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Does Corporate Governance Influence Firm Performance? An Emerging Market Evidence

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ABSTRACT

Prior studies have mostly concentratedon the developed markets with little evidence in developing or emerging markets where institutional settings and corporate governance standards are quite different. Our study attempts to fill this gap by analysing the impact of the corporate governance system on the performance of firms in the Indian context. Given the absence of any direct governance data available in the Indian context, we create a novel governance index followingthe work of Liao *et. al.* (2015) using the principal component analysis. We use the data set obtained from the Prowess database for the Indian firms belonging to group A firms of the Bombay Stock Exchange (BSE) for the time between 2009 and 2017. Our study finds that strong governance firms show a positive relationship between firms' performance and governance variables whereas weak governance firms do not show any kind of such relationships. This finding has important implications for investors, shareholders, regulators and other stakeholders.

Keywords: Corporate Governance, Emerging market, Governance Index, Firm Performance Institutional settings

JEL Codes: G3, G30

1. Introduction

Recently, corporate governance has started to receiveeven more attention from both regulators and academicians alike due to various corporate scandals taking place across the world in both developed as well as emerging markets. According to Fama and Jensen (1983), an organisation is considered as a mix of implicit and explicit contracts which define the role, duties and income of each agent in the firm. They further state that the survival of the firm depends upon catering to the needs of the customers at a lower price. These contracts attempt to converge the goals of different players in a corporate towards a common goal which is seen to serve the purpose of all stakeholders amicably. In the case of a sole proprietorship, the owner manages the firms without leading to any conflict of interest, however as non-owners are appointed to lead the firm, the conflict surfaces and can get very disturbing (Jensen and Meckling, 1976). Modern corporate entities have a separation of ownership and control. The agency problem is created because of the separation of ownership and control, the reason for the doubts created in the minds of funds providers arises due to key managerial decisions are taken by management and they need to be assured that their funds are being used properly for the wealth creation (Shleifer and Vishny, 1997). Therefore, the board of directors must be selected with due diligence and care as they are the ones who can minimise the conflict of interest (Bhagat and Black, 1998). To protect their interest, shareholders elect the board of directors who are in turn responsible to take care that management is doing its task keeping into consideration the long-term interest of the shareholders.

While there exists a large amount of literature available across various markets, empirical evidence has been mixed and contradictory (Boyd, 1995; Bhagat and Bolton, 2002; Carter*et al.*, 2003; Kiel *et al.*, 2003; Baek*et al.*, 2004; Chen *et al.*, 2006; Brown and Caylor, 2009; Ibrahim and Samad, 2011; Mollah*et al.*, 2012; Mitton, 2012; Mardnly*et al.*, 2018, Ciftci, *et al.* 2019 among others). Furthermore, much of the recent research done on the above subject is limited to developed markets with little evidence in developing or emerging markets where the level of sophistication of financial markets, institutional settings and socio-cultural environment are quite different from those in developed markets. This paper focuses on one of the emerging markets i.e. India. The major economic reforms in India were started in the early 1990s wherein liberalization, privatization and globalization were the main themes. In the process, the financial market also got a boost in that process. The stock market regulator, Securities and Exchange Board of India (SEBI) was established in 1992. In the late 1990s, SEBI set up the Kumar Mangalam Birla Committee that submitted its report in 2000. That was the first formal process of introducing a corporate governance system in India. The committee suggested the importance of independent directors and various committees to put a check on the actions of the management.

Our study adds to the existing literature in several ways. First, we shed light on the impact of the corporate governance system on the firms' performancefrom the perspective of an emerging market like India where institutional settings, information flows and corporate governance standards are quite different from those in developed markets (such as the US. UK, Canada etc.). In India, most of the businesses are owned by families as compared to the developed economies wherein institutional investors are the dominant players. We believe that cross country differences and level of sophistication of financial markets and investors require a concerted study on the emerging market such as India to develop an in-depth knowledge of therole of corporate governance. Secondly, given the absence of any direct governance data available in an Indian context, we create a novel governance index based on the past work of Liao *et. al.* (2015) using the principal component analysis (for classification into weak and strong corporate governance firms) thereby bringing important insights to literature from an emerging market perspective. The plan of the study is as follows. Section 2

discusses the literature; Section 3 specifies the sample data and econometric methods adopted; Section 4 details the findings and Section 5 provides the summary.

