

## IMPACT OF CORPORATE GOVERNANCE ON FIRM PERFORMANCE: EMPIRICAL EVIDENCE FROM INDIA

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### ABSTRACT

*The study of corporate governance is gaining momentum as corporate governance compliance has been made mandatory. Even though made mandatory, the number of corporate governance issues are on the rise. The high profile scandals in Enron, World Com and also the Satyam scandal, Tata Mistry issues in India have also stimulated policy makers, investors, academicians and other stakeholders. Innumerable studies have investigated the relationship between corporate governance factors and performance (Black 2006; Chhaochharia and Grinstein, 2007; Bennett and Robson, 2004), Spanos (2005) argues that corporate governance has significant implications for the growth prospects of an economy. In spite of the numerous studies, the results rather remain inconclusive. The variables considered in the model are measures of firm performance like Return On Equity (ROE) and Price to Book ratio (PB ratio) and corporate governance characteristics which include board composition, board size and CEO duality. The model used for analysis also included certain firm specific variables. These firm specific variables are financial leverage, asset turnover and growth in sales. To investigate the impact of corporate governance structure on firm performance, the study used a panel data OLS regression model for a sample of 30 firms quoted in the Bombay Stock Exchange. The results of the panel data analysis show that the CG factor, namely CEO duality and board size has a significant negative impact on firm performance whereas board composition revealed no significant impact on firm performance. It reveals that there is a need to undertake the monitoring process to lead to superior firm performance and indicates the need for firms to separate the post of CEO and Chair in order to ensure optimal performance. The results also suggest the leverage and asset turnover to have a significant positive impact on firm performance. The results may not be conclusive, as the inclusion of other corporate governance and performance variables would also be considered. Moreover, the corporate governance impacts on firm performance may vary from one industry to another which is another area that can be examined.*

**KEYWORDS:** Corporate Governance, Board Size, Board Composition, CEO Duality, Financial Performance

JEL Classification Codes: G 32, G 34, L 25

### INTRODUCTION

Corporate Governance refers to the processes and structures through which a firm is being managed by protecting the interests of the stakeholders. A good governance revolves around the principles of transparency, accountability,

fairness and responsibility in the management of the corporate. Good governance enhances the performance as well as competitiveness of a firm thereby leading a clear path for achieving business excellence. The Cadbury Committee defined Corporate Governance as “the system by which companies are directed and controlled” in its report called Financial Aspect of Corporate Governance published in the year 1992. In general words Corporate Governance means set of rules and regulations by which an organization is governed, controlled and directed. It is conducted by the Board of Directors or the concerned committee for the benefit of the company’s stakeholders.

Corporate governance in India gained prominence in the wake of liberalization during the 1990s and was introduced, by the industry association Confederation of Indian Industry (CII), as a voluntary measure to be adopted by Indian companies. It soon acquired a mandatory status in early 2000s through the introduction of Clause 49 of the Listing Agreement. The equivalent of clause 49 is US Sarbanes Oxley Act 2002 by Securities and Exchange Commission for companies listed in US stock exchange in late 2009, the Ministry of Corporate Affairs has released a set of voluntary guidelines for corporate governance, which address a myriad corporate governance issues. With the objective to align with the provisions of the Companies Act 2013, adopt best practices on corporate governance and to make corporate governance norms more effective, SEBI issued revised Clause 49. The listed companies will have to comply with requirements of Companies Act 2013 or revised Clause 49.

A well charted and functioning Corporate Governance System facilitates in attracting new investments and strengthen the foundation for firm’s performance. Dalton and Dalton (2005) suggests the association between corporate governance and performance has important implications for policymakers who prescribe corporate governance mechanisms. Johnson et al. (2000) report that weak corporate governance worsened the 1997 Asian currency crisis; this underscores the importance of corporate governance to firms’ performance. Previous studies have largely focused on advanced countries, although a few recent studies have related to developing countries. In this context, this study attempts to provide empirical evidence on the connection between corporate governance and firm performance in India. Using data from the Bombay Stock Exchange (hereinafter “BSE”) and other reliable data sources over a sample of 30 listed firms. Accordingly, this study tries to analyze how the CG proxies impact the financial performance considering the firm specific factors. For this the board composition, board size and CEO duality has been taken as proxies for corporate governance and ROE and PB ratio for measuring financial performance whereas firm specific variables include asset turnover, financial leverage and percentage of sales growth.

