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Corporate Governance and Financial Performance: An Empirical Investigation in the Indian Context

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ABSTRACT

This study examines the relationship between corporate governance mechanisms and firm performance among Nifty100 companies listed on the NSE in India. The currently study is used secondary data source which have been collect from Capitaline and prowess IQ database and using regression analysis, the research assesses how key governance factors—including board size, gender diversity, leverage, firm size, and Tobin' Q affect firm performance measured through Return on Assets (ROA). The empirical findings reveal that leverage and Tobin's Q demonstrate a significant positive association with firm performance, while board size shows a negative but statistically insignificant impact. Board diversity on corporate boards exhibits a positive relationship with ROA, suggesting potential benefits of diverse board composition, though its effect remains limited.

Keywords: Corporate Governance, Tobin' Q, Return on Assets, Financial Performance, Board Diversity

Introduction

Owners of companies protect their interests by keeping a check on the management and other insiders through proper corporate governance practices. Pacini et al. (2008) examine that the Board of Directors plays a key role in representing the shareholders and using organizational power to ensure that their interests are safeguarded. As a result, corporate governance has gained significant attention from finance scholars, practitioners, and policymakers who aim to understand why certain firms perform better than others (Wang et al., 2007). Similarly, (ElKelish and Zervopoulos, 2021) studied that the various global corporate failures in recent years have sparked debate over the effectiveness of corporate governance mechanisms. Several scholars (such as Conyon et al., 2011; Kirkpatrick, 2009) have linked major financial crises to the breakdown of corporate governance systems, thereby increasing research interest in this field (Alhassan & Boakye, 2020).

Nowadays, Corporate governance has arisen as a vital element in ensuring business stability, enhancing firm performance, and fostering economic growth across both emerging and developed economies. It also addressing conflict between owners (Shareholders) and Agents (Managers), aligning their interest as well as reducing the cost of capital, overall growth and enhancing the share price of the firms (e.g., Khan et al., 2020; Zhu, 2014; Ararat et al., 2017; Chou et al., 2013; Samaha et al., 2015). Corporate governance also minimizing the waste, business risk, mismanagement by using the enhanced monitoring and transparency (Krafft et al., 2014; Mishra & Mohanty 2014). Across the globe, significant steps have been made in the development and implementation of corporate governance codes to enhance transparency, accountability, and firm performance. In South Africa, for instance, companies

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listed on the Johannesburg Stock Exchange (JSE) are required to comply with the King Codes of Governance, which evolved through multiple revisions between 1994 and 2016. Similarly, the United Kingdom's Financial Reporting Council (FRC) introduced a revised Corporate Governance Code in 2018 to strengthen board effectiveness and stakeholder confidence (FRC, 2018). In the Indian context, the current corporate governance framework draws from the recommendations of the Kumar Mangalam Birla Committee, the Narayana Murthy Committee, and the Kotak Committee (Arora & Sharma, 2016; Kaur & Vij, 2018; Mishra & Mohanty, 2014). Collectively, these initiatives demonstrate a global commitment to institutionalizing sound governance practices, enabling firms to realize the strategic and operational benefits associated with effective corporate governance.

