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From Oratory to Reality: Tracking the Evolution of SDGs Research in the Business and Management Disciplines

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Abstract: Since the adoption of the United Nations Sustainable Development Goals (SDGs) in 2015, the disciplines of business and management have undergone a notable paradigm shift. What was once confined to the margins of corporate social responsibility (CSR) discourse has progressively been incorporated into the core strategic, operational, and accounting practices of organizations. This study provides a comprehensive institutional and thematic analysis of the evolution of SDG- related research within the business domain over the past decade. The literature is systematically categorized into three distinct phases: the Rhetorical and Perceptual Wave, the Strategic and Operational Wave, and the Accountable and Empirical Wave. These phases reflect a transition toward increasingly data-driven sustainability approaches, supported by the development of green fiscal policies and the strengthening of non-financial auditing standards. The analysis further reveals an inherent structural tension between ecological sustainability constraints and conventional models of economic growth. In response to this challenge, the paper proposes a forward-looking research agenda that emphasizes the integration of digitalized accounting systems, the role of algorithmic governance, and the exploration of under examined socio-political dimensions of sustainability. Overall, the study traces the historical progression of sustainability within corporate contexts and identifies the key institutional drivers that have facilitated its operationalization.

Keywords: Sustainable Development Goals, Bibliometric Evolution, Corporate Social Responsibility, Sustainable Business Models, Non-Financial Disclosures, ESG Frameworks.

I. INTRODUCTION:

The adoption of the United Nations Sustainable Development Goals (SDGs) in September 2015 represented a pivotal milestone in the domains of global public policy, environmental economics, and large-scale social planning. Encompassing 17 goals, 169 associated targets, and 213 indicators, the 2030 Agenda offers a comprehensive and integrated framework aimed at addressing critical global challenges. These challenges include, but are not limited to, extreme poverty, persistent gender inequalities, accelerating biodiversity degradation, and the intensification of climate change driven by human activity. Importantly, the structural design of the SDGs signifies a substantial departure from their predecessor, the Millennium Development Goals (MDGs). While the MDGs conceptualized sustainability and development primarily as state-led initiatives heavily financed by public sector budgets and international development aid, the SDGs recognized that macro-level ecological survival and socio-economic remediation could not be actualized without the operational mobilization, technological innovation, and capital allocation capabilities of the private corporate sector. Consequently, business, management, and accounting disciplines experienced a rapid and far-reaching influx of research interrogating the role of firm architectures in advancing or obstructing these goals. However, the academic literature did not instantly emerge as a mature framework of empirical verification. Rather than experiencing a linear progression, scholarly discourse in this domain has undergone a substantial and, at times, challenging evolution, closely reflecting the practical difficulties encountered within corporate decision-making environments. Early studies were largely descriptive and conceptually limited, often shaped by a pronounced skepticism regarding corporate commitment to sustainability objectives. Researchers frequently noted that while multinational enterprises (MNEs) readily incorporated SDG symbolism into their corporate social responsibility (CSR) reports, there was minimal corresponding transformation in their capital investment patterns, supply chain structures, or environmental impact. This disconnect has been widely characterized as “SDG cherry-picking” or “greenwashing.” However, as the 2030 deadline approaches and the economic consequences of climate instability increasingly disrupt global supply chains, the academic landscape has undergone a significant structural shift. The academic narrative has migrated from peripheral moral posturing to advanced strategic and empirical operationalization. In the contemporary context, business disciplines increasingly interpret the Sustainable Development Goals (SDGs) not merely as an external ethical guideline, but as a critical component of corporate governance, risk management, and financial evaluation. This paper seeks to present a comprehensive longitudinal review of the evolution of SDG-related scholarship from 2015 to 2026. It systematically examines the key drivers, emerging thematic

transitions, and methodological advancements that have collectively reshaped the study of corporate sustainability.

