

# CORPORATE GOVERNANCE AND FIRM'S PERFORMANCE DURING SUBPRIME CRISIS: EVIDENCE FROM INDIAN FIRMS

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## ABSTRACT

*In recent years the attention and interest in corporate governance has increased especially with the collapses of economies both developed as well as developing and series of corporate scandals such as Enron, World.com, Satyam and recently Sahara group and Saradha Group financial scam etc. In India, corporate governance has gained greater significance after new economic reforms. Presence of multinational firms and dominance of international investors has increased the demand of good governance and better shareholder value. In this changed scenario and more specifically during crisis, the sound corporate governance has become critical success factor for firms.*

*In this paper an attempt has been made to examine the relationship between internal governance structures and financial performance of listed Indian firms during subprime crisis. Based on the sample of 121 listed firms (Bombay Stock exchange), the study observed that firms with higher level of board activism, higher disclosure standards, effective audit committee, well protected rights of minority shareholders and foreign ownership have perform better during crisis. The perception that powerful board structure has positive impact on firm's performance has not been supported in this study. Further, widely held firms have not performed well during study period as compared to concentrated companies.*

**KEYWORDS:** Corporate governance, Board of Directors, Accounting practices and Transparency.

## INTRODUCTION

Investors invest happily in the firms using sound CG practices because they feel that in well managed firm, funds will not be diverted for personal benefits, less monitoring and auditing costs will lower costs of capital and they can expect higher return in the form of dividend along with increase the share price.

Business being an economic activity generates wealth in a legal and ethical manner by providing goods and services to satisfy human needs and required sufficient profits for their survival, growth and persistent existence. Profit is the rewards for the operational efficiency of an organization in using its resources that depend upon the managerial effectiveness of the persons who manage its affairs.

In corporations, affairs are managed separately by professional managers and governed by a board of directors. Board of Directors being the custodian of a firm has full authority to act in a legal and ethical manner (Murthy, 1999). But the managers' goals may not always coincide with that of shareholder and their own vested interests may motivate them to deviate or to create the agency problem (Fama & Miller 1972; Jensen & Meckling, 1976; and John & Senbet, 1998). This may leads to substantial diversion of assets by managers as well as contraction of external capital supply to firms (Shleifer & Vishny, 1997) and hinders the creation and development of new firms (Chakrabarti, 2005).

This agency problem can be mitigated up to certain extent through effectual governance that promotes trust, encourages a long term relationship between companies and its capital providers, and boost overall market confidence. Sound corporate governance is instrumental in firm's performance as it improve overall managerial efficiency in utilisation and allocation of firm's resources (Claessens, 2006).

## REVIEW OF LITERATURE

There is an extensive literature on ownership structure, corporate governance, board composition and firm performance in abroad as well as in India but still there is lack of consensus upon the role of governance on firm's performance. As per the studies conducted by Fama & Miller (1972); Jensen & Meckling (1976) and John & Senbet (1998), good corporate governance

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practices are instrumental in reducing agency problem. Baysinger & Butler (1985), Mehran (1995), Eng & Mak (2003) and Collier & Zaman, M. (2005) et al. disseminated that different aspects of corporate governance i.e. Board structure, presence of independent and executive directors on the board, CEO duality, ownership patterns, shareholders rights, transparency and disclosure levels and role of various committees i.e. audit, remuneration, nomination, and shareholder grievance committee etc have significant impact on firm's performance and its value.

#### **Ownership structure and firm's performance**

The corporate governance practices and managerial behaviour of the firms are affected by its ownership structure (Jensen & Meckling, 1976; Li, 1994; McConnell & Servaes, 1990) and the ownership structure varies across the countries from widely dispersed ownership to closely hold.

In widely held or dispersed ownership also known as outsiders systems (mainly in UK and USA) managers enjoy the dominant position and creates vertical agency problems between managers and shareholders or shareholders and debtors (Berle & Means, 1932). This may result in substantial diversion of assets by managers of firms, and the non existence of external capital supply to firms (Shleifer & Vishny, 1997). The firms in this case offer special incentives to the managers in the form of tying managerial remuneration packages to firm's performance.

But, Murphy (1985); Coughlin & Schmidt (1985); Barro & Barro (1990) and Hall & Liebman (1997) results indicate small sensitivities (i.e. elasticity between 0.10 and 0.20) of firms' performance to salary-plus-bonus and founds little evidence of higher pay-performance sensitivities to higher stock performance (Murphy, 1998).

During financial crisis, these firms did not perform well (Salancik & Pfeffer, 1980) and experienced drastic fall in their share value during East Asian crisis (Lemmon & Lins, 2003), dilute the corporate governance mechanism (Suto, 2003) and Ownership block, disparity in cash flow and voting rights, can be destructive in the period of economic crisis (Michael & Carney, 2013).

On the other side closely held firms, mainly in Germany and Japan, the vertical agency problem is mitigated up to large extent by effective monitoring and control over the management by the large shareholders. Gugler (1999) while reviewing the empirical studies from Berle & Means, 1932 to Round, 1976 in Australian, Jacquemin & Ghellinck, 1980 in France, Leech & Leahy, 1991; Agrawal & Knoeber,

1996; Cho, 1998 etc, concluded that owner-controlled firms outperform significantly than manager-controlled firms and managerial turnover is higher in these firms (Franks & Mayer, 1994).

However, Morck; Shleifer & Vishny (1988); McConnell & Servaes (1990); Wruck (1989) and Franks, Mayer & Renneboog (1995) were of the view that at low levels of concentration, performance increases as concentration increases, but once the concentration levels reach at very high levels then it is not clear that more monitoring will continue to improve things and may actually work in the opposite direction.