Literature and hypothesis

In India, corporate governance has become increasingly significant, particularly following major corporate scandals such as the Satyam case in 2009, which highlighted serious weaknesses in governance frameworks and raised concerns about managerial accountability and transparency (Balasubramanian et al., 2010). In response, the Securities and Exchange Board of India (SEBI) and other regulatory bodies introduced a series of reforms to strengthen governance practices. These reforms were largely guided by recommendations from key committees, including the Kumar Mangalam Birla Committee (2000), the Narayana Murthy Committee (2003), and the Kotak Committee (2017), all aimed at improving transparency, accountability, and long-term firm performance (Arora & Sharma, 2016; Kaur & Vij, 2018). Empirical research on corporate governance and firm efficiency in India has produced mixed findings. (Mishra & Mohanty, 2014) found that governance mechanisms such as board independence and audit quality have a positive influence on firm performance, measured through Return on Assets (ROA) and Tobin's Q. Similarly, (Arora & Sharma, 2016) reported that board size, independence, and CEO duality significantly affect firm profitability and market valuation, suggesting that well-structured boards enhance managerial accountability and resource utilization, which, in turn, improve firm efficiency. However, other studies have presented differing results. (Saini & Singhania, 2018) observed that while board independence and institutional ownership contribute to improved efficiency, overly large boards can reduce coordination and decision-making effectiveness. Likewise, (Shukla & Dwivedi, 2020) found that gender diversity on boards has a positive but statistically insignificant impact on firm performance in some sectors, indicating that its effect may depend on the industry context. More recent studies have focused on examining corporate governance in relation to firm efficiency using financial performance indicators. (Pani & Pani, 2021), for example, analyzed Indian manufacturing firms and reported that robust governance structures enhance operational efficiency, as reflected in higher ROA and asset turnover ratios. (Chauhan and Kumar, 2022) also found that firms with stronger governance scores tend to achieve greater cost efficiency and profitability, reinforcing the view that effective governance reduces agency conflicts and promotes better allocation of resources. In the Indian context, the empirical exploration of the relationship between corporate governance and firm financial performance remains relatively limited. Although previous studies have investigated governance mechanisms such as board composition, ownership structure, audit quality, and CEO duality, a comprehensive understanding of how these factors collectively influence firm efficiency and profitability is yet to be established. Furthermore, the inclusion of board diversity as a corporate governance variable has gained prominence in recent years, reflecting a growing recognition of its potential contribution to board effectiveness and strategic decision-making. Empirical evidence, however, remains fragmented and inconclusive within the Indian corporate landscape. Existing studies posit that gender-diverse boards may enhance cognitive diversity, foster innovation, and strengthen corporate reputation, ultimately contributing to improved financial outcomes. Nevertheless, further empirical inquiry is warranted to substantiate the extent to which gender diversity on boards influences firm efficiency and value creation, thereby addressing a critical gap in the Indian corporate governance literature.

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Objective

To examine the relationship between corporate governance and financial performance.

Based on the objectives, the following hypotheses are framed for the present study:

H_{01}: Earnings management has no relationship between the corporate governance and financial performance of the listed companies

Methodology

Sample and Data Collection

The currently study is used secondary data source which have been collect from Capitaline and prowess IQ database. Study has taken a target sample of 100 NSE companies indexed but after screening the 100 companies by excluding companies with incomplete data and companies' different governance regulations, the final sample comprises 75 companies with the period from 2016 to 2024. Data used in the empirical analyses were collected manually from the annual reports of the sample companies. This time frame ensures a robust dataset, encompassing a variety of business cycles and regulatory changes that may influence corporate governance and earnings management practices.

To examine the relationship between corporate governance and firm efficiency following regression model used:

$$\mathbf{ROA_{it} = \alpha + \beta_1 LEV_{it} + \beta_2 Size_{it} + \beta_3 TQ_{it} + \beta_4 BD_{it} + \beta_4 BS_{it} + \epsilon it}$$

Whereas:

ROA: Return on Assets, LEV: Leverage, TQ: Tobin's Q, BD: Board Diversity

Return on Assets (ROA) serves as a key indicator of firm financial performance, hereby indicating better operational performance

Study Variables

Variable Name	Model Name	Measurement	Authors
Return on asset (Dependent Variable)	ROAit	The ratio of net income and interest to total assets	Atif et al. (2021), Bristy et al. (2020)
Leverage (Independent)	LEV_{it}	The ratio of total debt to total assets	Bristy et al. (2020)
Size (Independent)	$Size_{it}$	Logarithm of total assets	Qureshi et al. (2020),
Board Diversity (Independent)	BD_{it}	Percentage of female directors on board	Qureshi et al. (2020), Atif et al. (2021), Bristy et al. (2020)
Tobin's Q (Independent)	TQ_{it}	Market value of firm + book value of debts /book value of total assets	Singh et al,(2017)
Board Size (Independent)	BS_{it}	Total numbers of directors	Nduati Kariuki, S. (2023)

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Empirical Findings and Interpretation

Table 1: Descriptive Statistics

Variable	Mean	Median	Standard Deviation	Minimum	Maximum
Return on Total Assets	12.295	11.450	17.761	−114.57	136.24
LEV (Leverage)	4.2114	1.5900	7.3627	−41.740	40.900
Size	13.173	13.083	1.4405	8.0056	17.941
TQ (Tobin's Q)	1.2966	1.2111	0.97007	−0.8086	6.3522
Board Diversity	0. 1565	0.1429	0.09044	0.0000	1.0000