II. METHODOLOGICAL FRAMEWORK AND ANALYTIC STRATEGY

To examine the intellectual evolution and structural mapping of Sustainable Development Goal (SDG) literature within the field of business studies, this research adopts a multi-layered Systematic Literature Network Analysis (SLNA) integrated with qualitative thematic synthesis. This approach follows the rigorous metadata protocols established by Lee and Zhou (2022) and Gyimah et al. (2024). The primary objective of this approach is to reduce subjective selection bias and to develop a systematic, evidence-based mapping of peer-reviewed literature across key business domains, including corporate strategy, operations management, organizational behavior, and corporate accounting and disclosure practices. Data collection was conducted using two major international indexing platforms: the Scopus database and the Web of Science Core Collection. The search criteria were limited to English-language, peer-reviewed journal articles published between October 2015 and mid-2026. The initial search generated a substantial volume of publications, which were subsequently refined through automated filtering mechanisms to retain only those articles published in journals recognized by prominent business indexing systems, such as the Association of Business Schools (ABS) list and the Financial Times research index. Purely scientific or engineering papers detailing the physical mechanics of green technologies were excluded unless they specifically addressed firm- level adoption economics or management implementation strategies. The resulting core dataset was evaluated using advanced bibliometric techniques, including co-citation analysis, bibliographic coupling, and temporal keyword cluster tracing. This analytical strategy enabled us to isolate the precise points in time where the vocabulary and research designs of the field altered. Our findings confirm that the literature has proceeded through three distinct intellectual currents, which we define as the Three Waves of SDG Business Research.

III. LITERATURE REVIEW: THE ADVANCED THEMATIC ARCHITECTURES

The intellectual intersection where corporate agency meets global macro-level environmental governance has undergone a profound transformation since the ratification of the 2030 Agenda. To map the thematic architectures defining this field, this literature review synthesizes scholarly contributions across three conceptual dimensions: institutional decoupling and symbolic adoption, structural innovation within value-creation networks, and the emerging econometrics of non-financial accountabilities.

A. Institutional Decoupling and the Symbolic Adoption Wave (2015–2018)

The initial scholarly response to the United Nations Sustainable Development Goals (SDGs) was primarily rooted in institutional theory, with a focus on how organizations respond to complex and often fragmented socio-political expectations. Early research in the business domain emphasized the "translation" of SDGs, as these goals were originally designed for national policy frameworks rather than firm-level implementation. During this phase, scholars identified a significant misalignment between external legitimacy pressures and internal profit-oriented objectives. This tension contributed to the emergence of literature on institutional decoupling, wherein multinational enterprises (MNEs) adopted symbolic compliance strategies to maintain legitimacy without implementing substantive changes in resource allocation or operational practices. This phenomenon has been widely described as "SDG cherry- picking." Empirical observations highlighted that firms often promoted selective alignment with socially oriented goals, such as Decent Work (SDG 8), while simultaneously neglecting or undermining environmental objectives. In particular, practices such as outsourcing environmentally harmful activities to less regulated supply chain regions contradicted commitments to Responsible Consumption and Production (SDG 12) and Climate Action (SDG 13). As a result, corporate engagement with the SDGs during this period was largely characterized as rhetorical, driven by reputational considerations and supported by non-standardized and descriptive Corporate Social Responsibility (CSR) disclosures.

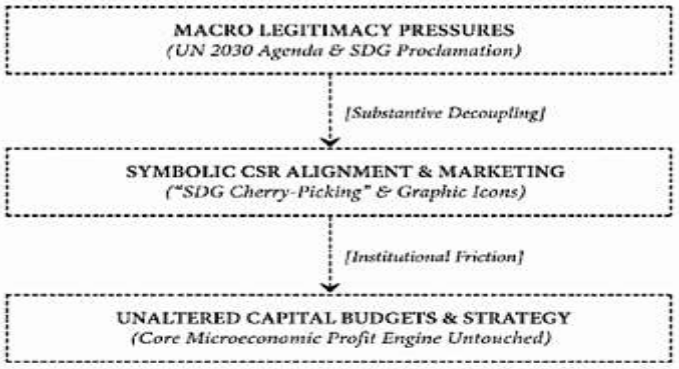

Figure 1: Structural Dynamics of Institutional Decoupling and Corporate Greenwashing Frameworks.

B. Sustainable Business Models and Structural Integration (2019–2022)

By 2019, the limitations of voluntary and superficial sustainability disclosures had become increasingly evident, prompting a shift in scholarly focus toward Sustainable Business Models (SBMs) and operational transformation. Rather than treating sustainability as a peripheral concern, researchers began to conceptualize it as a central component of

