

# Impact of Financial Structure, Leverage, and Profitability on Stock Prices: Evidence from Non-Financial Nifty 50 Indian Companies

Vineet Shukla<sup>1</sup>, Torsanil Majumder<sup>2</sup>, Aditya Joshi<sup>3</sup>

<sup>1,2,3</sup>Department of Commerce, Manipal Academy of Higher Education (MAHE)

## Abstract

Focusing on the non-financial companies from the Nifty 50, the current research investigates the relationships between, 'financial structure,' 'financial leverage,' and 'profitability in the presence of the Indian industrial setting. The following three proportions were inspected in terms of their influence on the business firm's value. In contrast, the study period from 2015 to 2023 was regarded through selecting a sample from Nifty 50 non-financial companies with a similar research design.

This study will then examine the possible combinations of the three financial variables with stock market value using robust statistical procedures and provide critical managerial inference to contribute to more thoughtful strategic decisions and maximize shareholders' wealth from an Indian perspective. Furthermore, different methodologies were used to examine how 'financial,' 'operational,' and 'investment factors' have determined the company's value.

In conclusion, this particular study can be an essential tool to assist experts and professionals in developing predictions for the future. Ultimately, we might infer how certified financial analysts might use the results to predict further companies' worth in the years to come.

On top of that, it is essential to mention that the promotion of 'financial literacy' among the stakeholders will increase knowledge and improve the ability to make relevant decisions on matters revolving around investment and financial management. Financial independence is eased by proper financial planning and investing, which, in turn, positively influences economic development and growth.

Therefore, the advancement of financial literacy and educating people to invest or make suitable financial decisions are essential to the sustainable development of the economy.

## 1. Theoretical Framework

Financial analysis is a core function of modern business decision-making. It provides timely information about a firm's performance and prospects. These insights emerge from analyses of the firm's financial statements over different periods. As strategic analysis gains momentum as a strong driver in business, financial analysis begins to develop its perspective toward more comprehensive value appraisals of such firms. Through operational, financing, and investment analyses, a financial analyst can identify operational strengths and weaknesses. They then advise the strategic interventions to enhance competitiveness, market share, profitability, and sustainable growth. The ultimate objective of financial management, then, is the increase in the value of a firm. This study seeks to investigate the effect of financial leverage on the firm performance, where the stock price is the dependent variable, and DER, total assets, and ROA are independent variables. This study is oriented to disclose the relationship

between financial structure, financial leverage, and profitability, which define the relationship between firm performance.

### **1.1 Financial Structure**

In our study, the financial structure would be the frame through which the enterprises acquire and employ available financial resources to finance their day-to-day operations and strategic decision-making.

It is a combination of the equity and debt components, which differ in the firm's capital composition and affect the risk associated with it, the cost of capital, and the overall value proposition.

### **1.2 Components Of Financial Structure**

The components of the financial structure are mainly equity financing and debt financing. Equity financing involves raising capital by issuance of shares of ownership in the firm. Hence, it draws investment from shareholders who become partial owners with corresponding dividends and voting rights. On the other hand, debt financing involves raising funds by borrowing, usually in the form of loans or bonds, where the firm is obliged to make periodic interest payments and, in the course of time, repay the principal amounts borrowed to the creditors.

Equity financing provides for long-term capital without any obligation of repayment, which sometimes gives the firm financial flexibility and hence reduces the risk of bankruptcy. Besides, equity investors assume shared ownership and, as a result, shared risk that aligns their interests with the firm's long-term success. However, equity financing dilutes the existing ownership stakes and, thus, compels the firm to undergo more scrutiny and control from its shareholders.

Debt financing has the advantage of borrowing other people's money to leverage the returns on equity investment and allows the firm to retain complete ownership control. Debt instruments often have lower capital costs due to tax-deductible interest payments and fixed repayment obligations. Besides, it allows the firm to benefit from financial leverage, which magnifies returns to shareholders. However, heavy reliance on debt might put the firm at risk of economic distress, especially during the contraction of the economy, and also increase the possibility of default risks.

Equity and debt financing are, by their very nature, risky. The equity investors may risk capital loss due to the decline in the share price or the company's performance. The profit to these investors could be because of capital appreciation. The risk of non-repayment or default by the company is risky for the debt holders. The company may have contractual penalties, credit rating downgrades, and bankruptcy.