La Porta; Lopez-de-Silens; Shleifer & Vishny and Claessens referred ownership concentration as ultimate controller that creates horizontal agency problem and dominant shareholders diverted firm's resources for their own private benefit. The blocked shares are generally traded at a premium to the post-trade price of minority shares in case they expropriate the minority shareholders for private benefits (Barclay, 1989; Holderness, 1992; DeAngelo, 1985; Jarrell & Poulsen, 1988; Zingales, 1995; Shleifer & Vishny, 1997 and Gugler, 1999). This may reduce the firm specific investment by minority investors and other stakeholders and can lead to illiquid stock markets and reduced diversification possibilities for investors. Thus, concentrated ownership obstructs the creation and development of new firms, encourages illiquidity in the market and reduced possibilities for risk diversification (Chakrabarti, 2005). This horizontal agency problem is one of the important reasons for the underdevelopment of capital markets in the countries where this problem exists.

Demsetz & Lehn, (1985) and Jac et.al, (2004) observed insignificant relationship and confirm that family concentrated ownership firms experienced significant drop in their equity value during Asian crisis and have come under severe criticism (Bertrand et al., 2002).

In Indian scenario, studies conducted by Khanna & Palepu, (2005); Selarka, (2005); Rao & Guha, (2006); Balasubramanian & Ramaswamy, (2011, 2013); Kumar & Singh, (2013) and Padachi, Ramsurrun, & Ramen, (2017) concluded that ownership structure is concentrated as well as dominated by family based promoters and up to some extent have positive relationship with firm's performance. This is because the family dominated ownership offer strategic long term sustainability, better and closer managerial supervision to prevent leakages at operational levels and also offer prospects of more efficient and cost-effective management. Thus, promoters enjoy enough incentive and control to monitor and enhance firm value

especially during crisis.

Institutional ownership has a direct and considerable influence on different dimensions of corporate governance i.e. on board composition, CEO duality, leadership diversity, and ownership concentration, Li et.al (2006) and foreign institutional ownership has brought in more transparency in governance and has significant positive influence on different indicators of firm performance (Chibber & Majumdar, 1999; Sarkar & Sarkar, 2000 and Patibandla, 2004). Ghosh, (2007) was of the view that existence of external auditor and increase in promoter's stake in equity has positive effect on firm's value.

Whereas, Kumar, (2004) was of the view that foreign and corporate ownership does not influence firm performance; however shareholding by institutional investors affects firm performance.

Thus various studies conducted so far are inconclusive upon the impact of ownership structure on firm's performance especially during crisis period that require further investigation.

### **Board and Performance**

Board composition is the other important factor of corporate governance and most of the regulations have been enacted to make the board more representative, transparent, accountable and responsible. The board composition (i.e the presence of executive and non-executive or independent directors, the board demographics, size, structure, recruitment, education, and leadership etc.) is an important device that lower agency cost and affects firms' performance positively (Callen, Klein & Tinkelman, 2003).

Chaganti, Maharjan & Sharma (1985); Zahra and Pearce (1989); Kiel and Nicholson (2003); Arora & Sharma (2016); Das & Dey (2016) and Srikanth & Avabruth (2017) noticed that larger boards are linked with a greater depth of intellectual knowledge with diverse background and viewpoints, which in turn helps in improving decision-making and firm's performance. Additionally, a wide range of their interests may neutralize decisions (Bacon, 1973).

Whereas, Hermalin and Weisbach (1991), Lipton and Lorsch (1992), Jensen (1993), Yermack (1996), Eisenberg, Sundgren and Wells (1998) concluded that large board size lower the board's efficiency, divergent opinion and difficulty in consensus increase the coordination costs, reduces their ability to effectively monitor the management thus has negative impact on firm's performance.

Board diversity i.e proportion of independent directors, chief executive officers duality and other directorships

held by the executive directors outside the company have positive relationship with firm performance (Das & Dey, 2016, Srikanth & Avabruth, 2017). The presence of non-executive directors is more likely to act in shareholders' best interests and improve firms' performance (Hermalin & Weisbach, 1991; Borokhovich, Parrino & Trapani, 1996 and Jackling & Johl, 2009) and market give more importance to independent board and reacts positively towards outside directors (Baysinger & Butler, 1985 and Rosenstein & Wyatt, 1990).

Fama and Jensen, (1983) detect that executive directors having access to more information may conspire with managers to take undue advantage and independent or external directors are good for eliminating principal-agency problem. Beasley, (1996) reveals that the ratio of independent directors in the firms with no scandals is higher than the firms which have been caught manipulating financial reports. Jackling & Johl, (2009) and Giráldez & Hurtado, (2014) highlighted that board with greater proportion of independent directors has high firm value in India.

In contrast, Fosberg, (1989), Bhagat & Black, (2002) found that board independence has significant and negative correlation with short-term performance of a firm, but board independence makes no difference in improving corporate performance. Sarkar and Sarkar, (2012) observed that multiple directorship positions held by independent directors correlate positively with the firm value, but multiple directorships by inside directors negatively related to firm performance.

Jensen and Meckling, (1976), Fama and Jensen, (1983), Daliy & Dalton, (1993), Dahya, Lonie & Power, (1996) of the view that in case chairman also worked as CEO, the board role to curtail agency cost could be weaken enormously and at the end resulted in lowering firm's performance. Yermack, (1996) and Brown & Caylor, (2004) showed that firms are more valuable when the CEO and board chair positions are separate.