2. Review of Literature and Hypotheses

This section discusses the researches which have been conducted in the past and we classify this section into two parts. The first part discusses the studies about developed markets and the subsequent part highlights the same for emerging markets.

2.1 Developed Markets

Numerous studies have been conducted to analyse the relationship between corporate governance and a firm's performance for the developed economies. For instance, Boyd (1995) work is based on a sample of 192 firms in 12 industries. The results of his study provide partial support for both agency and stewardship perspectives. It states that a single point focus on current trends of separating CEO and chairmanship may not bring the desired results and on the contrary duality sometimes can step up the firm performance. The author recommends that proper analysis should be done regarding the potential benefits and costs of having the CEO as chairman before taking a final call on this decision as it affects the long-term performance of the firm. Similarly, Yermack (1996) examines the role of small boards on firm performance by using data between 1984-1991 for a set of US firms. This study documents a strong negative correlation between the board size and the value of the firm. Eisenberg*et al.* (1998) report that the problem of the big board in terms of communication and decision making is extended to the small companies as well.

Carter *et al*. (2003) define diversity in terms of the percentage of women or minorities on board. Their studyfinds that there exists a positive relationship between firm performance and board diversity. This result should encourage the firms to have diverse boards which will serve both the social goals as well as wealth creation objective of the firms. Baek*et al.*(2004) in their study analyse the impact of corporate governance systems on the value of the firms at the time of crisis using a sample of Korean stock exchange-listed firms. Their study document that the chaebols firms were heavily affected by the crisis as they saw a big drop in their values. On the other hand, firms with higher equity holdings by foreign investors and better disclosure quality are least affected by the crisis. It was also observed that there are higher chances that the chaebols may work towards achieving their objectives even at the cost of other stakeholders. Cheng (2008) examines the impact of the size of the board on the variability of firm performance. The basis for this study lies in earlier researches which suggested that larger board size may have communication problems and it generally leads to several compromises being made to reach a consensus. This study was conducted by taking data for the time between 1996-2004 and pertained to the firms that were covered under Investor Responsibility Research Centre (IRRC) database. The results of the study documented that the variability of the firm's performance and value decreases as the board size gets bigger.

Brown and Caylor (2009) examine the 51 governance provisions provided by Institutional Investor Services (ISS) and identified four provisions that are positively related to the operating performance of the firms' measure based on return on asset and return on equity. These provisions were defined by them as "(1) no former CEO serves on board; (2) non-employees do not participate in company pension plans; (3) CEO serves on no more than two boards of other public companies; and (4) auditors were ratified at the most recent annual meeting."

2.2 Developing Markets

Claessens and Djankov (1999) studied the 707 Czech Republic's firms by using the data between 1992-1997. They find that both profitabilities of the firm and labour productivity are higher for firms with more concentrated ownership of equity holdings. Similarly, Sarkar and Sarkar (2000) documented that a higher level of firm performance is associated with a higher concentration of ownership, thereby leading to convergence of interest rather than the conflict of interest for Indian firms. Further, it is observed that the value of the firm is positively related to managerial shareholding. Black (2001) tests how the value of the firms is affected by corporate governance practices by taking data for 21 Russian firms for September 1999. The study finds thatthere isa very high correlation between governance behaviour and a firm'smarket value. This paints a promising picture for firms in this country and all such countries which have weak governance system in a way that they can increase the value of their firms by adopting strong governance mechanism.

Mitton (2002) analyses the role of corporate governance in determining the value of the firm during the East Asian financial crisis of 1997-1998. The data is related to five emerging economies, namely, Indonesia, Korea, Malaysia, the Philippines, and Thailand. The study finds that the firms with higher disclosure quality and transparency provided better protection to the minority shareholders at the time of crisis. This makes the case for a strong corporate governance system and government policies should be designed to keep this fact into consideration to enhance the faith of small investors in the financial system. Douma*et al.* (2006) analyse the relationship between foreign and domestic ownership and firm performance by taking a sample of 1005 Indian firms for the time between 1999-2000. The study classifies foreign ownership into foreign institutional ownership and foreign corporate ownership. The results document that while there is no clear view on the role of foreign institutional, nonetheless foreign ownership does seem to affect the firm performance positively due to the presence of foreign corporations.

