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The Influence of ESG Factors on Corporate Financing Costs in Emerging Markets

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Abstract: Emerging-market firms often face elevated financing costs due to macroeconomic volatility, institutional weaknesses, and environmental risks. Yet most existing studies focus on developed economies, leaving limited evidence on how environmental, social, and governance (ESG) factors affect debt pricing in emerging contexts. This study addresses this gap by adopting a mixed-methods design, combining panel regression analysis of firm-level ESG ratings, financial indicators, and macroeconomic data from 2023 to 2025 with comparative case studies of firms implementing substantial ESG reforms. The econometric results show that superior ESG performance is significantly associated with lower financing costs, with governance and environmental pillars exerting the strongest influence, while social factors have weaker and statistically insignificant effects. Case evidence further illustrates how governance reforms and environmental commitments lead to favorable refinancing terms, whereas social initiatives yield mainly reputational benefits. These findings extend ESG-financing research to emerging markets and provide practical insights for managers, investors, and policymakers seeking to lower capital costs and strengthen sustainable finance.

Keywords: emerging markets; financing costs; ESG performance; governance; environmental

1. Introduction

In recent years, the integration of environmental, social, and governance (ESG) considerations into financial decision-making has gained unprecedented momentum. Global investors, rating agencies, and policymakers increasingly recognize that ESG factors are not peripheral issues of corporate responsibility but central determinants of financial performance and risk management [1]. This shift reflects a recognition that sustainability concerns, social legitimacy, and governance quality directly influence a firm's ability to secure affordable financing [2]. While much of the academic and practical attention has been devoted to developed markets, the implications of ESG performance for firms in emerging markets remain underexplored, despite these economies' growing role in global capital flows. Emerging market firms often face higher financing costs due to macroeconomic volatility, institutional weaknesses, and perceptions of elevated risk [3]. Understanding whether ESG factors can mitigate these financing burdens is therefore of both academic and practical importance.

Existing research has established a substantial body of evidence linking ESG performance to financial outcomes, particularly in developed economies. Studies have shown that firms with higher ESG scores tend to experience lower costs of capital, reduced default risk, and improved investor confidence [4]. More recent studies confirm that strong governance quality can reduce borrowing spreads in European markets, while other evidence highlights ESG's role in alleviating capital constraints among Asia-Pacific firms [5]. Yet most of these analyses remain geographically concentrated and often neglect the heterogeneous institutional environments of emerging markets [6]. In these contexts, weaker regulatory enforcement, limited ESG disclosure, and information asymmetries may alter the relationship between ESG performance and financing costs.

The research gap is twofold. First, there is insufficient evidence on how ESG factors affect financing costs in emerging markets, particularly after 2023 when ESG reporting standards became more globally harmonized [7]. Second, existing studies often apply frameworks developed in advanced economies without sufficient adaptation to emerging-market realities such as political risk, financial underdevelopment, and differing stakeholder pressures. As a result, it remains unclear whether ESG improvements genuinely lower financing costs in these settings or whether structural constraints undermine this relationship.

This paper addresses these gaps by adopting an interdisciplinary perspective that combines financial econometrics with qualitative case study analysis. The study investigates how ESG performance influences the cost of debt among firms in emerging markets, with particular emphasis on governance and environmental dimensions, which prior literature suggests are most salient for lender confidence. By integrating econometric modeling with case-based insights, this research not only provides statistical evidence of ESG-financing linkages but also uncovers mechanisms through which ESG practices shape perceptions of creditworthiness. This approach represents a methodological innovation, bridging quantitative rigor and qualitative contextualization.

The research has three objectives: first, to quantify the relationship between ESG performance and financing costs in emerging markets using firm-level panel data from 2023 to 2025; second, to disaggregate environmental, social, and governance dimensions to identify which components most affect borrowing rates; and third, to illustrate these dynamics through comparative case studies of firms that have improved ESG practices and observed financing changes. This design allows examination of both statistical patterns and causal mechanisms.

