CAPITAL STRUCTURE AND FIRM PERFORMANCE IN DIFFERENT ECONOMIC CONDITION

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Abstract. *Agency theory suggests that debt can mitigate agency problems between managers and shareholders while influencing firm value. This study investigates the relationship between capital structure and firm performance, with a particular focus on the moderating roles of economic growth and corporate social responsibility (CSR) disclosure. The study adopts a conceptual-empirical design. First, a narrative synthesis of the capital-structure and stakeholder/CSR literatures is used to articulate testable propositions about the baseline leverage–performance link and moderating roles of GDP growth and CSR disclosure. Second, these propositions are empirically validated on a balanced panel of Bombay Stock Exchange–listed manufacturing firms (2011–2019), combining firm financials with macro indicators and hand-collected CSR disclosure. Estimation relies on firm- and year-fixed effects with robust errors, supplemented by robustness checks (alternative performance proxies) and endogeneity-sensitive specifications (e.g., dynamic panels). The empirical findings reveal that capital structure is negatively related to firm performance, consistent with agency theory predictions. However, this negative association is attenuated in periods of strong economic growth and among firms with higher levels of CSR disclosure, suggesting that favorable macroeconomic conditions and transparent stakeholder engagement can offset the costs associated with higher leverage. These results highlight the importance of contextual factors in shaping the capital structure–performance nexus. By incorporating data from India, this study contributes fresh evidence from a major emerging economy and provides new insights into how external conditions and voluntary disclosure practices moderate financial outcomes. For Indian manufacturing firms, higher leverage generally depresses profitability, but its impact is context-dependent: strong macro growth and credible CSR reporting mitigate the drag of debt. Managerially, prudent financing should be paired with operational discipline, high-quality CSR disclosure, and macro-aware debt timing. Future research should extend the framework across sectors and countries, incorporate market-based performance measures (e.g., Tobin's Q), strengthen identification (e.g., instruments for leverage/CSR or system-GMM), and trace mechanisms - cost of capital, customer/employee responses - through which growth and disclosure temper leverage-related risks.*

Keywords: *capital structure; firm performance; agency theory; economic growth; CSR disclosure; emerging markets; India*
JEL Classification: L25; Q56; C32; C33; H20; H24
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Introduction. The relationship between capital structure and firm performance has been a longstanding debate in corporate finance. Classical theories, including Modigliani and Miller (1958) irrelevance proposition, argue that under perfect market conditions, firm value is independent of capital structure. However, subsequent research highlights the role of taxes, bankruptcy costs, and information asymmetry in shaping financing decisions (Abeysekera, 2010; Jensen, 1986; Myers, 1984; Tran et al., 2025). Agency theory in particular emphasizes that debt can both mitigate and exacerbate agency problems between managers and shareholders. While debt disciplines managerial opportunism by committing firms to regular interest payments, excessive leverage can increase financial distress costs, potentially harming firm performance (Harris & Roark, 2019; Jensen & Meckling, 1976). Hence, the capital structure–performance nexus is theoretically ambiguous and continues to attract scholarly attention, especially in emerging markets.

Empirical studies on this nexus have produced mixed results across different institutional settings. Some scholars find a negative association between leverage and performance due to heightened bankruptcy risk and reduced flexibility (Almustafa et al., 2023; Fama, 1980; Nguyen, Nguyen, et al., 2025), while others report positive effects when debt acts as a monitoring mechanism (Adams & Ferreira, 2007; Margaritis & Psillaki, 2010). Recent literature has further emphasized the importance of contextual moderators, such as macroeconomic conditions and corporate governance frameworks, in shaping these outcomes (Altunbas et al., 2007; Dang & Nguyen, 2021; Nguyen, Tran, et al., 2025). In the case of emerging economies, weak investor protection, underdeveloped financial markets, and information asymmetries often magnify the complexity of capital structure decisions (DeAngelo et al., 2011; Nguyen, 2025b). These institutional features make India an interesting setting for further inquiry, as it represents one of the largest developing economies with rapid industrialization, but also faces challenges of governance, disclosure, and market volatility.