Rest of the paper is structured as follows: Section two presents the review of literature Section three, describes the data and methodology adopted in the study. Section four reports the results obtained from the study. Finally, the summary and the conclusion is presented.

## **REVIEW OF LITERATURE**

This section discusses the effect of Corporate Governance Factors like board size, proportion of independent directors and CEO duality on firm performance measured by ROE. The section below discussed presents the review of prior studies conducted. The corporate governance structure such as ownership structure, board composition, board size, debt, and CEO duality have a great influence on performance. Documentary evidence suggests that the relationship between corporate governance structure and firm performance can either be positive (Morck et al., 1989), negative (Lehman and Weig and, 2000), or none (Burkart et al., 1997; Bolton and von Thadden, 1998).

There are many studies analysing the relationship between corporate governance and performance of the firm.

- **Board Size**

Majority of the studies are oriented towards ascertaining the impact of board size which is an important dimension of corporate governance on the performance of firms. Some of these studies (cite) reveal an increase in the effectiveness of the firm as the board size grows while some others suggest the opposite, i.e. a decrease in the effectiveness of the firm as the board size grows. Eisenberg, Sundgren and Wells (1998) evaluated the relationship between the board size and performance of the firms. The results suggested a negative relationship between the board size and firm performance. They interpreted these findings as the probability of the presence of communication and coordination problems in the firms with bigger boards. Similar results were put forth by VO and Phan (2013); Samuel (2013); Arosa et al. (2013); Gill and Obradovich (2013); Bhagat and Bolton (2013); Uchida (2011); O'Connell and Cramer (2010); Guest (2009); Bennedsen et al. (2008); Cornett et al. (2007); Haniffa and Hudaib (2006), Mak and Kusnadi (2005); Lasfer (2004) as well.

$H_0$ : Board size do not have any impact on firm's performance

- **Board Composition**

Velnampy and Pratheepkanth (2012), identified the impact of corporate governance on ROA, ROE. The composition of the board may be used to ameliorate the principal-agent problem. The participation of outside directors is designed to enhance the ability of the firm to protect itself against threats from the environment and align the firm's resources for greater advantage. However, research on the impact of outside directors has grown significantly, but with mixed results. On one hand, few studies report a negative relationship between independent directors and firm performance (Wen *et al*(2002). On the other, few other studies have reported a positive relation between independent directors and firm performance (Brickley *et al.*, 1994 and Weisbach, 1988). Reason being, firms with higher number of outside directors are expected to pursue activities that would bring about low financial leverage with a high market value of equity (Baysinger and Butler, 1985).

$H_0$ : Presence of independent directors does not have any impact on firm's performance

- **CEO Duality**

CEO duality refers to the situation wherein the CEO holds the position of the chairman of the board. Findings from prior studies seem to be inconclusive. Baliga *et al.*, (1996) conclude that changes in CEO duality have no significant impact. Further, the study suggested that there are other corporate governance mechanisms that have a larger influence on firm performance. Brickley, Coles & Jarrell (1997) assert that monitoring costs arise when the CEO and chairman are separated. The benefits of monitoring can be more than the costs in many cases. On the other hand, umpteen studies have reported a negative relation between CEO duality and firm's performance. Goyal & Park (2002) report that CEO turnover to firm performance is significantly lower in the case of CEO duality. Firms without CEO duality are likely to minimize the risk of bankruptcy and boost the chances of raising additional capital because of stakeholders' confidence in them. It was also learned that the Leech and Leahy (1991) find that profitability differences between ownership-controlled (closely-held) firms compared to management-controlled (diffusely-held) firms are only marginal. Bay singer and Hokinson, 1990; Fama and Jensen, 1983; Rechner and Dalton, 1991) says separation of duties leads to improved performance. (Davis, Schoorman and Donaldson, 1997; Donaldson and Davis, 1991). Consistent with these arguments,

Cannella and Lubatkin (1993) report a positive link between a dual leadership structure and financial performance

Ho: CEO duality does not have any impact on firm's performance

## OBJECTIVES OF THE STUDY

Based on the hypothesis, the main objective of the study is to study impact of corporate governance on firm performance after controlling for firm specific variables.

