



## The role of corporate governance in the performance of manufacturing firms of India

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### Abstract

The present study is an attempt to measure the relationship between corporate governance and firms' performance. It examines whether the board characteristics have any impact on performance measures of a firm. The study uses board size, board meetings, board independence as corporate governance surrogates from different dimensions along with other widely used independent variables to assess their impact in a panel data-based regression. The data covers the time period from 2016-17 to 2021-22. The findings provide mixed results between the board characteristics and the firm performance. Board size and firm performance is statistically significant with return on assets and Tobin's Q. Whereas, board independence, board meetings and CEO duality are not statistically significant with both accounting-based measure of performance and market-based measure of performance. The main value of this paper is the analysis of the effect of corporate governance on performance measures on manufacturing companies. In this work an attempt is made to study the impact of corporate governance in the determination of firm value in the manufacturing firms in India. The data were analyzed using a multiple regression analysis to identify the factors that affect firm value. It is found that the firm value is significantly affected by the corporate governance variables for manufacturing firms.

**Keywords:** corporate governance, firm value, agency theory, manufacturing firms

### Introduction

Corporate governance has always been a feature of the Indian corporate sector, but after the failure of certain enormous companies and fraudulent schemes like "Big Bull," "Harshad Mehta's scam," and "Satyam Computers' greatest accounting fraud," corporate governance turned into a significant problem. Corporate governance frauds have started to resemble those from the previous decade, and numerous committees have been created again and time again to draught laws and regulations that are compliant with international standards. The following section discusses some of the key challenges that prompted researchers to look into corporate governance in Indian manufacturing enterprises (Black *et al.*, 2003) [2].

Many studies have been done on corporate governance, but none have examined how corporate governance and financial performance relate to one another in the context of India's manufacturing industry. The manufacturing industry is a vibrant, growth-oriented sector with a solid technological foundation. Since India is the third-largest cotton grower in the world, the manufacturing sector in India is mostly self-sufficient in terms of raw materials and has significant advantages on the international market. In order to determine how persistent problems with corporate governance affect the value of the Indian manufacturing industry, this study primarily evaluates the relationship between several corporate governance factors and the performance metrics of Indian manufacturing enterprises (Kakabadse, *et al.*, 2003)

One of the emerging issues in the field of management is the aspect of corporate governance influence on the value of a firm (Mishra *et al.* 2001; McConaughy *et al.* 1998; Khatri *et al.* 2001; Kwak, 2003; Black *et al.* 2003) [27, 25, 24, 2]. Various studies in diverse domains like accounting, economics,

finance, law and management (Mishra *et al.* 2001; Kwak, 2003; Black *et al.* 2003; Andersen and Reeb, 2003) [27, 24, 2] have been conducted as to whether corporate governance have any impact on the determination of firm's value. These studies have found interesting and useful observations. Gone are the days where security variables predominantly occupied the theory of determining the firm value. With the changing socio and economic structure more particularly in developing countries like India, it is important to examine the impact of corporate governance on the firm value. This paper examines the relationship between these variables on manufacturing firms in India.

A company's profitability can be significantly increased by having strong corporate governance. Increasing company profits is essential to achieving any corporate goals (Gill *et al.*, 2012). Corporate governance plays a crucial role in the administration of organisations in both developed and emerging markets around the world, therefore strong and active policies are essential for any company organisation. From a variety of angles, developed economies vary from emerging ones (Achchuthan, 2013). For emerging economies like India, good corporate governance is a critical tool for growth of business organisations especially for catering worldwide markets and competing global business across divergent nations. Good corporate governance is a mix of several principles of transparency, fairness, responsibility, independence and accountability which directly impact on the performance of an organisation (Nur'ainy *et al.*, 2013). Good corporate governance ensures balance of power and eventually elevates the value of a firm and also improves overall financial performance of a business organisation. The need for corporate governance originated due to non-conformity of laws and regulation framed over a period of time with respect to the financial reporting and accountability of management and board

members which caused heavy amount of loss to investors. In India, a full-scale debate on corporate governance occurred after the appointment of several committees such as Kumar Mangalam Birla committee in 1999, Naresh Chandra committee in 2002 and Narayan Murthy committee in 2003, Dr J. J. Irani committee in 2005 prior to this Companies Act 1956 acted as a basic framework for regulation of companies followed by Clause 49 of equity Listing Agreement which consists of both mandatory and non-mandatory provisions. However, companies Act 2013 was enacted to replace Companies Act 1956 which is much more vibrant with the corporate governance standards across developed nations (Kong, 1998)<sup>[23]</sup>.