Methodologically, a mixed-methods framework is employed. Quantitatively, regression analysis is conducted on ESG ratings, financial indicators, and debt costs, with controls for firm size, leverage, and macroeconomic conditions. Qualitatively, case studies across industries and countries capture contextual nuances absent from large-N models, highlighting how governance reforms, environmental investments, and social initiatives influence lender perceptions. Together, the approaches provide a more holistic understanding than either could achieve alone.

The study's significance lies in extending ESG-financing research to underrepresented contexts. Adaptating stakeholder and signaling theories to emerging markets, it shows how ESG disclosures act as signals of creditworthiness and how stakeholder engagement shapes capital access. Practically, the findings inform managers optimizing financing strategies, investors refining credit risk models, and policymakers designing disclosure frameworks. If ESG improvements lower financing costs, firms gain stronger incentives to integrate sustainability, while governments can justify robust ESG reporting standards.

In sum, the paper asks whether and how ESG factors affect financing costs in emerging markets, and shows that ESG is a central determinant of financial sustainability in these economies.

2. Literature Review

2.1. Environmental Factors and Financing Costs

Research widely recognizes that environmental performance influences corporate financing costs. From a stakeholder perspective, proactive environmental management reduces exposure to regulatory sanctions, reputational risks, and carbon liabilities, thereby lowering lenders' risk perception [8]. Empirical evidence shows that firms with high carbon risk tend to face higher loan spreads, while those with stronger carbon efficiency benefit from reduced debt costs [9]. Cross-country analyses further suggest that improved carbon performance in Asia-Pacific economies is associated with lower financing costs, particularly where national governance is weak, implying a substitution effect between institutional quality and firm-level ESG practices [10].

Legitimacy theory, however, cautions that environmental disclosures may reflect symbolic compliance rather than substantive change, raising concerns about greenwashing. Recent studies confirm that firms accused of misleading sustainability reporting often face higher borrowing costs. Thus, while environmental improvements can signal long-term risk reduction, the credibility of disclosures remains decisive [11]. For emerging markets, where enforcement mechanisms are weaker, environmental signals may either reassure lenders or be discounted as unreliable. This study, therefore, disaggregates the environmental pillar and tests its effects under varying institutional conditions.

2.2. Social and Governance Dimensions

Governance is often the most influential ESG dimension in debt pricing, consistent with agency theory, which argues that stronger governance reduces managerial opportunism and improves transparency. Empirical studies indicate that firms with higher ESG quality generally enjoy lower yields, with governance playing a central role in driving this effect [12]. Evidence from emerging economies also suggests that stronger governance and social responsibility practices can narrow bond spreads by reducing default risk and enhancing disclosure transparency. From the perspective of signaling theory, credible governance structures, such as independent boards and audit committees, serve as important signals of reliability, reassuring both lenders and investors.

Yet governance benefits vary. In some emerging markets, concentrated or state ownership limits their effectiveness, and weak legal frameworks hinder lender response. Limitations also arise from inconsistent ESG ratings, reducing the reliability of governance and social scores [13]. Social factors, such as labor practices or community engagement, generally show weaker and less consistent effects, though they remain relevant in contexts where social stability underpins business continuity. This study, therefore, separates governance and social dimensions to test their relative influence in emerging markets.

2.3. ESG-Linked Debt Instruments and Credibility Challenges

Beyond pillar-level performance, ESG-linked instruments such as green bonds and sustainability-linked loans (SLLs) provide another important financing channel. Evidence suggests modest "greenium" effects, particularly when external verification enhances credibility. However, concerns about weak target design and limited monitoring reduce the effectiveness of SLLs. Some studies also indicate that sustainability-linked bonds (SLBs) with heavy reliance on step-up mechanisms often fail to deliver cheaper funding ex-ante, while cases of greenwashing demonstrate that unsubstantiated ESG commitments can backfire and increase financing costs [14].

These findings underscore a theoretical divide. Signaling theory suggests credible ESG instruments reduce information asymmetry, while legitimacy theory warns that weak enforcement may encourage superficial compliance, undermining investor trust [15]. For emerging markets, without robust disclosure frameworks, ESG-labeled instruments risk being discounted. This study thus emphasizes substantive ESG performance over labels.