The specific objectives are:

- To determine the effect of board size on the financial performance.
- To determine whether CEO duality impacts the financial performance.
- To determine whether board composition impacts the financial performance

## DATA AND METHODOLOGY

As mentioned earlier, this study tries to examine the link between corporate governance and firm performance in India. The study focused on the 30 firms listed in BSE which constitutes the BSE Sensitive Index (SENSEX)<sup>1</sup>. In other words, census method has been adopted in this study.

Secondary data has been used and is collected from the annual reports of all the firms, for a period of ten years from 2007 to 2016.

## METHODOLOGY

The study used a panel data OLS regression model for a sample of 30 firms listed in BSE Sensex for the period 2007 to 2016. The main objective of the study is to examine the impact of corporate governance on firm performance after controlling for firm specific variables. Following the works of (Jordan et al., 1998 and Hall et al., 2004), a set of factors ROE and PB ratio for financial performance and the board composition, board size and CEO duality has been taken as proxies for corporate governance. The firm specific variables are financial leverage, asset turnover and growth in sales which depicts the level of operations, size of firms and also usage of debt component in their capital structure

The use of panel data helps to take into account the heterogeneity of firms in relation to possible explanatory variables. For analyzing the impact of CG on firm performance, two regression models have been developed. The panel data ordinary least square (OLS) regression model is defined by the following equation.

$$\text{Model 1: } ROE_{j,t} = \beta_0 + \beta_1 BCOMP_{j,t} + \beta_2 CEODUAL_{j,t} + \beta_3 BSIZE_{j,t} + \beta_4 \text{ Asset turnover}_{j,t} + \beta_5 \text{ Sales grow}_{j,t} + \beta_6 \text{ Finan Leverage}_{j,t} + \varepsilon$$

$$\text{Model 2: } PBRatio_{j,t} = \beta_0 + \beta_1 BCOMP_{j,t} + \beta_2 DUALITY_{j,t} + \beta_3 BSIZE_{j,t} + \beta_4 \text{ Asset turnover}_{j,t} + \beta_5 \text{ Sales grow}_{j,t} + \beta_6 \text{ Finan Leverage}_{j,t} + \varepsilon$$

<sup>1</sup>The Sensex firms from various industries were selected as sample for the study as it is assumed that listed firms adhere to the standards and norms set by the regulatory bodies like SEBI, Ministry of Corporate Affairs as well as Companies Act. Moreover, listed firms has to mandatorily publish their audited financial performance both quarterly as well as annually.

All the variables are defined as in Table 1 below.

**Table 1: Variable Definitions**

Variables	Indicators	Measurement
<i>Financial performance Variables</i> Return on Equity Price to Book Ratio	ROE PB Ratio	Net Profit /Total Equities Market Price per Share / Book Value per Share
<i>Corporate Governance Variables</i> Board Composition Board Size CEO Duality	BCOMP BSIZE CEO_DUAL	Number of Independent directors Total number of all directors Chairman serves as Managing Director, if yes then 1, else 0
<i>Firm Specific Variables</i> Asset Turnover Financial leverage Sales Growth(%)	Asset_turnover Finan_Leverage Sales_grow	Sales/Total Assets Total Debt/Total Equity (Prior period net sales - current period)/Prior period net sales

## ANALYSIS AND DISCUSSIONS

The study provided two types of data analysis; namely descriptive analysis and inferential analysis.

Table 2 below reports descriptive statistics for the corporate governance, financial performance and firm specific variables for the full period (2007-2016) for all firms listed in BSE Sensex. The mean value for ROE for all the firms is 25.72 with a deviation of 19.70. This implies the firms in the sample are top players from various sectors and are financially stable.

Further, the average number of independent directors comes to 7 and standard deviation was only 1.85. Board composition is also an important characteristic of board structure. It reduces manager-shareholder conflicts in stock ownership by board members (both executive and non-executive). To the extent that executive board members own part of the firm, they develop shareholder-like interests and are less likely to engage in behaviour that is detrimental to shareholders.