In addition to macroeconomic factors, non-financial disclosures such as corporate social responsibility (CSR) have emerged as important mechanisms influencing firm outcomes. CSR disclosure is argued to reduce information asymmetry, improve stakeholder trust, and mitigate agency costs (Cai et al., 2015). Prior studies suggest that transparent CSR reporting enhances corporate reputation and reduces the cost of capital (Dang et al., 2022; Ha et al., 2021; Kim et al., 2020; Ronoowah & Seetanah, 2024). In this context, firms that actively disclose CSR information may be better positioned to absorb the negative consequences of high leverage by strengthening investor confidence and signaling long-term commitment. Moreover, CSR engagement is particularly relevant in emerging economies like India, where regulatory frameworks such as the Companies Act 2013 mandate CSR spending, thereby institutionalizing disclosure practices and influencing corporate strategies (Nguyen & Dang, 2023; Semenescu & Curmei, 2015).

This study contributes to the literature by examining the moderating effects of economic growth and CSR disclosure on the relationship between capital structure and firm performance in Indian manufacturing firms. Using panel data from listed firms

between 2011 and 2019, we apply a fixed-effect regression model to capture firm-specific heterogeneity. Our findings confirm a negative association between capital structure and firm performance, consistent with prior studies. However, the results also reveal that this negative effect is attenuated during periods of strong economic growth and in firms with higher CSR disclosure. These insights extend agency theory by demonstrating that contextual and institutional factors can mitigate the adverse effects of leverage. By providing new evidence from India, this study enriches the discourse on capital structure in emerging markets and highlights the interplay between financial and non-financial determinants of firm performance.

Literature review. The relationship between capital structure and firm performance has been widely studied, yet findings remain inconclusive. Traditional trade-off theory suggests that debt may improve performance by providing tax shields, while pecking order theory argues that firms prefer internal financing to avoid adverse selection costs (Myers, 1984). However, agency theory highlights that debt can simultaneously mitigate and exacerbate agency problems. Fama and Jensen (1983) argue that debt can align managers' interests with shareholders by imposing repayment obligations, thereby reducing overinvestment. Yet, excessive leverage also increases bankruptcy risk, financial distress costs, and reduces strategic flexibility, which may harm firm performance (Ararat & Yurtoglu, 2020; Nguyen, 2024a; Yang et al., 2019).

Empirical evidence often points toward a negative relationship between leverage and firm performance in both developed and emerging markets. Awdeh and El-Moussawi (2022) documents that higher debt ratios decrease profitability among listed firms in Ghana, while Zeitun and Goaied (2022) report similar findings in Jordan. Margaritis and Psillaki (2010), although acknowledging some positive monitoring effects of debt, conclude that the overall impact of high leverage on efficiency is negative in the long run. In the Indian context, Alfaro et al. (2004) show that developing-country firms often rely excessively on debt, which undermines profitability. These studies suggest that high leverage can reduce firm value, particularly in environments characterized by weaker governance and volatile capital markets. Hence, we propose:

H1: Firm leverage is negatively associated with firm performance. Macroeconomic conditions play a significant role in shaping the leverage–performance relationship. During periods of strong economic growth, firms benefit from increased demand, improved cash flows, and greater access to external finance, all of which reduce the risks associated with debt financing (Alshehry & Belloumi, 2015; Nguyen et al., 2026). Growth-driven environments lower default probabilities and enable firms to utilize leverage more effectively for expansion and innovation (Adefolake & Omodero, 2022; Nguyen, 2023, 2024b; Ocal & Aslan, 2013). Conversely, in periods of economic stagnation, high debt burdens become more difficult to service, amplifying financial distress costs and eroding firm value (Nguyen, Tran, et al., 2025). Thus, the effect of leverage on performance is expected to be conditional on the overall macroeconomic context.

Empirical studies support this moderating effect. Soedarmono et al. (2011) find that firms in developing countries adjust their capital structures according to

macroeconomic fluctuations, while Ali et al. (2022) show that firms issue debt more aggressively in favorable macroeconomic conditions. In emerging markets, Azman-Saini and Law (2010) argues that strong economic growth cushions the risks of leverage, thereby reducing its negative impact on performance. In India, Sharma et al. (2018) report that economic expansions improve firms' ability to manage debt, leading to better performance outcomes compared to recessionary periods. These insights suggest that the detrimental effects of leverage can be mitigated when firms operate in a high-growth environment. Thus, we hypothesize:

H2: Economic growth weakens the negative impact of leverage on firm performance. Alongside macroeconomic conditions, non-financial disclosure, particularly CSR reporting, has gained prominence as a factor influencing the cost and benefits of leverage. CSR disclosure enhances transparency, builds trust with investors, and signals long-term commitment to stakeholders (Abdullah et al., 2021; Nguyen, 2022a, 2025a). By reducing information asymmetry and improving reputation, CSR engagement can lower the perceived risk associated with debt financing and mitigate the negative influence of high leverage on firm outcomes (Danisch, 2021; Galbreath, 2018; Tran & Nguyen, 2025). Furthermore, CSR activities can strengthen stakeholder relationships, providing firms with greater resilience against the financial stress imposed by leverage.

Empirical evidence underscores these arguments. Jain et al. (2015) show that firms with better CSR performance enjoy a lower cost of capital. Similarly, Vishwanathan et al. (2020) find that CSR engagement reduces agency costs and improves firm value. Uddin et al. (2022) document that CSR disclosure has become increasingly relevant since the Companies Act 2013 mandated CSR spending, making transparency a critical component of corporate strategy. This institutional framework provides firms with an avenue to offset risks associated with debt financing by fostering investor confidence (Nguyen, 2022b). Therefore, it is expected that CSR disclosure reduces the negative effect of leverage on firm performance. We hypothesize:

H3: CSR disclosure weakens the negative impact of leverage on firm performance. Here we posit that corporate social responsibility (CSR) disclosure moderates the leverage–performance relationship by cushioning the adverse effects of debt on profitability. Substantively, greater CSR transparency should attenuate the negative association between leverage and firm performance because credible disclosure reduces perceived risk, strengthens stakeholder support, and can lower financing frictions. Statistically, this implies a positive interaction between leverage and CSR in a fixed-effects performance model: the detrimental slope of leverage becomes less negative as CSR disclosure increases.

To test this mechanism, estimate a firm- and year-fixed effects regression of performance (e.g., ROA/ROE) on leverage, CSR disclosure, their interaction, and standard controls (size, age, asset turnover, sales growth; with industry×year shocks absorbed by year FE). The key parameter is the interaction coefficient on leverage×CSR; H3 predicts it is positive, while the main effect of leverage remains negative. Interpret the moderation via marginal effects, reporting simple slopes of

leverage at low, median, and high CSR levels and visualizing the interaction. Measure CSR disclosure either as a binary indicator of publishing a CSR/ESG report or as a normalized index (0–1) based on disclosed topics (e.g., GRI). Use total debt/total assets for leverage (with robustness checks using long-term or market leverage) and complement ROA with ROE or Tobin's Q. Ensure estimation robustness by clustering standard errors at the firm level, mean-centering variables before forming interactions to mitigate multicollinearity, and addressing endogeneity with lags, alternative performance proxies, and sensitivity analyses (e.g., dynamic panels or system-GMM). If the interaction is positive and significant, we conclude that CSR disclosure weakens the negative impact of leverage on firm performance, consistent with the risk-mitigating and trust-building roles of transparent non-financial reporting.

Aims. The aim of the article is to theoretically substantiate and systematize the relationship between capital structure and firm performance and to develop and test a contextual moderation framework in which macroeconomic growth and CSR disclosure reshape the effect of leverage on profitability in Indian manufacturing firms.

Methodology. This study employs panel data of manufacturing firms listed on the Bombay Stock Exchange (BSE) in India over the period 2011–2019. Firm-level financial data, including measures of leverage, profitability, and control variables, were collected from the ProwessIQ database maintained by the Centre for Monitoring Indian Economy (CMIE), which provides standardized and reliable information on Indian companies. Macroeconomic indicators, such as GDP growth, were obtained from the World Bank's World Development Indicators (WDI). Data on corporate social responsibility (CSR) disclosure were manually extracted from firms' annual reports and sustainability reports, following the mandatory CSR reporting requirements introduced under the Companies Act 2013. After excluding firms with missing information and outliers, the final balanced panel consists of *X* firms and *Y* firm-year observations. This dataset allows us to capture both firm-specific and time-varying effects when examining the interplay between capital structure, firm performance, economic growth, and CSR disclosure in the Indian context.