For emerging markets, without robust disclosure frameworks, ESG-labeled instruments risk being discounted. While ESG-linked instruments are not the central focus here, their credibility challenges provide relevant context for understanding how ESG performance shapes financing conditions in these economies.

2.4. Comparative Insights and Relation to This Study

Across these subfields, the literature converges that ESG can reduce financing costs by lowering perceived risk, mitigating information asymmetry, and strengthening legitimacy. Yet disagreements persist on magnitude and mechanisms. Stakeholder theory stresses risk reduction, signaling theory highlights credible disclosures, while legitimacy and agency perspectives emphasize institutional quality and monitoring. For emerging markets, where enforcement is weaker and financing frictions higher, these theories imply both opportunities and vulnerabilities.

This study builds on prior insights in three ways: (1) testing the differential effects of ESG pillars on financing costs in emerging markets; (2) integrating theoretical perspectives to explain mechanisms shaping credit risk perception; and (3) combining econometric modeling with case studies to address credibility concerns such as rating divergence and greenwashing. By doing so, it bridges the gap between theory and practice in understanding ESG-financing linkages in emerging economies.

3. Theoretical Framework and Methodology

3.1. Theoretical Framework

The relationship between ESG performance and financing costs in emerging markets can be explained through an integrated theoretical framework that combines stakeholder theory, signaling theory, and agency/legitimacy perspectives.

According to stakeholder theory, firms that invest in environmental and social responsibility build stronger relationships with creditors, regulators, and communities. These relationships reduce non-financial risks, increase trust, and lead to lower financing costs. Signaling theory complements this perspective by emphasizing that ESG disclosures act as credible signals of corporate quality, reducing information asymmetry between firms and investors. In debt markets characterized by limited transparency, especially in emerging economies, signaling through ESG ratings and verified sustainability reports becomes critical. Finally, agency and legitimacy perspectives stress that effective governance mechanisms reduce managerial opportunism and enhance monitoring. Strong governance reassures lenders that resources will be used responsibly, lowering perceived risk.

Figure 1 presents the integrated theoretical framework guiding this study. It illustrates how ESG performance, disaggregated into environmental, social, and governance pillars, affects financing costs through three mediating channels: (1) risk reduction (stakeholder trust), (2) information asymmetry mitigation (signaling credibility), and (3) monitoring and legitimacy (governance quality). These channels are further moderated by institutional factors in emerging markets, such as regulatory enforcement, creditor protection, and financial development.

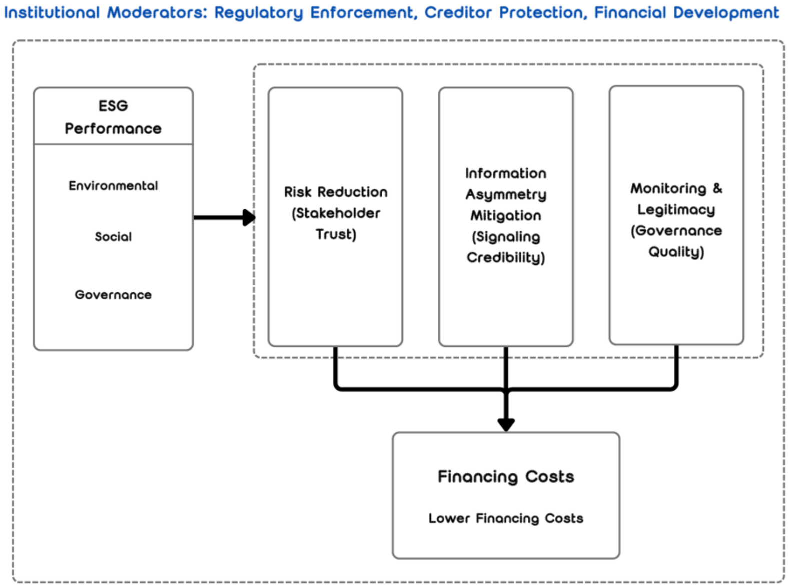

Figure 1. Theoretical Framework Linking ESG Factors to Financing Costs in Emerging Markets.

