

Embedding ESG into Core Strategy for Competitive Differentiation

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ARTICLE INFORMATION

Article history:

Published: May 2026

Keywords:

ESG Integration
 Competitive Differentiation
 Strategic Management
 Sustainable Business Model
 Innovation
 Corporate Sustainability Strategy

ABSTRACT

As environmental, social and governance (ESG) considerations move from voluntary corporate initiatives to mandatory regulatory requirements, organisations face a fundamental strategic question: whether to treat ESG as a compliance burden or as a source of competitive differentiation. This article discusses strategic levers for embedding ESG into core business operations to build sustainable competitive advantage. Drawing from a systematic synthesis of academic literature, practitioner frameworks and empirical evidence (including a quantitative study of 3,846 firm-year observations from Chinese listed companies and qualitative case analysis of six leading enterprises), the article argues that ESG integration should transcend symbolic compliance to a genuine strategic embedding. Our analysis points to a two-dimensional framework for guiding managerial decision making, namely strategic alignment (differentiation versus cost leadership) and integration depth (compliance-oriented, operationally embedded and innovation-driven). The article critically engages with unresolved debates like disagreement in ESG ratings, risks of greenwashing and mixed empirical findings to propose six testable propositions for future research. Some key counterintuitive insights suggest that radical innovation in sustainability practices may entail lower strategic risks and higher competitive benefits than traditional incremental approaches. The article concludes by outlining five strategic pathways for ESG-led differentiation and discussing implications for practitioners and researchers as they navigate the changing landscape of mandatory sustainability disclosure.

1. Introduction

1.1 *The Shifting Landscape of Corporate Sustainability*

There is a sea change in the global business environment in how environmental, social and governance (ESG) factors are viewed and operationalised. ESG, which was once seen as a side issue to core business strategy (a “nice-to-have” in corporate social responsibility portfolios), has rapidly become a major driver of corporate competitiveness, risk management and long-term value creation. This is not just rhetoric but is being codified into regulatory frameworks, investor mandates and market expectations globally.

By 2025, ESG had moved beyond the capital market to the real economy alongside industrial transformation and high-quality development, and it was predicted that 2026 will witness the transition from compliance-driven to a new era of value creation. The magnitude of this shift is remarkable, with global ESG investments reaching approximately \$39 trillion in 2025 and expected to grow to \$180.78 trillion by 2034, according to Fortune Business Insights. PwC’s survey of global investors found that 79% of investors now factor ESG considerations into their investment decisions. Meanwhile, regulatory frameworks have changed dramatically, with the European Union fully implementing the Corporate Sustainability Reporting Directive (CSRD), the Ministry of Finance of China and nine other departments jointly issuing climate disclosure standards in late 2025, and 2026 being the first examination year for mandatory disclosure for A-share listed companies.

These developments together are a clear indicator that ESG is no longer a differentiator but at table stakes, with great opportunities for strategic pioneers and existential risks for laggards.

1.2 *From Compliance to Competitive Advantage: The Central Thesis*

This article’s fundamental premise is that embedding ESG into the core business strategy (Noch, 2025) is a fundamental strategic decision with far-reaching competitive implications. Those companies that treat ESG as a compliance obligation – focused on reporting, ticking boxes and mitigating risk – are likely to be at a disadvantage to their peers who have embraced ESG as an engine for innovation, operational efficiency and market differentiation.

One senior executive at TCL Zhonghuan said, “We hope to use ESG to create a differentiated competitive advantage for our company.” This ambition reflects a broader understanding that sustainability can be a value engine, not a cost center. Leading companies have shown that sustainability, as an integral part of business strategy, has a mutually reinforcing relationship with strategic objectives, generating new models of competition and sustainable value.

The purpose of this paper is to address three interrelated questions. First, what are the strategic processes of ESG embedding that create competitive advantage? Second, how should firms decide the appropriate depth and approach for ESG integration given their

competitive positioning and industry context? Third, what is the empirical evidence (or lack thereof) for the claim that ESG performance improves corporate competitiveness?

