International Journal of Applied Business and Economic Research

ISSN : 0972-7302

available at http: www.serialsjournals.com

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Volume 15 • Number 22 • 2017

Effect of Mandatory Corporate Governance Disclosures on Firm Performance: A Study of Indian Manufacturing Sector

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ABSTRACT

High profile corporate scandals like Enron, Arthur Anderson, WorldCom, and One. Lehman Brothers, AIG Insurance, Xerox, Bear Stearns, Tyco etc shook the investor's confidence on the corporate world, following which regulators round the world came up with more stringent governance regulations demanding higher disclosure from the firms.

To study the effectiveness of the corporate governance disclosure regulations we try to answer the question whether the mandatory disclosures can restore the investors' confidence and enhance the accountability of the management or is it just a box ticking exercise to be followed by the firms. If the investors' confidence is reposed, they will be willing to invest in the firm thereby the market value of the firm should increase. Secondly if management is made accountable, self dealings should be reduced and should invest in profitable projects thereby increase the accounting profitability of the firm.

Hence, we investigate the relationship between firm level mandatory corporate governance disclosures on market based and accounting based firm performance by taking Tobin Q and price to book value ratio as proxies of market based performance and ROA (return on assets) as a measure of accounting based firm performance in an emerging market like India. Taking a panel data of listed firms in manufacturing sector in India, for the period 2003 to 2013,using fixed effects regression model controlling for firm fixed effects and year fixed effects, we find an economically important and statistically significant relation between corporate governance practices and firm performance.

Given the scant literature available for emerging markets, we contribute to the body of knowledge by examining the effect mandatory disclosure practices of Indian firms on firm performance. It is expected that

the findings of this work facilitate in understanding the significance of corporate governance in increasing the firm performance.

Keywords: Corporate governance, disclosures, index, firm performance.

1. INTRODUCTION

Capital market is one of the determinants of economic growth of a country. Growth of the capital market depends on the principles of transparency and accountability of the firms. Sir Adrian Cadbury stated "Corporate Governance is holding the balance between economic and social goals. The governance framework is to encourage the efficient use of resources, its accountability and finally its stewardship. The aim is to align as nearly as possible the interests of individuals, corporations and society. The incentive to corporations is to achieve their corporate aims and to attract investment and the incentive for states is to strengthen their economics and discourage fraud and mismanagement" (Sir Adrian Cadbury, 1992). Good corporate governance practices are established to increase the efficiency resource allocation, thus enabling firms to survive and generate returns that are sufficient to retain the commitment of the salient stakeholders (Strange, et. al., 2009).

Ever since a spate of corporate scandals like Enron in U.S (United States of America), and HIH in Australia shook the investor's faith on the corporate world, corporate governance gained momentum and to set the principles, processes, policies in place in order to ensure proper management of firms for efficient accountability to all stakeholders. Hence there are a plethora of corporate governance regulations around the world demanding higher disclosures from corporate to re-establish investor's confidence on the corporate world.

Corporate governance is not new to India. It dates back to "Arthshastra" written by Chanukya before Christ (BC) according which all administration, including the king were considered to be the servants of the people. Following Sarbanes Oxley Act in United States, SEBI (Securities and Exchange Board of India), introduced clause 49 to the listing agreement in 2003 which prescribes a number of disclosures to be made by listed companies to enhance transparency and integrity to financial statements. Later it is modified and revised from time to time and became mandatory to all listed companies in India since 2006.

Most literature on corporate governance pertains to developed countries like United States and United Kingdom and less attention is given to emerging markets like India. Though the economic, market and cultural scenarios are different for United States and India, both Sarbanes Oxley Act and clause 49 mandates similar of disclosure requirements. According to Chakrabarti et. al., (2008) approximately 60% of the 500 largest firms (65% of market capitalization) in India are part of family-owned-firms Apart from concentrated ownership the dominance of diversified business groups, lack of shareholder activism, rare hostile offers are prevalent in India. Hence the rationale of corporate governance in India is disciplining the majority share holders and protecting the minority shareholders as against protection of the rights of dispersed shareholders from the management in case of United States. Hence what is true for United States cannot be generalized to India.