business strategy. Drawing on the resource-based view (RBV) of the firm, scholars increasingly emphasized the role of circular and regenerative capabilities as sources of sustained competitive advantage. This shift marked a transition from symbolic adoption toward deeper structural integration of sustainability within organizational processes and value creation mechanisms. Academic inquiry evolved from simply cataloging managerial awareness to actively examining closed-loop industrial design. Literature in this wave demonstrated that decoupling corporate revenue generation from absolute environmental degradation required structural system interventions. Researchers emphasized that clean technological integration (SDG 9) functioned as a transversal accelerator across corporate infrastructures, generating positive systemic spillovers that concurrently optimized energy security (SDG 7), and clean water access (SDG 6), and carbon footprint mitigation. Simultaneously, research in operations management expanded these conceptual frameworks beyond the boundaries of individual firms to encompass Sustainable Supply Chain Management (SSCM). This approach addresses the complex transactional challenges and multi-tier governance mechanisms necessary for monitoring, enforcing, and auditing rigorous environmental and labor standards across globally dispersed supply networks.

C. Empirical Financialization and Causal Accountabilities (2023–2026)

The contemporary domain of SDG research represents a shift toward advanced quantitative verification, financialization, and econometric rigor. This current wave has been accelerated by an unprecedented global overhaul of non-financial regulatory reporting architectures. The institutionalization of regulatory frameworks such as the European Union's Corporate Sustainability Reporting Directive (CSRD) and the standards developed by the International Sustainability Standards Board (ISSB) has significantly reshaped the academic discourse by mandating audit-ready disclosures grounded in the principle of double materiality. From a methodological perspective, contemporary research in business studies has increasingly moved away from purely descriptive qualitative case analyses toward more rigorous causal inference approaches. Scholars now employ advanced econometric techniques, including Difference-in-Differences (DID) and Double Machine Learning (DML), to identify the causal effects of green fiscal policies and carbon pricing mechanisms on firm-level outcomes such as total factor productivity and carbon emission efficiency. At the same time, the fields of asset pricing and empirical corporate finance have progressively incorporated sustainability considerations, recognizing the "sustainability factor" as a significant determinant in financial valuation and risk assessment. Rather than treating rigorous SDG compliance as an unrecoverable capital drain, quantitative market models demonstrate that robust SDG metrics alter a firm's underlying risk profile. Verified compliance operates as a systematic de-risking mechanism, mitigating idiosyncratic market volatility and lowering the cost of capital within global credit and equity markets.

IV. THE THREE WAVES OF SDG BUSINESS RESEARCH: The temporal evolution of the literature reveals a clear process of intellectual maturation. Each phase reflects the increasing sophistication of both scholarly inquiry and the regulatory frameworks shaping global business practices.

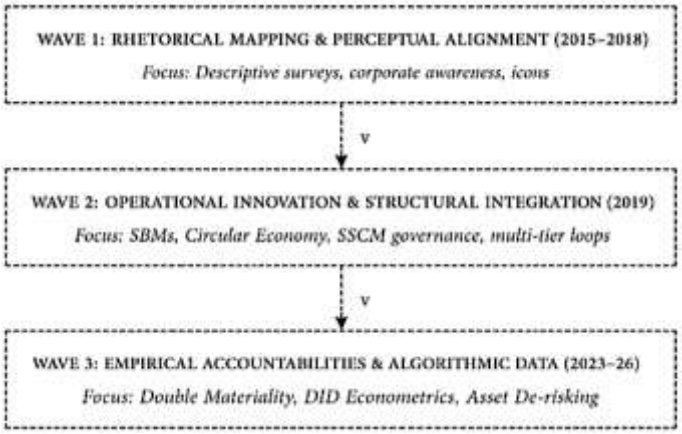

Figure 2: Evolutionary Progression of Global SDG Corporate Research Paradigms.

A. The First Wave (2015–2018): Rhetorical Mapping and Perceptual Alignment

Rhetorical Mapping and Perceptual Alignment. The immediate aftermath of the UN declaration was characterized by intense conceptual mapping. Because the 17 goals were explicitly written using the vernacular of public macro-policy rather than corporate performance indicators, early business scholars focused heavily on translation. This period was dominated by qualitative exploratory designs, institutional commentary, and descriptive surveys tracking managerial awareness. Researchers explored the conceptual interfaces where existing Corporate Social Responsibility (CSR) literature could absorb the new terminology of the SDGs (Mio et al., 2020). However, this wave exposed a deep operational misalignment. Empirical disclosure studies during this period routinely revealed that corporate adoption was overwhelmingly symbolic. Firms exhibited a strong propensity to "cherry-pick" the goals e.g., highlighting achievements in SDG 8 (Decent Work and Economic Growth) while completely ignoring supply chain violations linked to SDG 12 (Responsible Consumption and Production) or massive carbon outputs undermining SDG 13 (Climate Action). Management scholars in this period appropriately concluded that, in the absence of enforceable disclosure mandates or tangible financial repercussions, corporate engagement with the SDGs would largely remain

confined to symbolic communication and superficial alignment strategies (Erin et al., 2022).

