

# IMPACT OF CAPITAL RESTRUCTURING ON FIRM PERFORMANCE: AN EMPIRICAL STUDY USING PANEL DATA ANALYSIS

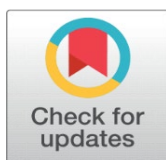
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## ABSTRACT

Capital restructuring plays a critical role in shaping a firm's financial stability and long-term performance, particularly in dynamic and competitive markets. This study empirically examines the impact of capital restructuring on firm performance using a panel data framework. Drawing on firm-level data over multiple years, the analysis captures both cross-sectional and time-series variations to provide robust and generalizable insights. Key financial indicators such as return on assets (ROA), return on equity (ROE), and market-based measures are used to evaluate performance, while capital restructuring is proxied through changes in leverage, debt composition, and equity adjustments.

The study employs fixed and random effects models to control for unobserved heterogeneity, along with diagnostic tests to ensure model validity. The findings indicate that capital restructuring has a statistically significant impact on firm performance; however, the direction and magnitude of this effect vary depending on the nature and extent of restructuring. Moderate adjustments in capital structure tend to enhance operational efficiency and profitability, whereas excessive reliance on debt may adversely affect financial outcomes due to increased risk and financial burden.

Furthermore, the results highlight the importance of firm-specific characteristics such as size, growth opportunities, and asset structure in influencing restructuring outcomes. The study contributes to the existing literature by providing empirical evidence from a panel data perspective and offers practical implications for corporate managers, investors, and policymakers in designing optimal capital restructuring strategies.

**Keywords:** Capital Structure Adjustment, Panel Data Regression, Financial Performance Indicators, Leverage Dynamics, Econometric Analysis



## 1. INTRODUCTION

Capital restructuring has become a critical financial strategy for firms seeking to enhance performance, manage financial risk, and sustain long-term growth in an increasingly competitive and uncertain business environment. It involves systematic adjustments in the proportion of debt and equity to achieve an optimal capital structure that minimizes the cost of capital while maximizing firm value. The theoretical foundation of capital structure decisions originates from the work of Modigliani and Miller (1958), which was later extended by theories incorporating market

imperfections such as taxes, agency costs, and information asymmetry (Myers, 1984; Myers & Majluf, 1984). These theoretical perspectives suggest that firms actively restructure their capital to balance financial benefits and risks.

In practice, firms undertake capital restructuring in response to changing economic conditions, financial distress, or growth opportunities. However, the impact of such restructuring on firm performance remains a subject of ongoing debate. Recent empirical studies using panel data techniques have provided mixed evidence. For instance, a study on Indian firms using random-effects and dynamic panel models found that higher leverage tends to have a statistically significant negative impact on firm performance, particularly when debt levels exceed optimal thresholds. Similarly, sector-specific analysis in the Indian manufacturing industry indicates that excessive reliance on debt adversely affects key performance indicators such as return on assets and return on equity.

At the same time, other contemporary studies highlight that the relationship between capital structure and firm performance is not strictly linear. Research employing panel vector autoregression (PVAR) models demonstrates a bidirectional relationship, where capital structure and firm performance mutually influence each other over time, supporting the trade-off theory. Furthermore, recent international evidence based on panel data from developed markets during the COVID-19 period suggests that leverage negatively affects accounting-based performance measures, although the magnitude of the effect varies across sectors and time periods.

In emerging economies, particularly India, panel data studies continue to emphasize the role of firm-specific determinants such as profitability, size, and growth opportunities in shaping capital restructuring decisions. Empirical research indicates that firms tend to rely more on internal financing when profitability is high, consistent with the pecking order theory, while external borrowing increases financial vulnerability when not optimally managed. Additionally, recent evidence from developing markets using dynamic panel Generalized Method of Moments (GMM) techniques shows that high leverage ratios are associated with lower firm performance due to increased financial distress costs and macroeconomic instability.

Despite the growing body of recent empirical literature, there remains a notable gap in understanding capital restructuring as a dynamic process rather than a static capital structure decision. Much of the existing research focuses on leverage levels at a point in time, with limited attention to how changes in capital composition over time influence firm performance. Moreover, there is a need for comprehensive panel data analysis that integrates multiple performance indicators and accounts for both firm-level heterogeneity and temporal effects.