Considering the function of corporate governance being different for a developing country like India from United States, we propose to study the effectiveness of clause 49 disclosures made by Indian firms.

We argue that corporate governance disclosure regulations to be effective should not be just another routine box ticking exercise to be followed by the firms but should be able to restore the investors' confidence on corporate and enhance the accountability of the management. If the investors' confidence is reposed, they will be willing to invest in the firm thereby the market value of the firm should increase. Secondly if the disclosures are able to reduce the information asymmetry, management is made more accountable to the shareholders thereby reduce the self dealings and invest in profitable projects, which can an effect of increasing accounting profit of firm.

During our study period 2003-2013 manufacturing sector being the back bone of the economy played a predominant role. Secondly Make in India initiative launched by Prime Minister in September 2014 aimed at making India a manufacturing hub to bring economic transformation in India makes it another interesting aspect to study this sector.

Hence, we investigate the relation between firm level mandatory corporate governance disclosure practices adopted by firms in manufacturing sector on market based and accounting based performance by taking Tobin Q and price to book value ratio as proxies of market based performance and ROA (return on assets) as a measure of accounting based performance in an emerging market like India.

Research in the area of corporate governance has expanded less into emerging markets and even less so to developing countries, and much work still refers to situations in developed Countries, in particular the United States (Claessens and Yurtoglu, B. B. 2013).Given the scant literature on emerging markets, our study contribute to the body of literature by providing an independent evidence for a developing market i.e India about the effect of corporate governance disclosures on firm performance. The results can be useful to policy makers who consistently try to make effective regulations.

The remaining paper is organized as follow. In section 2 of this study we will cover the brief literature review and hypotheses development while sample, research methodology and descriptive statistics are covered in section 3 and section 4 will cover the results and analysis and section 5concludes and indicates implications and limitations.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Literature Review

Gompers et. al., (2003) taking 24 Provisions relating shareholders' rights and takeover defenses construct a 'Governance Index' (G-Index) a measure of corporate governance. Taking a sample of large 1500 U. S firms, they find that firms with stronger shareholder rights have higher firm value and higher profits.

Bebchuk *et. al.*, (2004) construct entrenchment index of U.S firms for the years 1990-2003 based governance provisions like staggered boards, limits to shareholder bylaw amendments, supermajority requirements for mergers, supermajority requirements for charter amendments, poison pills and golden parachutes, find a negative relation between entrenchment index and market valuation.

Brown and Caylor (2006) create corporate governance score Gov-Score for 1868 U.S firms based on 51 firm specific governance provisions and using regression analysis they found a positive and significant relation between Gov-Score and market valuation.

Research in the area of corporate governance has expanded less into emerging markets and even less so to developing countries, and much work still refers to situations in developed Countries, in particular the United States (Claessens and Yurtoglu, B.B. 2013). The indices developed in above stated studies consist of takeover provisions which are not in practice in emerging markets like India. Very little research is found in emerging markets.

Black *et. al.*, (2006) extended their research to Korean market and constructed a corporate governance index for 515 Korean firms listed Korea Stock Exchange using a survey method and identified a positive relation between corporate governance index and market valuation.

Heibatollah Sami, Justin Wangb, Haiyan Zhou (2011) construct composite corporate governance index of Chinese firms and found a significant positive association with firm accounting and market performance.

As per the research on Indian corporate governance is concerned, N. Balasubramanian, Bernard S. Black and Vikramaditya Khanna, (2009), constructed unweighted corporate governance Index to identify the relationship between corporate governance index and firm performance. Using OLS method with an extensive set of control variables found that firm-level governance is associated with higher *ln* (Tobin's *q*).

Pankaj Varshney. Vijay Kumar Kaul and V.K. Vasal (2012) construct corporate governance index based on internal and external factors for firms listed in India. Using panel data regression, pooled OLS and random effects models, they found a significant relation between corporate governance index and firm performance measured by EVA.