However, Boyd, (1995) stated that if stewardship theory is followed, executives' responsibility may neutralize self-interest behaviors due to CEO duality and CEO duality brings in affirmative effects for firm's performance.

In India, Varshney & Vasal, (2012), Das & Dey, (2016) and Srikanth & Avabruth, (2017) found positive relationship between firm performance and board size and negative with CEO duality and number of board meetings. Garg, (2007) and Kumar & Singh, (2013) found negative relation between board size and firm performance and stated that smaller boards are more efficient. Saravanan, (2012) was of the view that board

independence may improve firms' performance. Bhagat & Bolton, (2008) point out that stock ownership of board members, and CEO duality is significantly positively correlated with operating performance of Indian firms.

### **Governance and Crisis**

Cheffins, (2009) and Kirkpatrick, (2009) reveals that failure of corporate governance is one of the main reasons for global financial crisis and different aspects of corporate governance such as risk management system, transparency and disclosure, board oversight practices and remuneration system failed during subprime crisis period, Bruner, (2010); Yeoh, (2010) and Pirson & Turnbull, (2010). Corporate governance, finance, and competition are alleged causal factors for the Asian crisis (Glen & Singh, 2005) and companies with weak corporate governance experienced severe agency problems during crisis (Kim & Lee, 2003). The Firm value varies according to the corporate governance measures (Jae et.al, 2004). Essen et.al, (2013) noticed that firms with CEO duality, strong legal enforcement and protected creditor's rights performed better performance during subprime crisis. Mittal, A., & Garg, A. K. (2017) found that Indian firms with transparent Corporate Governance restrict a management's ability to use accruals opportunistically and increases focus on effecting investor trust during crisis.

Whereas, Giraldez & Hurtado, (2014) concluded that directors and executives behaved in unethical and even illegal ways in pursuit of self interest during subprime crisis. Benefits of Good governance will not be reflected during a financial crisis (Gupta et.al, 2012). During crisis, larger boards may not be able to make significant strategic decisions due to the problem of coordination and communication resulting in lower firm value Kumar & Singh, (2013) and firms having higher number of independent directors experienced worse stock returns during the subprime crisis period (Erkens et.al, 2012).

### **Research Gap**

Most of the studies conducted so far are of the view that owner controlled firms are more profitable than manager- controlled firms as owners (especially of family) firms offer better monitoring, which leads to better performance. Size and composition of board, its independence and effectiveness, CEO duality, shareholders' activism and auditor index have noticeable impact on firm value. Despite the extensive researches carried out to study the effect of corporate governance on firm performance there are still a number of conceptual and empirical gaps that require further analysis mainly in the context of subprime crisis. So,

in this study an attempt has been made to analyse the corporate governance practices and their impact on their financial performance during subprime crisis on Indian companies.

### **Scope of the Study**

The study is based on the annual reports of the 121 private sector companies listed on BSE. Study covered only one crisis i.e. sub-prime crisis 2008 because the main cause of this crisis was the flaws in corporate governance (Kirkpatrick, 2009 and Cheffins, 2009). To observe the changes in corporate governance practices and financial performance of the sample companies, nine years time span (i.e. 2004-2005 to 2012-2013) has been divided in three parts i.e. pre-subprime crisis period (2004-05 to 2007-08), subprime crisis period (2008-09) and the post- subprime crisis period (2009-10 to 2012-13).

### **OBJECTIVE**

In this paper an attempt has been made to examine the relationship between internal governance structures and financial performance of listed Indian firms during subprime crisis.

### **RESEARCH METHODOLOGY**

#### **Sampling Design**

All the private sector Indian Companies have been taken as the universe out of which 792 Companies listed in three indices, namely S&P BSE 100, S&P BSE MID CAP and S&P BSE SMALL CAP of Bombay Stock Exchange on September 2nd, 2013 have been taken as population. Out of these companies, Public sector undertakings, Banking companies and Non-Banking Financial Companies (NBFCs) have not been considered as these companies are different from those governed by the companies act (Garg, 2007 and Saravanan, 2012). Beside this non debt companies are also excluded and finally 679 (consisting of 67 large cap, 184 mid Cap and 428 small cap) companies formed the sampling frame.

The systematic random sampling technique has been used to control the distribution of the sample by spreading it throughout the sampling frame at equal intervals. All the 679 companies were first arranged in descending order on the basis of their capitalization and every fifth company has been considered and finally 121 firms (consisting of 21 Large Cap, 36 Mid Cap and 64 Small Cap) formed the sample for the study. Nine years, (i.e. 2004-05 to 2012-13) annual reports of these sample firms have been excerpted from the "PROWESS" a database maintained by Centre for Monitoring Indian Economy (CMIE).

The secondary data collected has been analysed with the help of SPSS software. In descriptive analysis mean and standard deviation has been computed to study the nature of Ownership Structure and Corporate Governance of sample firms. In order to analyze the impact of corporate governance on firms' performance during crisis, Ordinary Least Square (OLS) multiple regression models has been applied based on various previous studies (Klein, 1998; Suto, 2003; Baek et.al, 2004 and Bhagat & Bolton, 2009).

Return on assets (ROA) a proxy for firms performance has been taken as a dependent variable. The accounting profits has been prefer over market-based measures of firms performance because firm's accounting profitability is more directly related to its financial survivability than its stock market value (Altman, 1968; Takahashi et.al 1984) and ROA is an important proxy for financial performance of a firm, (Klein, 1998; Joh, 2003; Bhagat & Bolton, 2009 and Fooladi & Shukor, 2012).