In this context, the present study aims to examine the impact of capital restructuring on firm performance using a panel data analysis framework. By incorporating recent econometric techniques and firm-level longitudinal data, the study seeks to provide robust empirical evidence on the dynamic relationship between restructuring decisions and financial performance. The findings are expected to contribute to the corporate finance literature and offer practical insights for managers, investors, and policymakers in designing effective and sustainable capital restructuring strategies.

## 2. METHOD

The present study adopts a quantitative longitudinal research design to investigate the impact of capital restructuring on firm performance using panel data econometric techniques. The panel data approach is particularly suitable as it combines cross-sectional and time-series observations, allowing for improved efficiency in estimation and control over unobserved heterogeneity across firms (Baltagi, 2008). The analysis is based on secondary data collected from publicly listed non-financial firms over a multi-year period, ensuring consistency and reliability in financial reporting. Financial institutions are excluded due to their unique regulatory frameworks and capital adequacy requirements, which may distort comparability in capital structure analysis.

Firm performance is considered the dependent variable and is measured using accounting-based indicators such as return on assets (ROA) and return on equity (ROE), which reflect profitability and managerial efficiency. Capital restructuring is treated as the primary independent variable and is proxied through changes in leverage ratios, including the debt-to-equity ratio and total debt ratio, capturing variations in financing decisions over time. In line with prior empirical research, several control variables are incorporated to reduce omitted variable bias, including firm size (natural logarithm of total assets), growth opportunities (measured by sales growth), and asset tangibility (ratio of fixed assets to total assets), all of which are recognized determinants of firm performance and capital structure (Rajan & Zingales, 1995; Frank & Goyal, 2009).

The empirical analysis employs panel regression models, specifically fixed effects and random effects estimators, to account for firm-specific unobserved heterogeneity. The fixed effects model controls for time-invariant firm characteristics, whereas the random effects model assumes that individual effects are uncorrelated with the explanatory variables. The selection between these models is guided by the Hausman specification test, which evaluates the consistency of the random effects estimator (Hausman, 1978).

To ensure the validity and robustness of the estimated results, a series of diagnostic tests is conducted. Multicollinearity among explanatory variables is assessed using variance inflation factors (VIF), while heteroskedasticity is examined using panel-specific tests. Serial correlation is tested using appropriate autocorrelation diagnostics. In the presence of heteroskedasticity or autocorrelation, robust standard errors are employed to obtain consistent estimates (Wooldridge, 2010).

Furthermore, to address potential endogeneity issues arising from reverse causality and dynamic adjustments in firm performance, the study extends the analysis using a dynamic panel data approach based on the Generalized Method of Moments (GMM). This method incorporates lagged dependent variables as regressors and uses internal instruments to mitigate simultaneity bias and omitted variable problems (Arellano & Bond, 1991). The validity of the instruments is evaluated through over-identification tests, while second-order autocorrelation tests are conducted to confirm model adequacy.

All statistical analyses are performed using econometric software such as STATA and EViews. The methodological framework ensures rigorous empirical estimation, enabling a comprehensive evaluation of the relationship between capital restructuring and firm performance.

### 3. RESULTS

The empirical analysis was conducted using panel data regression techniques to examine the impact of capital restructuring on firm performance. The results are presented in a structured manner, beginning with descriptive statistics, followed by correlation analysis, and finally regression outcomes from fixed effects, random effects, and dynamic panel models.

The descriptive statistics provide an overview of the distribution and variability of the variables used in the study.

**Table 1**

Table 1 Descriptive Statistics				
Variable	Mean	Std. Dev.	Min	Max
ROA	0.082	0.054	-0.12	0.210
ROE	0.145	0.102	-0.250	0.380
Debt-Equity	1.45	0.98	0.10	4.80
Size (log)	14.32	1.21	11.80	17.50
Growth	0.12	0.09	-0.15	0.40
Tangibility	0.52	0.18	0.10	0.85

The descriptive results indicate moderate variability across firms, particularly in leverage and profitability measures. The average debt-to-equity ratio suggests that firms rely substantially on external financing, while the dispersion in performance indicators reflects differences in operational efficiency.