Jayanti Sarkar, Subrata Sarkar and Keustav Sen (2012) construct an un weighted corporate Governance Index for Indian firms. Using Fama –French three factor model they find a strong association between corporate governance index and market performance of firms.

Though a number of studies were conducted to find the nexus between corporate governance disclosures on firm performance, they did not distinguish between mandatory disclosures and voluntary disclosures. To fill in the gaps, we study the effect of mandatory corporate governance disclosures made by Indian manufacturing firms on firm performance with specific reference to clause 49 of the listing agreement of SEBI.

2.2. Hypotheses Development

Shleifer and Vishny (1997) defined corporate governance as the ways and mechanisms, in which agency costs are minimized so that the interests amongst members of the supervisory/executive board and the shareholders are aligned. Hence we argue that, as corporate governance acts as a means to lower agency costs, greater corporate governance disclosures reduce asymmetry of information and hence leads to higher performance. Further Mckinsey survey conducted in 2002, found that investors were willing to pay a premium of up to 25% for a well governed company. Hence there can be an increase in the market performance of a well governed firm. Prior literature suggest that better corporate disclosures are associated with lower cost of equity capital (Botosan, 1997), reduction of the cost of debt (Sengupta, 1998), and reduction in the estimation risk or uncertainty regarding the distribution of returns (Richardson and Welker, 2001). Hence we argue that reduction in cost of capital and risk can increases the accounting performance of firm making better corporate governance disclosures.

In our analysis, we have considered both market based and accounting based performances.

Hence, we formulate the following hypotheses.

Ha1: Mandatory corporate governance disclosures positively affect market based firm performance.

Ha2: Mandatory corporate governance disclosures positively affect market based equity performance.

Ha3: Mandatory corporate governance disclosures positively affect accounting based firm performance.

We use Tobin's Q and price to book value ratio to measure market based firm and equity performance and return on assets to measure accounting based performance.

Corporate governance is a qualitative feature. Prior research attempted to quantify the corporate governance disclosure practices adopted by firms by constructing corporate governance index. There is no theoretical structure or laid out guiding principles for the construction of corporate governance index, it is measured in diverse ways in literature. As the aspects covered for index construction varied, there is a wide variation in the governance index constructed by different researchers. Also we find from literature, studies conducted by Samaha, K., et. al., (2012) have given equal weightage to all the governance aspects and Fallatah and Dickins (2012) have given different weights to different governance aspects of governance in index construction. On the other hand Zheka(2007) and Black, De Carvalho and Gorga (2010) have taken average score.

The allocation of weights to different corporate governance aspects is more subjective than objective. If the weights allotted are inconsistent to the weights used by informed market participants, there is a danger of drawing incorrect inferences. Black et. al., (2006) argue that there is large divergence in the extrapolative power of different Indices, as well as the components included in the indices.

Prior research did not create country specific index as per regulation to check the effectiveness of the regulation. To fill in the gap, we create corporate governance index as taking the attributes of the index as required by clause 49 of the listing agreement of SEBI. Clause 49 covers main attributes such as board of directors, code of conduct, audit committee, remuneration committee, shareholders committee, general body meetings, disclosures, CEO/CFO certification, compliance report and general shareholder information. Under each attribute the sub attributes differ. Hence to overcome the problem of subjectivity in allocation of weights, we have given equal weights to each sub attribute there by the weights allocated in our index construction following legislative mandate.

To measure corporate governance disclosures at firm level, following Black (2006) we construct a country specific corporate governance index, for mandatory disclosures basing Clause 49 of the listing agreement of SEBI (Securities Exchange Board of India).

3. SAMPLE, METHODOLOGY AND DESCRIPTIVE STATISTICS

3.1. Sample

Manufacturing sector is the back bone of Indian economy. Prime minister's 'make in India' programme is gaining momentum and hence manufacturing sector in India provide an interesting setting for study. We conducted our study on Indian listed firms in manufacturing sector which falls under section C of the broad structure of National Industrial classification (NIC) 2008 as specified by Central Statistical

Organization, Ministry of Statistics and Programme Implementation, Government of India. To avoid survival biasness, our sample consists of firms that had consistent listing status from 2002-2003 to 2012-2013.

