

Review Article

Sustainable Finance and ESG: The Impact of Environmental, Social, and Governance Principles Implementation on Corporate Financial Performance and Firm Value

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Abstract: This study examines whether environmental, social, and governance (ESG) practices enhance corporate profitability and firm value by reviewing empirical evidence from previous studies. Using a systematic literature review guided by a PRISMA approach, peer-reviewed articles published between 2010 and 2025 and indexed in Scopus and Web of Science were analyzed. The findings indicate that firms adopting ESG practices generally achieve stronger financial performance and higher market valuation, although the strength and direction of the relationship vary across contexts. Five key factors influence these outcomes: the credibility of ESG disclosure, the financial materiality of ESG issues within the industry, governance quality, environmental exposure, and the institutional maturity of the market. The review also highlights that inconsistencies among ESG rating agencies contribute to measurement differences, leading to mixed empirical findings. Drawing on stakeholder and legitimacy theories, the study suggests that effective ESG implementation reduces information asymmetry, lowers financing costs, strengthens corporate reputation, and increases investor confidence. An integrative framework is proposed to explain the relationship between ESG implementation and firm value while identifying future research opportunities, particularly in emerging economies such as Indonesia, where sustainable finance regulations continue to develop.

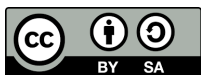
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1. Introduction

Across the last decade, sustainability has travelled from the edges of corporate strategy to its very core. What was once framed as charitable goodwill, or as a box to be ticked for regulators, is now routinely wielded as an instrument of competitive advantage; the environmental, social, and governance (ESG) lexicon has meanwhile become the language in which markets interpret how a company behaves beyond its ledgers. By translating loose commitments into scores, ratings, and disclosures that can be poured into valuation models, credit assessments, and portfolio construction, ESG has bolted ethical expectation onto financial calculation (Gillan, Koch, & Starks, 2021). Small wonder, then, that whether ESG adoption genuinely shifts profitability and firm value has grown into one of the defining empirical puzzles of modern finance.

The underlying argument is old, however new the acronym. A neoclassical reading, descended from the shareholder-primacy tradition, cautions that resources steered toward social and environmental ends are resources diverted from profit-maximising uses, loading owners with agency costs. The rival, stakeholder-oriented reading contends that firms treating employees, customers, suppliers, communities, and regulators as partners—rather than as externalities—accumulate reservoirs of trust, hedge themselves against operational and regulatory shocks, and assemble intangible assets that pay off across long horizons (Eccles,

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Ioannou, & Serafeim, 2014). The stakes in resolving this dispute have climbed steeply as disclosure mandates multiply, sustainability-linked instruments proliferate, and capital pours into responsible-investment strategies.

And yet the empirical record, for all its volume, declines to speak in one voice. Broad aggregations lean toward an approving verdict, but a persistent minority of studies surface null or adverse associations once samples, periods, and estimation choices are altered (Friede, Busch, & Bassen, 2015; Halbritter & Dorfleitner, 2015). More and more, researchers attribute this scatter less to the underlying economics than to the very instrument used to measure ESG: rating houses grade the same company quite differently depending on what they elect to observe and how they weight it (Berg, Koelbel, & Rigobon, 2022). Once the measuring rod itself wobbles, cumulative learning turns difficult, and the argument for a disciplined, protocol-driven appraisal of the evidence only strengthens.

This uncertainty bites hardest in emerging economies, where the institutional scaffolding for sustainability is still under construction. Indonesia is a case in point: its financial authority has woven sustainable finance into a phased roadmap and has steadily raised disclosure expectations for listed issuers and financial institutions. Whether such obligations convert into measurable financial payoffs in a setting defined by concentrated ownership, relatively opaque information channels, and enforcement that is still maturing is anything but obvious. The answer bears not only on scholarship but on the firms and policymakers now devoting real resources to the sustainability agenda.

Set against this backdrop, the present article pursues three goals. It first gathers, reproducibly, the empirical evidence tying ESG adoption to accounting-based profitability and to market-based valuation. It then isolates the conditions—disclosure credibility, financial materiality, governance quality, industry sensitivity, and institutional context—under which the relationship tightens, loosens, or flips. Finally, it advances an integrative model that links ESG inputs to value outcomes through mechanisms of risk mitigation, cheaper financing, and reputational accumulation, and it derives a research agenda tuned to emerging markets such as Indonesia.