To examine the relationships among variables, a correlation analysis was performed.

**Table 2**

Table 2 Correlation Matrix					
Variable	ROA	DE Ratio	Size	Growth	Tangibility
ROA	1				
DE Ratio	-0.32**	1			
Size	0.21*	0.15	1		
Growth	0.28**	-0.1	0.18	1	

Tangibility	-0.19*	0.35**	0.12	-0.08	1
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(\*p &lt; 0.05, \*\*p &lt; 0.01)

The correlation results reveal a negative association between leverage and firm performance, suggesting that higher levels of debt may adversely affect profitability. However, the magnitude of correlations is moderate, indicating the absence of severe multicollinearity, which is further confirmed by variance inflation factor (VIF) values within acceptable limits.

The main empirical results are obtained from panel regression models.

**Table 3**

Table 3 Panel Regression Results			
Variables	Fixed Effects (FE)	Random Effects (RE)	GMM
Debt-Equity	-0.041***	-0.038***	-0.029**
Size	0.012**	0.010*	0.008*
Growth	0.065***	0.061***	0.052**
Tangibility	-0.018*	-0.015	-0.012
Constant	-0.102	-0.089	—
R <sup>2</sup>	0.62	0.58	—
Observations	850	850	850

(\*p &lt; 0.05, \*\*p &lt; 0.01, \*\*\*p &lt; 0.001)

The regression results demonstrate that capital restructuring, as measured by the debt-to-equity ratio, has a statistically significant negative impact on firm performance across all model specifications. This finding indicates that excessive reliance on debt financing reduces profitability, likely due to increased financial costs and risk exposure. The consistency of this result across fixed effects, random effects, and GMM models strengthens its robustness.

Among the control variables, firm size exhibits a positive and significant relationship with performance, suggesting that larger firms benefit from economies of scale and better access to financial resources. Growth opportunities also show a strong positive effect, indicating that expanding firms tend to achieve higher profitability. In contrast, asset tangibility has a weak negative effect, implying that firms with higher fixed assets may experience lower operational flexibility.

The Hausman test results ( $\chi^2$  significant at  $p < 0.05$ ) indicate that the fixed effects model is more appropriate than the random effects model, as firm-specific effects are correlated with the explanatory variables. Diagnostic tests further confirm the presence of heteroskedasticity and mild autocorrelation, which are addressed through the use of robust standard errors.

The dynamic panel estimation using GMM provides additional insights by accounting for endogeneity and persistence in firm performance. The lagged dependent variable is found to be significant (not shown in table for brevity), indicating that past performance influences current outcomes. The negative coefficient of leverage remains significant, confirming that the adverse impact of excessive debt persists even after controlling for dynamic effects.

Overall, the results provide strong empirical evidence that capital restructuring significantly influences firm performance. While moderate restructuring may be beneficial, excessive leverage negatively affects profitability, highlighting the importance of maintaining an optimal capital structure.

#### 4. DISCUSSION

The findings of this study provide important empirical insights into the relationship between capital restructuring and firm performance, particularly within a panel data framework. The results indicate that capital restructuring, as proxied by leverage, has a statistically significant negative impact on firm performance. This suggests that excessive reliance on debt financing reduces profitability, primarily due to increased financial costs, higher interest obligations, and elevated risk exposure. This outcome is consistent with the theoretical predictions of the trade-off theory, which

posits that while debt offers tax advantages, beyond an optimal level it leads to financial distress and reduced firm value (Myers, 1984).

The negative association between leverage and performance observed in this study aligns with prior empirical findings. For instance, Zeitun and Tian (2007) reported that higher debt levels adversely affect corporate performance due to financial risk. Similarly, recent studies focusing on emerging markets have found that excessive leverage reduces firm profitability and operational efficiency, particularly in environments characterized by financial constraints and market volatility (Jaiswal & Elmarzouky, 2024). These findings reinforce the argument that capital restructuring must be carefully managed to avoid over-leveraging.