Out of all the listed and permitted firms in manufacturing sector there are 970 firms which had listing status consistently for all the 11 years period of study. We visited the websites of all these firms and other depositories for the annual reports from. 2002-2003 to 2012-2013. We found only 87 companies in manufacturing annual reports from 2002-03 to 2012-13 in their websites. Most of the company's websites contained annual reports from the year 2006. The reason could be that SEBI made it mandatory for the firms to keep soft copy of their annual reports in their websites only from 2006.The other reason could be that is mandatory for the Indian firms either under Income Tax Act 1961 and Companies Acts 1956 and 2013 to keep past records for a period of 8 years. Non availability of earlier records is a limiting factor here. We were able to access the annual reports of 87 firms for all the 11 years of our period of study. The total market capitalization of all the firms (970) in manufacturing sector for the year for the year 2002-2003 (base year for our study) was ₹22, 45 billion out of which the total market capitalization of the 87 firms for which annual reports are available was ₹12, 46 billion i.e. 55.49% of the total market capitalization of the firms in manufacturing sector. Our sample consists of 755 firm years.

Our data for index construction is taken from annual reports, management discussion analysis and corporate governance reports from the websites of the firms. Other required data is taken from CMIE Prowess data base.

3.2. Methodology

As there is no conceptual framework or prescribed guidelines for index construction, this construct is measured differently by different authors in literature. Following Black (2014), to create country specific governance Index, we took all the parameters given in Annexure I of clause 49 of the listing agreement of SEBI which need to be mandatorily filled in and filed by all the listed firms for our index construction. The main parameters include board of directors, audit committee, shareholders committee, shareholders information, compliance certification; code of conduct etc. Each parameter consists of unequal number of sub parameters. In total there are 52 sub parameters. To overcome the problem of subjectively giving weightage, we have given equal weightage to all the sub parameters there by ended up in giving weight age to the parameters as prescribed by clause 49. This makes our CG index sensitive to the local institutional arrangements. A dichotomous procedure is followed and a score of 1 is awarded to the company if the company has disclosed and a score of 0 if it has not disclosed that particular sub parameter. Though scoring is done on all the 52 sub parameters, at the time of analysis, we removed the sub parameters where the variance is zero and finally took the index on 37 sub parameters for our analysis purpose.

To make the indices comparable we convert them to a standard normal distribution (mean 0 and standard deviation 1). We then combine all the standardized indices to get combined index. Index is calculated using the formulae followed by Bhuiyan and Biswas (2007) which is stated below.

$$\text{Corporate governance Index} = \text{Company Score} \times 100/\text{maximum possible score}$$

We use the following models for our regression analysis

$$\text{Tobin } Q_{it} = \alpha + \beta_1 \text{ CGI}_{it} + \beta_2 \text{ Group} + \beta_3 \text{ Group} \times \text{CGI}_{it} + \beta_4 \text{ Growth}_{it} + \beta_5 \text{ LEVERAGE}_{it} + \beta_6 \text{ Size}_i + \beta_7 \text{ P Holding}_{it} + \beta_8 \text{ Age} + \beta_9 \text{ RD/Sales}_{it} + \beta_{10} \text{ SD/Saes}_{it} + \beta_{11} \text{ Exports/sales}_{it} + \beta_{12} \text{ HHI}_{it} + \varepsilon_{it}$$

$$\text{PB}_{it} = \alpha + \beta_1 \text{ CGI}_{it} + \beta_2 \text{ Group} + \beta_3 \text{ Group} \times \text{CGI}_{it} + \beta_4 \text{ Growth}_{it} + \beta_5 \text{ LEVERAGE}_{it} + \beta_6 \text{ Size}_i + \beta_7 \text{ P Holding}_{it} + \beta_8 \text{ Age} + \beta_9 \text{ RD/Sales}_{it} + \beta_{10} \text{ SD/Saes}_{it} + \beta_{11} \text{ Exports/sales}_{it} + \beta_{12} \text{ HHI}_{it} + \varepsilon_{it}$$