Ibrahim and Samad (2011) documents that the return for the family concentrated ownership is higher as compared to the non-family ownership firms. Lastly, Ciftci*et al.* (2019) find that the firms with higher ownership concentration perform better as these firms are mainly family-held firms with risk and reward being largely borne by these families. Further, it is observed that when more family members are sitting on board of the firm, it is not accompanied by a higher firm performance.

It can be argued that independent directors have been considered very important in different governance codes around the world. It is expected that being independent they can take a better view of the corporate decision and put a system of check and balance in the firm. There are different views about the board size, one school of thought believes that a large board size would be better as it can provide diverse opinions for the betterment of the firm. On the other hand, the large board size may slow down the decision making process. Promoters and institutional shareholders would like to witness higher performance as they are rewarded for the same. A strong governance system can act as a proper monitoring device in the firm to increase its value and the interest of the shareholders. Based on this discussion, we formulate the following hypotheses:

i. The firm performance is positively affected by the board composition.
ii. Firm performance is negatively affected by the board size in both the linear and nonlinear form.
iii. Promoters' shareholding positively affects the firm performance.
iv. Institutional shareholding has a positive role in determining firm performance.
v. Non-executive directors have a positive effect on firm performance.
vi. Strong as well as weak governance firms have a different level of performance.

We discuss these hypotheses in Section 4 where results of all model specifications are provided and analysed.

3. Sample Data and Methodology

This study uses the data set obtained from the Prowess database for the Indian firms belonging to group A firms of the Bombay Stock Exchange (BSE). The sample data is collected for the years 2009-2017. These are the top listed firms in India therefore they form part of the sample. The final sample consists of 311 firms excluding the financial firms and those firms whose complete data is not available.The relationship between corporate governance and firm performance is captured by using the following model:

$$Performance_{it} = \alpha_i + \beta_1 BC_{it} + \beta_2 BS_{it} + \beta_3 BS_{it}^2 + \beta_4 PROMOTER + \beta_5 INO + \beta_6 OUTSIDE + \sum_{j=7}^{n} \beta_j \, Control_{it} + \mu_{it}$$

Where,
performance is the measure of firm performance captured with the help of accounting-based measure, namely Return on asset (ROA) &Return on Equity (ROE) and market-based measure using Tobin's Q. BINDP is board composition which is defined as the independent directors' percentage, BOARDSIZ is the board size and BOARDSIZ2is the square of board size to assess the non-linear effect of board size. INST denotes the percentage of institutional ownership. PROMOTER is the percentage of promoters' shareholding. Control denotes the vector of control variables of the study. We include size represented by LSIZE, debt-equity ratio as LEVRG, Research and Development expense as RDEV, TX and CASH as the control variables. The list of variables is provided in *Table 1*.

Table 1: Variables Definition and Explanation

	Variables	Description
Dependent Variable	ROA	EBIT/Total Asset
	ROE	Net Income/Net Worth
	TOBIN'S Q	(Market Value of Share + Book Value of Total Debt)/Total Asset
Governance Variables	BINDP	Board composition= independent directors/ total number of directors
	BOARDSIZ	Board size= total number of directors
	BOARDSIZ2	Board size square
	PROMOTER	Promoters' percentage shareholding
	INST	Institutional investors percentage shareholding
	NEXEDIR	Percentage of non-executive directors
Control variables	LSIZE	Log of Total Assets
	RDEV	Research and development divided by total assets
	LEVRG	Total Debt divided by Total Asset
	TX	Tax divided by Total Asset
	CASH	Cash and Equivalent divided by (Total Asset- cash and equivalent)

There is no ready to use index of corporate governance available for Indian firms. The governance index is formed by following the work of Liao *et. al.* (2015). The principal component analysis is applied to extract the first principal component as discussed in the study of Liao *et. al.* (2015). We have considered all the governance variable to form the corporate governance index. This variable is used to classify the firms into

strong and weak governance firms based on the value of this governance index. We apply panel data analysis techniques to obtain results from our dataset.