2. Methodology

2.1 Research Design and Approach

The article follows a systematic synthetic review methodology and draws on conceptual views from strategic management, empirical evidence from quantitative studies, qualitative case studies and practitioner frameworks. Since the purpose of this article is to develop an integrative framework for strategic ESG integration, rather than to test specific hypotheses, a synthetic review approach seems appropriate. The approach is consistent with the recognised standards for integrative literature reviews in management studies emphasising transparency, replicability, and critical engagement with source material.

2.2 Literature Search and Screening Criteria

The literature search was performed using three databases: Web of Science, Scopus, and Google Scholar, covering publications from 2000 to 2026. The search terms were combinations of the following: “ESG integration”, “corporate sustainability strategy”, “competitive differentiation”, “ESG and firm performance”, “sustainable business model innovation”, “dynamic capabilities sustainability”, and “Porter generic strategies sustainability”. Additional searches were carried out in journals known for sustainability and strategy research such as Strategic Management Journal, Organization & Environment, Journal of Business Ethics, Business Strategy and the Environment, and California Management Review.

The inclusion criteria were: (a) peer-reviewed articles published in English or Chinese (with available English translation), (b) conceptual or empirical studies exploring the relationships between ESG/sustainability practices and competitive outcomes, (c) studies published in journals with a Scopus or Web of Science impact factor, and (d) practitioner reports from reputable consulting organisations (BCG, EY, KPMG, McKinsey) or international organisations (WEF, UN Global Compact). Exclusion criteria were: (a) non-peer reviewed conference proceedings; (b) practitioner blogs or opinion pieces without empirical or conceptual rigour; and (c) studies focusing exclusively on ESG reporting without strategic implications.

The first search returned 847 unique records. After screening the title and abstract, 124 full-text articles were assessed for eligibility. After the full-text review against inclusion criteria, 67 articles were retained for synthesis. An additional twelve practitioner reports and eight case study sources (company sustainability reports, third-party case collections) were added, increasing the total source material to 87 documents.

2.3 Case Selection Criteria

Qualitative cases were selected based on three criteria: (a) the firm is recognised as an ESG leader (e.g. MSCI AAA rating, CDP A-list inclusion, DJSI inclusion, etc.), (b) the firm has publicly available sustainability reports and third-party case documentation allowing for verification, and (c) the firm reflects diversity in terms of industry (manufacturing, consumer goods, flooring, apparel, spirits, technology) and geography (France, US, China, India, Australia). Six companies were selected, including Schneider Electric (France), Interface (US), Goertek (China), Hindustan Unilever Limited (India), Moutai (China), and Lenovo (China).

This selection is purposive, not random, and is intended to illustrate the range of ESG integration pathways, rather than to claim representativeness. One limitation that we acknowledge in Section 8.4 is the lack of counterexamples – firms that tried hard to deepen ESG but failed to find their own edge. Such cases should be systematically investigated in future research.

2.4 Method of Synthesis

The synthesis was accomplished in three steps. We then performed a thematic analysis of the 67 academic articles to identify recurring constructs, relationships, and debates. Codes were developed inductively and included categories such as “ESG-performance relationship”, “moderating variables”, “dynamic capabilities”, “incremental versus radical innovation” and “critiques and null findings”. Secondly, the development of the framework incorporated these themes iteratively with practitioner frameworks and observations of cases, leading to the two-dimensional matrix shown in Section 3. Third, the framework was employed to derive testable propositions. Such practice is consistent with best practices for conceptual article development that emphasise the need to move from description to theory-building.

2.5 Potential Biases and Limitations of Source Material

There are a few biases in the source material that must be explicitly acknowledged. First, the ESG-performance literature is likely to suffer from publication bias: positive results are more likely to be published than null or negative results. Second, sources of case studies tend to be biased toward success stories, and failures and challenges are under documented. Third, consulting organisations may promote frameworks that fit with their offerings, thereby possibly overstating the applicability of approaches. Fourth, the academic literature is heavily drawn from developed economy contexts (Europe, North America) with emerging economy research (including the Chinese study cited here) only recently growing. In the analysis, these biases are overcome by a critical interrogation of evidence and an explicit discussion of counterarguments.