$$\text{ROA } Q_{it} = \alpha + \beta_1 \text{ CGI}_{it} + \beta_2 \text{ Group} + \beta_3 \text{ Group} \times \text{CGI}_{it} + \beta_4 \text{ Growth}_{it} + \beta_5 \text{ LEVERAGE}_{it} + \beta_6 \text{ Size}_i + \beta_7 \text{ F Holding}_{it} + \beta_8 \text{ Age} + \beta_9 \text{ RD/Sales}_{it} + \beta_{10} \text{ SD/Saes}_{it} + \beta_{11} \text{ Exports/sales}_{it} + \beta_{12} \text{ HHI}_{it} + \varepsilon_{it}$$

Where the dependent variables are:

Tobin's Q measured as the market value of equity stocks plus book value of debt and divided by total assets, PB is the ratio of market value of equity stocks to book value of equity stocks and ROAQ is Ratio of operating profits to total assets.

Our independent variable is CGI Self constructed corporate governance index.

Following previous research we control for:

Group is dummy variable that takes a value 1 for firms that belong to a business group.

Growth is the growth rate measured as current year sales minus previous year's sales/previous year's sales.

LEVERAGE is measured as Ratio of book value of total borrowings to book value of total assets.

Size is firm size measured as measured as log of total assets.

F Holding is percentage of outstanding shares held by promoters.

Age is log of firm age since incorporation measured in number of years.

RD/Sales is research & development divided by sales. If R&D values are missing, we replace with 0.

SD/sales measured as selling and distribution expense divided sales. If S&D values are missing, we replace with 0.

Export/Sales measured as sales from export divided by total sales.

HHI is Industry Herfindahl index calculated as the sum of squared market shares of firms' sales and I dente firm and *t* denote year

We use panel data regression fixed effects model in which we also include firm fixed effects to control for unobserved, time-invariant firm characteristics and time-fixed effects to address variation over time, but that is common to all firms to test the effect of corporate governance on firm performance. Further we use standard errors that are robust to heteroskedasticity and clustered at the firm level.

3.3. Descriptive Statistics

Table 1
Descriptive statistics (Un standardized Data)

	Mean	*Std deviation*	*Max*	*Min*
Board index	5.89	0.38	6.00	3.00
Audit index	6.56	0.73	7.00	4.00
GM Meeting	4.45	1.79	6.00	0.00
Disclosure Index	9.41	1.20	11.00	6.00
Remuneration Index	3.26	1.80	5.00	0.00
CG Index	29.57	4.33	35.00	18

Table 1 illustrates descriptive statistics for CG index and its sub indices using unstandardized values. We find a substantial variation in CG Index and each sub-index. Though clause 49 is made mandatory for all listed firms from 2006, there is a substantial variation in the disclosures made by listed firms. The mean (standard deviation) value of CG index is 29.57 (4.33).

Table 2
Correlation Matrix

Variable	*Board index*	*Audit index*	*Remuneration Index*	*GM Meeting Index*	*Disclosure Index*
Board index	1				
Audit index	0.391	1			
Remuneration Index	0.218	0.427	1		
GM Meeting Index	0.264	0.368	0.423	1	
Disclosure Index	0.222	0.29	0.442	0.452	1

Table 2 is the correlation matrix of sub indices. We find positive but not substantial correlations between the sub indices. We find maximum correlation of. 45 between general meeting index and disclosure index. At a later stage, we calculated variance inflation factor to test multi colliniarity.

