

THE ESG PRACTICES–RISK–FINANCIAL PERFORMANCE LINKAGE IN EMERGING MARKETS: A SYSTEMATIC REVIEW

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Abstract: This article conducts a systematic review of peer-reviewed research published between 1995 and 2025 on the link between environmental, social, and governance (ESG) practices, risk, and financial performance in the context of emerging markets. Adopting a narrative, systematic hybrid approach and sourcing evidence primarily from ScienceDirect and Emerald Insight, the review synthesises empirical findings across multiple sectors, research designs, and regional settings. The consolidated evidence indicates that ESG integration generally enhances profitability and market valuation while lowering exposure to market, credit, and default risks. Risk mitigation consistently appears as the dominant pathway through which ESG practices contribute to improved financial outcomes, with governance quality emerging as the most influential ESG pillar. The financial contributions of environmental and social initiatives are found to be industry-specific, particularly within the banking, manufacturing, and energy sectors. Nevertheless, neutral or negative outcomes persist when ESG practices are symbolic, misaligned with strategy, or incurs substantial costs. Methodological inconsistencies, limited causal analysis, and uneven regional coverage especially in Africa and Latin America, constrain cross-study comparability. This review highlights the need for harmonised ESG practices, enhanced risk modelling, and broader geographic representation to strengthen the validity of future findings. Overall, the evidence supports the view that embedding ESG practices into corporate strategy enhances financial resilience, stakeholder confidence, and sustainable value creation in emerging markets.

Keywords: ESG, Risk, Financial performance, Sustainability, Emerging markets

1. Introduction

Over the past two decades, environmental, social and governance (ESG) practices have evolved from peripheral initiatives into critical components of corporate strategy, risk management, and investment decision-making. Firms increasingly assess sustainability performance alongside profitability and cost of capital, while regulators have introduced more stringent disclosure mandates (Gillan et al., 2021). Investors have similarly integrated ESG considerations into valuation, underwriting, and asset-allocation models, heightening pressure on companies, particularly in emerging markets to demonstrate transparent and credible sustainability commitments (Berg et al., 2022). Despite the rapid expansion of the ESG agenda, the relationships between ESG practices, risk, and financial performance remain theoretically and empirically unsettled, especially in institutional environments where governance quality, legal enforcement, and reporting practices diverge substantially from those in advanced economies (Ararat & Yurtoglu, 2015; Yudaruddin et al., 2025).

The direct purpose of this systematic review is therefore to synthesise and critically evaluate empirical evidence on how ESG practices influence risk and financial performance in emerging markets, and to clarify the mechanisms, institutional conditions, and methodological patterns shaping these relationships. Unlike prior reviews that focus primarily on the direct ESG practices–financial performance link (Friede et al., 2015; Whelan et al., 2021), this review explicitly examines the risk channel, whether and how ESG practices mitigate, amplify, or mediate risk exposures that ultimately influence financial outcomes.

The conceptual foundations linking ESG practices to risk and financial performance derive from stakeholder and agency theories. Stakeholder theory suggests that environmental stewardship, employee welfare, and community engagement enhance operational stability and reputational resilience, reducing exposure to disruptions and downside volatility (Hart, 1995; Matten & Moon, 2008). Agency theory emphasises the role of strong governance structures, including independent boards, transparent reporting, and effective oversight in curbing managerial opportunism and reducing credit and default risk (Gillan et al., 2021). However, these theoretical pathways do not operate uniformly across emerging markets. Weak regulatory oversight, concentrated ownership, political influence, and inconsistent disclosure systems can dilute the signalling value of ESG practices and weaken risk-mitigating effects (Ararat & Yurtoglu, 2015; Fakhrunnas et al., 2025).

At the same time, ESG practices do not uniformly enhance risk profiles or financial performance, and several counter-mechanisms are well documented. Environmental, social and governance initiatives may generate substantial upfront costs associated with compliance, technological transition, reporting, and human-capital development (Marquis & Qian, 2014). Resource diversion toward sustainability activities may reduce short-term profitability (Berg et al., 2022; Krüger, 2015). Weak governance or managerial opportunism may result in symbolic, superficial, or “greenwashed” ESG practices that fail to affect underlying risk exposures (Marquis & Qian, 2014). Furthermore, rating divergence across ESG data providers can obscure true sustainability performance, distort risk assessments, and increase volatility (Berg et al., 2022). These countervailing forces highlight the need for systematic analysis that considers both positive and adverse effects of ESG practices within diverse institutional contexts.

Emerging markets also exhibit distinct ESG dynamics. In developed economies, where investor protection is strong and disclosure regimes are mature, ESG practices operate as a credible market signal associated with lower financing costs, greater investor confidence, and more stable cash flows (Giese et al., 2019; Fatemi et al., 2018). In contrast, the weaker institutional architecture characteristic of many emerging markets can reduce the credibility and impact of ESG practices (Ararat & Yurtoglu, 2015; Fakhrunnas et al., 2025). Reviews focusing on Brazil, Russia, India, and China (BRICS) and Association of Southeast Asian Nations (ASEAN) financial institutions show generally positive effects of ESG practices, but the magnitude and consistency of these relationships depend heavily on data quality, regulatory enforcement, and disclosure frameworks.