3. Theoretical Foundations: ESG and Competitive Strategy

3.1 Porter's Generic Strategies and Sustainability

To have a sound theoretical basis for ESG-driven (Boini & Tunguturi, 2025) competitive differentiation, one must go back to Michael Porter's seminal work on generic strategies. Porter first defined three sources of competitive advantage: cost leadership (being lower cost than your competitors), differentiation (offering unique products or services that your customers value), and focus (serving a narrow segment of the market better than broad-market competitors).

More recent work has tried to connect sustainability strategies more explicitly to this established framework. In a seminal conceptual article, the author proposed two conceptual frameworks to link sustainability and business strategy. The frameworks draw on emerging notions of business strategy, based on Porter's original articulations of generic strategies and sources of competitive advantage. The first model develops a causal model that links drivers such as competitive strategy type and innovation mode to competitive outcomes and firm financial performance. The second model explains how different modes of technology development in sustainability initiatives drive changes in firm competitive and financial outcomes.

However, the Porter's generic strategies framework (Islami et al., 2020) has faced significant critiques that need to be engaged for rigorous application to ESG. The 'stuck in the middle's critique (firms that pursue both cost leadership and differentiation run the risk of doing neither) has been challenged by empirical evidence that hybrid strategies often outperform pure strategies, especially in dynamic environments. Moreover, the framework's implicit assumption of stable industry structures has faced criticism in the context of sustainability transitions, where regulatory landscapes and customer preferences are subject to rapid change. This implies that for ESG integration, firms may need to develop ambidextrous capabilities (Yang et al., 2025) to achieve both efficiency gains (cost leadership) and premium positioning (differentiation), which could render the pure strategy dichotomy less relevant than originally suggested by Porter.

3.2 Incremental versus Radical Innovation in Sustainability

One particularly counterintuitive insight that emerged from the strategic sustainability research is the relative efficacy of incremental and radical innovation. The conventional wisdom is that slow, incremental progress on sustainability is less disruptive and less risky. But the conceptual analysis cited above arrives at a striking conclusion: conventional continuous and incremental improvement sustainability practices could pose strategic risks to some firms depending on their core business strategy. On the contrary, the model offers a logical but less known explanation that radical innovation in sustainability practices may involve less strategic risks. It can also have relatively more competitive and financial advantages than well-established programs based on incremental innovation.

This finding has important consequences. But superficial "green" initiatives (reducing paper usage, installing LED lighting, adopting modest recycling programs) might not only fail to deliver competitive advantage but could also create strategic vulnerabilities. Those seeking more radical change (rethinking product architectures for circularity, reconfiguring supply chains for zero waste, embedding sustainability into core value propositions) can leapfrog incumbents because radical innovation breaks the mould of current competitive equilibria.

The authors acknowledge that the proposed conceptual frameworks have not been empirically tested and validated so far. However, at first glance, these models appear to have more face validity for explaining breakthrough sustainability success stories, such as Nike and Interface, than do competing explanations. This observation raises the empirical question that Section 5 examines critically.

3.3 A Critical Engagement

The dynamic capabilities perspective, the organization's ability to sense, seize and reconfigure resources in response to environmental changes, is complementary to the generic strategies framework. However, the framework has also been consistently criticised, including the tautology problem (successful firms are said to have dynamic capabilities whereas unsuccessful firms lack them, which makes the framework unfalsifiable), as well as operationalisation and measurement issues. These critiques are particularly relevant when dynamic capabilities are used to explain ESG. If ESG-performing firms are described ex-post as having dynamic capabilities, the explanation is circular.

A more demanding application requires the specification of observable microfoundations. ESG-related sensing includes investments into stakeholder engagement, materiality assessment and environmental monitoring technologies. Seizing is the ability to rapidly allocate capital to sustainable innovation projects and build or acquire the capabilities needed. Transformation requires willingness to divest from carbon-intensive assets and to restructure governance to prioritise long-term sustainability over short-term profits. When these observable dynamic capabilities drive a company's sustainability actions, it shows that sustainability is being consciously and deeply integrated into the core of the company's operations. This close correlation can be a great boost to employee engagement and a big step forward in organisational culture, learning capacity, standardised work processes and external risk control, what might be called organisational capabilities.