Table 1 descriptive statistics provide a comprehensive overview of the key variables in the dataset, reflecting substantial variation in firm performance, structure, and governance characteristics. The mean Return on Total Assets (ROA) is 12.30%, with a median of 11.45%, indicating that firms, on average, generate moderate profitability relative to their assets. However, the high standard deviation (17.76) and wide range (−114.57 to 136.24) reveal significant disparities in performance, suggesting that while some firms achieve exceptional returns, others experience losses, possibly due to differences in efficiency, risk exposure, or industry conditions. The Leverage (LEV) variable shows a mean of 4.21 and a median of 1.59, with a large standard deviation (7.36) and extreme values ranging from −41.74 to 40.90, indicating substantial variation in debt usage among firms. Some firms operate with high financial leverage, whereas others maintain more conservative capital structures. The Firm Size (Size) variable, with a mean of 13.17 and median of 13.08, appears relatively consistent across the sample, as indicated by a low standard deviation (1.44). This suggests that most firms are of comparable scale, likely mid to large-sized, though smaller firms are also present within the range of 8.00 to 17.94. The market-based indicator, Tobin's Q (TQ), has an average value of 1.30 and median of 1.21, implying that firms are, on average, valued slightly above their book value, which reflects positive investor sentiment and growth expectations. Nonetheless, the variability (S.D. = 0.97) and the broad range (−0.81 to 6.35) highlight differing market valuations and firm-specific performance perceptions. Finally, Gender Diversity (Diversity Gender) exhibits a mean of 0.1565 and median of 0.1429, indicating that female representation on boards averages around 15.6%. The low standard deviation (0.09) suggests limited variation across firms, and while a few firms have achieved full representation (maximum = 1.0), many still have no female directors (minimum = 0). Overall, these results demonstrate that firms in the sample differ notably in profitability, leverage, and market performance, while showing relative consistency in size and persistently low gender diversity. Such patterns underscore the heterogeneity in financial outcomes and governance practices, offering valuable insights for subsequent regression and correlation analyses.

Table2: Correlation Matrix

Variables	Return on Total Assets	LEV (Leverage)	Size	TQ (Tobin's Q)	Diversity (Gender)	Board Size
Return on Total Assets	1.0000					
LEV (Leverage)	0.6071	1.0000				

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Size	−0.1698	−0.0894	1.0000			
TQ (Tobin's Q)	0.3832	0.1770	−0.2551	1.0000		
Diversity (Gender)	0.1821	0.1948	0.0322	0.0898	1.0000	
Board Size	−0.1506	−0.1085	−0.0686	−0.0921	−0.1082	1.0000

Table 2 correlation analysis reveals significant relationships among the key variables of the study. Return on Total Assets (ROA) shows a strong positive correlation with Leverage (0.6071), indicating that firms with higher debt levels tend to show greater profitability, possibly due to effective use of borrowed funds. ROA also has a moderate positive association with Tobin's Q (0.3832) and Gender Diversity (0.1821), suggesting that firms with better market valuation and more gender-diverse boards achieve higher returns. However, ROA is negatively correlated with Firm Size (−0.1698), implying that larger firms may experience slightly lower profitability, potentially due to higher operational costs or market saturation. Leverage is positively correlated with Tobin's Q (0.1770) and Gender Diversity (0.1948), reflecting that more leveraged firms may be better valued in the market and are more likely to have diverse leadership structures, while its weak negative correlation with Firm Size (−0.0894) suggests minimal influence of size on leverage decisions. Firm Size shows a negative relationship with Tobin's Q (−0.2551), indicating that smaller firms often enjoy higher market valuations, while its correlation with Gender Diversity (0.0322) is negligible. Lastly, Tobin's Q and Gender Diversity are weakly but positively correlated (0.0898), implying a slight association between board diversity and market performance. Board size (r = −0.1506) are negatively correlated with Return on Total Assets, suggesting that larger firms and larger boards may experience lower efficiency and returns.

Table 3: Collinearity Statistics

Variance Inflation Factor (VIF)

Variable	VIF	Interpretation
Board Diversity	1.054	No multicollinearity
LEV (Leverage)	1.079	No multicollinearity
Size	1.086	No multicollinearity
TQ (Tobin's Q)	1.113	No multicollinearity
Board Size	1.034	No multicollinearity

Table 3 shows Variance Inflation Factor (VIF) results presented in Table 4 indicate that all variables have VIF values close to 1, confirming the absence of multicollinearity among the explanatory variables. Specifically, Board Diversity has a VIF of 1.054, LEV (Leverage) 1.079, Size 1.086, and Tobin's Q (TQ) 1.113. Since all values are well below the commonly accepted threshold of 10—and even the more conservative limit of 5—this suggests that the independent variables are not highly correlated with one another. Therefore, the regression estimates are stable, reliable, and not distorted by multicollinearity issues, ensuring the validity of the model's inferences.

