to the full text
Language	English and Indonesian	Languages other than English and Indonesian

Source: Data processed, 2026

2.3 PRISMA 2020 Selection Stages

The manuscript screening process is carried out in stages to ensure that only articles with adequate methodological rigor are analyzed:

Figure 1. PRISMA 2020 Screening Flow Diagram



Literature screening began with data identification through three major databases (Scopus, ScienceDirect, and Google Scholar), resulting in an initial collection of 557 manuscripts. After eliminating 142 duplicate articles, 415 manuscripts underwent title and

abstract screening. From this stage, 328 manuscripts were excluded due to inconsistencies in substantive topics, non-journal article document types, and public publicity. A total of 87 full-text manuscripts were subjected to an in-depth full-text eligibility assessment. In the final evaluation stage, 56 manuscripts were excluded with explicit justification related to limited access to full manuscripts, shallow variable analysis, and methodological weaknesses based on the CASP assessment. This process resulted in a final corpus of 31 reputable scientific articles that were further analyzed using a thematic synthesis approach.

2.4 Data Extraction and Quality Assessment

Each article that passed the eligibility stage was extracted into a structured tabulation worksheet (data extraction form). The information recorded included: (1) article metadata (authors, year, journal name, indexing); (2) research context (country, manufacturing or service industry sector); (3) the green accounting variables and business strategy instruments under study; and (4) specific SDG targets directly correlated with the research. The methodological quality of each study was evaluated using an instrument adapted from the Critical Appraisal Skills Programme (CASP) to ensure the validity of the analyzed findings. The following is a curation of 31 scientific articles. (Sinta-accredited national journal and reputable international/Scopus) in the last 10 years (2016-2026) which examines the interconnection of Green Accounting/Environmental Management Accounting (EMA), sustainable business strategies, and Sustainable Development Goals (SDGs).

Table 2 Details of Filtered Articles

No	Author & Year	Article Title	Focus on Green Accounting & Sustainability Dimensions	Relevance of SDGs Targets
1	Bebbington & Unerman (2018)	<i>Achieving the United Nations Sustainable Development Goals: An enabling role for accounting research</i>	Accounting framework in driving SDGs reporting and public governance	SDG 12, SDG 13, SDG 17
2	Bebbington & Unerman (2020)	<i>Advancing research into accounting and the UN Sustainable Development Goals</i>	Integrating sustainability accounting into global corporate policies	SDG 12, SDG 13
3	Nakpodia et al. (2026)	<i>Sustainable development goals, accounting practices and public financial management: A pre and post COVID-19 assessment</i>	International standard accounting practices, public transparency, and allocation of public resources	SDG 3, SDG 7, SDG 13

Integrating Green Accounting Into Sustainable Business Strategies: Efforts To Achieve The Sustainable Development Goals (SDGS)

Rahma et al, 2026

4	Pamungkas et al. (2024)	<i>Impact of Corporate Social Responsibility Between Implementation of Green Accounting and Sustainable Development Goals (SDGS): A Study on Heavily Polluting Companies in Energy and Transportation & Logistics Sectors in Indonesia</i>	Environmental responsibility costs, environmental restoration/reclamation, and CSR moderation	SDG 12, SDG 13
5	Sintadevi et al. (2024)	<i>Sustainability Reporting and Green Accounting: A Review of the Applied Accounting Research Agenda</i>	Integration of sustainability reporting, environmental cost accounting, and applied research methodologies	SDG 12, SDG 13
6	Wardi et al. (2025)	<i>Development of Sustainability Reporting Research on the Scopus Database Systematic Literature Review</i>	Evaluation of environmental cost accounts, PROPER regulations, POJK 51/2017, and global reporting trends	SDG 12, SDG 13
7	Wahyuni (2024)	<i>Bibliometric Analysis: Green Accounting Research Trends Using Scopus Database</i>	Mapping of environmental accounting clusters, indirect costs/benefits, and sustainable development	SDG 12
8	Martinčević et al. (2025)	<i>Sustainable Accounting in the Function of Sustainable Development</i>	Triple Bottom Line (TBL), Environmental Management Accounting (EMA), and ESG/SDGs integration	SDG 12, SDG 13, SDG 17
9	Fathurohman et al. (2025)	<i>Integration of Green HRM and Corporate Social Responsibility: Efforts to Improve Sustainable Performance</i>	Internal green culture, ESG compliance, and sustainability strategy synergy	SDG 12, SDG 13
10	Rusnawati & Masyhuri (2026)	<i>The Role of Accounting Information Systems in the Integration of Environmental Accounting and CSR to</i>	Digitalization of SIA, identification of waste costs, emissions, and integrated reporting Triple Bottom Line	SDG 8, SDG 12, SDG 13