B. The Second Wave (2019–2022): Operational Innovation and Structural Integration

As the limitations of these symbolic and rhetoric-driven approaches became increasingly evident, the academic discourse experienced a decisive structural shift around 2019. Scholars increasingly abandoned simple “awareness surveys” to focus on the radical reorganization of firm processes. This wave was anchored in the field of Sustainable Business Models (SBMs) and sustainability-oriented innovation. Academic attention turned toward decoding how firms could design closed-loop, circular industrial systems that fundamentally decoupled revenue generation from absolute material and environmental degradation, directly corresponding to the mandates of SDG 12 (Cordova & Celone, 2019). During this second wave, innovation was no longer viewed as a stand-alone strategic advantage but as a transversal accelerator across the entire SDG grid. Scholarly research during this phase emphasized that corporate investments in clean technological integration (SDG 9) generated positive systemic spill over effects, contributing simultaneously to enhanced energy efficiency (SDG 7) and improved waste management outcomes (SDG 6). Within this context, operations management literature advanced more sophisticated frameworks for Sustainable Supply Chain Management (SSCM), focusing on the transactional complexities and multi- layered governance structures necessary to implement and monitor environmental and labor standards across globally dispersed supplier networks (Meier, 2023).

C. The Third Wave (2023–2026): Empirical Accountabilities and Algorithmic Analytics

The Third Wave (2023–2026): Empirical Accountability and Algorithmic Analytics The contemporary era of SDG research represents the absolute formalization and financialization of sustainability. Moving far beyond the qualitative case studies of the prior waves, current research is highly quantitative, micro-empirical, and econometrically sophisticated. This intellectual shift has been accelerated by the global implementation of stringent regulatory architectures, such as the European Union's Corporate Sustainability Reporting Directive (CSRD) and the International Sustainability Standards Board (ISSB) protocols, which mandate the audit-ready integration of financial and non-financial data under the principle of 'double materiality'.

Methodologically, contemporary business researchers rely on advanced causal inference designs. Scholars use complex econometric structures such as Differences-in-Differences (DID) and Double Machine Learning (DML) to isolate the precise impacts of green fiscal policies, carbon tax regimes, and SDG targets on actual corporate performance indicators (Jiang et al., 2025). Concurrently, asset pricing and corporate finance literature has fully integrated the 'sustainability factor' into empirical market models. Modern quantitative studies provide clear evidence that verifiable SDG compliance is no longer a drain on equity; rather, it directly alters the firm's risk profile, reduces idiosyncratic volatility, and meaningfully lowers the cost of capital in global credit markets (Mohanasundaram & Kasilingam, 2024).

V. THE CONCEPTUAL ARCHITECTURE: PLANETARY BOUNDARIES VS. CORPORATE PRACTICE

A central contribution of the evolved literature is the theoretical reconciliation between macro-ecological frameworks and microeconomic firm behaviors. For decades, traditional economic models treated environmental degradation as an unpriced externality, allowing firms to maximize shareholder utility without considering systemic limits. Modern management literature has integrated Stockholm Resilience Centre's concept of 'Planetary Boundaries' directly into corporate strategic architecture. Researchers now model the firm as a subsystem embedded within strict biophysical thresholds.

Figure 3: The Macro-Micro Institutional Pipeline of SDG Strategic Integration.

This institutional pipeline, illustrated in Figure 3, demonstrates how exogenous planetary boundaries are converted into endogenous corporate actions. When macro limits are backed by institutional governance mechanisms, they force an operational realignment. The firm must transform its internal value-creation logic, altering raw material extraction, logistics, and executive incentives. The final feedback loop ensures that micro outcomes systematically contribute back to the stabilization of global macro ecosystems, completing the transition from rhetoric to reality.

VI. THEMATIC DISTRIBUTION AND DISCIPLINARY SILOS

Despite the undeniable progress in structural execution, a critical metadata assessment reveals a severe imbalance in research distribution across the three core pillars of sustainable development: economic, environmental, and social. Scholars have noted that the business disciplines suffer from a pronounced cognitive bias, heavily favoring goals that easily align with short-term financial quantification or operational cost-reduction strategies.