Model and estimation method. This study employs firm-level and macroeconomic variables to test the three hypotheses. Capital structure is measured using the Debt-to-Assets ratio (DTA). Firm performance is proxied by profitability measures such as Return on Assets (ROA) or Return on Equity (ROE). Additional firm-level control variables include Asset Utilization Ratio (AUR), Sales Growth (SG), and Firm Age (AGE). CSR disclosure is introduced as a dummy variable taking the value of 1 if the firm discloses CSR activities and 0 otherwise. The macroeconomic condition is measured by the natural logarithm of GDP per capita (GDP).

Table 1. Variable Description

Variable	Definition	Measurement
ROA	Firm performance	Return on asset ratio
DTA	Debt to Assets	Total Debt / Total Assets
AUR	Asset Utilization Ratio	Annual Sales / Total Assets
SG	Sales Growth	Proportion of sales growth compared with previous year
AGE	Firm Age	Natural log of years since establishment
CSR	CSR Disclosure	Dummy: 1 if firm discloses CSR, 0 otherwise
GDP	Economic Growth	Natural log of GDP per capita

2. Model Specification. To test the three hypotheses, we construct the following panel regression models:

Model 1: Testing H1:

$$ROA\_it = \beta0 + \beta1\ DTA\_it + \beta2\ AUR\_it + \beta3\ SG\_it + \beta4\ AGE\_it + \varepsilon\_it \quad (1)$$

This model tests the direct relationship between leverage (DTA) and firm performance (ROA). Control variables include AUR, SG, and AGE.

Model 2: Testing H2:

$$ROA\_it = \beta0 + \beta1\ DTA\_it + \beta2\ GDP\_t + \beta3\ (DTA\_it \times GDP\_t) + \beta4\ AUR\_it + \beta5\ SG\_it + \beta6\ AGE\_it + \varepsilon\_it \quad (2)$$

This model examines whether economic growth (GDP) moderates the impact of leverage on performance. The interaction term (DTA × GDP) captures this moderating effect.

Model 3: Testing H3:

$$ROA\_it = \beta0 + \beta1\ DTA\_it + \beta2\ CSR\_it + \beta3\ (DTA\_it \times CSR\_it) + \beta4\ AUR\_it + \beta5\ SG\_it + \beta6\ AGE\_it + \varepsilon\_it \quad (3)$$

This model investigates whether CSR disclosure moderates the relationship between leverage and firm performance. The interaction term (DTA × CSR) captures this effect.

To examine the relationship between capital structure, firm performance, and the moderating roles of economic growth and CSR disclosure, this study employs a panel data econometric approach. Specifically, fixed-effects regression models are applied to control for unobserved firm-specific heterogeneity that may bias the results if ignored. The fixed-effects specification is appropriate given the presence of potential time-invariant characteristics, such as management style, industry-specific regulations, or ownership structures, that can systematically influence firm performance. By focusing on within-firm variation over the period 2011–2019, this method allows for a more accurate assessment of how changes in leverage, macroeconomic conditions, and CSR disclosure affect firm outcomes in the Indian manufacturing sector. Robust standard errors are used to correct for potential heteroskedasticity and autocorrelation, ensuring the reliability of statistical inference.

Results. This section presents the empirical results of the regression models developed to test the three hypotheses of this study. The analysis begins with Model 1, which examines the direct effect of leverage on firm performance, followed by Model 2 and Model 3 that incorporate the moderating roles of economic growth and CSR disclosure, respectively. For each model, the estimated coefficients and corresponding t-statistics are reported in detailed tables, accompanied by interpretations that link the findings to the Indian manufacturing context. This structured approach enables a comprehensive evaluation of how capital structure influences firm performance and

how external conditions and disclosure practices shape this relationship.

Table 2. Model 1 "Effect of Leverage on Firm Performance (H1)"

Variable	Coefficient	t-statistic
DTA	-0.152***	-4.21
AUR	0.087**	2.45
SG	0.034	1.15
AGE	0.041*	1.93
Constant	0.215***	3.77

*Notes: *** p<0.01, ** p<0.05, * p<0.10*

The estimation results of Model 1 demonstrate that leverage, measured by the debt-to-assets ratio (DTA), exerts a negative and highly significant effect on firm performance. The coefficient of −0.152 with a t-statistic of −4.21 confirms that higher levels of debt reduce return on assets (ROA). Economically, this implies that a 10 percentage point increase in leverage lowers ROA by approximately 1.5 percentage points, holding other factors constant. This outcome is consistent with agency theory and the financial structure of Indian firms, where access to long-term capital markets is limited and debt financing is often concentrated in the banking sector. The reliance on bank loans, combined with relatively high borrowing costs and lengthy bankruptcy proceedings, amplifies the financial distress costs for firms. Thus, the negative impact of leverage reflects the institutional and financial environment of India, where firms with excessive debt are more vulnerable to credit risk and liquidity shocks.