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| 11 | Sari (2025) | <i>Green Accounting 5.0: Green Accounting Transformation in Driving Financial Sustainability of Indonesian Companies</i> | Adoption of digital/AI/Big Data technologies for emission monitoring and ecological cost efficiency | SDG 9,
SDG 12,
SDG 13 |
| 12 | Meiliana et al. (2025) | <i>SDGs Disclosure Quality and Green Accounting: Implications for Financial Performance</i> | Environmental cost to net profit ratio and SDGs item compliance level | SDG 7,
SDG 12,
SDG 13 |
| 13 | Dhar et al. (2022) | <i>Impact of social responsibility disclosure between implementation of Green Accounting and sustainable development: A study on heavily polluting companies in Bangladesh</i> | The impact of environmental accounting implementation on sustainable development capacity | SDG 12 |
| 14 | Saputra et al. (2021) | <i>Combining the Concept of Green Accounting with the Regulation of Prohibition of Disposable Plastic Use</i> | Internalization of ecological costs related to plastic waste restriction regulations | SDG 12,
SDG 14 |
| 15 | Rosati & Faria (2019) | <i>Addressing the SDGs in sustainability reports: The relationship with institutional factors</i> | The influence of public institutions on the adoption of SDGs indicator reporting | SDG 12,
SDG 13 |
| 16 | Tsalis et al. (2020) | <i>New challenges for corporate sustainability reporting: United Nations' 2030 Agenda for sustainable development and the sustainable development goals</i> | GRI disclosure matrix and alignment of report indicators with UN targets | SDG 12,
SDG 13 |

Integrating Green Accounting Into Sustainable Business Strategies: Efforts To Achieve The Sustainable Development Goals (SDGS)

Rahma et al, 2026

17	Christensen et al. (2021)	<i>Mandatory CSR and sustainability reporting: economic analysis and literature review</i>	The impact of mandatory sustainability reporting regulations and executive compensation oversight	SDG 12, SDG 16
18	Al-Shaer & Zaman (2019)	<i>CEO Compensation and Sustainability Reporting Assurance: Evidence from the UK</i>	Public governance of sustainability committees, green target-based compensation, and independent insurance	SDG 12, SDG 13
19	Shad et al. (2019)	<i>Integrating sustainability reporting into enterprise risk management and its relationship with business performance: A conceptual framework</i>	Moderation of sustainability reporting within the ERM and Economic Value Added (EVA) framework	SDG 8, SDG 12
20	Buallay (2019)	<i>Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector</i>	Association of individual ESG disclosures with operational, financial, and market performance	SDG 8, SDG 12
21	Pramono et al. (2023)	<i>Sustainability Management Accounting in Achieving Sustainable Development Goals: The Role of Performance Auditing in the Manufacturing Sector</i>	The role of Sustainability Management Accounting (SMA) and public environmental management (EMS)	SDG 9, SDG 12
22	Alakkas et al. (2023)	<i>The Impact of Sustainability Accounting on Environmental Performance and Productivity: A Panel Data Analysis</i>	Environmental efficiency, productivity measurement, and industrial pollution mitigation	SDG 12
23	Wahyuningrum et al. (2023)	<i>Environmental sustainability disclosure in Asian countries: Bibliometric and content analysis</i>	Disclosure of ecological conservation in corporations in the Asian region	SDG 12, SDG 13