### Literature review

In this section, previous studies are reviewed to measure corporate governance and firm performance using two performance measures, that is, accounting and market value-based measures. Various studies across the globe have concentrated on corporate governance and firm performance using different measures of performance.

Bhat *et al.* (2018) identified a positive and significant relationship between board independence and firm value in state-owned organisations in Pakistan. Bhagat and Bolton (2007) found that the interrelation between corporate governance and firm performance is essentially endogenous which causes regression results highly responsive for estimation methods. Selarka (2011) found positive and consistent impact of governance variable on stock market operating performance measures. Further, corporate governance is a multi-dimensional measure and need to be reformed as competitive product market is not an alone factor to determine improvement of corporate governance in India. Meanwhile, other studies, Pant and Pattanayak (2008), have found non-monotonic and non-linear relationship between insider equity shareholding and firm value. Arora and Sharma (2016) used generalised method of moments for 20 industries of the manufacturing sector and found that board attributes such as board size and board independence have a weak association with performance of firm.

Mishra and Mohanty (2014) employed three parameters, namely, 'legal compliance, board efficiency and proactive indicators' to study the effect of corporate governance on financial performance and established a weak relationship between legal indicators and financial performance implying that the existing legal compliance mechanisms are not adequate to boost investors' confidence and improve financial performance in Indian companies. Velnampy (2013) found from the listed companies of Colombo Stock Exchange that corporate governance measures do not significantly affect return on equity and return on assets of manufacturing companies in Sri Lanka.

Researchers also focused on the issue of 'CEO duality and firm performance', but the empirical studies have been very contradictory and conflicting (Boyd, 1995). Elsayed (2007) uses both industry parameters and performance measures from the listed firm of Egypt and found that CEO duality does not impact on the firm performance and concluded that it depends on the type of industry and varies across industries. Ya'acob (2016) has found that there is a positive association of CEO duality on compensation and compensation schemes.

### Research gap

There are very few studies that have focussed on a particular industry excluding the overall sector wise distribution expect like banking, finance or manufacturing. This study is therefore unique in the context of the Indian manufacturing industry. This hypothesis addresses several aspects of board of directors (BODs) governance in the context of India with a special focus on the country's manufacturing sector. Previous studies indicated the activity of BODs in satisfying the needs of good corporate governance.

### Objectives of the study

- To study the present situation of corporate governance situation in manufacturing firms in India.
- To test whether corporate governance variables influence the firm value;
- To test the differentiation in the corporate governance practices among manufacturing companies.

### Theoretical background and research hypotheses

An interesting question in the finance literature is whether the corporate governance practices of an individual firm influence its market value. Many studies have been done, and a range of conclusions have been reached (Black 2001; Daniel and Kim 2002; Gompers, Ishii and Metrick 2003)<sup>[3]</sup>. According to a McKinsey & Co. survey, investors following a growth strategy were unconcerned with corporate governance, but those pursuing a value strategy and investing in stable or undervalued companies were prepared to pay a premium for strong governance. These investors think that a company with sound corporate governance will perform better in the long run, that sound governance can lower risk, and that sound governance can draw in more investment (Agrawal *et al.* 1996). Even though there is a growing literature on governance issues such as board composition, board leadership structure the results are unclear with respect to firm performance (Dalton *et al.* 1998)<sup>[14]</sup>. Many studies that have demonstrated positive relationships between variables of interest and firm performance, when meta-analytically reviewed show negative relationships and no statistically significant relationship at all (Dalton *et al.* 1998)<sup>[14]</sup>.

The diversity of results can be partly explained by differences in the theoretical perspectives applied, selected research methodologies, measurement of performance and conflicting views about the board involvement in decision making and to some extent the contextual nature of the individual firm. Even studies based on the integrative models encompassing board involvement, incorporating different theoretical perspectives and various board attributes such as board size, board composition and number of non-executive directors on the board provides inconclusive results, suggesting that corporate governance has, at least an indirect effect on the company performance (Zahra and Pearce 1989; Jonnergard *et al.* 1995 and Maasen 1998)<sup>[36]</sup>. However, many variables have commonly used in the literature as the indicators of corporate governance: Board size, Board composition, multiple classes of shares, number of meetings attended by directors, number of meetings held in a year, the existence of various committees like audit committee, remuneration committee and the like. Amongst all the above-mentioned variables, the researcher here chose only board size and board composition as corporate governance indicators.