4. Empirical Results

4.1: Descriptive Statistics and Correlation Analysis

This section discusses the summary statistics and correlation analysis. We can notice in Table 2 that the average value of board independence is 42.58%, which means that less than half of the board size is independent. The average board size for the Indian firms is about 12. The promoters and institutional ownership is about 51% and 22%, respectively.

Table 2: Descriptive Statistics

Variable	Observations	Mean	Standard Deviation
ROA	2,721	0.1576	0.1681
ROE	2,721	0.1717	1.8028
TOBIN	2,721	26.328	34.541
BINDP	2,721	0.4258	0.1480
BOARDSIZ	2,721	11.749	4.1296
BOARDSIZ2	2,721	155.103	98.426
PROMOTER	2,721	51.768	21.662
INST	2,721	22.306	14.363
NEXEDIR	2,608	0.7128	0.1708
LSIZE	2,721	8.2726	1.4845
RDEV	2,721	0.0080	0.0503
LEVRG	2,721	0.4659	0.2979
TX	2,721	0.0334	0.0373
CASH	2,721	0.0926	0.2788

Source: Estimated by authors.

The correlation analysis is presented in Table 3.

Table 3: Correlation Analysis

	ROA	ROE	TOBIN	BINDP	BOARDSIZ	BOARDSIZ2	PROMOTER	INST	NEXEDIR	LSIZE	RDEV	LEVRG	TX	CASH
ROA	1.00													
ROE	-0.38	1.00												
TOBIN	0.27	0.03	1.00											
BINDP	0.09	-0.04	0.05	1.00										
BOARDSIZ	0.06	-0.06	-0.03	0.27	1.00									
BOARDSIZ2	0.03	-0.04	-0.06	0.12	0.95	1.00								
PROMOTER	0.08	-0.02	0.19	0.21	0.22	0.13	1.00							
INST	0.06	-0.04	0.01	0.30	0.30	0.22	-0.28	1.00						
NEXEDIR	-0.02	-0.04	0.07	0.30	0.04	-0.02	0.03	0.16	1.00					
LSIZE	-0.01	-0.11	-0.24	0.13	0.51	0.51	0.16	0.30	-0.07	1.00				
RDEV	-0.10	-0.02	0.48	0.02	-0.06	-0.06	0.03	-0.05	-0.04	-0.13	1.00			

LEVRG	-0.41	0.00	-0.24	-0.08	-0.13	-0.10	-0.10	-0.19	-0.13	0.02	0.03	1.00		
TX	0.57	0.10	0.50	-0.04	0.00	-0.01	0.04	0.03	0.01	-0.17	-0.03	-0.40	1.00	
CASH	0.09	0.01	0.04	-0.01	0.00	0.02	0.06	-0.08	-0.09	-0.01	-0.01	-0.12	0.18	1.00

Source: Estimated by authors.

It is noticed from Table 2 that the measures of ROA have a correlation of 0.38 and 0.27 with ROE and TOBIN, respectively. However, we do not notice any significant correlation between the governance variables and other control variables. It suggests that we can proceed with the estimation of regression models.

4.1 Based on ROA and ROE

We discuss the results in this section. Table 4 shows the result of two accounting measure of performance namely, ROA and ROE.

Table 4:Impact of Corporate Governance on Firms' Performance (Book-Value based Model)

Panel A: Dependent Variable-ROA							
Explanatory Variable	M1	M2	M3	M4	M5	M6	M7
BINDP	-0.008						-0.003
BOARDSIZ		-0.033					-0.013
BOARDSIZ2			-0.034				0.009
PROMOTER				-0.051			-0.032
INST					-0.171***		-0.022
NEXEDIR						-0.008	-0.001
LSIZE	0.451***	0.468***	0.461***	0.471***	0.542***	-0.197***	-0.174***
RDEV	-0.138**	-0.137**	-0.137**	-0.138**	-0.134**	-0.201***	-0.200***
LEVRG	-0.265***	-0.268***	-0.267***	-0.272***	-0.284***	-0.117***	-0.125***
TX	0.488***	0.489***	0.489***	0.486***	0.494***	0.810***	0.809***
CASH	0.068**	0.068**	0.068**	0.070**	0.060*	0.039**	0.039**