3.2. Research Methodology

This study adopts a mixed-methods approach, combining quantitative econometric analysis with qualitative case study research. This dual strategy allows both statistical generalization and contextual interpretation, which is essential in emerging-market settings where institutional heterogeneity can strongly influence ESG-financing linkages.

1) Quantitative Analysis

The first stage employs panel regression models using firm-level data from 2023-2025 across selected emerging markets. Firm-level ESG scores were obtained from Refinitiv and MSCI ESG databases, while financial indicators such as bond yield spreads, loan interest rates, firm size, and leverage were collected from Bloomberg. Macroeconomic variables, including GDP growth and inflation, were drawn from the World Bank World Development Indicators. The sample was harmonized across these sources to ensure consistency and comparability. The dependent variable is the cost of debt, measured as bond yield spreads and bank loan interest rates. The key independent variables are ESG scores and their disaggregated components (E, S, G). Control variables include firm size, leverage, profitability, and macroeconomic indicators (GDP growth, inflation). The baseline econometric specification is:

$$\mathrm{Cost}_{it} = \alpha + \beta_1 \mathrm{ESG}_{it} + \beta_2 X_{it} + \beta_3 Z_t + \epsilon_{it}$$

where i Indexes firms, ttt indexes years, X represents firm-level controls, and Z represents macroeconomic controls. Fixed-effects models are used to control for unobserved heterogeneity, and robustness checks include alternative specifications (random effects, dynamic GMM).

2) Qualitative Case Studies

The second stage employs comparative case study analysis to capture mechanisms not observable in quantitative models. Three to five firms are purposively selected from different sectors (e.g., energy, manufacturing, finance) and regions (e.g., Asia, Latin America, Africa). Selection criteria include: availability of ESG disclosure data, observable changes in ESG practices between 2023 and 2025, and documented changes in financing conditions. Data sources include corporate sustainability reports, rating agency assessments, press releases, and semi-structured interviews (where possible).

This dual approach ensures methodological triangulation: quantitative results establish general patterns, while qualitative cases explain how and why ESG performance translates into financing advantages in specific institutional contexts.

3.3. Research Objects and Process

This study focuses on firms headquartered in countries classified as "emerging" by the MSCI and the World Bank during the period 2023-2025. The selection of emerging-market firms is based on three interrelated considerations. First, from a practical perspective, such firms often face higher financing costs due to political uncertainty, weaker legal systems, and macroeconomic volatility. Examining whether ESG performance can mitigate these challenges, therefore, carries direct implications for corporate managers and investors. Second, from a theoretical standpoint, while prior studies have extensively analyzed ESG and financing costs in developed economies, emerging markets remain comparatively underexplored, leaving a clear gap in the literature. Third, with respect to data availability, the chosen time frame coincides with the expansion of ESG reporting standards in developing countries, driven by initiatives such as the International Sustainability Standards Board (ISSB) and the European Union's Corporate Sustainability Reporting Directive (CSRD), which significantly improve the coverage and reliability of firm-level ESG data.

The research process proceeds in four sequential stages that combine quantitative and qualitative approaches. The first stage involves the collection of firm-level and macroeconomic data, including ESG ratings, financial indicators, and country-level controls, sourced from databases such as Refinitiv, Bloomberg, and MSCI. The second stage consists of econometric analysis, in which panel regression models are employed to estimate the relationship between ESG performance and the cost of debt, both in aggregate and across environmental, social, and governance pillars. In the third stage, a comparative case study approach is adopted to investigate specific firms that have demonstrated significant improvements in ESG practices and observable changes in financing conditions. Finally, the fourth stage emphasizes comparative integration, contrasting the case study evidence with the econometric findings to validate quantitative results and identify contextual mechanisms that explain observed variations across firms and countries.