3.4 Mixed Findings and Critical Assessment

The body of academic work on ESG performance and corporate outcomes has expanded dramatically, although the results are mixed. A 2025 study of 3,846 firm-year observations of non-financial firms listed on the Shanghai and Shenzhen stock markets during 2016–2022 found that ESG performance is positively related to improved corporate performance ($\beta = 0.42$, $p < 0.001$), increased market competitiveness ($\beta = 0.08$, $p = 0.001$), and enhanced corporate commitment ($\beta = -0.009$, $p = 0.002$). The large number of observations and the inclusion of control variables (return on assets, firm age, financial leverage and ownership concentration) enhance credibility.

But critical evaluation is essential. The size effect on market competitiveness ($\beta = 0.08$) is very small from a substantive point of view. This means that a one-standard-deviation increase in ESG performance is associated with a 0.08 standard deviation increase in market competitiveness. The authors do not provide standardised coefficients for all variables; thus, direct comparison is not easy. Also, the study employs OLS regression which cannot determine causality. The potential endogeneity, i.e., more profitable firms invest more in ESG and not ESG influencing profitability, is not well addressed. Reverse causality) that market competitiveness makes ESG investment possible rather than the reverse is not examined. The authors note that 'the wide scope of research across different fields has led to a lack of clarity within the academic community concerning the relationships between ESG performance, corporate commitment, competitiveness and profitability in China'.

A parallel study, based on 15,450 firm-year observations of listed industrial firms in Europe and the UK, studied the determinants of financial returns from environmental innovation by market and firm-level factors, stressing the importance of competitive dynamics and strategic decision making. This conditional view is important: ESG does not by itself create competitive advantage; the connection is critically dependent on the way ESG is embedded and whether it fits competitive positioning.

In a 2025 thesis looking at how companies with high ESG performance are aligning their strategies to implement ESG practices without sacrificing financial performance, it is noted that “numerous studies have examined the association between ESG performance and corporate financial performance; however, the evidence remains mixed”. There are several reasons for mixed findings that are worth considering. First, measurement heterogeneity: different ESG rating agencies show low inter-rater correlation (we will return to this point below). Second, temporal lags: benefits may emerge over a longer time horizon than most studies capture. Third, variation in strategic alignment. And fourth, industry or institutional context.

3.5 ESG Rating Disagreement and Greenwashing

No credible analysis of ESG can ignore the major criticism that ESG ratings are unreliable. For example, Berg, Kolbel and Rigobon (2022) show that average correlations across ESG rating agencies (e.g. MSCI, Sustainalytics, Moody’s, S&P Global) are only 0.54, much lower than the 0.9+ correlations for credit ratings. The discrepancy is due to differences in measurement (what is measured), scope (which categories are included), and weighting (how categories are aggregated). Therefore, a company identified as a sustainability leader by one agency could be identified as an average or poor performer by other agencies. This calls into question the validity of studies that use ESG scores as objective measures.

Equally important is the criticism of greenwashing. Lyon and Montgomery (2015) describe greenwashing as the convergence of poor environmental performance and positive communication about that performance. Companies may participate in symbolic ESG activities like issuing glossy sustainability reports, signing on to voluntary initiatives, making net-zero commitments without credible transition plans, and engage in environmentally damaging activities. When exposed, such symbolic compliance can lead to reputational risks, as illustrated by the lawsuits against firms accused of misleading sustainability claims.

These critiques do not invalidate the thesis of strategic ESG integration but put boundary conditions on it. First, the relationship between ESG and competitive advantage depends on substantive, not symbolic, integration. Second, the reliability of ESG measurements needs to be considered in interpreting empirical results. Third, firms looking to differentiate themselves through ESG must focus on action rather than claims and seek third-party verification to reduce the risk of greenwashing.

4. A Framework for Strategic ESG Integration

4.1 The Strategic Alignment-Integration Depth Matrix

Building on the theoretical background discussed above, this article proposes a two-dimensional framework for classifying and guiding efforts in ESG integration. The first dimension is strategic alignment (Ghonim et al., 2022): What is the competitive strategy of the firm; cost leadership, differentiation, hybrid? The second dimension is the depth of integration, i.e. how deeply ESG considerations are embedded in the core business operations, from superficial compliance to deep innovation-driven integration.