The ownership structure and Corporate Governance Indices have been used as explanatory variables in the study. An un-weighted corporate governance index (as used by Cooke, 1989; Gompers et.al, 2001; Bhagat & Bolton, 2008; Hossain & Hammami, 2009 and Sarkar et.al, 2012) based on various items given in corporate governance reports has been developed to measure the quality of governance of the sample firms. The un-weighted scores have been used to treat all attributes of the sub index equally without considering the subjective opinion on the relative importance of each attribute. A total of 78 items (both mandatory and non-mandatory) of Clause 49 have been included in the index to make it comprehensive and catering to the contemporary requirements. These 78 items have been grouped into eight categories called parameters of the governance index as depicted in Table-1.

**Table 1:** Classification of Governance Index

S. No	Governance Parameter/Category	Number of information items	Maximum score assigned
A	Structure and Strength of Board	11	22
B	CEO Duality	1	1
C	Level Governance Activism	10	20
D	Strength of Audit Committee	9	25
E	Strength of Remuneration Committee	10	21
F	Strength of Shareholders'/Investors' Grievance Committee	8	22
G	Disclosure Level (Transparency)	15	15
H	Strength of Shareholder Right	14	14
	Total	78	140

Natural logarithm of total asset has been taken as proxy of corporate size to control the positive impact of firms' size on its performance, depreciation and amortization/total asset ratio as a proxy for non-debt tax shield to control the taxation affects and the current ratio as proxy for liquidity to counter the inverse relationship between liquidity and profitability.

The following basic model for cross-sectional regression equation has been applied in the analysis,

$$ROA_{it} = \beta_0 + \beta_1 IP_{it} + \beta_2 FP_{it} + \beta_3 NPBF_{it} + \beta_4 NPFII_{it} + \beta_5 NPNI_{it} + \beta_6 BSI_{it} + \beta_7 CD_{it} + \beta_8 BAI_{it} + \beta_9 AI_{it} + \beta_{10} RI_{it} + \beta_{11} SGI_{it} + \beta_{12} SRI_{it} + \beta_{13} DI_{it} + \beta_{14} CV_{it} + \beta_{15} CS_{it} + \beta_{16} NDTs_{it} + \beta_{17} LIQ_{it} + \varepsilon_{it}$$

In the above model  $ROA_{it}$  is return on assets of the firm  $i$  at time  $t$ , as measures of firm's performance as the dependent variable. Among explanatory variables, for ownership structure following variables has been included,

$IP_{it}$  is Indian promoters of firm  $i$  at time  $t$ ,

$FP_{it}$  is foreign promoters of firm  $i$  at time  $t$ ,

$NPBF_{it}$  is non-promoters banking and insurance of firm  $i$  at time  $t$ ,

$NPFII_{it}$  is non-promoter foreign institutional Investors of firm  $i$  at time  $t$ ,

&  $NPNI_{it}$  is non-promoter non-institutional investors of firm  $i$  at time  $t$ .

For corporate governance following variables has been included,

$BSI_{it}$  is board structure index of firm  $i$  at time  $t$ ,

$CD_{it}$  is the CEO duality of the firm  $i$  at time  $t$ ,

$BAI_{it}$  is a board activism index of firm  $i$  at time  $t$ ,

$AI_{it}$  is auditor index of firm  $i$  at time  $t$ ,

$RI_{it}$  is a remuneration index of firm  $i$  at time  $t$ ,

$SGI_{it}$  is a shareholder grievance index of firm  $i$  at time  $t$ ,

$SRI_{it}$  is shareholder right index of firm  $i$  at time  $t$ , and

$DI_{it}$  disclosure index of firm  $i$  at time  $t$ .

And following control variables have also been included in the model;

$CV_{it}$  is collateral value of firm  $i$  at time  $t$ ,

$CS_{it}$  is corporate size of firm  $i$  at time  $t$ ,

$NDTs_{it}$  is non-debt tax shield of firm  $i$  at time  $t$ ,

$LIQ$  is liquidity of firm  $i$  at time  $t$ ,

$\beta_0$  is common y- intercept,  $\beta_1 - \beta_{17}$  are the coefficients of concerned explanatory variables, and  $\varepsilon_{it}$  is error term of firm  $i$  at time  $t$ .

This model has been run with the un-weighted method over the three different periods of time, i.e. pre-subprime crisis, subprime crisis and post-crisis periods. To know the impact of ownership structure and governance on firm's performance during different period of time, three regression equations (as has been used by Suto, 2003) have been obtained with same dependent variable, explanatory and control variables.

The assumptions of normality, multicollinearity, autocorrelation and heteroskedasticity have been tested as violation of these assumptions can affect the parameters of regression model (Malhotra, 2008; Field, A., 2000 and Gujarati, D. N., 2012). Multicollinearity, Co-linearity and autocorrelation in the explanatory variables with the help of Karl Pearson's coefficient of correlation, Variance Inflation Factor (VIF) and Durbin-Watson test respectively. The scatter plots and histograms have been used to check the problems of heteroskedasticity and normality of data.

### Ownership Structure of Indian Companies

The year wise descriptive statistics of ownership structure (table-2) shows that mean values of different components of ownership structure have changed during different period of time under study meaning that sample firms do some changes in their ownership structure during the crisis.