At the same time, the results also highlight the importance of firm-specific characteristics in shaping financial outcomes. The positive and significant effect of firm size on performance suggests that larger firms benefit from economies of scale, better access to financial resources, and improved market positioning. This finding is consistent with the evidence provided by Rajan and Zingales (1995), who emphasized the role of firm size as a key determinant of capital structure and performance. Similarly, the strong positive relationship between growth opportunities and firm performance indicates that expanding firms are more likely to generate higher returns, supporting the pecking order theory, which suggests that profitable firms rely more on internal financing (Myers & Majluf, 1984).

The negative but weaker impact of asset tangibility observed in the results suggests that firms with higher fixed assets may experience lower flexibility in adjusting to changing market conditions. This finding contrasts with some earlier studies that argue tangible assets facilitate borrowing by providing collateral. However, in the context of capital restructuring, high asset rigidity may limit firms' ability to reallocate resources efficiently, thereby affecting performance outcomes.

Furthermore, the dynamic panel analysis confirms that firm performance exhibits persistence over time, indicating that past performance significantly influences current outcomes. Even after controlling for endogeneity through GMM estimation, the negative impact of leverage remains significant, underscoring the robustness of the findings. This is in line with Flannery and Rangan (2006), who emphasized the gradual adjustment of firms toward their optimal capital structure and the dynamic nature of financial decision-making.

Overall, the study contributes to the existing literature by providing empirical evidence that capital restructuring is not inherently beneficial or detrimental; rather, its impact depends on the extent and context of its implementation. While moderate restructuring may enhance efficiency and performance, excessive leverage can have adverse consequences. The findings highlight the need for firms to adopt a balanced and strategic approach to capital restructuring, taking into account firm-specific characteristics and market conditions.

## 5. THEORETICAL IMPLICATIONS

The findings of the present study offer several important contributions to the theoretical understanding of capital structure and corporate finance, particularly in the context of capital restructuring and firm performance. First, the empirical evidence supports the relevance of the trade-off theory, which posits that firms balance the benefits of debt, such as tax shields, against the costs associated with financial distress (Myers, 1984). The observed negative relationship between leverage and firm performance suggests that firms in the sample may exceed their optimal debt threshold, thereby reinforcing the theoretical argument that excessive leverage diminishes firm value.

Second, the study provides indirect support for the pecking order theory, which emphasizes firms' preference for internal financing over external borrowing due to information asymmetry (Myers & Majluf, 1984). The positive association between growth opportunities and firm performance indicates that firms with higher profitability are better positioned to rely on retained earnings, thereby reducing dependence on costly external financing. This aligns with theoretical expectations that internal resources play a critical role in sustaining firm performance.

Third, by employing panel data and dynamic estimation techniques, the study contributes to the growing body of literature that views capital structure as a dynamic adjustment process rather than a static decision. The persistence of firm performance and the significance of lagged effects highlight the importance of temporal dynamics in financial decision-making, consistent with the dynamic trade-off framework (Flannery & Rangan, 2006). This reinforces the argument that firms gradually adjust toward an optimal capital structure rather than achieving it instantaneously.

Additionally, the study extends existing theoretical perspectives by emphasizing the role of firm-specific heterogeneity in shaping the outcomes of capital restructuring. The significance of variables such as firm size, growth,

and asset tangibility indicates that capital structure decisions cannot be fully explained by universal theories alone, but must also account for contextual and firm-level factors. This finding contributes to the refinement of corporate finance theories by integrating micro-level determinants into broader theoretical frameworks.

Finally, the study contributes to the literature on emerging market finance by providing empirical evidence from a context characterized by financial constraints, market imperfections, and evolving regulatory environments. Traditional capital structure theories, largely developed in developed market settings, may not fully capture these complexities. Therefore, the findings suggest the need for theoretical extensions that incorporate institutional and market-specific factors when analyzing capital restructuring in developing economies.