The mean value for CEO duality is 0.78 and 0.41 reveals that majority of the firms in the sample had the CEO acting as chairperson on the board. Finally considering the firm specific variables, the mean (standard deviation) of financial leverage of the firms are recorded as 4.07(4.09). This suggests that majority the firms rely on equity rather than debt. The asset turnover which implies the firm size has a high mean of 0.839

Jensen (1993) appears to support Lipton and Lorsch (1992) who recommends a number of board members between seven and eight. However, board size recommendations tend to be industry-specific, since Adams and Mehran (2003) Large boards could provide the diversity that would help companies to secure critical resources and reduce environmental uncertainties (Prefer, 1987; Pearce and Zahra, 1992; Goodstein et al., 1994)

**Table 2: Descriptive Statistics**

Variables	Mean	Median	Minimum	Maximum	Standard Deviation
ROE	25.7293	21.6200	-86.0700	123.260	19.7075
PB ratio	5.64570	4.09000	0.000000	51.0400	6.34776
Asset turnover	0.839400	0.810000	0.0300000	2.65000	0.601588
Sales grow	22.6103	16.2750	-60.6400	933.710	68.7485
Fin Leverage	4.07247	2.42000	1.13000	22.6600	4.09077
CEO_DUAL	0.780000	1.00000	0.000000	1.00000	0.414938
BSIZE	12.6633	13.0000	6.00000	21.0000	2.56227

BCOMP	7.00667	7.00000	2.00000	12.0000	1.85060
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Source: Author's Calculations

**Table 3: Pearson Correlation Coefficients**

Variables	ROE	PB ratio	Asset turnover	Sales Growth	Fin Leverage	CEO Dual	BSIZE	BCOMP
ROE	1.0000	0.7761	0.5947	0.1174	-0.2732	-0.0814	-0.0758	-0.0793
PB ratio		1.0000	0.5254	-0.0046	-0.1716	-0.0097	-0.2127	-0.1890
Asset turnover			1.0000	0.0028	-0.5059	0.1021	-0.0738	-0.0987
Sales growth				1.0000	-0.0089	-0.0290	-0.0529	0.0112
Leverage					1.0000	-0.0420	0.0985	0.1654
CEODual						1.0000	-0.1454	-0.1505
BSIZE							1.0000	0.6712
BCOMP								1.0000

Source: Author's Calculations

## REGRESSION ANALYSIS

Before proceeding with the panel regression, it is appropriate to determine whether fixed-effects (FE) or random effects (RE) model is to be applied in this context. In other words, it is important to evaluate whether a correlation exists between the unobservable heterogeneity of each firm and the explanatory variables. Accordingly, Hausman test has been performed, where in the null hypothesis state that the unobserved heterogeneity is uncorrelated with the regressors. The finding suggests that the RE is significantly different from the FE, and therefore, the FE is the more consistent and efficient method to use.

While examining the impact of corporate governance on firm performance, it is important to evaluate the extent of association between the explanatory variables. The results from the Pearson correlation coefficients suggest that there is no multicollinearity problem among the variables in the multiple regression analysis as the coefficient values are low. Field (2005) suggests that multicollinearity becomes an issue only when the correlation coefficient exceeds 0.80. Thus, put simply, in order to test the impact of corporate governance structure on firm performance, usage of panel regression is appropriate. Here, two equations were run separately and the results has been reported. The tables 4 and 5 reported below shows the results of the regression estimates.

**Table 4: Regression Analysis: Model 1: Dependent Variable: ROE**

	Coefficient	Std. Error	t-ratio	p-value	
constant	7.62728	11.1673	0.6830	0.49521	
Asset turnover	26.3063	7.55843	3.4804	0.00059	***
Sales grow	0.0374772	0.0183698	2.0401	0.04233	**
Fin Leverage	-2.66496	1.63185	-1.6331	0.10364	
CEO_DUAL	-5.69218	1.04136	-5.4661	<0.00001	***
BSIZE	0.757056	0.515452	1.4687	0.14310	
BCOMP	0.125474	0.60423	0.2077	0.83566	

Mean dependent var	25.72927		S.D. dependent var	19.70755
Sum squared resid	26887.68		S.E. of regression	10.09194
R-squared	0.768465		Adjusted R-squared	0.737769
F(35, 264)	25.03473		P-value(F)	5.91e-65
rho	0.239937		Durbin-Watson	1.359332

**Note:** \*, \*\*, \*\*\* denotes significance at 1, %, 5% and 10% levels.

**Source:** Author's Calculations

Using ROE as a measure of performance, the results showed a significant negative relationship between CEO duality which depicts the board independence. This conforms to the findings of (Bay singer and Hokinson, 1990; Fama and Jensen, 1983; Rechner and Dalton, 1991). The results suggest that board size and board composition are not significantly related to firm performance. Connelly and Limpaphayom (2004) find that board size does not have any relation with firm performance. The R square value of 76.8% explains that the model is strong and explains the variance. The p-value and f statistics explains the fitness of the model. The Durbin Watson score reports that the model is free from autocorrelation.