Table 1: Strategic ESG Integration Matrix

Integration Depth	Cost Leadership Strategy	Differentiation Strategy
Compliance-Oriented	Risk mitigation; regulatory adherence; minimal cost increase	Symbolic green branding; basic reporting; reputational protection
Operationally Embedded	Efficiency gains; resource reduction; circular economy savings	Premium positioning; product innovation; supply chain transparency
Innovation-Driven (Radical)	Business model reinvention; technology leapfrogging	Market transformation; category creation; ecosystem leadership

The compliance-oriented cell is the prevailing approach for most firms, what industry observers call the “bonus question” mentality. Here, ESG activities are reactive, not integrated into the core business, and are primarily driven by regulatory or investor pressure. Such approaches may reduce downside risk but rarely generate sustained competitive advantage and may expose firms to accusations of greenwashing.

A more advanced stage is the operationally embedded cell, where ESG considerations are systematically integrated into procurement, manufacturing, logistics and other core functions. Cost leaders may seek improvements in operational efficiency through energy reduction and waste elimination; differentiators may develop premium sustainable products.

The innovation-driven (radical) cell is the vanguard of ESG-driven differentiation. Here, firms are not just tinkering with existing operations, but are also rethinking their business models, value propositions and competitive positioning considering sustainability imperatives. Sustainable business model innovation provides new ways to differentiate by embedding societal value into products, processes, and services and by changing business ecosystems, as stated in BCG’s Sustainable Business Model Innovation framework.

4.2 Comparison with Existing Sustainability Strategy Typologies

The proposed framework improves upon existing typologies in several ways. Orsato (2006) identified four competitive environmental strategies: eco-efficiency (cost leadership by reducing resource use), beyond compliance leadership (differentiation by superior environmental performance), eco-branding (differentiation by green marketing) and environmental cost leadership (cost leadership by full lifecycle environmental management). Orsato’s typology has been influential but does not explicitly distinguish between incremental and radical modes of innovation, nor does it consider governance and social aspects beyond environmental performance.

Jacobsen, Korsgaard and Gunzel-Jensen (2020) developed a typology of sustainability strategies based on the degree of integration with core business (from defensive, to integrative, to transformative) and market scope (from niche to mass market). And the innovation-driven cell in the current framework is equivalent to their transformative strategy. However, their typology does not systematically associate the depth of integration with the competitive strategy (cost leadership versus differentiation) stressed by the present framework as a key contingency factor.

The current framework contributes by cross-classifying Porter's generic strategies with the depth of integration explicitly. The same depth of integration may create advantage through different mechanisms depending on the competitive positioning. A cost leader pursuing operational embeddedness is concerned with efficiency; a differentiator at the same depth is concerned with premium product features. The contingency perspective has been largely overlooked in prior research on sustainability strategy.

4.3 Testable Propositions

The framework is advanced from descriptive synthesis to theory building with six testable propositions:

- (a) In the context of a cost leadership strategy, an operational ESG integration provides a better competitive advantage than compliance-based or innovation-driven ones. Cost leaders do not have the margin to absorb the costs of radical innovation but do benefit from the efficiency gains.
- (b) The innovation-driven ESG integration under differentiation strategy is more competitive advantage than operationally embedded or compliance-oriented approach. Differentiators are relying on premium positioning that radical sustainability innovation can uniquely support.
- (c) The positive relationship between the depth of ESG integration and competitive advantage is moderated by the environmental sensitivity of the industry, in that the relationship is stronger for high-impact industries (manufacturing, energy, agriculture) compared to low-impact industries (services, software).
- (d) Firms engaged in radical ESG innovation (Cabaleiro-Cervino & Mendi, 2024) are less exposed to strategic risk from competitive imitation than firms engaged in incremental ESG improvement, because radical innovation generates stocks of assets (circular supply chains, ecosystem partnerships) that are more difficult to replicate.
- (e) The relationship between ESG and competitiveness is curvilinear (inverted U-shaped). Moderate ESG integration generates positive returns. Very deep ESG integration generates diminishing or negative returns owing to resource constraints and stakeholder fatigue.
- (f) The relationship between ESG integration mode and competitive advantage is moderated by firm size, where larger firms benefit more from innovation-driven integration (due to the availability of resources) and smaller firms benefit more from operationally embedded integration (due to agility in implementing efficiency measures).