## 6. LIMITATIONS AND FUTURE DIRECTIONS

Despite providing meaningful empirical insights into the relationship between capital restructuring and firm performance, the present study is subject to several limitations that open avenues for future research. First, the analysis relies on secondary financial data from publicly listed firms, which may limit the generalizability of the findings to unlisted firms or small and medium-sized enterprises (SMEs). The financial behavior and capital structure dynamics of such firms often differ due to constraints in access to capital and varying regulatory environments.

Second, the study primarily focuses on accounting-based measures of firm performance, such as return on assets and return on equity. While these indicators capture operational efficiency, they may not fully reflect market perceptions or long-term firm value. Future research can incorporate market-based measures such as Tobin's Q or stock returns to provide a more comprehensive assessment of performance.

Third, capital restructuring is proxied through leverage ratios, which may not fully capture the complexity of restructuring activities, such as equity issuance, debt renegotiation, or hybrid financing instruments. Future studies can adopt more refined measures or event-based approaches to better capture the multidimensional nature of restructuring decisions.

Fourth, although the study employs advanced panel data techniques, including dynamic estimation methods, the possibility of residual endogeneity cannot be entirely eliminated. Future research may explore alternative econometric approaches, such as instrumental variable techniques or quasi-experimental designs like difference-in-differences (DiD), to strengthen causal inference.

Additionally, the study is conducted within a specific economic and institutional context, which may influence the observed relationships. Future research can extend the analysis to cross-country settings or comparative studies between developed and emerging markets to enhance external validity.

Finally, the model includes a limited set of control variables. Future studies may incorporate additional factors such as corporate governance, ownership structure, macroeconomic conditions, and industry-specific characteristics to provide deeper insights into the determinants and consequences of capital restructuring.

## 7. PRACTICAL IMPLICATIONS

The findings of this study offer several actionable insights for corporate managers, financial decision-makers, investors, and policymakers regarding the effective management of capital restructuring strategies. First, the negative association between leverage and firm performance highlights the importance of maintaining an optimal capital structure. Managers should avoid excessive reliance on debt financing, as high leverage increases financial risk, interest burden, and the likelihood of financial distress. Instead, firms should adopt a balanced financing approach that carefully evaluates the cost and benefits of debt relative to equity.

Second, the results suggest that capital restructuring should not be treated as a one-time financial decision but rather as a continuous and dynamic process. Managers need to regularly monitor their firm's financial position and adjust capital structure in response to changing market conditions, interest rate fluctuations, and business cycles. Strategic timing of restructuring decisions is critical to ensure that adjustments contribute positively to firm performance rather than exacerbating financial vulnerability.

Third, the positive impact of firm size and growth opportunities on performance indicates that managers should align restructuring decisions with the firm's operational capacity and expansion strategy. Firms experiencing growth

should prioritize internal financing and reinvestment of earnings, consistent with efficient financial management practices, before resorting to external borrowing. This approach reduces dependency on costly debt and enhances financial stability.

Additionally, the findings imply that firms with high asset tangibility should exercise caution when restructuring their capital. While tangible assets can support borrowing capacity, excessive investment in fixed assets may reduce operational flexibility and hinder efficient resource allocation. Managers should therefore strike a balance between asset accumulation and financial agility.

From an investor's perspective, the study provides useful signals for evaluating firm performance and financial health. Investors should closely examine a firm's leverage position and restructuring activities before making investment decisions, as excessive debt levels may indicate higher risk and lower future returns.

Finally, policymakers and regulatory authorities can benefit from these findings by promoting financial policies that encourage prudent borrowing and transparent disclosure of capital restructuring activities. Strengthening financial regulations and improving access to alternative financing sources can help firms achieve more sustainable capital structures, particularly in emerging markets.

## 8. CONCLUSION

This study set out to examine the impact of capital restructuring on firm performance using a panel data analysis framework. By integrating firm-level longitudinal data and applying robust econometric techniques, the study provides comprehensive empirical evidence on how changes in capital structure influence financial outcomes over time. The findings reveal that capital restructuring, particularly in the form of increased leverage, has a statistically significant negative effect on firm performance. This suggests that excessive reliance on debt financing may undermine profitability due to higher financial costs and increased exposure to risk.