Much of the empirical evidence to date has concentrated on the direct relationship between ESG practices and financial performance, using accounting or market-based

measures such as return on assets (ROA), return on equity (ROE), and Tobin's Q (Friede et al., 2015; Whelan et al., 2021). However, theoretical reasoning and emerging empirical work indicate that ESG practices also affect financial outcomes indirectly by shaping firms' risk profiles. Environmental practices can reduce regulatory, operational, and transition risks, social initiatives can strengthen reputational resilience and workforce stability and governance quality can reduce agency conflicts and information asymmetry (Liuqi et al., 2024; Xiaomin et al., 2024). Neglecting this mediating risk channel may lead to underestimation of ESG's true financial effects (Chengyin & Shujun, 2025). Consequently, this review undertakes a systematic synthesis of ESG practices–risk–financial performance research in emerging markets, addressing the conceptual fragmentation and methodological diversity that currently characterise ESG practices–finance scholarship in non-Western contexts (Qunli et al., 2025).

2. Research Problem

Despite a growing body of literature, several critical gaps persist in the understanding of how ESG practices influence risk and financial performance in emerging markets. The first gap concerns the systematic neglect of the risk channel in empirical studies. While numerous articles examine the direct relationship between ESG practices and financial performance, far fewer analyse whether ESG practices affect performance indirectly by shaping firms' exposure to operational, market, credit, liquidity, or reputational risks. This omission stems from several structural constraints in the literature. Many emerging-market contexts lack consistent and long-horizon risk data, particularly for non-financial companies which discourages researchers from modelling complex risk pathways. In addition, risk constructs such as crash risk, tail dependence, systemic risk, and downside volatility require advanced econometric techniques and long-time series data that are often unavailable (Berg et al., 2022). Since ESG databases typically provide standardised ESG scores but do not offer equally standardised risk indicators, researchers default to analysing direct performance outcomes such as ROA, ROE, or Tobin's Q (Friede et al., 2015). As a result, empirical models frequently exclude mediating or moderating risk mechanisms, which may lead to underestimation or misinterpretation of ESG's true financial effects (Chengyin & Shujun, 2025).

A second major gap concerns substantial methodological divergence within the ESG practices–risk–financial performance literature. Studies rely on heterogeneous ESG ratings, self-constructed indices, varied disclosure sources and differing risk proxies which ranging from volatility measures to credit-default probabilities, thereby making synthesis difficult and restricts the comparability of findings. Third, the influence of institutional characteristics in emerging markets such as weak enforcement, concentrated ownership, political connections and inconsistent disclosure quality create additional variation in how ESG practices translate into financial outcomes (Ararat & Yurtoglu, 2015; Yudaruddin et al., 2025). Without context-sensitive frameworks that account for these institutional realities, cross-study comparisons risk being incomplete or misleading.

In response to these gaps, this review pursues four aims. First, it maps the empirical landscape by categorising studies according to geography, industry and methodological design. Second, it synthesises evidence on the direct relationships between ESG practices and

financial performance. Third, it analyses how ESG practices influence different categories of risk, considering risk as a mediator, moderator or independent variable, and identifies which risk mechanisms are most critical in explaining ESG financial outcomes. Fourth, it highlights methodological and institutional limitations and proposes future research avenues that better integrate ESG practices with risk management and long-term value creation in emerging-market contexts.

3. Methodology

The review adopts a systematic literature review (SLR) approach to collect, screen and synthesise relevant studies. Following established guidelines by Tranfield et al. (2003), Snyder (2019) and Yu and Watson (2019), this method ensures transparency, replicability and conceptual rigour. Due to the wide heterogeneity of ESG research including diverse theoretical frameworks, multidisciplinary origins, variations in ESG measurement and differences in risk constructs, this study employs a hybrid narrative–systematic design. This approach is considered methodologically superior for the present topic because a purely systematic review risks oversimplifying highly heterogeneous constructs, while a purely narrative review lacks the structured search, screening and replicability expected in contemporary SLR standards. The hybrid design therefore enables systematic identification of studies using transparent procedures, while allowing interpretive flexibility to synthesise diverse methodological approaches, ESG proxies, risk measures and institutional contexts.

Two academic databases comprising ScienceDirect (Elsevier) and Emerald Insight were used as the primary sources of data. These platforms provide extensive and high-quality coverage of peer-reviewed journals in accounting, finance, economics and management, which constitute the core disciplines publishing ESG practices, risk and financial performance research. The decision to rely on these two databases is methodologically justified because they collectively capture the vast majority of peer-reviewed ESG practices–finance publications relevant to emerging markets. Additional databases were not included to avoid duplication, reduce noise from non-peer-reviewed materials and maintain a focused, manageable and methodologically consistent dataset. This selective approach aligns with SLR standards that prioritise depth, relevance and quality over breadth without substantive contribution to coverage.

The search strategy used the core string “ESG risk financial performance,” supplemented by terms such as “Environmental Social Governance”, “corporate risk” and “financial performance”. These keywords were applied individually and in combination to maximise coverage and reduce selection bias. The review considered studies published between 1995 and 2025, including articles available online ahead of print. Reference lists of relevant studies were also screened manually to capture additional articles not identified through keyword queries.

Initial database queries produced several thousand records. After removing duplicates and screening titles and abstracts for relevance, a few hundred studies were shortlisted for full-text assessment. Applying the inclusion and exclusion criteria yielded fewer than three hundred empirical articles, most published after 2020, reflecting the surge of post-COVID

interest in ESG practices–risk–financial performance linkages. Studies were included if they: (1) examined at least one ESG dimension (environmental, social or governance), using third-party scores or constructed indices; (2) analysed at least one financial performance indicator such as ROA, ROE, Tobin’s Q, net income or stock returns; (3) incorporated at least one risk proxy such as market, credit, liquidity, default or volatility risk; and (4) focused on emerging or developing economies.