**Board size and firm value**

Historically, board size ranged from a very small (5 to 6) to very large (30 plus). A number of studies (Conference Board, 1962,1967; Gordon, 1945) [10, 11] have found that the average size of board has remained the same in between 12 and 14 for the last 50 years or so. According to Vence (1983), "... there have been no reputable studies which show that the size of board increases proportionately to size of capital, net assets or even sales." Kathuria and Dash (1999) argue that firm's performance increases if the board size increased but the contribution of an additional board member decreases as the size of the board increases. Business Today in association with the Association of Indian Management Schools (AIMS, 1997) reports that there exists a positive and close relationship between the board size and firm value. Based on the above literature, the following testable hypotheses are framed:

**Ho:** Board Size does not influence the firm value

**Board composition and firm value**

Board consists of two different types of directors, executive and non-executive. Executive directors are responsible for the day-to-day affairs of the company. They have direct responsibility for business functions such as finance and marketing (Weir and Laing, 2001). They are full time employees of the company and have clearly defined roles and responsibilities. However executive directors are not in a strong position to monitor or discipline the CEO (Daily and Dalton, 1993) [13]. It is therefore important that there is a mechanism to monitor the actions of the CEO and executive directors and to ensure that they pursue shareholder interest. If non-executive directors were effective monitors, this should result in improved corporate performance. However, two recent US studies have found that this is not to be the case. Given the evidences on the corporate governance structures impact on firm value both in developed and developing countries, as shown above, the researcher have formulated the following hypothesis.

**Ho:** Board Composition does not influence the firm value

**Research methodology**

**Data and Sample**

The study focuses on Indian manufacturing companies listed on National Stock Exchange for the time period of five years from 2016- 17 to 2021-22. The data is secondary and is collected from the Prowess database of maintained by Centre for Monitoring Indian Economy. There were only 50 manufacturing firms listed in NSE were considered for the purpose of present study. The dependent and independent variables of the study are as follows

**Dependent Variables (Firm Performance Measures)**

- Return on Assets (ROA=PBDIT/Total Assets)
- Tobin Q [Total assets + market capital is action-book value of equity – deferred tax liability)/Total assets]

**Independent Variables (Corporate Governance Measures)**

- Board Size (Total Number of Directors on Board)
- Board Independence (BI)
- Board meetings (BM)

**Control Variables (Firm specific variable/control variables)**

- Leverage (Lev) Borrowings/Total assets
- Firm age (Age) Total number of years of a firm since its incorporation
- Growth (Gro) Growth in net sales over that of previous year
- Firm size (Size) Natural log of company's sales

**Analysis and discussion**

The below Table presents the descriptive information about sample manufacturing firms listed in NSE. For all the variables means, medians, standard deviations and minimum and maximum values are computed.

**Table 1:** Descriptive Statistics

Variable	Mean	Median	Standard Deviation	Minimum	Maximum
Board Size	8.75	8.00	3.00	2.00	23.00
Board Composition (%)	0.01	0.00	0.04	0.00	0.56
Age (years)	29.14	22.00	20.11	4.00	137.00
Financial Leverage (%)	3.08	2.49	3.82	0.01	47.83
Asset Tangibility (%)	0.41	0.41	0.20	0.01	0.94
Log Sales	1.88	1.90	0.91	2.22	5.13
Firm Value	2.11	2.04	0.78	0.07	4.97

Source: Data taken from the annual reports of sample manufacturing firms listed at NSE

One of the objectives of the study is to find out the impact of corporate governance on the firm's value. For this purpose, the total sample of 30 firms were classified into two categories, namely manufacturing firms and non-manufacturing firms. Manufacturing firms are define as those firms whose revenue are coming more than 50% from manufacturing activities and non-manufacturing firms are those firms whose revenue is coming from largely non-manufacturing activities. The firm value (natural log) of these sample firms was computed using Tobin's Q (the computational procedure is explained the methodology section). The significant difference in the firm value and other variables of importance of these two categories of the firms was tested using a t-test, the results of which are reported in the Table No.3.

**Table 2:** Difference of Means Test

	Manufacturing Firms	T-statistics
No of Firms	1028	
Board Size	8.64	1.01**
Board Composition	0.01	-1.59
Age	29.58	-0.60
Financial Leverage	3.05	0.20
Asset Tangibility	0.40	1.55
Log Firm Value	2.15	-1.25
Log Sales	1.94	-1.96

Source: Data taken from the annual reports of sample manufacturing firms listed at NSE. df = 769; \* p>.01 \*\* p>.05

As shown in the table, the average firm value as computed using the Tobin's Q method is found to be not significantly different for manufacturing firms and non-manufacturing firms. This difference was not significant t (769) = -1.25, p>.05 this finding reflects a totally different scenario in the firm value determination based on the activity of Indian firms. One possible reason for such a peculiar finding might

be the fact that the firms were classified based on the 50 per cent revenue arising from that of a manufacturing activity. Perhaps, the findings might vary if some other criteria for the classification of firms are taken, say, fixation of a 60 per cent. But at the same it is observed that there is a significant difference in the average shareholding between manufacturing and non-manufacturing firms.