In our research context, the role of financial structure and firm performance will be discussed, considering the optimal mix of equity and debt financing to maximize shareholder value and consider financial risks. Knowledge of the pros and cons of each financing component would help companies formulate strategic financial plans in accordance with their growth plans, risk acceptance, and market conditions.

A thorough analysis of the influence of financial structure on significant performance indicators such as profitability, liquidity, and solvency will help reveal the company's general economic health and robustness. Through analysis and strategic decision-making, companies can optimize their financial structures to enable growth and value creation in a sustainable way.

### **1.3 Financial Leverage**

It is strategic leveraging of borrowed capital to maximize returns for shareholders. Financial leverage has both sides. It can increase profitability but also increase financial risk.

One important measure to evaluate financial leverage is the debt-to-equity ratio, represented as the ratio of debt to equity financing. Leverage using debt may increase shareholder returns. Still, it must be carefully managed, especially concerning risk, to avoid negative consequences, such as increases in inter-

est burden and financial solvency.

Financial leverage increases returns for shareholders by amplifying profits but involves increased financial risk due to rising debt liabilities. Conversely, leveraging debt could increase the value for the shareholders, but this would require care in risk management to avoid the downside from the impending challenges like liquidity problems or downgrades of a company's credit rating.

#### **1.4 Firm Performance**

Firm performance is a measure of the capacity of the company to generate profits and add value to shareholders. It represents the organization's heartbeat, pointing out the efficiency through which it conducts operations and how it strategically manages its activities. Returns like the ROA and ROE are firm performance indicators that help understand how well this firm utilizes resources in generating returns. Theoretically, good firm performance attracts greater investor confidence, leading to higher market valuation and increased shareholder wealth.

#### **1.5 Market Valuation**

Market valuation can be called how investors perceive a company's value. Similar to the price tag that one might find in the financial marketplace when you buy one of the shares from the company. However, financial decision-making, performance metrics, and growth prospects can also affect market valuation. Investors pay keen attention to the market valuation of a company because it reflects the expectations of future earnings and growth potential.

Of course, a company with very sound financial performance and growth prospects will command a higher market valuation, resulting in increased shareholder wealth.

## **2. Research Framework**

### **2.1 Research Questions**

How do financial structure, leverage, and profitability influence stock prices in the Indian market?

### **2.2 Objectives**

1. To examine the relationship between financial structure, leverage, and firm performance in the Indian market.
2. To assess the impact of financial decisions on stock prices within the Indian context.

### **2.3 Hypotheses**

Null Hypothesis (H0): The debt-to-equity ratio has no significant impact on firm market value.

Alternative Hypothesis (H1): The debt-to-equity ratio significantly impacts firm market value.

Null Hypothesis (H0): There is no significant impact of total assets on firm market value.

Alternative Hypothesis (H1): Total assets significantly impact firm market value.

Null Hypothesis (H0): Return on assets (ROA) has no significant impact on firm market value.

Alternative Hypothesis (H1): Return on assets (ROA) has a significant impact on firm market value.

### **2.4 Expected Outcomes**

It is expected that a high debt-to-equity ratio will result in a lower firm market value, as evidenced by its consistent negative impact across all models, suggesting that the market generally does not look favorably on increased leverage. Total assets are expected to have a positive effect on firm market value, indicating the size and magnitude of assets the company holds. This is indeed strongly significant in the Fixed Effects model. It is expected to have either a mixed or minimal influence of ROA on firm market value, as in different model estimations, the impact was weak or insignificant, which could be an indication that asset utilization and profitability may not be major drivers of market value in this context.

### 3. Literature Review

‘Financial structure,’ ‘profitability,’ and ‘financial leverage’ determine the market performance outcome of industrial businesses and shareholder wealth. Therefore, this review seeks to explore the three factors’ relationships among the National Stock Exchange (NIFTY 50) companies in India by drawing on insights from earlier studies.

In recent years, countless studies have since investigated the relationship between financial dynamics and business performance in various industries and spheres.

For example, Dana’s (2008) study investigated external and internal factors with stock returns in the Amman stock exchange (ASE). In his research, inflation rates, interest rates, and company size were influenced by external factors that had significant relationships with stock returns. Hence, there were critical takeaways on investment for investors and corporate decision-makers.