By doing so, the study aims to push the conversation past a flat verdict of “ESG pays” versus “ESG costs” toward a more conditional grasp of when, and why, sustainability and shareholder interests converge. The article is organised into five further parts. The next part builds the theoretical scaffolding and lays out the rival hypotheses; the third explains how the review was conducted; the fourth reads and interprets the pooled evidence; the fifth situates our contribution against previous surveys; and the closing part distils implications while acknowledging what the study cannot settle.

2. Literature Review

Accounts of why sustainability engagement might register in financial statements and share prices draw on several overlapping theoretical traditions. Rather than competing head-on, each tradition illuminates a different conduit through which ESG activity reaches financial outcomes, and jointly they furnish the conceptual backbone for the empirical patterns examined later.

Stakeholder Theory and Legitimacy Theory

At the heart of the stakeholder view sits the claim that a firm’s longevity turns on how well it satisfies the reasonable expectations of the many parties it depends upon—workers, clients, suppliers, host communities, and the state—rather than those of its shareholders alone. On this reading, ESG initiatives are relationship-specific investments: they oil cooperation, defuse friction, and secure access to scarce inputs, and thus create value instead of squandering it (Freeman, as synthesised in Gillan et al., 2021). Legitimacy theory contributes a complementary intuition. Because firms function under an implicit social licence, conspicuously responsible conduct and forthright disclosure help them preserve that licence and avoid the reputational and regulatory penalties that trail perceived violations of social norms.

Taken together, the two perspectives imply that sincere ESG engagement should curb the odds of costly incidents, stabilise cash flows, and reassure capital providers. Both, though, sound the same warning: ESG that is purely performative—severed from operations, or shading into greenwashing—creates no value and may erode it once stakeholders sense the gap between claim and practice.

ESG and Financial Performance: Competing Hypotheses

Empirically, the field has arranged itself around two rival conjectures. The first, a value-creation logic, maintains that strong ESG practice sharpens operational efficiency, fuels innovation, aids the recruitment and retention of talent, and pares downside exposure, with each channel flowing through to healthier returns (Khan, Serafeim, & Yoon, 2016). The second, rooted in agency reasoning, warns that managers may adopt ESG to polish their personal reputations, over-committing to initiatives whose costs exceed their benefits to owners (Bénabou & Tirole, 2010).

A third, reconciling position puts materiality at the centre. Khan et al. (2016) show that firms excelling on the ESG issues financially material to their own industry outstrip their peers by a wide margin, whereas effort poured into issues immaterial to the business earns nothing. On this view the useful question is not the blunt “does ESG pay?” but the sharper “which ESG investments pay, for whom, and under what circumstances?”

ESG and Firm Value

Beyond bookkeeping profitability, a sizeable literature asks how markets price sustainability, typically through Tobin’s Q or the market-to-book ratio. Here the financing-cost channel carries much of the load: by shaving perceived risk and closing informational gaps, a persuasive ESG profile can lower the return that equity and debt holders require and, mechanically, lift present value (El Ghoul, Guedhami, Kwok, & Mishra, 2011). Disclosure again works as a hinge—Fatemi, Glaum, and Kaiser (2018) find that transparent communication magnifies the valuation premium for ESG strengths while cushioning the market’s penalty for ESG weaknesses.

Risk reduction furnishes a further route. Albuquerque, Koskinen, and Zhang (2019) show that responsible conduct lowers systematic risk and raises valuation, an effect most pronounced among firms selling differentiated products, while Aouadi and Marsat (2018) report that the valuation fallout of ESG controversies depends on how visible a firm is and how much stakeholder attention it commands. The common thread is that ESG can move value along two axes at once—through the cash flows in the numerator and through the discount rate in the denominator.

3. Materials and Method

To impose order on this scattered evidence, the study adopts a systematic literature review—a method chosen precisely because it renders the gathering and appraisal of studies transparent and repeatable. The review follows the reporting logic of the PRISMA approach, progressing from locating candidate studies, through screening them, to judging eligibility and settling on the final set. This protocol-driven design follows a growing practice within the sustainable-finance literature, where PRISMA-style reviews have been deployed to chart the intersection of green investment and sustainability financing (Simamora, Setyawati, & Nurwulandari, 2024).