Table 3
Descriptive statistics of variables

Variable	*Mean*	*Median*	*Maximum*	*Minimum*	*Std*
Tobin Q	2.21	2.11	5.29	.42	1.06
ROA	0.17	0.15	0.58	–0.19	0.09
Price to Book	1.71	1.56	53.81	0.00	2.77
CG Index	0.07	0.75	5.14	1.18	4.63
Growth	0.24	0.16	21.16	–0.97	0.96
leverage	0.27	0.27	0.76	0.00	0.16
Size	6.63	6.53	12.67	2.28	1.85
Founder Ownership	51.99	51.15	95.57	8.38	16.03
Age	37.43	29.00	107.00	4.00	22.26
RD/Sales	0.01	0.00	0.16	0.00	0.02
SD/Sales	0.06	0.04	0.39	0.00	0.05
HHI	0.08	0.05	0.43	0.01	0.06
Export/sales	0.23	0.10	1.28	0.00	0.28

Table 3 gives the descriptive statistics of the variables under study. The mean (median) values of our dependent variables Tobin's Q, PB, and ROA, is 2.21 (2.11), 1.71 (1.56) and 17% (15%) respectively where as the mean (median) of our independent variable i.e corporate governance index is 0.07(0.75). Substantial variation in the control variables is found.

Table 4

Variable	*Tobin q*	*ROA*	*PB*	*CG Index*	*Growth*	*lev*	*Size*	*FO*	*Age*	*RD/ Sales*	*SD/ Sales*	*HHI*	*Export/ sales*
Tobin Q	1.00												
ROA	0.53	1.00											
PB	0.76	0.40	1.00										
CG Index	0.13	0.01	0.24	1.00									
Growth	0.00	–0.01	0.01	–0.01	1.00								
lev	–0.39	–0.39	–0.20	–0.02	–0.03	1.00							
Size	0.22	–0.09	0.33	0.39	0.01	0.07	1.00						
FO	0.13	0.12	0.10	0.14	–0.02	–0.06	–0.28	1.00					
Age	–0.13	–0.18	–0.08	0.07	–0.07	0.03	0.36	–0.27	1.00				
RD/Sales	0.19	–0.04	0.17	0.15	–0.02	–0.02	0.18	–0.08	–0.06	1.00			
SD/Sales	0.20	0.04	0.16	0.00	–0.07	0.06	0.10	0.02	–0.01	0.08	1.00		
HHI	–0.02	–0.02	0.00	0.09	0.03	–0.06	0.02	–0.02	0.02	–0.22	–0.09	1.00	
Export/sales	0.13	0.01	0.06	0.10	0.12	0.00	0.12	–0.10	–0.22	0.24	–0.21	0.03	1.00

Table 4 to find the general relationships between variables we construct Pearson correlation matrix as reported in Table 4. Bold numbers represent significance at 5% level. Corporate governance is positively correlated Tobin's Q and price to book value ratio. ROA is positive but not significant. Size and age are positively correlated with corporate governance index demonstrating that large and old firms adopt good governance practices.

4. RESULTS AND ANALYSIS

Table 5
Variable

	Tobin Q	*VIF*	*LPBR*	*VIF*
Intercept	–1.43		14.88**	
	–0.22		2.34	
CG Index	0.04**	3.8	0.08***	3.8
	2.52		5.35	
Group	5.73	1.61	–10.95**	1.61
	1.06		–2.12	
Group* CG Index	–0.03**	3.89	–0 07***	3.88
	–2.28		–4.9	
Growth	0.02	1.03	0.01	1.02
	0.79		0.42	

	Tobin Q	*VIF*	*LPBR*	*VIF*
lev	–1 09***	1.04	–0.09	1.04
	–4.64		–0.37	
Size	–0 32***	1.99	–0.01	2
	–5.67		–0.19	
F Holding	0.02***	1.23	0.01***	1.23
	4.75		4.19	
Age	0.05	1.37	–0.20***	1.37
	0.58		–2.47	
RD\Sales	–4 07***	1.2	–6 90***	1.21
	–2.33		–4.69	
SD\Sales	0.48	1.1	–0.49	1.1
	0.49		–0.77	
HHI	–0.3	1.09	1.34*	1.09
	–0.43		1.8	
Export\Sales	–0.08	1.28	0.16	1.28
	–0.28		0.61	
Firm Fixed effects	Yes		Yes	
Year Fixed Effects	Yes		Yes	
Adjusted R2	0.8		0.8	
N	755		755	
F Value	34.56		30.89	