Panel B: Dependent Variable-ROE							
	M8	M9	M10	M11	M12	M13	M14
BINDP	0.043						0.087**
BOARDSIZ		0.003					-0.126
BOARDSIZ2			0.001				0.054
PROMOTER				0.043			0.035
INST					0.031		-0.130**
NEXEDIR						-0.057	-0.075*
LSIZE	-0.542***	-0.527***	-0.525***	-0.544***	-0.541***	-0.082	0.019
RDEV	-0.028	-0.029	-0.029	-0.029	-0.030	-0.044	-0.037
LEVRG	-0.049	-0.052	-0.052	-0.046	-0.048	-0.080*	-0.096*
TX	0.106**	0.108**	0.108**	0.109**	0.107**	0.093**	0.099**
CASH	-0.045	-0.043	-0.043	-0.045	-0.042	-0.004	-0.013

*Source: Estimated by authors. Note: ***, **, * denotes statistical significance at the 1%, 5% and 10% significance level*

Panel A shows the result of firm performance using ROA whereas, in panel B, we report the result of firm performance with ROE as the measure of firm performance. We use 7 types of model specifications with M1 having only control variables, M2-M6 have one governance variable at a time and in M7 we introduce all the governance variables simultaneously. The size affects the firm performance positively. The research and development expense variable is significant for all the specifications but with a negative coefficient. It means

that the higher expenditure by the firm on research and development expenditure results in weak firm performance. We observe that the leverage variable is also significant for all the specifications and the sign of its coefficient is also negative. The firms with a large amount of debt in their capital structure do not perform better as compared to the firms with a low debt ratio. It may be due to the reason that the firms with a higher level of debt require a substantial amount of cash to service the debt and they are left with a low amount of cash to invest in profitable projects though at the same time higher level of debt is assumed to solve the agency problems.

The tax variable is also significant in all the variation of model specifications. The sign of the coefficient is positive. It shows that the firm performance is positively influenced by the tax amount. We can figure out that the possible reason for the same is that the higher amount of tax is paid by the firms earning a high amount of profit. Similarly, the cash variable is also significant at a 5% level of significance in all except one case and positively related to the firm performance. However, we find out that all the governance-related variables are having a negative coefficient which may lead us to believe that there is a negative relationship between firm performance and corporate governance.

As a check of the robustness of our results, in Panel B we employ ROE as a dependent variable whereas, in the next section, we introduce a market-based measure Tobin's Q. In Panel B, we get even weaker results wherein not only the governance variables are turning out to be insignificant as early but also most of the control variables have lost their significance even at a 10% level of significance. However, it will be early to conclude anything as almost all the corporate governance variables are insignificant and we do not find any conclusive evidence for any particular result.

4.2: Corporate Governance and Firm Performance based on Tobin's Q

We report the results of all model specification with Tobin's Q as the dependent variable in *Table 5*.

Table 5: Impact of Corporate Governance on Firms' Performance (Market-Value based Model)

	T1	T2	T3	T4	T5	T6	T7
BINDP	0.055***						-0.001
BOARDSIZ		0.101***					0.268***
BOARDSIZ2			0.066***				-0.217***
PROMOTER				0.095***			0.075***
INST					0.069**		0.041
NEXEDIR						0.047**	0.020
LSIZE	0.271***	0.230***	0.269***	0.251***	0.255***	0.290***	0.200***
RDEV	0.529***	0.525***	0.526***	0.529***	0.526***	0.543***	0.537***
LEVRG	-0.079***	-0.073***	-0.080***	-0.071***	-0.076***	-0.093***	-0.071***
TX	0.324***	0.322***	0.324***	0.329***	0.323***	0.327***	0.325***
CASH	-0.009	-0.007	-0.006	-0.011	-0.004	0.002	0.001

*Source: Estimated by authors. Note: ***, **, * denotes statistical significance at the 1%, 5% and 10% significance level*

We can easily notice that all the control variables are significant at a 1% level of significance barring the cash variable. We can further observe that the research and development variable is significant as well as having a positive signas opposed to previous results where it was having a negative sign. Based on the results obtained in Table 5, we find that the R & D is positively associated with the firm performance. The firms that incur higher expenditure on R & D perform better than the firms that incur less on this activity.