4. Analysis and Findings

The final sample spans a wide spectrum of emerging-market contexts. Geographically, most studies analyse firms in Asia, particularly China, India, Indonesia, Malaysia and Thailand, reflecting the economic prominence of these markets (Fatemi et al., 2018; Qunli et al., 2025; Chengyin & Shujun, 2025; Liuqi et al., 2024; Chipalkatti et al., 2025). The Middle East and North Africa also feature prominently, with work on firms in the United Arab Emirates, Saudi Arabia, Egypt and Turkey (Ararat & Yurtoglu, 2015; Ellili, 2025; Antari et al., 2025; Oubahou et al., 2025). In contrast, only a handful of papers focus on African markets (Keffala & Omrane, 2025) or Latin America (Mirza et al., 2025a), highlighting an uneven geographic distribution and opportunities for future work. Cross-country studies (Lopez-de-Silanes et al., 2019) account for a notable share of the sample, while many articles concentrate on single nations. Sectorally, banking and financial services dominate the sample (Chipalkatti et al., 2025; Yudaruddin et al., 2025), followed by energy, manufacturing and mining (Ararat & Yurtoglu, 2015; Gabr & ElBannan, 2025). Agriculture, insurance and service industries receive scant attention, revealing sectoral gaps that warrant future research. The dominance of banking reflects both the critical role of financial intermediation in emerging economies and the practices of ESG among listed banks. This sectoral concentration also influences the direction of findings because bank-level ESG effects are typically driven by governance and credit-risk mechanisms, which are more consistently measurable than environmental or social outcomes. As a result, the literature may disproportionately emphasise governance-heavy channels and underrepresent industries where environmental or social factors play a stronger role.

This composition has important implications for how the findings should be interpreted. The predominance of Asian markets, where ESG disclosure regimes, regulatory frameworks and enforcement mechanisms are generally more developed than in many African or Latin American economies, creates a potential positive bias towards stronger and more consistent ESG practices–risk–financial performance linkages. In addition, the heavy representation of banks and other regulated financial institutions means that much of the evidence comes from sectors with relatively sophisticated governance structures, mandatory capital requirements and stricter reporting obligations. Consequently, the synthesis presented in this review is most applicable to larger, listed, and more heavily regulated entities in middle-income emerging markets, and less generalisable to smaller firms, under-regulated sectors or countries where ESG enforcement remains weak.

Prior to 2015, studies in emerging markets were limited and mostly descriptive, focusing on corporate social responsibility (CSR) disclosure rather than the integrated ESG framework that dominates contemporary research (Matten & Moon, 2008; Ararat & Yurtoglu, 2015). The

number of publications increased steadily after 2016, driven by broader data availability from global ESG databases such as Refinitiv (now LSEG) and Bloomberg and by the diffusion of sustainability-reporting guidelines including the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB). After 2020, the volume of empirical work accelerated sharply, accounting for almost half of the final sample as post-COVID financial volatility and new disclosure mandates (for example, Bursa Malaysia's 2022 Sustainability Reporting Guide) intensified interest in ESG as a potential stabilising mechanism.

4.1 Relationship between ESG practices and financial performance

A large share of empirical studies finds that stronger ESG practices correlate with higher profitability and firm value. Firms with robust sustainability practices often enjoy lower financing costs and improved credit terms (Fettahoglu et al., 2025) and benefit from enhanced brand reputation, customer loyalty and market share. Country-level analyses illustrate how material ESG practices translate into financial gains. Better governance and environmental compliance boost the market value of Turkish firms (Ararat & Yurtoglu, 2015), strong ESG practices improve profitability and efficiency in Indian banks (Chipalkatti et al., 2025), ESG engagement enhances value-creation efficiency in Chinese firms (Qunli et al., 2025), and green initiatives increase the market valuation of Egyptian firms (Gabr & ElBannan, 2025). Comparative studies show that the value premium for ESG practices is larger in emerging markets than in developed economies, particularly when disclosures are comprehensive (Fatemi et al., 2018), and many studies report a generally positive or at least neutral association between ESG practices and business outcomes (Gillan et al., 2021).

Positive financial outcomes arise through several mechanisms. Strong governance structures reduce agency costs and improve decision-making, leading to more efficient capital allocation and higher profitability. For instance, governance improvements drive performance in manufacturing and banking (Fakhrunnas et al., 2025; Yudaruddin et al., 2025). Governance also magnifies the benefits of environmental and social initiatives by ensuring that sustainability policies are implemented substantively rather than symbolically (Krüger, 2015; Xiaomin et al., 2024). Environmental initiatives reduce regulatory penalties, enhance resource efficiency and attract environmentally conscious consumers, thus increasing revenue. Environmental initiatives are especially beneficial in energy and resource-intensive industries as they consistently correlate with long-term financial resilience (Hart, 1995; Matten & Moon, 2008; Gabr & ElBannan, 2025). For example, firms investing in pollution control, energy efficiency or green innovation experience lower operating costs and enhanced competitiveness once initial transition costs are absorbed (Hart, 1995; Chengyin & Shujun, 2025). Social initiatives such as employee training, diversity programmes and community investments boost productivity and customer loyalty. Studies in South Asia and the Middle East suggest that employee welfare, workplace safety and community investment strengthen reputation and productivity, which translate into higher returns (Fakhrunnas et al., 2025). The positive impact of ESG practices are particularly pronounced in industries with high environmental or social exposure, where stakeholders scrutinise sustainability performance. These intangible benefits often take years to materialise but can create lasting competitive advantage.