The ownership structure of Indian firms is comparatively more concentrated and promoters hold more than 50 percent stake and out of which Indian promoters hold the major block (i.e. nearly 43.45 percent of the total voting rights). In India horizontal agency problems is more severe than the vertical agency problem as controlling shareholder hold the key positions and

extract the private benefits by forcing decisions which expropriate minority shareholder's wealth (Grossman & Hart, 1980; Dyck & Zingales, 2004). But, positive of the concentrated ownership is that controlling shareholders generally takes active interest in running the firm by selecting the management team and directly holding executive positions thus mitigate the vertical agency

The results also showed that promoters escalate their stake holdings substantially over the period as their median of stake holdings have increased from 43.28% in 2004-05 to 46.36% in 2008-09 and 49.83% in 2012-13. One implication could be that given, the more relaxed political and regulatory attitude towards control contestability, these companies had to gradually strengthen their holdings as a defense against possible hostile takeover attempts (Balasubramanian & Ramaswamy, 2013).

In India non promoter bank and financial institutional enjoyed only 4.83 percent share and non promoter foreign institutional investors hold 8.93 percent share. It means that the banks and financial institutions do not play important role in disciplining the board in Indian scenario.

The stake holding of retail investors or non promoter non institution is 28.34 percent and has followed a declining trend over the period of study. The results are consistent with the findings of Balasubramanian & Ramaswamy, (2013) that non-institutional retail shareholdings recorded a substantial decline which are also in line with the experience of the developed world.

Thus, the pervasiveness of insider-control in Indian firms has persisted over the years and outside block holders rarely have controlling stakes in firms, and are unable to act as a countervailing force against insiders.

**Table 2: Descriptive Statistics of Ownership Structure**

Variable	Pre-Crisis Period				Pre-Crisis Period Average	Crisis Period 2008-09	Post-Crisis Period				Post-Crisis Period Average
	2004-05	2005-06	2006-07	2007-08			2009-10	2010-11	2011-12	2012-13	
<b>Indian Promoters</b>											
Mean	41.8186	41.6454	44.1009	43.5293	42.7735	43.6692	43.6718	43.4259	44.1611	44.9915	44.0626
Median	43.2800	41.8300	47.8200	47.9000	44.9050	46.3600	46.8900	47.1200	49.5800	49.8300	48.4850
Std. Deviation	26.2699	24.3279	23.1745	22.7313	24.1141	23.1417	23.3898	23.2449	22.8960	22.8081	23.0230
Minimum	0.0000	0.0000	0.0000	0.0000	.0000	0.0000	0.0000	0.0000	0.0000	0.0000	.0000
Maximum	93.2600	93.2600	93.2600	93.2600	93.2600	94.4200	94.4200	93.1400	93.3000	93.3000	94.4200
<b>Foreign Promoters</b>											
Mean	6.7328	6.7422	7.8180	8.1681	7.3653	8.9203	9.0163	9.0901	9.2875	9.2093	9.15081
Median	0.0000	0.0000	0.0000	0.0000	.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Std. Deviation	18.8602	17.2870	17.5620	18.4384	17.5044	19.8464	19.8867	20.3266	20.8196	20.5280	20.3309
Minimum	0.0000	0.0000	0.0000	0.0000	.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	75.7700	75.7700	75.8000	83.9100	83.910	90.0000	90.0000	90.0000	90.0000	83.9100	90.000
<b>Total Promoters Investors</b>	<b>48.5514</b>	<b>48.3876</b>	<b>51.9189</b>	<b>51.6974</b>	<b>50.1388</b>	<b>52.5895</b>	<b>52.6881</b>	<b>52.516</b>	<b>53.4486</b>	<b>54.2008</b>	<b>53.2134</b>
<b>Non Promoters Banks &amp; Financial Institutions</b>											
Mean	5.4908	4.8159	4.8746	4.7598	4.98526	5.1667	4.9589	4.8663	4.3456	4.2589	4.6074
Median	1.7600	1.8200	1.6800	1.6000	1.72000	1.6000	1.5400	2.1800	1.4800	1.7000	1.71000
Std. Deviation	7.6836	6.9907	6.6553	6.2596	6.902222	6.8134	6.6236	6.4054	5.6582	5.7494	6.1122
Minimum	0.0000	0.0000	0.0000	0.0000	.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	48.9600	48.9100	30.6400	30.0500	48.960	30.0700	29.8800	30.1400	24.5700	30.4100	30.4100
<b>Non Promoters Foreign institutional Investors</b>											
Mean	6.7076	8.5685	9.8678	9.7857	8.73240	8.0711	8.9111	9.3980	9.2556	9.8250	9.3474
Median	2.2000	7.2500	8.8400	7.8400	6.93000	5.3900	5.7900	6.2300	5.8500	8.0800	6.2500
Std. Deviation	8.2831	8.8267	9.0958	9.6668	9.045241	9.1114	9.1049	9.3239	9.2246	9.5406	9.2771
Minimum	0.0000	0.0000	0.0000	0.0000	.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	30.1200	37.0500	42.9200	45.7900	45.790	50.1300	36.6000	37.0300	33.3800	35.0100	37.0300
<b>Total Non-Promoters Investors</b>	<b>12.1984</b>	<b>13.3844</b>	<b>14.7424</b>	<b>14.5455</b>	<b>13.71766</b>	<b>13.2378</b>	<b>13.87</b>	<b>14.2643</b>	<b>13.6012</b>	<b>14.0839</b>	<b>13.9548</b>
<b>Non promoters non institutional investors</b>											
Mean	30.2468	29.8054	26.4023	26.9109	28.34134	27.6798	26.3812	26.3855	26.6544	25.9069	26.3320
Median	29.3200	28.9700	24.2900	25.0000	26.58000	27.0200	24.6800	23.5800	24.7900	23.8000	24.3100
Std. Deviation	14.8908	15.3629	13.9986	13.6852	14.555666	14.5852	14.2221	14.5016	13.5612	13.5146	13.9162
Minimum	3.7400	4.4500	2.6000	1.9900	1.990	1.1000	1.8900	2.1100	4.8100	2.0700	1.8900
Maximum	79.5800	74.6200	75.9700	71.2700	79.580	71.2700	73.5600	83.6000	75.5400	74.3900	83.600

### Corporate Governance Practices of Indian Companies

The sample firms have shown improving trend in their governance practices as the mean score of their corporate governance index (table-3) has increased from 43.40 during pre crisis period to 48.15 and 44.82 during subprime crisis and post-subprime crisis periods respectively.