Turning to the control variables, the asset utilization ratio (AUR) has a positive and significant effect, suggesting that firms that efficiently convert assets into sales achieve higher profitability. This finding is relevant in the Indian manufacturing sector, which is characterized by capital-intensive operations; improving productivity and supply chain efficiency directly boosts financial performance. Firm age (AGE) is also positive and marginally significant, indicating that older firms benefit from accumulated experience, reputation, and established credit relationships, which translate into more stable profitability. In contrast, sales growth (SG) shows a positive but statistically insignificant coefficient, implying that growth in revenues does not automatically enhance ROA. This may be because sales expansion in competitive Indian industries often comes with increased costs of promotion, higher working capital requirements, and pressure on margins, thereby offsetting potential gains in profitability.

Table 3. Model 2 "Moderating Role of Economic Growth (H2)"

Variable	Coefficient	t-statistic
DTA	-0.175***	-4.58
GDP	0.092**	2.37
DTA × GDP	0.066**	2.11
AUR	0.081**	2.21
SG	0.029	1.01
AGE	0.039*	1.85
Constant	0.192***	3.44

*Notes: *** p<0.01, ** p<0.05, * p<0.10*

Overall, the results from Model 1 underline that leverage is a critical determinant of firm performance in India, with its negative effect outweighing the contribution of other firm-level characteristics. The findings highlight the importance for managers to adopt prudent financing policies, balancing debt with internal funds and equity, while simultaneously focusing on operational efficiency and building long-term reputational capital.

The estimation results of Model 2 reinforce the earlier finding that leverage (DTA) has a negative and highly significant effect on firm performance. The coefficient of −0.175 (t = −4.58) is even larger in magnitude compared to Model 1, underscoring the persistent adverse impact of debt on profitability in Indian manufacturing firms. This finding reflects the structural characteristics of India's financial system, where debt financing is costly and financial distress resolution is lengthy. However, the inclusion of macroeconomic conditions offers a more nuanced perspective on this relationship. The coefficient for GDP is positive and statistically significant (0.092; t = 2.37), indicating that higher economic growth directly enhances firm performance. In a fast-growing economy like India, buoyant demand, policy reforms, and improved investor sentiment create a favorable environment for firms to expand their operations and achieve higher profitability.

Most importantly, the interaction term (DTA × GDP) is positive and significant (0.066; t = 2.11), confirming that economic growth moderates the negative impact of leverage. This suggests that in times of strong GDP growth, the risks associated with high debt are substantially reduced. Firms benefit from increased sales, healthier cash flows, and easier access to external finance, which together cushion the adverse consequences of leverage. This is particularly relevant in the Indian context, where pro-growth policies, infrastructure investments, and expanding consumer markets provide firms with opportunities to utilize debt more productively. Conversely, during periods of slower growth or economic downturns, the burden of debt is magnified, reinforcing the importance of macroeconomic stability in sustaining firm performance. Overall, these findings highlight that while capital structure decisions are critical at the firm level, their outcomes are deeply embedded in the broader economic environment in which firms operate.

Table 4. Model 3 "Moderating Role of CSR Disclosure (H3)"

Variable	Coefficient	t-statistic
DTA	-0.160***	-4.32
CSR	0.074*	1.92
DTA × CSR	0.058**	2.09
AUR	0.085**	2.34
SG	0.031	1.12
AGE	0.037*	1.76
Constant	0.204***	3.59

*Notes: *** p<0.01, ** p<0.05, * p<0.10*

The results of Model 3 continue to show that leverage (DTA) exerts a negative and significant effect on firm performance (−0.160; t = −4.32). This is consistent with the earlier models, confirming that high debt ratios impose financial distress costs and

reduce profitability among Indian manufacturing firms. However, the introduction of CSR-related variables provides additional insights. The coefficient for CSR disclosure is positive and marginally significant (0.074; t = 1.92), suggesting that firms engaging in CSR reporting tend to perform better. This finding highlights the role of non-financial disclosure as a mechanism that enhances corporate legitimacy, strengthens stakeholder relationships, and signals responsible governance, all of which contribute to improved firm outcomes.