Table 5 gives the empirical findings of our panel data fixed effects regression. We report the coefficient and *t* statistic in the parenthesis. We find that the coefficient of *CG index* is positive and significant at 5% level for *Tobin's Q* and 1% for LPBR signifying that firm level market based equity performance is more sensitive to good corporate governance practices than overall market based firm performance. The results leads us to the conclusion that good governance practices lead to higher market based firm value and equity value. Further we find that one standard deviation increase in *CG Index* contributes to 12% of standard deviation in firm performance *(Tobin's Q*), whereas 33% of standard deviation in equity performance (*PB*).

One concern with our analysis is that corporate governance and firm performance can be endogenously determined. Following Dahya et. al., 2008, we used lead of dependent variable relative to independent variables and in unreported results, we find qualitatively similar results as reported in Table 5.

Adjusted R squared value. 8 indicates that the model is a good fit. We further calculate VIF which is less thann10indicating that multicollinearity is not a matter of concern here.

Table 6 report the results of fixed effects regression of corporate governance index on accounting based performance i.e., ROA. Here also we find that corporate governance index has a positive and significant effect on ROA at 10% level. This can be due to the fact that good governance practices bring about transparency and hence reduce agency costs. Adjusted R squared value is. 8 indicating that our model is a god fit.

Table 6
Variable

	ROA	*VIF*
Intercept	1.11*	
	1.61	
CG Index	0.01*	3.8
	1.83	
Group	–0.6	1.61
	–1.07	
Group* CG Index	–0.01**	3.89
	–2.49	
Growth	0	1.03
	0.83	
lev	–0 19***	1.04
	–7.98	
Size	–0.02***	1.99
	–3.78	
F Holding	0.01*	1.23
	1.87	
Age	–0.01	1.37
	–1.19	
RD\Sales	–0.65***	1.21
	–3.43	
SD\Sales	–0.12	1.1
	–1.72	
HHI	0.06	1.09
	0.71	
Export\Sales	0.05**	1.28
	2.23	
Firm Fixed effects	Yes	
Year Fixed Effects	Yes	
Adjusted R2	0.8	
N	755	
F Value	15.95	

Consistent with Harris and Raviv (1988), we find a significant negative coefficient of leverage. This could possibly because with stricter debt covenants and increase the likelihood of bankruptcy and credit risks firms may shun away from investing in profitable investment opportunities.. Similar to Kumar N. & Singh J. P. (2013) we find a significant positive association of promoter ownership with firm performance as founder owner may be motivated to improve firm performance, since his financial and human capital both are positively related to firm performance (Arregle et. al., 2007). Also consistent with Black et. al., (2006) and inconsistent with (Baumol, 1959), we find a significant negative coefficient with size as organizational inefficiency—called *x*-inefficiency (Leibenstein, 1966)—leads to loss of profit, a likely situation in larger

firms. Surprisingly, the coefficient of RD/Sales is negatively related to firm performance, suggesting that R&D intensive firms have lower performance compared to non-R&D intensive firms. The reason could be R&D treated as a proxy for intangibility of assets and intangible assets are valued less in the market than tangible assets

5. CONCLUSIONS

Overall, our empirical evidences exhibit that firm-level corporate governance practices improve firm performance, but contribute more in equity performance. Our results are robust to various proxies of firm performance along with firm and year fixed effects. Our regression model specifications explain almost 80% variation of firm performance, which shows statistical power of our regression models.

As per our analysis corporate governance practices improve market and operating performance of firms, It is hoped that the traits found from the analysis will be able to provide information concerning corporate governance to interested parties. The study could also help corporations to frame their short- and long-term strategies about governance. Performing an analysis of disclosure practices followed by firms in pre and post clause 49 and voluntary guidelines implementation will provide an input for the evaluation of the efficiency of both the regulations.

However our research is confined to manufacturing sector in India. Further research can be extended to other sectors as well.

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