Search Strategy and Data Sources

The pool of candidate papers was assembled from two complementary indexes, Scopus together with Web of Science, whose combined reach dependably covers the finance, accounting, and management journals in which this literature appears. Rather than relying on a single rigid query, the search paired sustainability descriptors—terms such as ESG, corporate social responsibility, and sustainability—with outcome descriptors spanning profitability, firm value, and valuation multiples, before narrowing the results to firm-level analyses. The observation window was set between 2010 and 2025, the span across which ESG data, ratings, and disclosure practices matured into their present form.

A study was retained for synthesis when it satisfied the following requirements:

- it appeared in a peer-reviewed journal or indexed proceedings and was written in English;
- it tested an explicit empirical link between an ESG measure—whether composite or pillar-level—and at least one indicator of profitability or firm value;
- it made clear how both the ESG construct and the outcome were operationalised;
- it rested on a recognisable quantitative design, such as panel estimation, structural equation modelling, or meta-analysis.

A record was set aside when it fell into any of the following categories:

- a conceptual essay or commentary containing no empirical estimation;
- a duplicate or a pre-publication working-paper version of an article already included;
- an analysis in which ESG entered only as a control rather than as a variable of interest.

Screening and Corpus Construction

Once duplicates had been removed, titles and abstracts were vetted against these criteria, after which the full texts of the surviving candidates were read closely. The resulting corpus deliberately favoured influential empirical work and earlier quantitative reviews that, between them, straddle developed and emerging markets and blend cross-sectional with longitudinal designs. To safeguard interpretive validity, individual primary studies were read alongside established meta-analyses, letting the depth of single-study detail be weighed against the breadth of pooled findings.

Analytical Approach

A thematic, vote-counting synthesis was preferred to a formal statistical meta-analysis for a practical reason: the sheer diversity of ESG proxies, outcome measures, and estimators across the corpus makes any single common effect size hard to compute without forfeiting validity. Each study was instead catalogued by its ESG data source, outcome variable, geographic sample, industry mix, estimation method, and the direction and significance of the reported association. Collating these codes made it possible to read off the prevailing direction of the evidence and, more importantly, to expose the conditions under which positive, flat, or negative associations tend to emerge.

4. Results and Discussion

The synthesis yields a picture that is steady in its headline but rich in qualification. Across the corpus the dominant finding is a positive tie between ESG adoption and both profitability and valuation; yet that headline is hedged by a set of durable contingencies, laid out below and summarised in Table 1.

ESG and Accounting-Based Financial Performance

On the accounting side—the returns earned on assets and on equity—the balance of evidence tips favourably and with statistical confidence. Friede et al. (2015), pooling the results of more than two thousand primary studies, report that close to ninety per cent uncover a non-negative association between ESG and corporate financial performance, most of them positive. Firm-level work echoes the pattern: Velte (2017) documents a positive effect of ESG on accounting returns among German listed firms, with the governance pillar carrying most of the weight, while Eccles et al. (2014) find that firms with deeply embedded sustainability cultures outperform operationally over long horizons.

The link, though, is neither automatic nor strictly proportional. Nollet, Filis, and Mitrokostas (2016) detect a U-shaped, non-linear pattern, implying that returns improve only after ESG commitment crosses a certain threshold. Such evidence helps square the circle: modest or largely symbolic effort may drag on returns at first, with net gains surfacing only as integration deepens.

ESG and Market-Based Firm Value

Turning to market valuation, the evidence is comparably encouraging but more sensitive to how firms communicate and how investors perceive them. Fatemi et al. (2018) find that ESG strengths lift firm value while weaknesses depress it, and—crucially—that disclosure conditions both effects by governing how the market decodes sustainability signals. The financing-cost logic of El Ghoul et al. (2011) supplies the mechanism: companies with stronger environmental and social profiles secure equity capital more cheaply, which arithmetically raises Tobin's Q.

Risk-based accounts point the same way. Albuquerque et al. (2019) tie responsible conduct to lower systematic risk and richer valuations, and Sassen, Hinze, and Hardeck (2016) find that robust ESG performance suppresses both total and firm-specific risk among European companies. Because markets capitalise the present value of expected future gains and avoided losses, the convergence of cash-flow and discount-rate effects helps explain why valuation responses so often outrun same-period accounting responses.