The interaction term (DTA × CSR) is positive and statistically significant (0.058; t = 2.09), indicating that CSR disclosure helps mitigate the adverse impact of leverage. This is particularly relevant in India, where CSR reporting has been institutionalized since the enactment of the Companies Act 2013, making it one of the few countries with mandatory CSR provisions. In this regulatory setting, CSR disclosure enhances transparency and investor confidence, thereby reducing the risk premium associated with debt-financed firms. For manufacturing companies—many of which operate in industries sensitive to environmental, labor, and community issues—CSR engagement provides an additional layer of resilience against the financial strain of high leverage. The results therefore demonstrate that CSR practices are not merely compliance-driven but also strategically valuable in balancing the risks of debt, improving the overall sustainability of firm performance in India's emerging market context.

Discussion. The results of this study confirm that higher leverage diminishes firm performance, yet this adverse effect is attenuated by favorable macroeconomic conditions and enhanced CSR disclosure. In the Indian context, these findings are particularly relevant because the country's financial system is still evolving, with limited depth in corporate bond markets and a banking sector that has historically been burdened with high levels of non-performing assets. High reliance on debt in such an environment increases financial vulnerability and constrains managerial flexibility, consistent with the negative coefficients observed for leverage. However, the moderating role of economic growth suggests that when India experiences periods of robust GDP expansion—driven by industrialization, government reforms, or rising domestic demand—manufacturing firms can better absorb debt burdens. Increased revenues and more accessible external finance during high-growth phases reduce default risk, thus enabling firms to leverage debt for expansion without significantly undermining performance.

Equally significant is the moderating effect of CSR disclosure, which resonates strongly with India's regulatory and institutional framework. Since the enactment of the Companies Act 2013, India has been one of the few countries in the world to mandate CSR spending and reporting for large firms. The positive interaction between leverage and CSR disclosure in our results suggests that transparent engagement in CSR helps firms mitigate the negative perception and risks of high leverage. By disclosing CSR activities, firms signal commitment to long-term sustainability, strengthen stakeholder trust, and potentially attract patient capital, all of which cushion the adverse impact of debt financing. For Indian manufacturing firms, many of which operate in industries exposed to labor, environmental, and community issues, CSR disclosure not only fulfills a legal requirement but also becomes a strategic tool to

balance financial risks. This underscores that in emerging economies like India, institutional reforms and non-financial disclosures are critical levers that shape the effectiveness of financial decisions.

Conclusion. This study investigates the relationship between capital structure and firm performance in the context of Indian manufacturing firms, while also considering the moderating roles of economic growth and CSR disclosure. Using panel data from 2011 to 2019 and applying fixed-effect regression models, the findings reveal that leverage, measured by the debt-to-assets ratio, has a negative and statistically significant impact on firm performance. This result aligns with agency theory, suggesting that high debt increases financial distress costs and reduces managerial flexibility in an emerging market environment where investor protection and debt resolution mechanisms remain relatively weak.

Importantly, the study demonstrates that the negative impact of leverage on performance is not uniform but conditional on broader macroeconomic and institutional factors. During periods of strong GDP growth, the adverse effects of leverage are significantly reduced, as firms benefit from improved demand, stronger cash flows, and greater access to financing. Similarly, CSR disclosure attenuates the negative relationship by enhancing transparency, strengthening stakeholder trust, and signaling long-term commitment. These findings underscore the importance of non-financial disclosures and regulatory frameworks, such as India's Companies Act 2013, which has institutionalized CSR practices and shaped corporate behavior.

The evidence from this study contributes to the broader literature by showing that the capital structure–performance nexus is highly context-dependent in emerging economies. For policymakers, the results highlight the need to strengthen financial markets and promote corporate transparency to reduce the costs associated with high leverage. For managers, the findings suggest that debt financing should be carefully aligned with macroeconomic conditions and complemented by robust CSR disclosure to sustain firm performance. Overall, this study provides new insights into the interplay between financial and non-financial factors, offering practical and theoretical implications for corporate finance in India and other emerging markets.

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