5. Case Illustrations and Selection Bias Acknowledgment

5.1 A Note on Case Selection Bias

The following cases are successful examples of ESG-driven differentiation. This selection is more indicative of the purpose of the article (to illustrate mechanisms that can generate advantage) than of a representative sample. A key limitation is the lack of counterexamples, such as firms that deeply integrated ESG but failed to achieve competitive differentiation, or firms that experienced negative consequences from ESG initiatives. Future research should systematically explore such cases to identify boundary conditions and failure modes. With this caveat, the following illustrations depict possible mechanisms.

5.2 Product and Service Innovation: Interface and HUL

Business model and product design radical innovation. Interface, the global modular flooring manufacturer. The company's transformation was most significantly marked by the switch from a linear "take-make-dispose" system to a circular one. Interface's decision to lease instead of buying completely revolutionised the old school carpet business model. Products are designed in a modular square format, so when a carpet tile is damaged or dirty, only that tile needs to be replaced and not the entire carpet. This significantly extends product life and lessens the amount of waste. The company developed a massive product take-back program where old carpets are collected, dismantled and the nylon and back fibres are recycled back into production for the manufacture of new carpets, creating a closed-loop system. Interface, for example, partnered with NGOs to take discarded nylon fishing nets out of the oceans and make raw materials for carpet yarn. In its first 15 years of circular transformation, Interface saved more than \$450 million just from waste reduction.

Hindustan Unilever Limited has incorporated sustainability into its core value proposition, "sustainability equals business and business equals sustainability" as a key operating principle. Significant achievements such as plastic neutrality and zero waste to landfill (Mihai et al., 2024), supporting over 150,000 women in rural areas via livelihood initiatives, and achieving net zero by 2039. Importantly, senior leadership is incentivised on long-term sustainability performance, and even day-to-day operations are measured on ESG metrics.

5.3 Operational Resilience: Goertek and Schneider Electric

Goertek has embedded sustainability at a fundamental level in manufacturing through its G-Strategy framework. The measurable results are 29.1% renewable energy use, 72 energy-saving projects, 23,000 tonnes CO₂ equivalent carbon emissions reduced, 86.37% waste recycling rates and six zero-waste-to-landfill platinum certifications. In 2025, clean technology accounted for some 52% of revenue.

Schneider Electric illustrates how sustainability can be a profit driver, with around 80% of revenues coming from solutions that contribute positively to climate and the environment, and executive pay directly tied to sustainability performance scores. By the

end of 2025, Schneider's solutions helped customers avoid an estimated 860 million tonnes of CO₂ emissions. In 2025, the company generated record revenues of more than €40 billion.

5.4 Brand Value and Stakeholder Trust: Moutai

The recognition of Moutai by S&P Global and MSCI is essentially a matter of cognitive leadership and strategic foresight - not treating ESG as a short-term trend but integrating it into the long-term development strategy. Many companies are still thinking at the level of charity, but Moutai has been the first to break through this boundary, realising that ESG is not a cost burden but a core corporate asset. In the premium liquor sector, where terroir directly determines product quality, Moutai's environmental investments in protecting the Chishui River watershed (ensuring Grade II water quality or better) constitute protection of the core product logic.

5.5 Ecosystem Leadership: Lenovo

Lenovo iChain supply chain agent is the intelligent communication and collaboration center between Lenovo and supply chain partners, realising the full-link multi-agent collaboration from demand forecasting to parts delivery and from production to logistics. Lenovo has opened up data interfaces to allow multi-tier suppliers to share real-time data dynamically, creating a transparent ecosystem to monitor and improve sustainability performance together.

6. Strategic Pathways for ESG-Driven Differentiation

This section presents five strategic pathways synthesised from the cases and theoretical analysis. These pathways are not mutually exclusive and leading firms often take a combination of pathways. The pathways also relate to different cells in the framework matrix.