Now we discuss the hypothesis developed in this study. The board composition is positively related to the firm performance as shown by model T1 in Table 5. It means the companies which have a high proportion of independent directors exhibit better performance based on the market-based performance indicators. It suggests that the good governance system positively influence the firm performance and it is worth having a

sound governance system for the firms. T2 shows the importance of board size, it leads us to conclude that the board size is also positively related to the firm performance. The bigger board helps the firms arriving at decisions that fulfil the expectations of different stakeholders of the firms and at the same time leads to better performance by the firm. The T3 model with the square of board size as the main variable of interest also leads us to conclude the same thing as discussed above. The promoters' variable is also significantas shown in T4 and its coefficient is having a positive sign which means that the firms with a higher proportion of promoters shareholding give a better performance. It may be due to the reason that the promoters are largely seen as growth-oriented stakeholders and try to push the firms towards better performance. At the same time, one needs to be cautious as more promoters shareholding may lead to the domination of promoters in the board resulting in the decision which is of interest to the promoters as against the wishes of all the stakeholders of the firms. Similarly, we find that institutional shareholding and non-executive directors positively influence the TOBIN's Q. However, we observe that when we introduce all the variables simultaneously in T7 specifications, we board size, the square of board size and promoters' shareholding variables are significant and the rest of the governance variables are insignificant. The board size and promoters shareholding variable are positively and square of board size is negatively related with TOBIN's Q. Overall, we find that the corporate governance variables have a positive association with the firmperformance and having a sound governance system leads to better performance by the firms.

4.3Strong and Weak Corporate Governance System

We apply the principal component analysis (PCA) technique to design the governance index. We have taken the first principal component as a proxy for the governance index. 1st principal component explains 93.66 % of the total variability of the dataset; this is the reason we have selected only the first principal component as a proxy for governance index as adding more principal components will not lead to much significant increase in the explanatory power of the dataset. Further, we have termed the firms with higher than the median value of governance index as the strong governance firms and the rest of the firms as weak governance firms.

For analysis and brevity, we have considered only market-based measure of firms' performance as the dependent variables in our model and the results are provided in *Table 6.*

Table 6: Impact of Strong and Weak Corporate Governance Firms on Performance

Panel A: Strong Governance Firms

	SG1	SG2	SG3	SG4	SG5	SG6	SG7
BINDP	0.076**						-0.032
BOARDSIZ		0.131***					0.391***
BOARDSIZ2			0.102***				-0.302***
PROMOTER				0.064*			0.016
INST					0.090**		0.029
NEXEDIR						0.080***	0.057*
LSIZE	0.178***	0.111**	0.141***	0.178***	0.166***	0.186***	0.116*
RDEV	0.658***	0.649***	0.647***	0.657***	0.656***	0.681***	0.677***
LEVRG	-0.062*	-0.051	-0.060*	-0.057*	-0.058*	-0.072**	-0.053*
TX	0.328***	0.321***	0.322***	0.333***	0.328***	0.334***	0.328***
CASH	-0.066**	-0.072**	-0.070**	-0.066**	-0.058*	-0.065**	-0.064**

Panel B: Weak Governance Firms

	WG1	WG2	WG3	WG4	WG5	WG6	WG7
BINDP	0.031						0.024
BOARDSIZ		0.030					0.321*
BOARDSIZ2			0.024				-0.289*
PROMOTER				0.159***			0.163***