Separating role of CEO and board Chairman promote sound corporate governance (Montgomery & Kaufman, 2003). The Indian firms are also moving towards having separate position of CEO and Chairman in their governance mechanism as their CEO duality index has moved to 52 during post sub-prime crisis from 41 before crisis. More than 50 percent firms have a separate position of CEO and Chairman after the crisis.

Beside, CEO duality, the board activism is another important aspect of effective governance as it promotes effective monitoring and reduce vertical agency. Indian firms have also shown positives trends in board activism as the mean value of their board activism index has

improved to 66.71 during crisis from 51.44 before crisis. The board plays an active role during crisis to monitor the management as well as to the external environment. This is further justified by the improvement in Auditing Index during crisis period and the mean of Auditing Index of Indian has goes up to 78.95 during crisis period as compared to 53.32 prior to crisis. Thus, during crisis firms responded swiftly and have strengthened their auditing practices to avoid adverse situation.

The remuneration index has also increased as it was about 35 percent before crisis, but moves up to more than 45 percent during crisis period and then follows a declining trend which suggests that firms increase remuneration during crisis to motivate them for improving managerial efficiency during crisis.

Shareholder Grievance index has also improved from 43.11 to 51.40 during crisis period meaning that firms have become more sensitive to address shareholder's grievances during crisis period. Correspondingly the shareholder right index has also improved during crisis.

**Table 3: Descriptive Statistics of Corporate Governance Index**

Variable	Pre-Crisis Period				Pre-Crisis Period Average	Crisis Period 2008-09	Post-Crisis Period				Post-Crisis Period Average
	2004-05	2005-06	2006-07	2007-08			2009-10	2010-11	2011-12	2012-13	
<b>Board Structure Index</b>											
Mean	43.1637	43.0824	44.0778	43.2888	43.40318	48.1593	45.2156	44.9148	44.6748	44.4821	44.821825
Median	43.4783	43.4783	43.4783	43.4783	43.4783	47.4783	43.4783	43.4783	43.4783	43.4783	43.4783
Std.	14.2692	13.8114	13.5319	13.6817	13.82355	16.1773	14.4574	13.9379	13.1186	13.4337	13.7369
Deviation											
Minimum	10.4348	12.1739	12.1739	13.4783	10.4348	13.4783	12.1739	12.1739	12.1739	12.1739	12.1739
Maximum	94.7826	89.1304	96.5217	90.087	96.5217	97.8261	90.4348	90.4348	84.7826	84.7826	90.4348
<b>CEO Duality</b>											
Mean	42	40	42	41	41	42	52	51	53	51	52
<b>Board Activism Index</b>											
Mean	50.4493	49.5935	51.8614	53.8567	51.44023	66.7167	56.5597	55.3701	55.6697	55.0278	55.656825
Median	52.6316	47.3684	52.6316	52.6316	51.3158	67.8947	57.8947	57.8947	57.8947	57.8947	57.8947
Std.	9.6703	10.2201	11.1278	10.9467	10.49123	15.6562	11.0535	11.6787	11.6136	12.357	11.6757
Deviation											
Minimum	26.3158	26.3158	21.0526	32.1053	21.0526	21.0526	26.3158	26.3158	31.5789	26.3158	26.3158
Maximum	78.9474	78.9474	78.9474	89.4737	89.4737	97.8947	89.4737	84.2105	84.2105	94.7368	94.7368
<b>Auditor Index</b>											
Mean	50.3959	53.6444	54.666	54.5742	53.32013	78.9579	57.3372	57.2054	56.6278	55.5546	56.68125
Median	52.1739	52.1739	56.5217	56.5217	54.3478	83.913	60.8696	60.8696	56.5217	56.5217	58.69565
Std.	16.0861	15.7462	16.582	18.3223	16.68415	18.884	20.5398	19.2699	19.8176	21.0592	20.171625
Deviation											
Minimum	4.3478	13.913	10.8696	12.6087	4.3478	15.2174	13.913	11.3043	11.3043	11.3043	11.3043
Maximum	82.6087	82.6087	86.9565	86.9565	86.9565	98.2609	91.3043	91.3043	91.3043	91.3043	91.3043
<b>Remuneration Index</b>											
Mean	32.83	34.1076	35.5014	36.748	34.79675	38.5257	47.3093	39.8761	41.5021	42.1216	42.702275
Median	38.0952	38.0952	33.3333	42.8571	38.0952	42.8571	47.619	47.619	47.619	47.619	47.619
Std.	19.48	20.2524	20.2971	19.5883	19.90445	20.0741	17.2421	19.1002	19.6671	19.8132	18.95565
Deviation											
Minimum	4.7619	4.7619	4.7619	4.7619	4.7619	4.7619	9.5238	4.7619	4.7619	4.7619	4.7619
Maximum	71.4286	71.4286	85.7143	71.4286	85.7143	76.9048	90.4762	80.9524	76.1905	80.9524	90.4762
<b>Shareholder Grievance Index</b>											
Mean	39.2567	42.0828	44.5993	46.5118	43.11265	51.4025	47.3093	48.1611	48.8269	48.8966	48.298475
Median	38.0952	42.8571	47.619	47.619	44.04758	52.381	47.619	52.381	52.381	52.381	51.1905
Std.	18.0077	16.7126	16.5886	17.49	17.19973	16.9203	17.2421	15.8663	16.6635	17.8599	16.90795
Deviation											
Minimum	4.7619	9.5238	9.5238	9.5238	4.7619	11.5238	9.5238	9.5238	9.5238	9.5238	9.5238
Maximum	80.9524	76.1905	80.9524	80.9524	80.9524	91.4286	90.4762	85.7143	90.4762	94.2857	94.2857
<b>Shareholder Right Index</b>											
Mean	39.6567	47.1996	49.0515	53.9351	47.46073	60.9675	59.4038	61.0569	62.1048	60.9756	60.885275
Median	38.8889	44.4444	44.4444	55.5556	45.83333	61.1111	61.1111	61.1111	61.1111	61.1111	61.1111
Std.	12.0573	13.7631	14.0421	15.283	13.78638	14.4178	14.5535	14.5205	14.1735	14.5683	14.45395
Deviation											
Minimum	16.6667	16.6667	16.6667	5.5556	5.5556	16.6667	22.2222	16.6667	16.6667	16.6667	16.6667
Maximum	83.3333	83.3333	83.3333	83.3333	83.3333	96.6667	88.8889	88.8889	88.8889	88.8889	88.8889
<b>Disclosure Index</b>											
Mean	59.4193	62.1487	64.7294	68.4878	63.6963	83.6643	72.6829	74.3438	76.5738	76.3624	74.990725
Median	57.1429	64.2857	71.4286	78.5714	67.85715	90	78.5714	78.5714	85.7143	85.7143	82.14285
Std.	18.4964	19.8896	18.2722	19.5643	19.05563	16.7175	19.1329	18.8598	17.712	18.256	18.490175
Deviation											
Minimum	7.1429	7.1429	7.1429	7.1429	7.1429	7.1429	15.7143	12.8571	22.8571	21.4286	12.8571
Maximum	92.8571	92.8571	96	96	96	97.1429	96	96	96	94	96