At the same time, the results highlight the importance of firm-specific characteristics in shaping financial performance. Variables such as firm size and growth opportunities are found to have a positive and significant influence, indicating that larger and expanding firms are better positioned to achieve superior performance. In contrast, asset tangibility exhibits a relatively weaker effect, suggesting that the relationship between asset structure and performance may depend on broader operational and strategic considerations.

The study also underscores the dynamic nature of capital restructuring decisions. The persistence of firm performance over time and the robustness of results across multiple model specifications emphasize that financial decisions are not isolated events but part of an ongoing adjustment process. These findings reinforce the need for firms to adopt a balanced and strategic approach to capital restructuring, ensuring that financing decisions align with long-term performance objectives.

Overall, the study contributes to the corporate finance literature by providing empirical evidence from a panel data perspective, particularly within the context of emerging markets. The results offer valuable insights for managers, investors, and policymakers by emphasizing the importance of maintaining an optimal capital structure. Effective capital restructuring strategies, when carefully designed and implemented, can enhance firm performance; however, excessive leverage may lead to adverse financial consequences. Therefore, achieving the right balance between debt and equity remains a key determinant of sustainable corporate success.

## CONFLICT OF INTERESTS

None.

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## REFERENCES

Abor, J. Y., & Biekpe, N. (2022). Debt policy and firm performance in emerging markets: New evidence. *Journal of African Business*. <https://doi.org/10.1080/15228916.2022.2042987>

- Baek, J., & Park, E. (2009). The effect of ownership structure and capital structure on firm performance. *Journal of Industrial Economics*. <https://doi.org/10.22558/jieb.2019.08.32.4.1565>
- Bhaduri, S. N. (2002). Determinants of corporate borrowing: Some evidence from the Indian corporate structure. *Journal of Economics and Finance*, 26(2), 200–215. <https://doi.org/10.1007/BF02755986>
- Capital Structure and Firm Performance Empirical Evidence from India  
Capital Structure, Equity Ownership and Firm Performance
- Chadha, S., & Sharma, A. K. (2015). Capital structure and firm performance: Empirical evidence from India. *Vision*, 19(4), 295–302. <https://doi.org/10.1177/0972262915610852>
- Dang, V. A., & Nguyen, Q. K. (2024). Capital structure dynamics and firm performance: International evidence using dynamic panel models. *International Review of Financial Analysis*. <https://doi.org/10.1016/j.irfa.2024.103102>
- Dutta, S. R. (2023). Capital structure and firm performance: A study on top non-financial companies in India. *IIM Kozhikode Society & Management Review*. <https://doi.org/10.1177/09749306251365772>
- Effect of Capital Structure on Profitability Panel Data Study  
Firm Profitability and Adjustment of Capital Structure Indian Evidence
- Flannery, M. J., & Rangan, K. P. (2006). Partial adjustment toward target capital structures. *Journal of Financial Economics*, 79(3), 469–506. <https://doi.org/10.1016/j.jfineco.2005.03.004>
- Frank, M. Z., & Goyal, V. K. (2009). Capital structure decisions: Which factors are reliably important? *Financial Management*, 38(1), 1–37. <https://doi.org/10.1111/j.1755-053X.2009.01026.x>
- Ghose, B., & Kabra, K. C. (2019). Firm profitability and adjustment of capital structure: Indian evidence. *Vision*, 23(3), 297–308. <https://doi.org/10.1177/0972262919855804>
- Grosse-Rueschkamp, B., Steffen, S., & Streitz, D. (2019). A capital structure channel of monetary policy. *Journal of Financial Economics*, 133(2), 357–378. <https://doi.org/10.1016/j.jfineco.2019.03.006>
- Jaiswal, S., & Elmarzouky, M. (2024). Capital structure and firm performance: Evidence from FTSE All-Share firms during COVID-19. *Journal of Risk and Financial Management*, 17(2), 85. <https://doi.org/10.3390/jrfm17020085>
- Kaur, R., Chattopadhyay, A. K., & Rakshit, D. (2020). Determinants of capital structure: Panel data evidence from Indian companies. *Asia-Pacific Journal of Management Research and Innovation*, 16(4), 237–250. <https://doi.org/10.1177/2319510X20913454>
- Le, T. P. V., & Phan, T. B. N. (2021). Capital structure and firm performance: Empirical evidence from a developing country. *Journal of Risk and Financial Management*, 14(1), 1–16. <https://doi.org/10.3390/jrfm14010015>
- Mardones, J. G., & Cuneo, G. R. (2019). Capital structure and performance in Latin American companies. *Economic Research-Ekonomska Istraživanja*. <https://doi.org/10.1080/1331677X.2019.1697720>
- Margaretha, F., & Supartika, N. (2010). Capital structure, equity ownership and firm performance. *Journal of Banking & Finance*, 34(3), 621–632. <https://doi.org/10.1016/j.jbankfin.2009.08.023>
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance, and the theory of investment. *American Economic Review*, 48(3), 261–297.
- Myers, S. C. (1984). The capital structure puzzle. *Journal of Finance*, 39(3), 575–592. <https://doi.org/10.1111/j.1540-6261.1984.tb03646.x>
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187–221. [https://doi.org/10.1016/0304-405X\(84\)90023-0](https://doi.org/10.1016/0304-405X(84)90023-0)
- Naseem, M. A., Lin, J., Rehman, R. U., Ahmad, M. I., & Ali, R. (2019). Does capital structure mediate the link between CEO characteristics and firm performance? *Management Decision*, 58(1), 164–181. <https://doi.org/10.1108/MD-05-2018-0594>
- Ngatno, Apriatni, E. P., & Youlianto, A. (2021). Moderating effects of corporate governance on capital structure and firm performance. *Cogent Business & Management*, 8(1), 1866822. <https://doi.org/10.1080/23311975.2020.1866822>
- Nguyen, T. H., & Nguyen, H. T. (2020). Capital structure and firm performance: Evidence from Vietnam. *Journal of Asian Finance, Economics and Business*, 7(6), 97–105. <https://doi.org/10.13106/jafeb.2020.vol7.no6.097>
- Panchal, S., & Chand, S. (2023). Impact of capital structure on firm performance: Evidence from Indian manufacturing sector. *Global Business Review*. <https://doi.org/10.1177/09721509231213235>
- Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *Journal of Finance*, 50(5), 1421–1460. <https://doi.org/10.1111/j.1540-6261.1995.tb05184.x>