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Table 4: Regression Results

Variable	Coefficient	Std. Error	t-Ratio	p-Value	Significance
Constant	13.6157	5.68908	2.393	0.0170	**
Board Diversity	10.6575	5.7543	1.852	0.0645	*
LEV (Leverage)	1.3140	0.0715	18.39	2.09e−61	***
Size	−0.6893	0.3666	−1.881	0.0605	*
TQ (Tobin's Q)	4.9087	0.5512	8.905	4.99e−18	***
Board Size	−0.468596	0.205148	−2.284	0.0227	**

Statistic	Value	Statistic	Value
Mean dependent var	12.2841	S.D. dependent var	17.7859
Sum squared resid	115397.1	S.E. of regression	13.1948
R-squared	0.4529	Adjusted R-squared	0.4496
F-statistic	112.3426	P-value (F)	4.95e-86
Obs	675		
Cross-sectional Units	75		
Year	2016-2024		

The regression analysis presented in Table 3 examines the determinants of Return on Total Assets (ROA) using a pooled OLS model with Standard errors clustered by unit. The results reveal that gender diversity has a positive and marginally significant impact on firm performance, indicating that firms with greater gender representation tend to achieve higher returns on assets, possibly due to the inclusion of diverse perspectives in decision-making processes. Leverage (LEV) shows a strong positive and highly significant relationship with ROA, suggesting that firms utilizing higher levels of debt are able to generate better returns, likely reflecting efficient use of borrowed capital. Conversely, firm size exhibits a negative and marginally significant association with ROA, implying that larger firms may face declining efficiency or diseconomies of scale that reduce profitability. Tobin's Q (TQ) demonstrates a strong positive and statistically significant relationship with ROA, signifying that firms with higher market valuation relative to asset replacement cost tend to perform better financially. The model is statistically significant, explaining approximately 45.3% of the variation in firm performance (R^2 = 0.4529), with an F-statistic value of 138.25 ($p < 0.001$). Board size shows a negative and significant effect ($\beta = -0.4686$, $p = 0.0227$), suggesting that overly large boards may slow down decision-making and reduce managerial efficiency, ultimately lowering firm performance, finding is inconsistent with the recommendation for large boards by proponents RBT and theory of agency which are linked to higher efficiency as a result of diversity in skills, know-how, networking potential and linkage to outside input resources (Kiharo & Kariuki, 2018; Waheed & Malik, 2019). Board diversity shows a positive but marginally significant relationship ($\beta = 9.6077$, $p = 0.0955$), emphasizing that greater female

representation may contribute to improved financial performance. These findings collectively indicate that leverage, market valuation, and gender diversity play substantial roles in enhancing firm performance, while firm size exerts a slight negative influence on profitability.

Conclusion

This study examined the determinants of firm performance, measured through Return on Total Assets (ROTA), with a particular focus on gender diversity, leverage, firm size, and market valuation (Tobin's Q) of 75 firms listed in Indian stock exchange for 9 year (2016-24). The findings reveal that gender diversity positively influences firm performance, highlighting the importance of inclusivity and diverse perspectives in enhancing corporate decision-making and profitability. Leverage emerged as a significant positive predictor, suggesting that firms effectively utilizing debt financing can enhance their returns through improved capital efficiency. Tobin's Q also showed a strong positive association with ROTA, indicating that firms with higher market valuations tend to demonstrate better operational efficiency and profitability. Conversely, firm size exhibited a negative relationship with performance, implying that as firms expand, efficiency gains may diminish due to bureaucratic or operational complexities.

The model demonstrated strong explanatory with an R-squared of 0.45, confirming that the selected independent variables collectively explain a significant portion of the variation in firm performance. Diagnostic tests confirmed the absence of multicollinearity, ensuring the robustness of the model estimates. However, evidence of heteroskedasticity and structural breaks suggests that future research should consider panel-corrected or fixed-effects models for improved reliability. The study emphasizes that gender diversity, leverage, and market valuation are key drivers of firm performance, while firm size may have a constraining effect. These understandings emphasize the need for corporate policies promoting gender inclusion, optimal capital structure management, and sustainable growth strategies to enhance overall efficiency and long-term profitability.

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