INST					-0.006		0.043
NEXEDIR						0.014	0.005
LSIZE	0.263***	0.258***	0.259***	0.262***	0.262***	0.263***	0.237***
RDEV	0.008	0.006	0.006	0.005	0.006	0.006	0.007
LEVRG	-0.146***	-0.145***	-0.145***	-0.127***	-0.146***	-0.143***	-0.118***
TX	0.259***	0.259***	0.259***	0.272***	0.260***	0.266***	0.276***
CASH	0.155***	0.157***	0.156***	0.140***	0.155***	0.159***	0.145***

*Source: Estimated by authors. Note: ***, **, * denotes statistical significance at the 1%, 5% and 10% significance level*

We have applied the same 7 types of model specifications to analyse the dataset. We present the results for strong governance firms in Panel A of Table 6 and PanelB of the same table provides the results for weak governance firms. The models with all the governance variables for both types of firms do not provide us with any conclusive pieces of evidence, however, we get some interesting results when we analyse these governance variables individually. We find in panel A that all the corporate governance variables are significant individually at a 1% level of significance in model SG1-SG6. The sign of the coefficient of all the variables is positive, which further confirms our earlier intuition that a good governance system results in better performance of the firms. Take an example of board composition, we notice that it is positive for strong firms thereby reflecting the role of a better governance system. Similarly, we can interpret the rest of the governance variables. On the other hand, for weak-governance firms, all the governance variables(except promoters) are insignificant as reported in Panel B ofTable 6. Based on this result, we can state that corporate governance do matters in influencing performance of strong governance firms thereby having significant implications for investors, shareholders, regulators and other stakeholders of the firms.

5. Conclusions

The performance of the firm is determined by many factors including the size of the firm, leverage level, cash available etc. we attempt to analyse the role of corporate governance in influencing the firm performance.Prior studies have primarily focussed on the developed markets (such as US. UK, Canada etc.) and paid less attention to the emerging economies such as India. where institutional settings, information flows and corporate governance standards are quite different. We believe that cross country differences and level of sophistication of financial markets and investors require a concerted study on the emerging market such as India to develop an in-depth knowledge of the role of corporate governance.

This study uses the data set obtained from the Prowess database for the Indian firms belonging to group A firms of the Bombay Stock Exchange (BSE) for the time between 2009 and 2017. We have taken control variables based on previous studies. This study employs six types of governance variables, namely, board composition, board size, square of board size, promoter's shareholding, institutional shareholding and non-executive directors proportion. We have also created a governance index by using all these governance variables by applying the principal component analysis method. This governance index is used to classify the firms into two groups, namely, strong-governance firms and weak-governance firms. The firms having higher than median governance index value are treated as strong governance firms and the rest are considered as weak governance firms.

Based onthe results reported in Section 4 of this study, we notice that the accounting-based measures of firm performance, namely, ROA and ROE, are not statistically significant for most of the governance variables. However, when we employ a market-based measure of firm performance, we observe that all the corporate governance indicators significant and positive reflecting their importance.

To get deeper insights, we further classify the firms into strong and weak governance firms as discussed above. We get clear results as the strong governance firms show a positive relationship between firms' performance and governance variables whereas weak governance firms do not show any kind of such relationships. This finding has important implications for investors, shareholders, regulators and other

stakeholders. We find that firms having sound governance system have superior performance, thus the prospective investors should analyse the governance system before making any investment as they can expect better performance from the firms having good governance system. The existing shareholders should also keep a watch on the governance system of the firm as it can lead to augmentation or deterioration of their wealth depending upon the way their governance structure is moulding in due process of time. Similarly, regulators are also concerned about the sound function of the corporate and financial system of the country. Regulators should encourage more and more firms to improve their governance system especially in the wake of recent corporate scandals and manipulations by big business houses. Last but not the least, firms should also strive to achieve a well-functioning and sound governance system as not only it will enable them to create a positive image in the society, but also it will lead to higher performance of the firm.

References

Baek, Jae-Seung; Kang, Jun-Koo and Kyung Suh Park (2004): "Corporate Governance and Firm Value: Evidence from The Korean Financial Crisis", *Journal of Financial Economics*, 71, pp. 265-313.