24	Latan et al. (2018)	<i>The effects of corporate environmental strategy on environmental performance: The role of green accounting</i>	The mediating role of Environmental Management Accounting (EMA) in green operational performance	SDG 9, SDG 12
25	Burritt et al. (2019)	<i>The central role of environmental management accounting in plastic waste management</i>	Measurement of solid waste material flow (Material Flow Cost Accounting / MFCA)	SDG 12, SDG 14
26	Agustia et al. (2020)	<i>The Mediating Effect of Environmental Management Accounting on Green Innovation - Firm Value Relationship</i>	Financing clean process innovation and environmental burden allocation	SDG 9, SDG 12
27	Henri & Journeault (2018)	<i>Management control systems and sustainable development: The role of EMA</i>	Internal ecological cost tracking and management control system	SDG 12, SDG 13
28	Lauwo et al. (2022)	<i>Environmental accounting and greenwashing: An institutional logic perspective</i>	The rhetoric of sustainability reporting versus real cost accountability (greenwashing)	SDG 12, SDG 16
29	Schaltegger et al. (2022)	<i>Sustainable Development Goals and sustainable business models in the financial sector</i>	Transmission of environmental public calculations into green financing instruments	SDG 8, SDG 13
30	Christ & Burritt (2017)	<i>Material flow cost accounting for food waste in the restaurant industry</i>	Implementation of ISO 14051 standard in tracking food waste	SDG 2, SDG 12
31	Nurcahyono et al. (2023)	<i>Green accounting, carbon emission disclosure, and cost of equity capital</i>	The effect of carbon emission cost transparency on reducing the cost of equity capital	SDG 8, SDG 13

Source: Data processed, 2026

2.5 Data Synthesis and Analysis Procedures

Given the diversity of methodological designs and measurement indicators in the selected literature, data synthesis was conducted using thematic analysis (Braun & Clarke, 2021). The data analysis procedure was carried out through the following systematic steps:

1. Data Familiarization, Rereading the full text manuscript to understand the context and nuances of the empirical findings.
2. Initial Coding, Identifying data fragments related to environmental cost recognition, forms of circular strategy adoption, and achievement of SDG targets.
3. Searching for Themes, Grouping the codes of findings into main analytical clusters (e.g.: drivers of adoption, structural barriers, value transmission mechanisms, and impact on achieving SDG targets 12, 13, and 17).
4. Review and Definition of Themes, Verifying internal coherence between themes to build a robust conceptual integration model.
5. Argumentative Narrative Synthesis, Articulating findings into a critical narrative to uncover scientific consensus, disparities in findings (conflicting results), and future research gaps.

3. RESULTS AND DISCUSSION

A systematic synthesis of 31 selected scholarly articles reveals a fundamental shift in the discourse on sustainability accounting. Green accounting is no longer positioned merely as a ceremonial instrument for compliance reporting; instead, it has transformed into an internal calculative capability that shapes business strategy and accelerates the achievement of Sustainable Development Goals (SDGs). Based on a thematic analysis, the discussion is organized into three clusters of analytical findings and a synthesized conceptual visualization model.

3.1 Dimensions of Green Accounting Measurement: From Expense Allocation to Strategic Control

The consensus in the literature indicates that the adoption of Environmental Management Accounting (EMA) and ISO 14051-based Material Flow Cost Accounting (MFCA) serves as the most decisive calculative foundation (Burritt et al., 2019; Christ & Burritt, 2017). Empirically, Latan et al. (2018) and Solovida and Latan (2017) have demonstrated that companies distinguishing environmental prevention costs from waste management costs are able to precisely identify inefficiencies in energy and material flows. The failure of conventional accounting stems from the aggregation of environmental costs into general overhead categories, thereby distorting the calculation of production costs (Schaltegger & Burritt, 2021).

The integrated reporting of monetary costs and physical metrics has been shown to mitigate internal information asymmetry (Henri & Journeault, 2018). However, critical literature highlights disparities in implementation; entities without strong top management commitment often fall prey to superficial reporting or greenwashing (Lauwo et al., 2022). Therefore, green accounting only functions optimally when quantitative data is internalized

into public corporate performance evaluations, rather than simply published for superficial external legitimacy.

Passively, accounting has always positioned cost environment simply as cost overhead, such as reactive costs of processing/end treatment waste, pollution fines, or land rehabilitation costs after business activities have ceased. This position occurs because accounting records impacts on the environment only after they occur, so environmental costs are recorded as a hindrance to profitability that does not have clear economic benefits.