Moderating and Contingency Factors

Disclosure Quality and Financial Materiality

Two moderators recur with unusual regularity. The first is the quality of disclosure, which sets the market's ability to notice and price sustainability effort in the first place (Fatemi et al., 2018). The second, and arguably the weightier in theory, is financial materiality. Khan et al. (2016) establish that only spending aimed at issues material to a given industry earns a reward, while outlays on immaterial matters yield no measurable gain. This materiality principle offers a powerful key for organising—and partly dissolving—the field's mixed results.

Industry Sensitivity and Institutional Context

Industry traits further condition the relationship. Garcia, Mendes-Da-Silva, and Orsato (2017) note that companies operating in pollution-exposed or resource-intensive industries generally record stronger ESG performance, plausibly because tighter scrutiny nudges them toward more disciplined management. Institutions matter too: sector- and country-specific studies—Buallay (2019) on European banks and Atan, Alam, Said, and Zamri (2018) on Malaysian firms—show that the magnitude, and occasionally the sign, of the ESG effect shifts with regulatory regime, ownership concentration, and capital-market maturity.

The Measurement Problem: ESG Rating Divergence

A recurring methodological worry runs beneath these substantive findings: the inconsistency of ESG ratings themselves. Berg et al. (2022) demonstrate that scores from leading providers agree only moderately, because each vendor defines scope, measures indicators, and assigns weights differently. This dispersion seeps measurement error into empirical models, biases estimated coefficients toward zero, and hampers comparison across studies. In a kindred vein, Cornell and Damodaran (2020) caution that the causal leap from ESG to value is frequently overstated, and that some apparent benefits may merely reflect ESG's correlation with omitted quality attributes rather than any independent value-creation effect. The implication is sobering: a portion of the literature's disagreement is manufactured by measurement, not by economics.

Evidence from Emerging Markets and Indonesia

For emerging economies the evidence is newer but turning steadily more affirmative. Indonesian studies—Melinda and Wardhani (2020) prominent among them—find ESG performance positively related to firm value, with integrated reporting reinforcing the link by rendering disclosure more credible and complete. These results track the global pattern while spotlighting the outsized value of transparency in markets where the information gap between firms and investors runs wide.

Complementary Indonesian work situates the ESG–value question within the broader machinery of corporate finance. Focusing on energy-sector constituents of the Indonesia Stock Exchange across 2017–2023, Elwin and Nurwulandari (2024) find that corporate growth, profitability, and market capitalisation feed into firm value partly through ESG, casting sustainability performance as an intervening channel rather than a standalone expense. A parallel mediation surfaces among the IDX-30 constituents examined by Sari and Nurwulandari (2024), for whom financial sustainability carries the influence of green investment, profitability, and firm size onto corporate outcomes. Read alongside Melinda and Wardhani (2020), these studies suggest that the transmission mechanisms sketched above—risk reduction, cheaper capital, and reputational accumulation—are already discernible, if unevenly, in Indonesian data.

The country's regulatory trajectory sharpens the practical stakes. A phased sustainable-finance roadmap, together with sustainability-reporting obligations for listed firms and financial institutions, has raised the floor on ESG disclosure, creating conditions in which the valuation benefits observed elsewhere may increasingly materialise at home. At the same time, concentrated ownership and still-maturing enforcement suggest that gains on the governance pillar could carry unusual weight locally—an expectation that chimes with the prominence of governance in cross-country evidence.

An Integrative Framework

Drawing these threads together, the ESG–value relationship is best understood as a mediated sequence (Figure 1). The three ESG inputs—environmental stewardship, social capital, and governance quality—transmit their influence through three intermediaries: the reduction of risk, a lighter cost of capital, and the build-up of intangible reputational assets. These intermediaries lift both accounting performance and market valuation, with the strength of the transmission tuned by disclosure quality, financial materiality, industry sensitivity, and institutional context. Beyond cataloguing what is known, the framework names the specific channels that future empirical work ought to test directly.

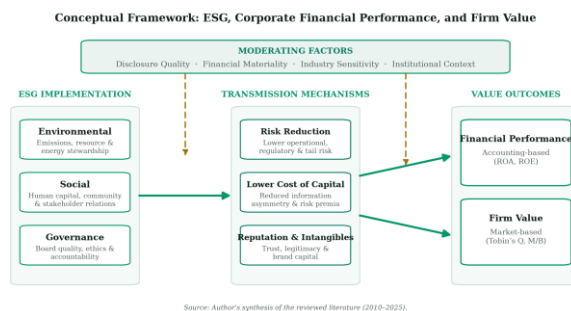


Figure 1. An integrative view of how ESG shapes profitability and firm value. The three ESG inputs act through the reduction of risk, a lighter cost of capital, and reputational-intangible build-up to influence accounting-based performance and market-based value, with the strength of each pathway tuned by disclosure quality, financial materiality, industry sensitivity, and institutional context.