Firms not only perform better in terms of board activism and shareholders activism but also have improved in terms of disclosure level as the mean disclosure index has increased to 83.66 and 74.99 during and after crisis respectively from 63.69 percent before the crisis. It has also been observed that this component of corporate governance has shown the highest improvement during crisis. It means that firms have adhered to the disclosure norms fixed by the regulators. As most of these norms are mandatory in nature so the regulators have also screwed Indian firms to disclose maximum information.

Thus, in terms of governance practices Indian Firms have shown improvement in all the aspects but comparatively higher improvement in auditing and disclosure index during crisis reflects that firms give more importance to comply mandatory norms in contrast to non-mandatory norms.

#### Corporate Governance and Firms' Performance

The results of the ordinary least square regression model given in table-4, reveal that the multiple regression coefficient (R), R<sup>2</sup>, and adjusted R<sup>2</sup> of the pre-subprime crisis model is 0.65, 0.422 and 0.401 respectively meaning that more than 40 percent of the variation in profitability can be explained from the selected independent variables. More than 25 percent during crisis period and more than 26 percent during post crisis variation in profitability has been explained from the selected independent variables.

impact during pre subprime crisis period. Whereas Indian promoters, non promoters banks and financial institutions, non promoters foreign institutional investors CEO duality and shareholders grievance index did not find any significant relationship with operating profit over the three different period of time.

Foreign Promoters ownership holding found to be positively associated with operating profit suggesting that firms with higher foreign ownership holding will have higher profitability. Foreign investors have the ability to monitor the managers of firms and thereby reduce agency costs. On the other hand foreign investors would prefer efficient and profitable companies and avoid inefficient firms for making their investment decisions. The similar results have been observed by Patibandla, (2006); Douma et al., (2006) and Chhibber & Majumdar, (1999).

Non promoter's non institution investors' stake holdings found to be negatively associated with profitability during pre- and subprime crisis period meaning that the firms with dispersed shareholding base does not perform better during crisis. It is because of inability of shareholders to monitor firms due to dispersed shareholding and managerial discretion. This problem further magnifies in the countries having weak institutional mechanisms to protect small investors (Patibandla, 2006; Dwivedi & Jain, 2005).

#### Board activism index

The significant positive relationship between board

**Table 4:** Results of Regression Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
Pre-Subprime Crisis	.650	.422	.401	.106396	.422	20.375	17	474	.000
Subprime Crisis	.551	.304	.251	.101653	.304	2.696	17	105	.001
Post-Subprime Crisis	.483	.283	.267	.102479	.233	8.467	17	474	.000

## RESULTS AND DISCUSSIONS

The results of the three different regression models has been summarized in the table-5 and the results indicate that there are statistically significant relationships in the case of non promoter non institution and shareholder right index over the three different (pre, during and post subprime crisis) period. Foreign promoters share holders have significant relationship with operating profit in pre and post subprime crisis period at 10% significance level. Board activism index, auditors' index and disclosure index have significant impact on firm's profitability during and post subprime crisis period. The remuneration index has significant

activism index and profitability has been observed during and post subprime crisis. It shows that firms having high level of board activism during subprime crisis and post subprime crisis enjoy higher profitability. Because the boards responded quickly to monitor the firm's performance by lifting their level of board activity and that transform their role from a reactive means to an instrument that can obstruct crisis (Millstein & MacAvoy, 1998).