Therefore, understanding the trade-offs of financial leverage becomes relevant to Indian companies, especially NIFTY 50 non-financial companies. Companies should be more careful concerning risk, which is dominant in profitability and shareholder value maximization, leveraging potential and sustainable growth expectations.

Considering a broader issue, Abdallah’s (2012) study journeyed into Jordan's industrial firms working capital management. The results showed a significant relationship between conventional investment policies and profitability and value, while hostile financing had a pessimistic outcome. Therefore, the “issue of conservatism” concerning the foundational role in corporate finances says a lot regarding the difficulty of the topic. It is also helpful that the paper interprets how working capital management influences profitability and value.

As revealed by a study conducted by Sumayya (2012), the primary purpose of the financial structure influence is to make it possible to orient small and medium enterprises' business and economic decisions. The study concluded that there is a direct correlation between borrowing and investment decisions, while the decision of the distribution loses its meaning in SMEs.

Islam (2012) investigated Jordanian public companies to analyze the effect of financial structure on corporate profitability and dividend policies. The most exciting part of Islam’s work was that the relationship between debt and earnings per share differs substantially among industries and firms in Jordan. Islam’s study demonstrated the peculiarities of structure influence, which can impact managerial decision-making.

Subai’s (2012) research explored the correlation between ‘financial leverage’ and ‘return on investment’ (ROI) at the sector level of three economic sectors of the Kuwaiti economy. The study population comprised 54 companies from the Kuwaiti public shareholding companies. This study concluded that there is a positive correlation between financial leverage and return on investment in all sectors of the economy. Similarly, Hashemi and Zadeh’s (2012) work studied Tehran’s stock market, having disclosed the complex connection between financial leverage and dividend policy. The authors revealed a negative relation between ‘leverage use’ and its implication for shareholders, which impacted corporate profit and dividend-making strategies.

An example of a subject that was researched in the Indian financial market environment is the study conducted by Singhanian and Seth (2010). These authors explored the determinant aspects of company agencies in economic decisions. Thus, they identified a negative correlation between ‘debt ratios’ and ‘the company's rate of growth.’

In another study on Karachi's financial market, Aasia's (2010) research investigated the complexities between financial leverage and dividend policies. The results showed that financial leverage's impact on dividend distribution is complicated. The conclusion is that careful financial management is required to optimize shareholder returns.

Another research conducted in different countries on a global scale by Stefan (2009) investigated the 'financial structure,' 'monetary policies,' and 'the structure's effect on asset values between different economies.' The sample includes 17 countries for the period during 1986-2007. The results conclude that the financial structure has been influenced by the monetary policies, which influenced the asset prices of residential real estate and stocks. It also explains the effect of inflation on economic policies and asset prices.

#### **4. Future Directions and Policy Implications**

In summary, the studies discussed above collectively highlight the various aspects of the financial dynamics and their far-reaching impacts on corporate performance and market valuations throughout multiple sectors and regions. As businesses across the profitable and complicated financial management environment, a comprehensive grasp of the economic dynamics is necessary for intelligent judgments and value creation.

Most importantly, the findings have important implications for Indian policymakers. First, it is essential to construct a regulatory environment that facilitates responsibility, openness, and responsible financial behavior. Moreover, creating an atmosphere among NIFTY 50 non-financial firms where well-judged financial decisions and success are rewarded promotes investor trust and encourages sustainable economic development.

Furthermore, findings from these works create an extensive pattern of knowledge on the modified characteristics of corporate finance that is available for those wishing to connect with the concepts to produce their findings. Financial management plays a crucial role in strengthening business competitiveness and flexibility due to the way technological developments and global scopes adjust to the present and future outlines of businesses.

Future research may attempt to systematically evaluate the impact of these market dynamics, technological transformations, and geopolitical threats on the financial framework and performance of companies working in India.

Furthermore, long-run research on changes in the financial strategy within the subsidiaries of NIFTY 50 companies should be conducted to identify the best practices and trends in the market. Developing an innovative and learning culture will enable Indian businesses to succeed globally and proactively adapt to market changes.