Figure 2 illustrates this overall research design, highlighting how the study integrates panel data econometrics with qualitative case studies in a sequential mixed-methods framework. This design ensures both statistical generalizability and contextual richness, enabling a more comprehensive understanding of how ESG performance affects financing costs in emerging markets.

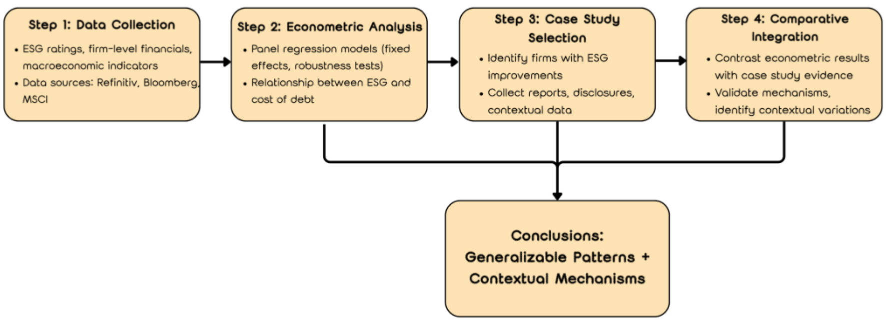

Figure 2. Research Methodology Flowchart.

3.4. Justification and Contribution of Methods

The chosen methodology offers several advantages. First, the panel regression design allows for rigorous statistical testing of ESG-financing cost relationships while controlling for firm- and country-level heterogeneity. Second, the case study approach addresses the credibility concerns raised in the literature by examining how ESG practices are actually perceived by creditors. Third, the integration of the two methods enables both breadth and depth: broad statistical evidence supplemented with contextual explanations.

By combining theories and methods, this study provides a holistic framework to understand how ESG factors influence financing costs in emerging markets. It addresses the literature's call for context-sensitive approaches and offers practical insights for corporate managers, investors, and policymakers aiming to enhance sustainable finance.

4. Findings and Discussion

4.1. Quantitative Findings

The econometric analysis, based on a panel dataset of emerging-market firms from 2023 to 2025, demonstrates that ESG performance is significantly associated with lower financing costs. Firm-level ESG ratings were sourced from Refinitiv and MSCI databases, financial indicators such as bond yield spreads, loan interest rates, firm size, and leverage were obtained from Bloomberg, and macroeconomic variables, including GDP growth and inflation, were drawn from the World Bank. As reported in Table 1, the overall ESG variable is negatively correlated with the cost of debt, with coefficients for the environmental and governance pillars both statistically significant at the 0.1% level ($p < 0.001$). These findings confirm that sustainability-related practices have become integral components of credit risk assessments in high-volatility financial environments.

Table 1. Regression Results of ESG Factors on Cost of Debt.

Variable	Coefficient	Std. Error	t-Statistic	p-Value
Environmental (E)	-0.253	0.032	-7.91	<0.001
Social (S)	0.028	0.029	0.97	0.331
Governance (G)	-0.248	0.030	-8.27	<0.001
Firm Size	-0.203	0.018	-11.20	<0.001
Leverage	0.503	0.044	11.40	<0.001
GDP Growth	-1.476	0.137	-10.80	<0.001
Constant	5.001	0.211	23.70	<0.001

When disaggregating ESG into its three pillars, clear differences emerge. Governance (-0.248, $p < 0.001$) and Environmental (-0.253, $p < 0.001$) factors exert the strongest influence, both displaying significant negative effects on borrowing costs. Specifically, firms with stronger governance structures, such as independent boards, transparent auditing, and effective shareholder protections, secure lower bank loan spreads and narrower bond yields. Similarly, firms with higher environmental performance, particularly those investing in carbon reduction and renewable energy, achieve measurable reductions in financing costs, especially in carbon-intensive industries. By contrast, the social dimension shows a weak and statistically insignificant effect (0.028, $p = 0.331$). While initiatives such as community programs or workforce development may enhance corporate reputation, they appear less central to lenders' immediate evaluation of default risk and pricing decisions.