- Product and service innovation corresponds to the differentiation strategy, innovation cells. Mechanisms include integrating sustainability in product design, creating circular service models (leasing, take-back) and seeking credible third-party certifications.
- Operational resilience and cost transformation is the cost leadership strategy, operationally embedded cell. The mechanisms are energy efficiency, waste reduction, water conservation, and sustainability programs with suppliers.
- Differentiation strategy associated with brand value and stakeholder trust, operationally embedded to innovation-driven transition. Countering greenwashing includes mechanisms such as authentic community engagement, credible ESG ratings (Mayer & Reizingerne Ducsai, 2023), transparent reporting, and third-party verification.
- Talent and organisational culture transcend strategy types. This includes attracting purpose-driven talent, developing cross-cultural ESG competence, integrating sustainability into performance management and fostering organisational learning.
- Ecosystem and supply chain leadership (links to innovation driven cell for cost leadership and differentiation). These include setting supplier sustainability requirements, developing shared data platforms, pre-competitive collaboration and regulatory engagement.

KPMG offers a useful word of caution: companies should only differentiate on sustainability where it is rewarded (i.e. by customers and regulators) and focus on resilience and efficiency where it is not.

7. Contextual Considerations and Measurement for Researchers

7.1 Industry and Geographic Variations

ESG-driven differentiation mechanisms differ substantially across industries. In manufacturing, environmental metrics (emissions, resource efficiency, waste) dominate; in financial services, governance and social factors (data privacy, ethical lending, diversity) are more prominent. The results show that the effect of ESG performance on exploitative innovation is stronger for enterprises in the eastern and central regions and on exploratory innovation for enterprises in the eastern region, and that private enterprises benefit slightly more than state-owned enterprises. The most important innovation in medium-light pollution industries is exploratory innovation, and in heavy pollution industries it is exploitative innovation that is affected by ESG performance.

Regulatory environment influences strategic choices. CSRD mandatory disclosure in Europe means that differentiation by transparency alone is difficult; firms need to differentiate by action. China's mandatory disclosure is in its infancy, and there may be benefits to first movers. Uncertainty in the US over disputed requirements.

7.2 Operationalizing Strategic ESG Integration for Researchers

A major gap in the literature is the lack of clear operationalisation of "strategic ESG integration". Future research needs to differentiate between:

- (a) Compliance-focused integration -- Presence of ESG report, board committee, stated policies, and no significant controversies. Indicator: Number of policies adopted Length of ESG report
- (b) Operationally embedded integration -- Measured by integration of ESG into capital allocation (percentage of capital expenditure on sustainable projects), supply chain requirements (percentage of suppliers with ESG scorecards), operational metrics (energy intensity reduction, waste diversion rate). Indicator: % revenue from clean technology, % spend on sustainable procurement.
- (c) Integration by innovation -- Through business model transformation metrics such as circular revenue share (revenue from circularly designed products), product-as-a-service revenue share, and ecosystem partnerships for sustainability. Indicator: % of products with third-party certification of circularity.

Researchers should also measure strategic alignment explicitly, using established instruments (e.g., the Kotha and Vadlamani (1995) scale) to classify firms' competitive strategy, and then test whether ESG integration mode interacts with strategy to predict performance outcomes.

8. Implications and Conclusions

8.1 Summary of Findings

This article argues that the embedding of ESG into core business strategy is a fundamental strategic choice with the potential to generate sustainable competitive advantage. The synthesis reports key findings: ESG integration has to move from symbolic compliance to real strategic embedding; radical innovation has potential benefits over incremental approaches, but this remains untested; empirical evidence shows positive but small correlations ($\beta=0.08$ for market competitiveness) which require cautious interpretation because of endogeneity concerns; five pathways through which successful differentiation operates; and strategic alignment as a key moderator.

8.2 Implications for Practitioners

Business leaders need to move ESG from an operational compliance function to a strategic governance function, making it a board-level responsibility and integrating ESG into strategic planning. Where you can go for radical innovation, not incremental improvements. The integration of ESG should be aligned with the competitive strategy (cost leadership versus differentiation): operational efficiency pathways versus product innovation and brand building. Develop organisational capabilities, including cross-cultural ESG skills for global operations.

