

ESG, Financial Leverage and Bankruptcy: The Moderating Role of IBC

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ABSTRACT:

Financial leverage is a double-edged sword: it enables growth but elevates bankruptcy risk. In India, the Insolvency and Bankruptcy Code (IBC) of 2016 revolutionized corporate distress management with time-bound resolutions and stronger creditor protection. At the same time, Environmental, Social, and Governance (ESG) practices have gained prominence as drivers of resilience. This paper develops a conceptual framework linking ESG, leverage, and bankruptcy risk, with IBC as a moderator. We argue that ESG reduces the adverse effects of high leverage and that IBC strengthens this buffer through institutional reforms. The study integrates sustainability and insolvency literature, offering theoretical contributions and directions for empirical research.

KEYWORDS:

Financial leverage, Bankruptcy risk, ESG, Insolvency, Bankruptcy Code (IBC), Sustainability, Emerging markets.

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Introduction

Financial leverage remains central to corporate finance decisions. While it allows firms to expand, excessive leverage heightens vulnerability to distress (Myers, 2001; Altman, 2018). India's telecom, power, and infrastructure sectors illustrate how debt-fuelled growth often ended in insolvency (Bhaduri, 2019).

The IBC, enacted in 2016, marked a paradigm shift. It introduced creditor-in-control mechanisms, time-bound resolutions, and better recovery rates (Jain & Sharma, 2020). Simultaneously, ESG has become critical in financial decision-making, offering reputational advantages, cheaper financing, and lower default risk (Krüger, 2015; Albuquerque et al., 2019). However, the combined influence of ESG, leverage, and IBC on bankruptcy outcomes is underexplored. This study addresses this gap by proposing a conceptual framework and propositions for future testing.

Objectives of the Study:

1. Examine the impact of leverage on bankruptcy risk.
2. Explore how ESG mitigates leverage risks.
3. Analyse IBC's moderating effect on the ESG–leverage–bankruptcy nexus.
4. Integrate ESG into capital structure theories as a non–financial determinant of insolvency.

Literature Review

Financial Leverage and Bankruptcy Risk

Classic theory stresses leverage's dual role (Modigliani & Miller, 1958). Empirical studies confirm high leverage magnifies distress and bankruptcy probability (Altman, 2018; Opler & Titman, 1994). In India, over-leveraging has been a key cause of insolvency (Kumar & Rao, 2019).

ESG and Corporate Resilience

ESG practices reduce litigation, reputational, and regulatory risks (Krüger, 2015). Strong ESG improves financing access, lowers capital costs, and enhances resilience (Cheng et al., 2014; Giese et al., 2021). In India, ESG-driven firms secure cheaper funding (Sharma & Mehta, 2020).

Insolvency and Bankruptcy Code (IBC)

The IBC enhanced creditor rights, curbed defaults, and improved recovery rates (Bose, 2018; Jain & Sharma, 2020). By strengthening institutions, IBC changes leverage–bankruptcy dynamics, though its interaction with ESG is less studied.

Research Gap

Evidence suggests ESG enhances restructuring success (Giese et al., 2021). With IBC emphasizing resolution, ESG could shape outcomes of distressed firms. This paper integrates ESG, leverage, and IBC in a unified framework.

Conceptual Framework and Propositions

We propose a model where ESG moderates leverage-induced bankruptcy risk, with IBC as an institutional moderator.

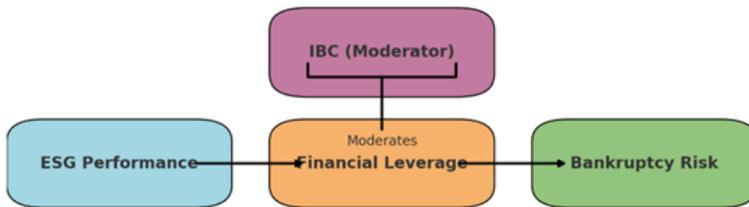
1. Leverage → Bankruptcy Risk: Excessive debt raises default probability.

2. ESG → Mitigation: ESG performance lowers cost of capital, builds stakeholder trust, and reduces operational risks.
3. IBC → Moderator: The IBC strengthens creditor recovery and ensures resolution efficiency, moderating the leverage–risk relationship.

Mediators: (a) cost of capital, (b) stakeholder trust, (c) operational risk.

Moderator: IBC (institutional strength).