While most studies find that ESG practices improve financial performance and reduces risk, contradictory results emerge due to several factors. Non-linearities may produce an inverted U-shape, where moderate ESG investment yields benefits but excessive spending diminishes returns (Chengyin & Shujun, 2025). Endogeneity poses a persistent problem, where profitable firms may invest more in ESG practices, obscuring causal effects. Only a minority of studies employ methods that control for reverse causality (Xiaomin et al., 2024). Others suggest that benefits depend on industry context, firm size and regulatory environment. For instance, Krüger (2015) finds that philanthropic spending may reduce shareholder value when it is perceived as excessive or unrelated to core operations. Others caution that high implementation costs may outweigh short-term benefits, particularly in sectors with tight margins or weak enforcement (Marquis & Qian, 2014; Berg et al., 2022).

Relatively, few studies use lagged ESG scores, instrumental variables, propensity score matching or quasi-experimental designs to address reverse causality, which is those that do generally report stronger and more internally consistent effects (Saeed et al., 2025; Malik & Kashiramka, 2025). Short-term analyses may capture upfront costs rather than long-term gains, leading to neutral or negative findings (da Cunha et al., 2025). Measurement heterogeneity stemming from divergent ESG ratings, inconsistent disclosure standards and varied risk proxies reduces comparability across studies and contributes to mixed results (Atz et al., 2022). Contextual factors such as national regulation, investor activism and cultural norms shape the strength and direction of ESG effects (Gillan et al., 2021).

On the whole, the evidence suggests that ESG practices “work” most reliably under specific conditions. Positive financial effects are most pronounced when ESG practices are strategically aligned with core business operations, when governance structures are strong enough to ensure substantive rather than symbolic implementation, and when regulatory and disclosure frameworks provide credible signals to investors. By contrast, ESG practices are more likely to yield weak or even negative financial outcomes when it is pursued as peripheral philanthropy, when high implementation costs are not matched by efficiency gains, or when weak firms and rating divergence undermine the credibility of ESG information. In such settings, ESG practices can become a cost centre rather than a source of sustainable value creation.

4.2 Relationship between ESG practices and risk

Most quantitative analyses in emerging markets find that firms with stronger ESG practices experience lower earnings volatility, default probability and leverage pressure. Integrating ESG practices into business strategy strengthens risk management, enhances transparency and reduces information asymmetry, thereby lowering debt and liquidity risk. Panel-data studies in China and India show that high ESG performers display significantly smaller idiosyncratic and downside volatility (Chengyin & Shujun, 2025). Similar findings emerge from Malaysian and Indonesian banks, where strong ESG practices correlate with reduced non-performing-loan ratios and improved capital adequacy (Yudaruddin et al., 2025). These results support the proposition that ESG practices stabilise cash flows and strengthens investor confidence by reducing information asymmetry and operational uncertainty.

Firms with strong ESG practices enjoy better credit access, narrower credit spreads and reduced probability of default (da Cunha et al., 2025). During the COVID-19 crisis, firms with robust social and supply-chain ESG practices exhibited higher stock returns and faster recovery, highlighting ESG's role in resilience (Atz et al., 2022). Empirical studies show that ESG practices reduce stock-price volatility and crash risk (Wenbing et al., 2023). Rating disparities influence risk via financing constraints, where convergent ratings improve capital access and lower risk, while divergent ratings tighten credit conditions (Xiaomin et al., 2024). Environmental, social and governance practices also reduce credit and default risk, where firms that disclose carbon emissions or pursue green initiatives enjoy lower debt costs (Gabr & ElBannan, 2025) and reduced probability of default (Chengyin & Shujun, 2025). However, environmental disclosures, particularly carbon emissions reporting typically reduce operational and regulatory risk by signalling compliance with environmental standards, lowering exposure to fines and transition risk.

In contrast, social disclosures tend to affect reputational and crash risk, as strong labour practices, community engagement and supply-chain responsibility reduce the likelihood of sudden negative information shocks. Several studies show that carbon disclosure has a more direct and measurable link to risk reduction because regulatory exposure and emissions data create clearer risk signals, whereas social indicators are more qualitative and yield more variable risk effects across countries. However, rating divergence can heighten volatility. When rating agencies disagree, investors face uncertainty about true quality of ESG practices, leading to higher perceived risk, wider risk premia and, in some cases, stock-price crashes (Berg et al., 2022; Yiyuan 2025). This implies that ESG practices do not automatically reduce risk, but temporarily increase perceived risk if the signals sent by different providers are inconsistent or ambiguous.

In the aftermath of COVID-19, the stabilising role of ESG practices became even clearer. Broadstock et al. (2021) show that Asian firms with pre-existing ESG practices suffered smaller market drawdowns and recovered faster than peers, suggesting that sustainability policies act as a buffer against systemic shocks. This risk-mitigating capacity has led scholars to interpret ESG practices as non-financial form of insurance that complements traditional financial hedging instruments (Fatemi et al., 2018). The environmental pillar primarily addresses operational, regulatory and transition risks. Firms investing in carbon reduction, pollution control and renewable-energy efficiency experience fewer production interruptions and environmental fines, thereby lowering exposure to regulatory penalties and supply-chain shocks (Gabr & ElBannan et al., 2025). Carbon-related disclosures and credible decarbonisation strategies also reduce transition risk by signalling preparedness for tighter climate regulation and changes in investor preferences. Empirical analyses in China, India and Malaysia confirm that environmental innovation and eco-efficiency improve risk profiles by enhancing process reliability and compliance capacity (Xiaomin et al., 2024), although the transition to cleaner technologies can raise short-term financial leverage, especially in capital-intensive industries, before long-term savings materialise.