This changes when environmental accounting turns into management control. According to Haerianti et al. (2025), green accounting measurement should consist of Physical Environmental Accounting (flows of physical materials, energy, and carbon) and Monetary Environmental Accounting (financial impacts resulting from the physical flows above). The combination of both is what Material Flow Cost Accounting (MFCA) framework emphasizes. Environmental costs are no longer obscured within overhead costs, but are tracked until dot, dot, dot: the source of production inefficiency (standard material loss and waste generation).

Hence, the findings of Saputri et al. (2026) and Rochmalia et al. (2026) make sense: environmental cost expenditure and green accounting practices do not have a significantly direct impact on short-term ROA because of the existence of a time lag and the high initial capital needed for clean technology. However, when green accounting systems are positioned as internal controls (Lestari, 2025) enabled by digital technologies to monitor and record (IoT and blockchain as explained by Ramadhini et al., 2026), firms will experience spare capacity and more accurate cost in the long run. Therefore, green accounting measurement dimensions will shift from simply fulfilling administrative reporting requirements to becoming tools for making strategic decisions such as reducing regulatory risks, waste of materials, and allocating capital directly to green technology.

3.2 Value Transmission: Integration of Environmental Accounting into Sustainable Business Strategy

Findings from quantitative studies confirm that the recognition of environmental costs drives long-term competitive advantage by stimulating green innovation (Agustia et al., 2020). Drawing on the Natural-Resource-Based View (NRBV) paradigm, organizational capabilities in measuring environmental impacts transform ecological constraints into opportunities for product differentiation and operational efficiency (eco-efficiency) (Dmytriiev et al., 2021; Setiawan et al., 2021). Planned allocation of environmental research budgets enables the creation of circular designs that reduce raw material consumption per unit of output (Suroso et al., 2022).

In capital markets, environmental accounting transparency and carbon emission disclosure (carbon accounting) have been shown to significantly lower the cost of equity capital (Nurcahyono et al., 2023). ESG-oriented institutional investors view companies with measurable ecological accountability as having significantly lower profiles regarding litigation and climate transition risks (Cordova et al., 2021; Hapsari & Gunawan, 2021). This relationship reinforces the argument that internalizing environmental costs does not diminish profitability; rather, it enhances market valuation and corporate legitimacy amidst tightening regulations (Al-Tuwaijri et al., 2020; Sari et al., 2021).

Call for corporate ethical change transmission mark sustainability has urged company from shift paradigm business from single bottom line (shareholders profit maximization) to building a multidimensional brand. In practice, however, dedication to sustainability can often translate into window dressing (greenwashing), where companies publish such an extensive environmental program that it's not supported by any substantive internal change.

Accounting integration environment bridges the gap between internal commitment and external accountability in business strategy. Seen from the strategic management lens (Resource Based View & Dynamic Capability Theory proposed by Fathurohman et al., 2025) the accounting environment acts as provider of quantifiable data to showcase the companies internal capabilities (eg. budget allocation towards training, Green HRM initiatives and supply chain efficiency) and externalizes markers for CSR and sustainability reporting to appease stakeholder interests & earn legitimate social license to operate.

Furthermore, the contemporary Islamic literatures (Purwaningsih et al., 2026; Suryani et al., 2026; Aprilia et al., 2026) surrounding accounting No Again provide normative ethical foundation which further enriches this mark of transmission. Value sustainability transmitted under Islamic lens especially through Maqashid Syariah which enforces protections upon soul (hifz al- nafs), descendants (hifz al- nasl), wealth (hifz al- mal) and also emphasized the duty of man as khalifah fil ardh. With this approach, accounting No Again is not forced to exist by secular pressures such as regulations or market driven (market forces) factors, but rather evolved to exist as spiritual and moral responsibility in preventing hurt unto nature (la dharar wa la dhirar) and establishing prosperity in society (maslahah). Therefore, value sustainability can be transmitted in its entirety: accounting for the environment serves as the quantitative tool which notes the facts of ecological impacts while business ethics and CSR ensure that the economy operates with justice - and in this case intergeneration oriented.