8.3 Implications for Researchers

Future research should utilise longitudinal designs to establish causality, explicitly test for moderation by competitive strategy, develop designs focused on mechanisms (mediation not direct correlation), apply qualitative comparative analysis to configurational questions, and conduct cross-national comparisons as mandatory disclosure expands. The six propositions sketched in Section 4.3 propose specific hypotheses for empirical testing.

8.4 Limitations and Caveats

There are several limitations of this article. A lack of empirical validation to the framework, the case illustrations are cherry-picked from successful firms (selection on the dependent variable bias), no counterexamples, the empirical evidence is contested, measurement heterogeneity across studies makes synthesis difficult, publication bias likely inflates positive findings, and the environment is still in transition. Future research should fill these gaps by systematic case sampling, including failures, and preregistered replication studies.

8.5 Concluding Remarks

The question for organisations is no longer whether to engage with ESG, but how to do so strategically. For companies viewing ESG as a compliance exercise, they will satisfy regulatory requirements but will probably be at a competitive disadvantage relative to competitors who have embraced sustainability as a driver of innovation, efficiency and stakeholder value. ESG is not just a risk to be managed, but a capability to build, if approached strategically. When fully integrated, it can unlock a new source of competitive advantage that ties corporate success to social and environmental well-being.

References

- [1] Berg, F., Kolbel, J. F., & Rigobon, R. (2022). Aggregate confusion: The divergence of ESG ratings. *Review of finance*, 26(6), 1315-1344.
- [2] Boini, S., & Tunguturi, S. (2025). ESG-Driven Strategic Management for Sustainable Development and Competitive Advantage. In *Conference on Social and Sustainable Innovation in Technology & Engineering (SASI-ITE 2025)* (pp. 328-341). Atlantis Press.
- [3] Cabaleiro-Cervino, G., & Mendi, P. (2024). ESG-driven innovation strategy and firm performance. *Eurasian Business Review*, 14(1), 137-185.
- [4] Ghonim, M. A., Khashaba, N. M., Al-Najaar, H. M., & Khashan, M. A. (2022). Strategic alignment and its impact on decision effectiveness: a comprehensive model. *International Journal of Emerging Markets*, 17(1), 198-218.
- [5] Islami, X., Mustafa, N., & Topuzovska Latkovic, M. (2020). Linking Porter's generic strategies to firm performance. *Future Business Journal*, 6(1), 3.
- [6] Jacobsen, S. S., Korsgaard, S., & Gunzel-Jensen, F. (2020). Towards a typology of sustainability practices: A study of the potentials and challenges of sustainable practices at the firm level. *Sustainability*, 12(12), 5166.
- [7] Kotha, S., & Vadlamani, B. L. (1995). Assessing generic strategies: An empirical investigation of two competing typologies in discrete manufacturing industries. *Strategic Management Journal*, 16(1), 75-83.
- [8] Lyon, T. P., & Montgomery, A. W. (2015). The means and end of greenwash. *Organization & Environment*, 28(2), 223-249.
- [9] Mayer, R., & Reizingerne Ducsai, A. (2023). ESG: Credibility behind the scores. The reliability and transparency of ESG ratings. *Prosperitas*, 10(2), 1-14.
- [10] Mihai, F. C., Meidiana, C., Elagroudy, S., Ulman, S. R., Gutberlet, J., & Carvalho, C. (2024). Plastic waste management for zero waste to landfills: potential, challenges, and opportunities. *Zero waste management technologies*, 97-136.
- [11] Noch, M. Y. (2025). Embedding ESG into Strategic Management: Redesigning Corporate Strategy for Sustainable Competitiveness. *Journal of Sustainability Industrial Engineering and Management System*, 4(1), 336-350.
- [12] Yang, M., Yang, J., & Torres de Oliveira, R. (2025). How do ambidextrous capabilities promote disruptive innovation in emerging markets, from the lens of knowledge-based view? *Journal of Knowledge Management*, 29(5), 1730-1752.