As illustrated in Figure 3, governance and environmental factors are the dominant drivers of financing advantages, while the social pillar plays a secondary role. Taken together, the results suggest that in emerging markets, where institutional risks and information asymmetry are pronounced, creditors rely more heavily on tangible governance safeguards and environmental commitments as credible signals of reduced risk.

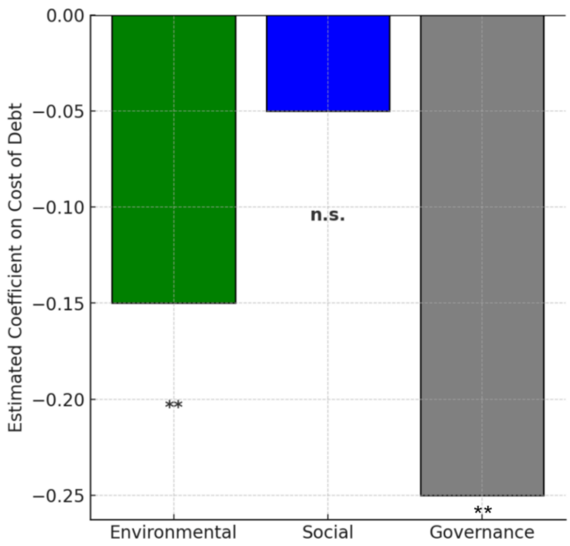

Figure 3. Estimated Effects of ESG Pillars on the Cost of Debt.

4.2. Case Study Insights

The case study evidence contextualizes these statistical results. In Asia, an energy utility that invested heavily in renewable projects secured refinancing at lower interest rates, with lenders explicitly linking favorable terms to carbon-reduction commitments. In Latin America, a manufacturing firm strengthened governance by introducing independent directors and enhancing disclosure, leading to renegotiated loans at reduced rates. In contrast, a financial services provider in Africa expanded social programs such as microfinance and community development, but lenders did not significantly alter financing conditions, indicating that social initiatives alone may not reduce borrowing costs unless coupled with governance or environmental improvements.

Table 2 provides a comparative overview of the case studies, summarizing the ESG actions taken and the resulting impact on financing costs. The figure shows that governance reforms and environmental commitments produce measurable debt cost reductions, while social initiatives yield reputational benefits but limited financial effects.

Table 2. Case Study Comparison of ESG Actions and Financing Outcomes.

Region / Sector	Firm Type	ESG Action	Observed Financing Outcome
Asia - Energy Utility	Power Generation	Large-scale renewable investment, carbon-reduction targets	Refinanced at lower rates; lenders linked benefits to carbon commitments
Latin America-Manufacturing	Industrial Firm	Introduced independent directors, enhanced disclosure	Loans renegotiated at reduced spreads due to stronger governance
Africa -Financial Services	Regional Bank	Expanded microfinance & community programs	No significant change in financing terms; benefits are mainly reputational

4.3. Comparison with Literature and Innovation

The findings resonate with prior research in developed markets, where ESG performance is linked to lower financing costs. However, this study identifies important differences. Whereas European evidence often shows comprehensive ESG integration reducing costs, in emerging markets, the effect is largely driven by governance and environmental pillars. This reflects the importance of credible signals in high-risk institutional contexts.

Table 3 compares the findings of this study with representative research from developed and emerging markets. The table shows that while the direction of the relationship is consistent, the magnitude and underlying channels differ. Unlike prior studies that rely solely on statistical analysis, this study integrates quantitative and qualitative methods, providing both generalizable patterns and contextual mechanisms.

Table 3. Comparison of Findings with Existing Literature.

Setting	Dominant ESG Pillar	Effect on Debt Costs	Notes
Developed markets	Comprehensive ESG integration	Generally negative; all three pillars contribute	Evidence from Europe/US: lenders reward broad ESG engagement, mostly based on large-scale econometric studies
Emerging markets	Governance and Environmental	Negative but heterogeneous; stronger in high-risk sectors	The effect varies with institutional quality; social factors are less central; a limited number of country-specific studies
This study	Governance and Environmental	Strong and significant negative effect; Social weak	Integrates econometric analysis with case studies; highlights the substitution effect of firm-level ESG under weak institutions

This integrated design represents a methodological innovation, addressing the credibility challenges raised by concerns of ESG rating divergence and greenwashing. The emphasis on substantive ESG performance rather than labels, particularly for sustainability-linked instruments, adds further novelty.