3.3 Micro-Macro Articulation: Realization of SDGs Targets (12, 13, and 17)

Green accounting driven business strategies and the UN's global agenda centers on three key targets: SDG 12, SDG 13, and SDG 17 (Bebbington & Unerman, 2018; Schaltegger, 2020).

1. SDG 12 (Responsible Consumption and Production): Through MFCA, corporations are able to reduce material loss *and* convert production residues into economically valuable by-products (*circular economy*) (Christ & Burritt, 2017; Yanti et al., 2023).
2. SDG 13 (Addressing Climate Change): Tracking Scope 1, 2, and 3 emissions measured through carbon accounting provides an accurate database for operational decarbonization and climate impact mitigation (Cordova et al., 2021; Gibassier & Schaltegger, 2017).
3. SDG 17 (Partnerships to Achieve the Goals): Standardization of sustainability reporting based on green accounting data increases transparency that encourages cross-sector partnerships and credible integrated reporting *for* stakeholders (Adams, 2020; Pratama et al., 2023).

The absence of environmental accounting metrics in the past has resulted in rhetorical reporting of SDGs in many developing countries (Gunawan et al., 2020; Wulandari & Rahman, 2022). By adopting a structured framework, corporate internal calculations at the micro level have been shown to contribute directly to achieving sustainable development targets at the macro level.

The success of the sustainable development agenda hinges on one critical element, which are the bridges connecting micro-level action at the entity/business/organization level with macro targets at the national and international levels. Without credible micro-level measurement, aggregate level SDG reporting is at risk of becoming a mere aggregation of biased numbers that do not properly reflect the on-the-ground ecological reality. Green accounting and sustainability reporting are serving as the primary mechanisms to articulate how company activities on a day-to-day operational level are contributing towards the global SDGs, specifically within the three pillars of each goal:

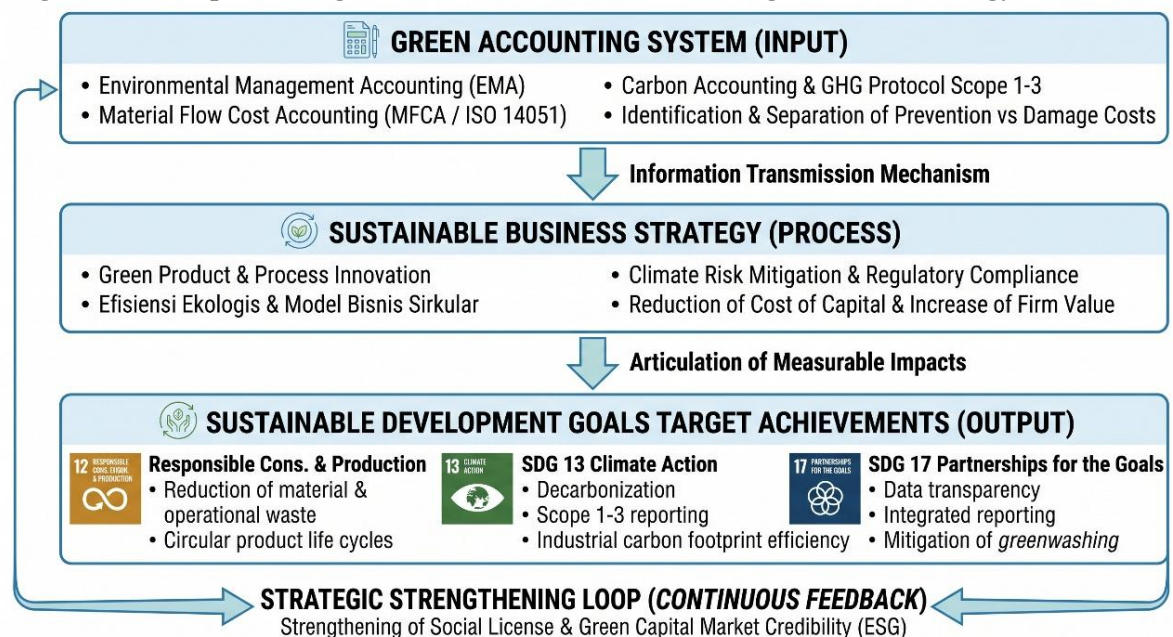
1. Achievement of SDG 12 (Responsible Consumption and Production): On micro level, companies manufacturer and MSMEs practicing cleaner production practices through efficiency material raw and recycling waste operation (example seen in Lestari, 2025 and Djumaifin & Rahayuningsih, 2026). Green accounting stands to articulate this practice through taking notes on cost and eco-efficiency as well as quantifying industry waste subtraction. On macro level, environmental data aggregation from various companies will serve as indicators to achieve the glass from National Power and carved B3 waste reduction targets, supporting Indonesia's transition to a circular economy.
2. Achievement of SDG 13 (Handling Climate Change / Climate Action): On micro entity will implement carbon accounting to measure their greenhouse glass emissions (Scope 1, 2, and 3) and costs of climate mitigation (Saputri et al., 2026; Noviyana et al., 2025). On macro level, emission data from various companies can be implemented into mechanism through Indonesia's carbon exchange (IDXCarbon) and achievement of nationally determined contributions (NDC) to national emission reduction targets. Even