Bhagat, S., & Black, B. (1998). The relationship between board composition and firm performance. Comparative Corporate Governance: *The State of the Art and Emerging Research, K. Hopt, M. Roe, and E. Wymeersch, eds. (Oxford, UK: Clarendon Press, New York, NY: Oxford University Press, 1998).*

Bhagat, S., & Bolton, B. (2013). Director ownership, governance, and performance. Journal of financial and Quantitative Analysis, 48(1), 105-135.

Black, B. (2001). The corporate governance behavior and market value of Russian firms. *Emerging markets review*, 2(2), 89-108.

Boyd, B. K. (1995). CEO duality and firm performance: A contingency model. *Strategic management journal*, 16(4), 301-312.

Brown, L. D., & Caylor, M. L. (2009). Corporate governance and firm operating performance. *Review of quantitative finance and accounting*, 32(2), 129-144.

Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *Financial review*, 38(1), 33-53.

Chen, G., Firth, M., Gao, D. N., & Rui, O. M. (2006). Ownership structure, corporate governance and fraud: evidence from China. *Journal of Corporate Finance*, 12, 424–448.

Cheng, S. (2008). Board size and the variability of corporate performance. *Journal of financial economics*, 87(1), 157-176.

Ciftci, I., Tatoglu, E., Wood, G., Demirbag, M., & Zaim, S. (2019). Corporate governance and firm performance in emerging markets: Evidence from Turkey. *International Business Review*, 28(1), 90-103.

Claessens, S., &Djankov, S. (1999). Ownership concentration and corporate performance in the Czech Republic. *Journal of comparative economics*, 27(3), 498-513.

Dalton, D. R., & Dalton, C. M. (2011). Integration of Micro and Macro Studies in Governance Research: CEO Duality, Board Composition, and Financial Performance. *Journal of Management*, 37(2), 404-41.

Douma, S., George, R., & Kabir, R. (2006). Foreign and domestic ownership, business groups, and firm performance: Evidence from a large emerging market. *Strategic Management Journal*, 27(7), 637-657.

Eisenberg, T., Sundgren, S., & Wells, M. T. (1998). Larger board size and decreasing firm value in small firms. *Journal of financial economics*, 48(1), 35-54.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The journal of law and Economics*, 26(2), 301-325.

Ferrer, R. C., Banderlipe, I. I., & Mc Reynald, S. (2012). The influence of corporate board characteristics on firm performance of publicly listed property companies in the Philippines. *Academy of Accounting & Financial Studies Journal*, 16(4).

Gibson, M. S. (2003). Is corporate governance ineffective in emerging markets?.*Journal of financial and quantitative analysis*, 38(1), 231-250.

Hu, H. W., Tam, O. K., & Tan, M. G. S. (2010). Internal governance mechanisms and firm performance in China. *Asia Pacific Journal of Management*, 27(4), 727-749.

Ibrahim, H., & Samad, F. A. (2011). Corporate governance mechanisms and performance of public-listed family-ownership in Malaysia. *International Journal of Economics and Finance*, 3(1), 105-115.

Jensen, M. C., &Meckling, W. H. (1976). Theory of the firm: managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305–360.

Kiel, G. C., & Nicholson, G. J. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate governance: an international review*, 11(3), 189-205.

Liao, L. K., Mukherjee, T., & Wang, W. (2015). Corporate governance and capital structure dynamics: an empirical study. *Journal of Financial Research*, 38(2), 169-192.

Mardnly, Z., Mouselli, S., &Abdulraouf, R. (2018). Corporate governance and firm performance: an empirical evidence from Syria. *International Journal of Islamic and Middle Eastern Finance and Management*.

Mitton, T. (2002). A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis. *Journal of financial economics*, 64(2), 215-241.

Mollah, S., Al Farooque, O., & Karim, W. (2012). Ownership structure, corporate governance and firm performance. *Studies in Economics and Finance*, 29 (4), 301-319.

Sarkar, J., & Sarkar, S. (2000). Large shareholder activism in corporate governance in developing countries: Evidence from India. *International Review of Finance*, 1(3), 161-194.

Shleifer, A., &Vishny, R. W. (1997). A survey of corporate governance. *The journal of finance*, 52(2), 737-783.

Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of financial economics*, 40(2), 185-211.