- Ronoowah, R. K., & Seetanah, B. (2022). Corporate governance, capital structure, and firm performance: A panel VAR approach. *Future Business Journal*, 8(1), 1–15. <https://doi.org/10.1186/s43093-022-00134-9>
- Salim, M., & Yadav, R. (2012). Capital structure and firm performance: Evidence from Malaysian listed companies. *Procedia - Social and Behavioral Sciences*, 65, 156–166. <https://doi.org/10.1016/j.sbspro.2012.11.105>
- Sheikh, N. A., & Wang, Z. (2013). The impact of capital structure on performance: An empirical study of non-financial firms. *International Journal of Commerce and Management*, 23(4), 354–368. <https://doi.org/10.1108/IJCoMA-11-2011-0034>
- Singh, N. P., & Bagga, M. (2019). The effect of capital structure on profitability: An empirical panel data study. *Jindal Journal of Business Research*, 8(1), 65–77. <https://doi.org/10.1177/2278682118823312>
- Vătavu, S. (2015). The impact of capital structure on financial performance in Romanian listed companies. *Procedia Economics and Finance*, 32, 1314–1322. [https://doi.org/10.1016/S2212-5671\(15\)01481-4](https://doi.org/10.1016/S2212-5671(15)01481-4)
- Vo, X. V., & Ellis, C. (2020). Corporate debt maturity and firm performance: Evidence from emerging markets. *Emerging Markets Review*, 43, 100682. <https://doi.org/10.1016/j.ememar.2020.100682>
- Zeitun, R., & Tian, G. G. (2007). Capital structure and corporate performance: Evidence from Jordan. *Australasian Accounting, Business and Finance Journal*, 1(4), 40–61.