Conceptual Framework: ESG, Leverage, Bankruptcy & IBC



Proposition 1: ESG and Bankruptcy Risk

Firms with higher ESG performance face lower bankruptcy risk. Evidence from global (Friede et al., 2015; Eccles et al., 2014) and Indian studies (Chatterjee & Dutta, 2017) shows that ESG enhances financial performance, reputation, stakeholder trust, and long-term profitability.

Proposition 2: Financial Leverage and Bankruptcy Risk

Higher financial leverage increases bankruptcy risk. Studies (Myers, 2001; Opler & Titman, 1994; Kumar & Rao, 2019; Bharath & Shumway, 2008) show over-leveraging reduces flexibility, raises capital costs, and amplifies financial distress, especially during downturns.

Proposition 3: ESG as a Buffer to Leverage Risk

Strong ESG performance mitigates leverage-related bankruptcy risk. Evidence (Goss & Roberts, 2011; Cheng et al., 2014; Sharma & Mehta, 2020) shows ESG lowers borrowing costs, enhances creditor confidence, and improves access to finance.

Proposition 4: IBC as Institutional Moderator

Strong legal and institutional frameworks enhance creditor protection, reduce default risk, and improve market efficiency (La Porta et al., 1998; Claessens & Klapper, 2005). In India, IBC strengthens creditor

rights, curbs risky managerial behaviour, and improves recovery (Bose, 2018; Acharya & Subramanian, 2019). Thus, IBC moderates the ESG–leverage–bankruptcy relationship.

Proposition 5: Mediating mechanisms include:

Cost of Capital. Strong ESG lowers financing costs by reducing information asymmetry and enhancing creditworthiness (Cheng et al., 2014; Sharma & Mehta, 2020; SEBI, 2023). Studies confirm ESG reduces debt costs and bond yields (Sarkar et al., 2023; La Rosa et al., 2022; Shi et al., 2024).

Stakeholder Trust. ESG enhances credibility with investors, employees, and customers, reducing insolvency risk. Evidence shows ESG strengthens loyalty, legitimacy, and reduces firm risk (Dhaliwal et al., 2011; Mishra & Modi, 2016; Gupta et al., 2022).

Operational Risk. ESG practices reduce disruptions, litigation, and reputational damage. Weak governance prolongs IBC resolutions (IBBI, 2023), while higher ESG disclosure lowers risks (Krüger, 2015; Opler & Titman, 1994; Gangwani, 2024).

Together, these mediators show ESG buffers leverage–induced bankruptcy risks, reinforced by SEBI’s disclosure norms and the IBC framework.

Institutional Evidence: As of 2024, over 8,000 CIRP cases were reported, with 75% resolved. SEBI’s BRSR norms strengthen ESG disclosure, aligning sustainability with insolvency frameworks.

Theoretical Contributions

1. Integration of ESG and Insolvency Literature: ESG acts as a financial risk mitigator, not just a reputational tool.
2. Contextualization to Emerging Markets: Situating ESG–leverage dynamics within IBC highlights the role of institutions.
3. Extension of Capital Structure Theories: Incorporates ESG as a determinant of capital costs and default probabilities, broadening traditional theories.

Managerial Implications

Managers can reduce risk by integrating ESG into financial strategy. SEBI’s BRSR disclosures enhance transparency and improve credit terms. Strong ESG fosters stakeholder loyalty and reduces operational

disruptions. Aligning ESG with IBC provisions strengthens survival chances during insolvency, turning ESG into a strategic advantage.

Practical and Policy Implications

Policymakers should embed ESG into insolvency regulation to strengthen corporate resilience. SEBI must enhance ESG disclosure standards, while IBC evaluations could prioritize sustainable firms. Incentives like tax benefits or green financing would further drive adoption, creating a virtuous cycle of stability and sustainability.

Future Research Directions

Future studies could empirically test the proposed framework using firm-level panel data to examine how ESG practices interact with leverage and bankruptcy risk over time. Cross-country comparative research could further explore how differences in insolvency laws and institutional strength influence the effectiveness of ESG in mitigating financial distress. Additionally, sector-specific investigations, particularly in capital-intensive industries such as manufacturing, infrastructure, and energy, could provide deeper insights into how sustainability practices affect financial stability and firm resilience in contexts with high leverage and operational complexity.

Conclusion

This paper proposes a framework integrating ESG, leverage, and bankruptcy risk with IBC as moderator. ESG strengthens resilience by lowering capital costs, building stakeholder trust, and reducing operational risks, while IBC enhances recovery outcomes. Together, they provide a sustainable pathway for firms in emerging markets. The framework extends theory and guides future empirical research on insolvency, finance, and sustainability.

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Conflict of interest:

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