Building on this framework, and consistent with the synthesised evidence, the review advances four testable propositions to steer subsequent empirical inquiry, especially in emerging-market settings such as Indonesia:

- a. P1. ESG adoption is positively related to accounting-based profitability, and the relationship is stronger where the ESG issues addressed are financially material to the industry.
- b. P2. ESG adoption is positively related to market-based firm value, and the quality of disclosure amplifies this relationship.
- c. P3. The effect of ESG on firm value operates through reductions in firm risk and in the cost of capital.
- d. P4. The ESG–value relationship is more pronounced where information asymmetry is higher, so that credible governance and transparent disclosure carry greater informational weight.

Table 1. A representative sample of empirical findings on the ESG–performance and ESG–value relationships.

Study	Setting / Sample	Outcome focus	Reported direction
Friede et al. (2015)	Meta-analysis of 2,000+ studies	Financial performance	Predominantly positive
Eccles et al. (2014)	US matched sample, long horizon	Operating & market performance	Positive
Khan et al. (2016)	US firms, materiality-sorted	Accounting & market performance	Positive (material issues only)
Velte (2017)	Germany, listed firms	ROA / ROE	Positive (governance strongest)
Fatemi et al. (2018)	US firms	Firm value (disclosure moderated)	Positive / conditional
Nollet et al. (2016)	S&P 500 firms	Financial performance	Non-linear (U-shaped)
Melinda & Wardhani (2020)	Indonesia / Asia	Firm value	Positive (amplified by reporting)
Berg et al. (2022)	Rating-provider comparison	Measurement validity	Divergence weakens inference

Note: The entries above are illustrative rather than exhaustive. “Direction” denotes the sign of the principal association reported by each study.

5. Comparison with Prior Reviews

Set against earlier reviews, this synthesis differs in three respects. First, where the landmark aggregation of Friede et al. (2015) and the performance-focused appraisal of Whelan, Atz, Van Holt, and Clark (2021) stress the overall positivity of the ESG–performance link, the present review pushes the measurement problem identified by Berg et al. (2022) to the foreground as a leading explanation for the residual inconsistency—thereby knitting together the substantive and methodological strands usually handled apart. Second, by keeping accounting-based and market-based outcomes distinct and mapping each to its own transmission mechanism, the review explains why valuation effects so often outpace same-period profitability effects, a nuance that broader qualitative reviews tend to smooth over. Third, it brings emerging-market and specifically Indonesian evidence into view, a setting the flagship reviews largely overlook despite its rising regulatory and economic significance.

Read together, these moves shift the conversation away from the yes-or-no question of whether ESG pays toward a more discriminating account of when, where, and by what route sustainability engagement generates financial value. The reframing sits comfortably with the materiality-centred turn in recent scholarship and lays firmer ground for both replication and managerial judgement.

6. Conclusion and Recommendations

Drawing the strands together, this review finds that the balance of rigorous evidence warrants cautious optimism: credible ESG engagement is, more often than not, positively associated with both profitability and firm value, working chiefly by lowering risk, cheapening capital, and building reputational assets, and reaching its greatest strength where ESG effort is financially material, candidly disclosed, and anchored in sound governance; at the same time, a sizeable share of the field's apparent contradictions can be traced to divergent rating methodologies rather than to genuine economic ambiguity, while the review's qualitative, vote-counting character and its tilt toward developed-market evidence necessarily bound the precision and reach of these claims—considerations from which several recommendations follow, namely that future research, especially in Indonesia and comparable emerging markets, should exploit the richer disclosure environment created by recent sustainable-finance rules to run longitudinal, causally identified tests, probe the mediating mechanisms of risk, cost of capital, and reputation directly rather than by inference, disaggregate effects by pillar with particular attention to governance where ownership is concentrated, and adopt greater transparency about ESG proxy choice together with routine robustness checks across competing rating sources, so that the broad association documented here can be turned into concrete, context-sensitive guidance for the managers, investors, and policymakers now striving to reconcile financial value with sustainable development.

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