#### **5. Methodology**

##### **5.1 Sample and Data**

This research presents non-financial companies on the Sensex of India in various sectors: automobile, construction, electronics, metal, and telecommunications. The NIFTY 50 represents a general backdrop of the Indian stock market, serving as a critical indicator. The dataset ranges from 2015 to 2023, which offers a strong temporal window to examine the dynamics in finance. Data integrity is paramount and has been extracted carefully from a well-recognized CMIE database.



## 5.2 Variables

### 5.2.1 Dependent Variable: Stock Price

In the financial market, the stock price of a company is a crucial value indicator. It displays the asking price at which investors are ready to purchase or liquidate company stock. The firm's performance, industry and economic trends, market sentiment, and company performance all affect the stock price. In general, investors' general optimism and bullish sentiment toward the company's future prospects are reflected in a rising stock price, whereas their concern or uncertainty is reflected in a falling stock price.

### 5.2.2 Independent Variables

#### Financial Leverage: Debt to Equity Ratio

Financial leverage can be described as the application of debt or borrowed capital for the sake of funding either operational or investment activities. The most typical indicator of financial leverage is the ratio of Debt-to-Equity, which equals the total company's debt divided by the firm's equity. When D/E is high, it means that the company depends on debt for financing to a great extent, which decreases the financial risk and the volatility in a downside scenario and, at the same time, provides the company with leverage for maximizing ROE.

#### Profitability Metric: Return On Assets (ROA)

Return on Assets determines the efficiency of a firm in earning profits from its assets. The formula for the calculation is net profit after tax divided by total assets. The ROA ratio is a measure to ascertain the extent to which the firm can utilize its resources to earn. This means that a higher ratio is an indicator of improved resource utilization and operational efficiency, as well as subsequent better profitability and an increase in shareholder value.

#### Size of the Firm: Total Assets

It is the total value measured as total assets representing all the assets owned by the firm. Firstly, it provides an indication of the size and economic scale of the firm. A big firm generally has relatively high total assets, showing its vast scale operations, infrastructure, resources, etc., while total assets also play a vital role in a firm's liquidity, solvency, and financial stability. A firm with huge total assets could have a large-scale present, the economics of scale, and boundaries able to survive the markets' shocks.

## 6. Estimation and Result

### 6.1 Descriptive Statistics

Variables	Observation	Mean	Median	SD	Jarque Bera	Jarque Bera P value
Close Price	342	1766.670	906.005	2049.953	456.796	0.000
D/E	342	0.645	0.215	0.909	670.496	0.000
ROA	342	9.985	7.860	8.155	23.104	0.0001
Total Assets	342	125085.4	64498.31	197880.7	7704.160	0.000

First, in the case of Close Price, it is right-skewed, as evidenced by the mean of 1766.67, which is far greater than the median of 906.004. This means very few companies have very high close prices, which makes the average get pulled up. The standard deviation value is 2049.95, and it is very high, which means

there is more variation in the close prices from one observation to another. The Jarque-Bera statistic is 456.796, offering a p-value of 0.000 and, hence, evidence to reject the null hypothesis that the data is normally distributed.

Additionally, the average D/E ratio is 0.645, while the median is 0.215; similarly to the previous case, the huge difference between the two measures of central tendency indicates that the distribution is strongly right-skewed, with several companies reaching much higher leverage levels. The large standard deviation of 0.909 even further expresses how much leverage varies among these companies. More formally, the Jarque-Bera statistic of 670.496 and associated p-value of 0.000 confirm non-normality in the D/E distribution.

The mean in the case of ROA is 9.985, and the median is 7.860, showing that the distribution is slightly right-skewed. The standard deviation of ROA is 8.155, indicating quite some variability in the dataset. This is also reflected in the high Jarque-Bera statistic of 23.104, with an associated p-value of 0.0001, in that the ROA distribution departs from normality.

Total Assets indicate a strong right-skewed distribution because the mean is 125085.4, and the median is 64498.31; that is, a few companies must have very large asset bases. This again is reflected by a very high standard deviation of 197880.7, which shows that the total sizes of assets held would vary very greatly between companies. The Jarque-Bera statistic is very large at 7704.160, with a p-value of 0.000; hence, the total assets' distribution is far from normal, probably because of extreme values.

Overall, the data presents very similar patterns in right-skewed distributions and possesses a high variability in all variables. The Jarque-Bera tests always reject the null hypothesis at the verified level, indicating non-normality likely driven by outliers or extreme values in the distributions.