The social pillar mitigates reputational and crash-risk channels in particular. Firms that prioritise employee welfare, diversity and community relations enjoy more stable workforce productivity and lower probability of industrial disputes. Studies from Southeast Asia

demonstrate that high social-performance scores correlate with smaller stock-price crash risk, largely by reducing managerial opportunism and enhancing internal transparency (Parashar et al., 2025). Symbolic or purely philanthropic social initiatives, however, show negligible financial-risk effects, underscoring the importance of integrating social policies into core operations rather than treating them as stand-alone public-relations campaigns. The governance pillar remains the most consistent predictor of reduced financial risk. Analysis based on agency theory states that independent boards, effective audit committees and transparent reporting lower leverage and credit risk by constraining opportunistic behaviour and improving oversight (Gillan et al., 2021). Governance strength directly decreases earnings volatility and indirectly amplifies the risk-reduction benefits of environmental and social initiatives (Giese et al., 2019; Fatemi et al., 2018; Chengyin & Shujun, 2025). Conversely, weak or symbolic governance erodes ESG credibility, leaving overall risk unchanged (Marquis & Qian, 2014).

Different types of risk are evident in distinct ways across sectors. Market and volatility risk are paramount for publicly listed firms, particularly in capital-intensive industries like energy and mining where commodity-price fluctuations can be severe. Credit and default risk are central in banking and finance, where ESG practices often relates to lending practices, capital adequacy and regulatory compliance. In manufacturing and transportation, operational and supply-chain risks stemming from labour disputes, safety incidents or environmental accidents are critical. These industry-specific risks influence which ESG practices provide the greatest mitigation benefits such as improving occupational health and safety to reduce operational disruptions in mining, while strengthening governance and disclosure may lower funding costs for banks. Relatively few studies examine liquidity risk, currency risk or geopolitical risk, even though such exposures are salient in emerging markets. Overall, the evidence suggests that ESG practices are most effective in reducing risk where exposures are clearly identifiable, data are available and regulatory oversight is credible.

4.3 Mediating and moderating mechanisms

Researchers have unpacked the pathways linking ESG practices to financial outcomes. Financing constraints frequently mediate the ESG practices–risk–financial performance relationship. Firms with stronger sustainability performance face lower financing costs, which enhance profitability and reduce risk (Xiaomin et al., 2024). Using panel data on Chinese listed firms, Liuqi et al. (2024) demonstrate that financial risk partially mediates the ESG practices–profitability link, where firms with strong ESG practices exhibit lower leverage and market volatility, which subsequently raise ROA and Tobin’s Q. In Malaysia, Yudaruddin et al. (2025) find that ESG practices strengthen bank stability by reducing credit exposure and improving liquidity performance. Studies of Indian banks confirm that ESG practices strengthen risk buffers, lower non-performing loans and lead to higher ROE (Chipalkatti et al., 2025). Cross-country work by Chengyin and Shujun (2025) further validates that ESG’s contribution to firm value in emerging markets operates mainly through the reduction of downside and systemic risk.

Moderators include ownership structure, firm size, sector and regulatory quality. State-owned enterprises and family-controlled firms typically exhibit weaker ESG practices–

financial performance links than privately owned firms, while larger firms reap greater benefits from the practices (Fatemi et al., 2018; Gillan et al., 2021). Industry characteristics matter. For instance, Shariah compliance amplifies the benefits of ESG practices in Islamic banks (Yudaruddin et al., 2025), board independence moderates governance effects in Turkey (Ararat & Yurtoglu, 2015) and national regulatory frameworks moderate the impact of carbon disclosure on firm value (Gabr & ElBannan, 2025).

Viewed together, these mediation and moderation findings highlight that ESG practices do not translate into improved performance automatically. The risk channel is effective when ESG practices are credible enough to relax financing constraints and reduce volatility, and when governance and regulatory quality support enforcement. Where ownership is highly concentrated, disclosure is weak or ESG practices are symbolic, the mediating role of risk largely disappears. The most credible evidence therefore portrays ESG practices as contingent mechanism whose impact on financial performance depends critically on firm-level governance and country-level institutions.

4.4 Methodological and data patterns

Methodological differences are a major characteristic of the existing literature. More advanced methods like difference-in-differences using regulatory changes, structural equation modelling for mediation, event studies examining market reactions and machine-learning techniques for analysing text disclosures have begun to appear but are still used far less frequently (Liuqi et al., 2024; Saeed et al., 2025; Wei-An et al., 2025; Dossa et al., 2025; Malik & Kashiramka, 2025). Some studies also use network analysis to examine systemic risk and how shocks spread within the banking sector (Shukla & Gupta, 2025; Akyildirim et al., 2025). However, despite these newer approaches, many papers still depend on basic contemporaneous regressions with few control variables and small samples, which limits their ability to make strong causal claims and reduces the generalisability of their findings. Most studies rely on basic regression approaches, such as fixed-effects, random-effects and dynamic panel models (Fatemi et al., 2018; Gillan et al., 2021; Xiaomin et al., 2024).