**Table 5: Regression Analysis: Model 2: Dependent Variable: PB Ratio**

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>	
constant	7.05086	1.86952	3.7715	0.0002	***
Assetturnover	6.26296	0.586602	10.6767	<0.0001	***
Salesgrow	-0.00139983	0.00442549	-0.3163	0.7520	
Fin Leverage	0.233635	0.086733	2.6937	0.0075	***
CEODUAL	-1.48036	0.743679	-1.9906	0.0475	**
BSIZE	-0.381691	0.160453	-2.3788	0.0180	**
BCOMP	-0.22749	0.223905	-1.0160	0.3105	

Mean dependent var	5.645700		S.D. dependent var	6.347763
Sum squared resid	8044.400		S.E. of regression	5.239780
R-squared	0.332301		Adjusted R-squared	0.318628
F(6, 293)	24.30337		P-value(F)	2.49e-23
rho	0.929985		Durbin-Watson	0.246958

**Note:** \*, \*\*, \*\*\* denotes significance at 1, %, 5% and 10% levels.

**Source:** Author's Calculations

Using PB ratio as a measure of performance, the results showed a significant negative relationship between board size and CEO duality and board composition showed a non-significant relation to firm performance. The significant negative relationship found between bigger board size and ROE is consistent with the conclusions drawn by Yermack (1996), Eisenberg, Sundgren and Wells (1998) and Conyon and Peck (1998) and Loderer and Peyer (2002). They have reported a significant negative relationship between board size and the performance of a firm. The result however, differs from Kyereboah-Coleman and Biekpe (2005) who concluded with a positive relationship between a firms' value and board size.

The literatures reviewed also reports that other firm specific characteristics exert an influence on firm performance. The models also considered for these firm specific characteristics like firm size, level of operations and financial leverage. The results of our estimation are presented in Table 4 and Table 5 and significant at the 1 percent and 5 percent levels. Firm size showed a significant, positive relationship with firm performance in both the models. Across industrial sectors, different firms may have different degrees of preferences for debt according to their level of operations. Firms with positive investment opportunity and which have access to secure debt financing may have the chance to improve on their performance. Listed firms always have the privilege of being able to approach lenders for debt financing. In the models, financial leverage is also included as one of the firm specific variable. The results presented in

Table 5 are significant at the 1 percent level. The results revealed a positive significant relationship between debt and PB ratio. Also, when tested with return of equity, the results showed a negative but insignificant relationship. This result is not consistent with Mir and Nishat (2004), who found leverage to have an adverse signaling effect on performance of the firm.

## SUMMARY AND CONCLUSIONS

To conclude, there is a growing concern over the corporate governance factors and its need to protect the interests of the stakeholders. The relevance of corporate governance has been widely discussed in the developed nations with a few studies in the developing nations. The recent corporate governance issues among the corporate giants in India added its relevance in the Indian context. This study which is based on few corporate governance factors among the Sensex firms over a 10-year period suggests that corporate governance factors have significant impact on firm performance.

The results of the study reveals that there is a need to undertake the monitoring process to lead to superior firm performance. The inverse relation of CEO duality on performance indicates the need for firms to separate the post of CEO and Chair in order to ensure optimal performance. The separation of the position of CEO and Chair will encourage efficiency in decision-making mechanisms. It would also serve as a monitoring mechanism to ensure that the agent does not indulge in opportunistic behavior. Another finding says, if board size increases beyond a certain point, these inefficiencies outweigh the initial advantages from having more directors to draw on, leading to a lower level of corporate performance. The majority of US empirical studies have documented a negative relationship between board size and firm performance.

The study contributes to the literature on various dimensions discussed in the two models in terms of firm performance, corporate governance practices and firm specific characteristics. The results may not be conclusive, as the inclusion of other corporate governance and performance variables would also be considered. Moreover, the corporate governance impacts on firm performance may vary from one industry to another which is another area that can be examined.

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