The study's second goal is to determine whether there are any notable distinctions between the corporate governance structures of manufacturing and non-manufacturing enterprises. For this reason, it was assumed that companies in these two categories would have different corporate governance structures. According to the literature, researchers have determined two key variables, including board size and board composition (measured in terms of proportion of non- executives directors). Interesting observations may be drawn from the mean values for manufacturing firms and non-manufacturing enterprises for each corporate governance characteristic shown in the above table. The average board size and board composition are two corporate governance criteria that differ significantly between manufacturing and non-manufacturing enterprises. As it is evident, the mean board size for manufacturing firms is 8.64 while it is 8.85 for non- manufacturing firms. Hence board size is an important corporate governance factor differentiating manufacturing firms and non-manufacturing firms. The second factor, board composition has the mean value of 0.001 non-executive directors for manufacturing firms and 0.001 for non- manufacturing firms and the difference is not statistically significant.

**Table 3:** Correlation Matrix

Variable	FV	BS	BC	LS	Age	FL	AT
Firm Value (log)	1						
Board Size	0.60**	1					
Board Composition	0.09**	0.02	1				
Sales (log)	0.31**	0.09**	0.18**	1			
Age	0.27**	0.03	0.17**	-.05	1		
Financial Leverage	-0.06	-0.01	-0.05	-.01	-.02	1	
Asset Tangibility	0.074	-0.07	0.07	-.08	.01**	-.01	1

Source: Data taken from the annual reports of sample manufacturing firms listed at NSE.

\*correlation is significant at 0.01 levels \*\*correlation is significant at 0.05 levels

From the above table it is observed that there is a strong positive correlation between firm value and board size, followed by sales, and sales have a positive correlation. Asset tangibility and financial leverage have a negative correlation. In order to find out the significant influence of the corporate governance components on the determination of firm value after controlling the firm performance variables such as sales, asset tangibility and financial leverage, all the variables were submitted for the Multiple Regression Analysis (MRA) and the coefficients, which indicate the amount of significance in respect of each of the selected factors. The firm-type was measured on a dummy coded measurement representing '1' for manufacturing firms and '2' for non- manufacturing firms. The Board size was measured as the actual number of directors (inclusive of both executive and non-executive directors in the board of a firm). The Board composition was measured as the proportion of non- executive directors in the board of a firm). The variable sale was measured as the average sales (natural log) for the last seven-year period.

**Table 4:** Regression analysis (RA) Corporate Governance Component factors and Firm Value

	Model- 1	Model – 2
Intercept	0.480 (.15)	0.340 (.07)
Board size	0.160* (.008)	0. (.005).
Board composition	1.490 (.64)	0.77 (.36)
Age		.002* (.001)
Financial Leverage		-0.005 (.003)
Asset Tangibility		0.180*** (.060)
Log Sales		0.66* (.02)
Adjusted R2	0.369	0.797
ANOVA- F value	150.89*	431.98*

\*significant at 0.01 levels; \*\*significant at 0.05 levels; \*\*\*significant at 0.10 levels standard errors are reported in parentheses

As can be seen from the above table, when these variables are corrected for the variables affecting company performance, it is discovered that Corporate Governance aspects have a considerable impact on the business value. Age, sales, and asset tangibility are discovered to be the controlling variables that contribute to the firm value. The development of this trend is intriguing. At the.01 level, the total model is significant, and the F-values are given. It is important to keep in mind how the study's variables were defined when analysing the outcomes of these models. For example, in this study the value for sales as one of the 'financial performance' variables is defined as the average sales of a firm over the last ten year period instead of the usual measurement of logarithm of sales. Perhaps, future studies should attempt to analyses the same data but taking the log sales of the firm to test the applicability of the model in the Indian context.

**Conclusion**

This study was conducted in order to identify the role of corporate governance in the performance of firms' with special reference to manufacturing firms of India. The goal was to analyses how corporate governance affects how much a corporation is worth. The study also sought to examine the notable variations in corporate governance traits among Indian manufacturing companies. Only two of the many criteria that have been identified as corporate governance components were used in the study. This indicates a relationship between board size and firm value. Also, further investigation along this path by scholars in the future will shed additional light on this important problem.

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