These methodological choices directly affect how convincing the reported ESG results are. Studies that use ESG practices and financial performance measured at the same time are especially prone to reverse causality. Firms that are already more profitable or less risky may simply be more able to invest in ESG practices, which can improve performance even when the influence runs in the opposite direction (Fatemi et al., 2018; Gillan et al., 2021). This type of model often produces larger and more consistently positive effects of ESG practices, which may overstate the true benefits (Atz et al., 2022). In contrast, studies that use lagged ESG variables, instrumental-variable methods, quasi-experimental designs or formal mediation models usually report more cautious and sometimes smaller effects, but their findings are more reliable because they show clearer risk and financing pathways (Xiaomin et al., 2024; Liuqi et al., 2024; Saeed et al., 2025; Malik & Kashiramka, 2025). Overall, these more rigorous approaches provide the strongest evidence on whether and how ESG practices actually reduce risk and improve financial performance in emerging markets (Chengyin & Shujun, 2025; Yudaruddin et al., 2025).

Data quality and comparability constitute recurring challenges. Divergence among ESG ratings is well documented and different providers use distinct indicator sets, weighting schemes and disclosure scopes, resulting in low correlations and “aggregate confusion” (Berg et al., 2022). Most studies rely on panel datasets of publicly listed firms or banks, typically covering three- to five-year periods (Fatemi et al., 2018; Gillan et al., 2021). Some research extends the analysis to a decade or more to capture the evolution of ESG practices and their long-run financial effects, particularly in large emerging markets such as China and India (Liuqi et al., 2024; Qunli et al., 2025; Chipalkatti et al., 2025). Sample sizes range from dozens to over a thousand firms, depending on data availability and national reporting requirements. Cross-country comparisons represent an important subset, while the remainder focus on single jurisdictions. In terms of data sources, most researchers rely on commercial ESG ratings from major providers such as Refinitiv (now LSEG), MSCI and Bloomberg, as these datasets offer the widest coverage of emerging-market firms and standardised ESG disclosures (Atz et al., 2022; Chengyin & Shujun, 2025). Each provider applies proprietary methodologies and weighting schemes, leading to low correlations across scores and complicating cross-study comparisons. Some researchers construct bespoke indices using data from corporate annual reports, sustainability disclosures or survey instruments to better capture specific local contexts (Fatemi et al., 2018). A few papers make use of national databases or government-mandated reporting systems, which offer more consistent coverage but may lag behind private-sector data in breadth and timeliness (Fakhrunnas et al., 2025). Understanding these data differences is essential for interpreting empirical results.

ESG pillars emphasise certain features. Most papers discuss environmental, social and governance dimensions together, suggesting a holistic treatment of sustainability. Social and governance concerns including board composition, ownership concentration, labour practices and stakeholder engagement receive slightly more attention than environmental issues (Fakhrunnas et al., 2025; Yudaruddin et al., 2025). Only a handful of studies frame their analysis in terms of corporate social responsibility (CSR) rather than ESG (Marquis & Qian, 2014; Matten & Moon, 2008), underscoring the shift towards integrated ESG vocabulary. Regional case studies also reveal context-specific priorities, for instance environmental compliance and emissions reduction are central themes in China, while governance reforms and gender diversity attract attention in Turkey, Egypt and the Gulf.

4.5 Synthesis Across Emerging Regions

Asia accounts for the majority of studies in the review, reflecting the rapid growth and global integration of markets such as China and India. Most Asian research finds that ESG practices enhance financial outcomes and reduces risk. Chinese studies show that ESG investment reduces stock-price crash risk and financing costs, while enhancing value-creation efficiency (Qunli et al., 2025). Indian research finds that strong ESG practices are associated with greater profitability and risk mitigation in banks (Chipalkatti et al., 2025). However, positive effects often depend on strong governance and regulatory enforcement, state-owned enterprises or firms operating in regions with weak enforcement show weaker relationships. Environmental issues such as emissions reduction, energy efficiency and climate risk receive particular attention in the ESG literature (Giese et al., 2019). At the same time, social and governance dimensions are increasingly recognised as important drivers of

investor confidence (Gillan et al., 2021; Fakhrunnas et al., 2025). The dominance of Asian studies introduces a positive bias into the overall evidence base because ESG enforcement frameworks in China, India and Malaysia are generally stronger than in Africa or Latin America. As a result, the global findings may overstate the strength of ESG practices–financial performance relationships in regions where disclosure rules, regulatory oversight and investor activism are weaker. This skew must be considered when interpreting the general conclusions of the review.

Evidence from MENA markets is more mixed. Banks with strong ESG practices, particularly Islamic banks, enjoy better performance and lower credit risk (Fakhrunnas et al., 2025; Yudaruddin et al., 2025). Studies of listed firms in Turkey and Egypt find that governance improvements and board diversity lower risk and bolster performance, while environmental and social initiatives yield smaller or insignificant effects (Gabr & ElBannan, 2025). High state ownership and concentrated control can dampen the responsiveness of firms to ESG pressures, highlighting the moderating role of ownership structure (Ellili, 2025; Srairi, 2025). National regulatory environments differ markedly across the region, and countries with stronger corporate-governance codes and enforcement tend to exhibit more pronounced ESG practices–financial performance linkages (Lopez-de-Silanes et al., 2019).