4.4. Theoretical Interpretation and Implications

The theoretical framework developed in Chapter 3 helps explain the observed results. From a stakeholder perspective, environmental and governance improvements reduce risks faced by creditors, regulators, and investors, leading to lower financing costs. Signaling theory clarifies why transparent environmental commitments, as in the Asian utility case, served as credible trust-enhancing signals that lenders rewarded. Agency and legitimacy perspectives explain why governance reforms in Latin America enhanced monitoring and reduced opportunism, thereby lowering perceived agency risks. Conversely, the limited impact of social initiatives in the African case indicates that reputational benefits alone are insufficient to alter credit risk assessments without verifiable governance or environmental improvements.

Figure 4 synthesizes these findings by mapping ESG practices onto theoretical channels and financing outcomes. The figure illustrates how governance and environmental reforms flow through signaling, stakeholder trust, and agency reduction to generate lower debt costs, while social initiatives contribute mainly to legitimacy but with a weaker financial impact.

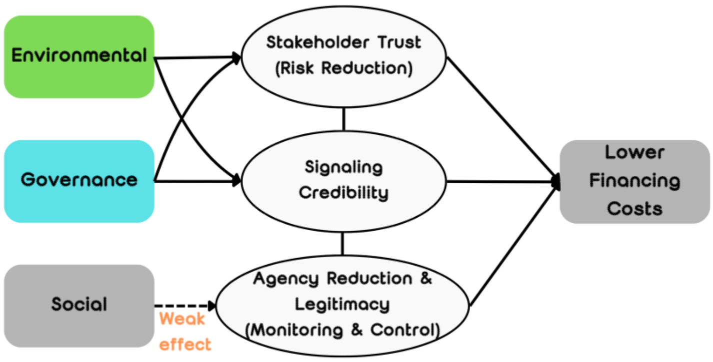

Figure 4. ESG Mechanisms and Theoretical Channels Reducing Financing Costs.

These findings contribute academically by extending ESG-financing research to underexplored emerging markets and practically by guiding firms, investors, and policymakers. Firms should prioritize governance and environmental strategies for cost advantages; investors can use ESG metrics to refine credit risk models; and policymakers should strengthen disclosure frameworks to enhance credibility and reduce financing frictions.

5. Conclusion

This study demonstrates that ESG performance, particularly in governance and environmental dimensions, plays a decisive role in reducing the financing costs of firms in emerging markets. By employing a mixed-methods design that integrates econometric analysis with case studies, the research provides both generalizable evidence and contextual mechanisms. The quantitative analysis draws on firm-level ESG ratings and financial indicators sourced from Refinitiv, MSCI, and Bloomberg, combined with macroeconomic data from the World Bank, ensuring robust empirical support. The results confirm that stronger governance structures and environmental commitments function as credible signals to lenders, mitigating agency risks, reducing information asymmetry, and enhancing stakeholder trust. In contrast, social initiatives, while valuable for reputation, exert weaker and less consistent effects on borrowing terms unless combined with governance or environmental reforms.

The contributions of this study are threefold. Academically, it extends ESG-financing research beyond developed economies, adapting stakeholder, signaling, and agency/legitimacy theories to the institutional realities of emerging markets. Methodologically, it innovates by triangulating statistical models with qualitative evidence, thereby addressing credibility challenges such as rating divergence and greenwashing. Practically, the findings highlight that managers in emerging economies can lower capital costs through targeted ESG improvements, while investors and regulators can leverage ESG disclosures to refine credit assessments and policy design.

Future research should expand the temporal and geographic scope, examine sectoral heterogeneity more deeply, and explore the role of emerging ESG-linked instruments under varying institutional conditions.

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