## 6.2 Correlation analysis

Correlation	Close Price	D/E	ROA	Total Asset
Close Price	1			
D/E	-0.135808	1		
ROA	-0.043026	-0.613496	1	
Total Asset	-0.03215	0.17135	-0.400718	1

The correlation analysis of the data yields a variety of important relations between the variables. A negative correlation was obtained with the D/E Ratio, though very weak, at -0.135808. The close price is related rather weakly positively with lower levels of leverage. Even a weaker correlation coefficient, at -0.043026, was obtained between Close Price and ROA. The correlation coefficient for Close Price and Total Assets was -0.03215, which tells about a very weak inverse relationship.

The Debt-to-Equity Ratio has quite a strong negative relation to ROA, given the correlation coefficient of -0.613496. This means that, generally, firms with higher leverage have relatively lower returns on assets; an empirical result agrees with the notion that the higher the debt, the more weight it will have on profitability. There is a slight positive relationship: D/E and Total Assets are positively correlated with a correlation coefficient of 0.17135, indicating that the bigger the company, the higher the debt-to-equity ratio. This relation is not very strong, though.

There is also a reasonable negative correlation with Total Assets at -0.400718 for ROA. This means that the larger the companies get in terms of their total assets, the lower their return on assets, probably due to the difficulty of sustaining high profitability in larger, more asset-intensive firms.

The overall correlation matrix shows that almost all correlations among variables are, by nature, weak. Moderately negative correlations existed between D/E and ROA, as well as between ROA and Total Assets. This would seem to suggest that although there is some sort of relationship existing among these variables, they are really not that strong, and in most cases, the variables do not bear significant linear associations with one another.

### 6.3 Model Estimation

Accordingly, the study model is as follows:

$$\text{Close Price} = B_0 + B_1 * \text{Total Asset} + B_2 * \text{Debt to Equity Ratio} + B_3 * \text{ROA} + E$$

- Close price is the dependent variable, measured by the company's stock market values at the end of each year.
- Debt to equity (D/E), Total assets, and Return on Assets (ROA) are the independent variables.
- $B_0$ ,  $B_1$ ,  $B_2$ , and  $B_3$  are the coefficients associated with each independent variable.
- $E$  represents the error term.

Variables	Model Method		
	POLS	Random Effect Model	Fixed Effect Model
Constant	3.514*** (14.596)	1.656*** (7.520)	1.358*** (6.198)
ROA	0.009** (2.102)	0.003 (1.014)	0.001 (0.296)
D/E	-0.103*** (-2.663)	-0.163*** (-4.020)	-0.146*** (-3.288)
Total Asset	-0.124*** (-2.604)	0.290*** (6.71)	0.356*** (7.764)
F-Value	17.745	19.896	48.472
<b>Hausman Test p-value = 0</b>			

Value of chi-square = 18.441

H0: RE is appropriate

H1: FE appropriate

If the p-value of the chi-square is less than 0.05 ( reject the null hypothesis), then FE is appropriate.

**In this case, we reject the null hypothesis.**

### 7. Conclusion

The analysis was done based on the model estimation using three different approaches: Pooled Ordinary Least Squares, Random Effects, and Fixed Effects models. In the model, Close Price is considered the dependent variable, while Debt to Equity D/E Ratio, Total Assets, and Return on Assets ROA are the independent variables.

The results obtained indicate that the coefficients of each variable vary significantly in all three models. In the POLS model, the coefficients for ROA and D/E are significant, so these factors have a measurable



impact on the close price. More specifically, ROA has a positive impact, and D/E has a negative impact. The Random Effects model still gives significant results, whereby ROA shows a smaller positive impact, and D/E maintains its negative impact. In contrast, the Fixed Effects model shows that only D/E and Total Assets have significant coefficients, where D/E negatively affects the close price, while Total Assets have a very strong positive impact.

The F-values are all significant across the board, so the overall models are well-fitted. Furthermore, the Hausman Test is done to decide whether the Random Effects or Fixed Effects model should be followed. Since the p-value for the chi-square test is less than 0.05, we can reject the null hypothesis, meaning that this analysis fits best with the fixed effects model. Therefore, factors that cannot be observed and vary across companies but are constant over time significantly explain the close prices, and these will then be better captured by the Fixed Effects model.

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