African studies are sparse but offer valuable insights. Research on South African banks finds that sustainable-finance practices improve profitability and resilience (Keffala & Omrane, 2025). Studies on Moroccan firms report that governance reforms and ESG practices enhance market value but emphasise limited data availability and inconsistent reporting (Oubahou et al., 2025). Evidence from other African economies is limited. However, emerging work suggests that ESG adoption is hindered by inadequate regulatory frameworks and lack of investor awareness (Keffala & Omrane, 2025; Ellili, 2025; Whelan et al., 2021). In Nigeria, weak ESG integration frameworks and the absence of enforceable disclosure guidelines continue to limit investor engagement and transparency (Owoeye, 2025). Similar trends are observed in Kenya, where limited investor awareness and weak enforcement capacity hinder the spread of ESG practices beyond major financial institutions (Fakhrunnas et al., 2025).

Latin American evidence is similarly limited and mixed. Some research shows that environmental initiatives in Brazil and Mexico attract foreign investment and improve financial performance, particularly when firms disclose carbon emissions and adopt renewable-energy projects (Gabr & ElBannan, 2025; Whelan et al., 2021). Other studies highlight high implementation costs, weak enforcement and political instability that diminish returns (Chengyin & Shujun, 2025). Governance reforms and social initiatives are less documented, reflecting the nascent state of ESG discourse in the region (Gillan et al., 2021; Marquis & Qian, 2014).

Overall, the regional evidence points to an uneven and institution-dependent ESG practices–risk–financial performance relationship. Asia and parts of the MENA region, where disclosure frameworks are relatively more advanced and financial sectors are better regulated, report the most consistent positive effects. African and Latin American findings are constrained by data gaps, weaker enforcement and smaller samples, limiting generalisability. Combined with the dominance of banking and energy sectors, this pattern suggests that

current knowledge is skewed toward larger, listed and more regulated entities. Future research is needed to assess whether the positive ESG effects documented in these contexts extend to under-researched sectors and jurisdictions with weaker institutional support for sustainability.

5. Contribution and implications

This review makes several contributions to the ESG literature. It provides a comprehensive and focused synthesis of empirical studies on ESG practices, risk and financial performance specifically in emerging markets, a scope largely overlooked in prior systematic reviews, which have tended to concentrate on developed economies, ESG–performance correlations, or broad CSR themes (e.g., Friede et al., 2015; Whelan et al., 2021). Unlike earlier SLRs that primarily summarise direct ESG practices–financial performance linkages, this review explicitly foregrounds the risk channel and evaluates how ESG practices reduce volatility, credit risk and downside exposure. The review thus differs from existing SLRs by focusing on emerging markets, synthesising both ESG practices–financial performance and ESG practices–risk relationships, and evaluating how risk mediates ESG’s financial relevance. Evidence from banking and manufacturing firms in Turkey (Ararat & Yurtoglu, 2015), Islamic finance institutions (Fakhrunnas et al., 2025; Yudaruddin et al., 2025) and multinational samples (Fatemi et al., 2018; Gillan et al., 2021) highlights that risk reduction via lower volatility, improved creditworthiness or diminished default risk become central mechanism through which ESG practices create value.

For policymakers, the evidence suggests that strengthening ESG disclosure requirements and harmonising reporting standards can significantly reinforce the relationship between ESG practices, risk and financial performance. Clearer, more comparable and more reliable ESG disclosures reduce information asymmetry, which lowers perceived risk and improves financing conditions for sustainable firms. Studies documenting rating divergence (Berg et al., 2022) and data inconsistency (Kotsantonis & Serafeim, 2019) show that fragmented reporting weakens the signalling value of ESG practices, thereby limiting its ability to reduce risk. Harmonised standards such as alignment with the GRI, ISSB or national sustainability guidelines help ensure that environmental and governance metrics better capture regulatory exposure, operational vulnerabilities and transition risks. In turn, this strengthens the transmission of ESG improvements into lower volatility, stable cash flows and long-term financial performance. Policymakers should also embed ESG practices into prudential and supervisory frameworks, as ESG-related risks can propagate into systemic financial risks (Gabr & ElBannan, 2025). Governments can further accelerate adoption through tax incentives, green-technology subsidies, and sustainability capacity-building initiatives, complementing findings that environmental and governance reforms enhance firm value while lowering risk (Hart, 1995; Matten & Moon, 2008; Giese et al., 2019).

For investors, incorporating ESG practices into portfolio construction can improve risk-adjusted returns and reduce exposure to tail risks. Meta-analyses show that portfolios with high ESG scores exhibit lower volatility and drawdowns during crises (Broadstock et al., 2021; Atz et al., 2022). However, investors should perform due diligence to differentiate between substantive ESG practices and greenwashing. Rating divergence

(Berg et al., 2022) and data inconsistencies (Kotsantonis & Serafeim, 2019) imply that reliance on a single data provider can be misleading. Investors in emerging markets should also be mindful of regional differences. Case studies from Turkey, South Africa and Islamic banks show that the returns to ESG may vary depending on legal systems, industry structure and cultural norms (Keffala & Omrane, 2025; Fakhrunnas et al., 2025).

For corporate managers, ESG practices should be viewed as a strategic investment rather than a compliance cost. The review highlights that material sustainability initiatives which aligned with a firm's core business and stakeholder priorities enhance competitive advantage by improving operational efficiency, attracting talented employees, increasing customer loyalty and lowering capital costs (Ararat & Yurtoglu, 2015; Qunli et al., 2025). Managers should embed sustainability into governance structures by establishing dedicated committees, linking executive compensation to ESG targets and integrating ESG practices into risk-management systems. Evidence from Islamic banks indicates that such integration can enhance profitability and reduce credit risk (Fakhrunnas et al., 2025; Yudaruddin et al., 2025). Ultimately, corporate leaders must foster an organisational culture that values sustainability, innovation and stakeholder engagement.