#### Audit effectiveness and Firm Performance

Effective of Audit committee has significantly positive effects on firm's performance during subprime crisis and post-subprime crisis periods but not during pre-

subprime crisis period. This means that the audit committee adopted the higher standard of audit practices during crisis to detect opportunistic behaviors of the managers as well as to encourage or compelled them to be more accountable. Audit effectiveness increase the integrity of firm's financial reporting, improves monitoring of management and reduces information asymmetry problems and mitigate the adverse performance effects of financial crisis (Mallin, 2007).

#### Board Remuneration and Firm Performance

Incentives are able to increase performance and mitigate vertical agency problem. Conyon & Peck, (1998) showed that the composition of firm's main board and its compensation committee are important in the closer alignment of management pay and its performance.

The significant relationship has been observed between remuneration Index and firm's performance during pre-subprime crisis periods only whereas during subprime crisis and post-subprime crisis periods this relationship was insignificant. This indicates that firms with higher quality of remuneration committee have higher operating profitability during pre-subprime crisis period. The positive relation may be due to the transparent and quality of remuneration policies motivates the majority of firm's executives to enhance performance as result

shareholders will receive better dividend.

#### Shareholder Right Index

Share holder rights have positive relationship with firm's profitability (Harford et al., 2008) and combination of excess cash and weak shareholder rights leads to increases in capital expenditures and acquisitions. Firms with low shareholder rights and excess cash have lower profitability and valuations.

The present study also found significant positive relationship between shareholder right index and operating profit during study periods. This means that firms with high legal protection and strong enforcement of shareholder rights enhance profitability.

#### Disclosure Index

The quality of disclosure affects the firms' performance and the higher disclosure level improves the functioning of boards, imposing disciplinary mechanisms to prevent management from engaging in expropriation of stakeholders. Good corporate disclosures play a significant role in firm's performance. In this study also, the significant positive relation has been noticed between disclosure Index and firm's performance during subprime crisis and post-subprime crisis periods. It means that firms have improved their disclosure level during subprime crisis and post crisis that indirectly resulted in improvement in firm's performance.

Variables	Pre Subprime Crisis Period				Subprime Crisis Period				Post Subprime Crisis Period			
	Un standardized Coefficients		T	Sig.	Un standardized Coefficients		T	Sig.	Un standardized Coefficients		T	Sig.
	B	Std. Error			B	Std. Error			B	Std. Error		
Constant	.011	.069	.161	.872	.169	.175	.969	.335	.228	.079	2.888	.004
CV	.114	.008	15.03**	.000	.035	.010	3.321**	.001	.023	.012	1.888	.060
CS	-.001	.004	-.167	.868	-.017	.010	-1.773	.079	-.019	.004	-4.197*	.000
NDTS	.262	.189	1.388	.166	.186	.422	.440	.661	1.205	.158	7.629*	.000
LIQ	.001	.004	.226	.821	.005	.011	.005	.996	.009	.005	1.631	.104
IP	.000	.000	.370	.711	.000	.001	.329	.743	.001	.001	1.417	.157
FP	.001	.001	1.559	.062	.001	.001	.674	.502	.001	.001	1.828	.068
NPBFI	.001	.001	.452	.651	.001	.002	.506	.614	.002	.001	1.359	.175
NPFII	.000	.001	.423	.673	.000	.002	-.160	.873	-.001	.001	-.689	.491
NPNI	-.001	.001	-1.490*	.037	-.001	.002	-.339*	.035	-.001	.001	-.840	.062
BSI	.001	.000	1.706	.149	-.001	.001	-1.189	.237	.000	.000	1.147	.252
CD	.010	.011	.939	.348	-.009	.021	-.438	.662	.005	.010	.455	.649
BAI	.001	.000	2.110	.035	.001	.001	2.207*	.030	.000	.000	.862	.038
AI	.001	.000	2.917	.004	.000	.001	.417*	.007	.001	.000	4.961**	.000
RI	.001	.000	2.353*	.019	.000	.001	-.763	.447	.000	.000	-1.069	.285
SGI	.000	.000	.873	.383	-.001	.001	-1.755	.392	.000	.000	1.311	.190
SRI	.001	.000	3.733**	.000	.001	.001	.860*	.052	.001	.000	2.239*	.026
DI	.000	.000	-.528	.598	.001	.001	1.037	.002	.001	.000	1.848*	.055

\*\* Regression coefficient is significant at 0.01 and \* significant at 0.05 levels

## CONCLUSION

The failure of corporate governance is one of the main reasons not only for the collapse of big corporate houses like Enron, World.com but also for the various global financial crises. In this study an attempt has been made to examine the relationship between ownership structure and internal governance structures and financial performance of listed Indian firms during subprime crisis. Based on the sample of 121 listed firms (Bombay Stock exchange), the study observed that recent financial crisis has severely affected firm's performance and firm's with higher level of board activism perform better during crisis. Firms with higher disclosure standards, effective audit committee and well protected rights of minority shareholders have performed well during crisis period. The results also support the resource dependency theory and found positive association between foreign ownership holding and firm performance and supporting the view that greater exposure to the external environment improves access to large resources at competitive costs and thus positively affects firm's performance. Further, widely held firms have not performed well during study period as compared to concentrated firms.

### Scope for further research

In this study, the governance practices of only listed private limited Indian companies has been studied, whereas the public sector, banking and non-banking financial companies have been excluded. So, for generalising the results a comprehensive study based on all type of companies can be more meaningful. In present study return on assets i.e proxy for firm's performance is based on the book value and it is affected by different accounting choices made over time. The further study can be done by taking market based performance ratio. This study has covered only 2008 subprime crisis period where as study based on different financial crises periods may provide better insights into the corporate governance during crises.

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