Table 1: Longitudinal Saturation of SDG Dimensions in Core Business Journals

Pillar Dimension	Primary SDGs Investigated	Core Operational Focus Area	Scholarly Saturation Level
Environmental Pillar	SDG 7, SDG 12, SDG 13	Carbon Pricing, Circular Economy, Resource Efficiency	Extremely High (45%)
Economic Pillar	SDG 8, SDG 9, SDG 17	Sustainable Innovation, Public-Private Partnerships	High (35%)
Social Pillar	SDG 5, SDG 10, SDG 16	Supply Chain Human Rights, Boardroom Diversity, Ethics	Critically Low (20%)

As detailed in Table 1, research is structurally dominated by the Environmental and Economic pillars, which collectively account for approximately 80% of total publication volume. This high density is unsurprising: carbon mitigation (SDG 13) and eco-efficiencies (SDG 12) translate directly into identifiable line-items on financial balance sheets, driven by energy savings or carbon taxation avoidance (Tao et al., 2025).

Conversely, the Social Pillar (SDGs 5, 10, and 16) remains structurally neglected. Issues such as wealth inequality, supply chain exploitation, and corporate political lobbying transparency are notoriously difficult to quantify using standardized microeconomic indicators. This disciplinary silo represents a profound theoretical vulnerability, as true sustainable development is an interlocking system where ecological balance cannot survive without social justice and robust institutional ethics (Ngan et al., 2022).

VII. DISCUSSION: THE CORE INSTITUTIONAL PARADOX

The intellectual maturation of SDG-related business research brings to light a deep, systemic institutional paradox that remains the epicenter of contemporary academic debate. Can the modern corporation, organized fundamentally around the principle of profit maximization and continuous revenue expansion, truly operationalize a framework rooted in absolute biophysical boundaries and resource conservation?

Early management literature routinely bypassed this friction by championing 'win-win' scenarios, suggesting that corporate environmental stewardship automatically optimized long-term financial returns. This optimistic view was crucial in encouraging early corporate engagement, but contemporary empirical studies have largely dismantled it as an oversimplification.

Rigorous econometric analyses from the modern empirical wave demonstrate that genuine, deep compliance with the SDGs particularly target areas requiring absolute reductions in raw material usage or massive structural re-engineering of heavy assets—demands substantial, long-term capital expenditure. These investments often yield highly uncertain, elongated payback periods, creating severe competitive friction in capital markets still dominated by short-term quarterly earning expectations (Jiang et al., 2025). Thus, contemporary research has largely abandoned voluntary alignment models. Instead, scholars emphasize that corporate reality is shaped by institutional governance. Without explicit carbon taxation, strict non-financial disclosure auditing, and artificialized market incentives designed to penalize symbolic compliance, market forces will naturally favour low-cost green washing over high-cost operational transformation (Tao et al., 2025).

VIII. CONCLUSION AND FORWARD-LOOKING RESEARCH AGENDA

Over the span of a single decade, research examining the United Nations Sustainable Development Goals in the business, management, and accounting disciplines has evolved from superficial compliance mapping into a highly sophisticated, data-driven domain of empirical accountability. Academia has systematically exposed the flaws of symbolic reporting, proving that the private sector cannot fulfill its mandate within the 2030 Agenda through cosmetic branding. Rather, sustainability requires a complete re-engineering of internal corporate operating systems, strategic capital allocation, and supply chain governance.

As academia prepares for the post-2030 development landscape, the future research agenda must address three critical blind spots:

1. Algorithmic Governance and AI Carbon Accounting: With corporations increasingly deploying Artificial Intelligence and machine learning to optimize logistical

networks, management research must evaluate how algorithmic architectures can automate real-time carbon tracking and verified non-financial reporting, thereby eliminating the subjective manipulations that lead to corporate greenwashing.

2. Standardizing Social Materiality Metrics: Scholars must aggressively develop standardized, audit-ready quantitative indicators to measure corporate impact on systemic wealth inequality (SDG 10) and human rights compliance across multi-tier supplier networks, matching the mathematical rigor currently applied to environmental greenhouse gas tracking.

3. Geopolitical Disruptions and SME Resilience: Future research must investigate how small and medium-sized enterprises (SMEs) operating within developing or emerging markets can maintain capital-intensive SDG compliance amidst intensifying geopolitical competition, rising economic nationalism, and direct climate-induced infrastructural shocks.

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