6. Research gaps and future directions

The current literature still exhibits several gaps that invite deeper inquiry. Geographic coverage remains uneven. Most studies examine firms in Asia, Turkey and the Gulf or in large emerging markets such as China and India, while only a small fraction analyse African or Latin American contexts (Antari et al., 2025; Keffala & Omrane, 2025). These gaps are partly driven by weaker ESG reporting infrastructure, as many African and Latin American countries lack mandatory disclosure systems, unified reporting templates or consistent sustainability databases. Political instability and regulatory volatility in several economies also limit the availability and reliability of panel data, making long-term research on ESG practices difficult. Future studies should therefore expand coverage to under-studied economies in Africa and Latin America and undertake systematic cross-country comparisons to determine how institutional differences, legal systems, and political stability shape the ESG practices–risk–financial performance relationship. Sectoral analyses also remain limited. Banks, mining and energy firms dominate the sample, leaving technology, agriculture, infrastructure and services considerably under-represented.

A second major gap concerns the limited development of risk modelling. Many papers focus primarily on accounting profitability indicators such as ROA or Tobin's Q and devote limited attention to financial risk. Only a subset explicitly models credit risk, market volatility or default probabilities (Gidage & Bhide, 2025; Liuqi et al., 2024). This narrow focus on performance is driven by several constraints. Long-horizon and high-frequency risk variables are harder to obtain in emerging markets, especially for non-financial sectors and smaller listed companies. In addition, data limitations restrict the use of comprehensive risk proxies such as crash risk, tail dependence, systemic risk, liquidity risk or idiosyncratic volatility. As a result, most empirical work defaults to direct ESG practices–financial performance models, which risks underestimating the importance of the risk channel.

Future studies should incorporate a wider range of risk indicators and explore how different risk types such as credit, market, liquidity, operational, idiosyncratic and systemic mediate or moderate the ESG's financial impact. Finally, most studies focus on large listed firms, overlooking the vast universe of private firms and small and medium-sized enterprises (SMEs). Papers analysing bank clients or microfinance institutions (Ashraf et al., 2021; Gidage & Bhide, 2025; Saeed et al., 2025) demonstrate that smaller enterprises often struggle with sustainability due to resource constraints, yet they play vital roles in emerging economies. Future work should also examine how ESG practices interact with intangible assets such as intellectual property, human capital and organisational culture, as these resources may amplify or moderate sustainability effects.

7. Conclusion

Across emerging markets, the evidence shows that integrating ESG practices into corporate strategy can enhance firm value through higher profitability, better financing conditions, stronger stakeholder trust and reduced exposure to downside risks. Governance consistently emerges as the most stable and influential pillar, while environmental and social initiatives generate industry-specific benefits. However, this review also highlights several unresolved contradictions. Findings on the financial impact of ESG practices remain mixed, particularly for environmental and social components, where results vary across countries, sectors and risk types. Rating divergence across ESG data providers continues to weaken the reliability of cross-country comparisons, while inconsistent disclosure quality creates uncertainty for investors and researchers. Non-linear effects further complicate interpretation, as several studies show that excessive or symbolic ESG practices spending may reduce performance. These unresolved patterns signal that ESG outcomes are highly contingent on institutional strength, regulatory enforcement, industry characteristics and firm-level capabilities.

To unlock the full potential of ESG practices in emerging markets, stakeholders must directly address the empirical inconsistencies and structural gaps identified in this review. The strong variation in data quality and rating methodologies underscores the need for standardised and transparent reporting frameworks, which would reduce information asymmetry and mitigate the rating divergence that currently distorts ESG signals. Aligning domestic regulations with global standards such as GRI or ISSB can strengthen the relationship between ESG practices, risk and financial performance by enabling more accurate measurement of credit, market and operational risks. Investors should diversify their information sources to better detect greenwashing and interpret ESG practices within the institutional context, particularly in regions with weak enforcement or low disclosure intensity. For corporate managers, the findings emphasise that ESG practices must be embedded within governance, risk-management systems and production processes rather than treated as a branding exercise.

For researchers, the remaining contradictions point to several important avenues for future inquiry. The mixed findings on environmental and social practices suggest the need to explore non-linearities, threshold effects and firm-specific moderators that shape when ESG

supports or undermines performance. The persistent underrepresentation of Africa and Latin America reflects fundamental structural issues including limited database coverage, weak reporting infrastructure and political or regulatory instability, which future research should explicitly examine rather than treat as mere omissions. The consistent neglect of risk variables highlights the importance of developing richer models that integrate credit, market, liquidity and systemic risk into the ESG framework. Small and Medium-Sized Enterprises (SMEs) and private firms remain largely invisible in the literature despite their economic importance and unique sustainability challenges, understanding how resource constraints and informal governance shape ESG adoption is therefore critical. Finally, rapid technological innovation such as digital reporting platforms, blockchain traceability and big-data analytics represent major research frontier, as these tools can reduce information asymmetry, lower monitoring costs and transform how ESG practices are measured and managed.

In summary, this review provides a roadmap for policymakers, investors and managers seeking to harness ESG practices for both financial and developmental objectives in emerging markets. The findings affirm that ESG engagement can enhance profitability and resilience, but they also show that outcomes depend on context, data integrity and institutional quality. Continuous collaboration among academics, practitioners and regulators will be essential to convert ESG practices from an emerging discourse into a robust and reliable component of corporate strategy and risk management in developing economies.

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