on policy-level globally, study by Nakpodia et al. (2026) shows that public accountancy regulations and disciplined financial management directly contributes to climate resilience and sustainability across countries.

3. Achievement of SDG 17 (Partnership) For Achieving Goals / Partnerships for the Goals): Green cannot operate in a silo. Structural barriers such as lack of technology, capital, and environmental accounting literacy (particularly in MSMEs) requires the initialization of cross-sector collaboration. As stated by Hafidzussalam et al. (2024), SDG 17 is achieved through the implementation of the Pentahelix Model, unifying all stakeholders' roles:
 - a. Government: Compiler regulations must reporting sustainability and incentives fiscal (OJK, KLHK);
 - b. Academics: Developers research, curriculum accountancy green, and mentoring programs literacy;
 - c. Business & Banking Sector: Players chain supply green and distributor *green financing*;
 - d. Community: Motivator participation social and supervisory environment at the level footprint;
 - e. Media: Developer transparency public and disseminator information performance sustainability.

With intertwined multiparty partnership this, accounting green succeed blend performance micro company with the SDGs macro targets, creating ecosystem accountability transparent, standardized, and inclusive public.

Figure 2. Conceptual Integration Model of Green Accounting, Business Strategy, and SDGs



The model above illustrates a value transmission process in which material flow data and carbon costs (Green Accounting) serve as the informational fuel for executing circular innovations and mitigating risks (Sustainable Business Strategy). This synergy measurably drives the fulfillment of performance indicators for SDGs 12, 13, and 17, ultimately generating positive outcomes in the form of enhanced corporate value and stakeholder trust.

This thematic synthesis demonstrates that green accounting is a fundamental prerequisite for operationalizing sustainability strategies. Without a transparent and systematic system for measuring environmental costs, corporate commitments to achieving the SDGs risk losing empirical validity and being reduced to mere public relations rhetoric.

4. CONCLUSION

The results of this SLR on 31 academic papers show that green accounting serves as a calculative device that enables – not just reports for compliance purposes to management – the shift to sustainable business models. Environmental accounting through the lenses of EMA, MFCA and carbon accounting turns externalities into managerial monetary units of measure. This closes the loop on improving materials efficiency, accelerating green technology R&D and reducing climate transition risk and corporate cost of equity. Microenvironmental calculations aligned to sustainability strategies are a necessary condition to measurably achieve the 2030 SDG goals, especially 12, 13 and 17, and limit corporate greenwashing.

From a theory perspective, this SLR bridges sustainability accounting literature through three lenses: legitimacy theory, stakeholder theory, and the Natural Resource-Based View (NRBV). Environmental costs are not just measured to react and ensure legitimacy (social license to operate). Instead, it becomes a strategic capability that creates scarcity and economic value-added. Moreover, this SLR helps answer how micro (corporate internal controls) relate to macro development goals (SDGs) by mapping out how micro contributors can be quantified.

From a manager perspective, leaders will need to change their chart of accounts to include MFCA (standardized via ISO 14051) and leverage environmental accounting data to guide capital allocation decisions around circular investments and capitalize on green funding. Standard setters should issue mandatory and standardized sustainability reporting frameworks (i.e., IFRS S1 and S2) that allow for data comparability across industries and limit greenwashing.

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