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Impact of CGI on Performance of Indian Firms

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Abstract -The purpose of this paper is to examine impact of corporate governance index (CGI) on financial performance of Indian firms. The paper adopts a data set of 49 companies listed on BSE -500 for the period of 2001 to 2012, using a panel regression model. We use ROA, ROE, TQ, MBV, Cash flow and Assets growth as dependent variables and corporate governance index as independent variable. This study found that corporate governance index positively associated with TQ and MBV. This study also found that corporate governance index negatively associated with ROE, Cash flow, ROA and Assets growth.

Keywords: Corporate Governance Index, CEO Duality, Ownership Structure, Tobin's Q

I. INTRODUCTION

Corporate governance has become a worldwide issue in developed as well as developing countries of the world. Corporate governance needs has been highlighted due to the various scams occurring frequently in the world. Corporate governance specifies the division of rights and responsibilities between company's stakeholders (shareholders, directors and managers) and also specifies the rules and procedures for making decisions on corporate affairs. Corporate governance is a system of structuring, operating and controlling a company to attain long-term goals to assure various stakeholders such as shareholders, creditors, employees, suppliers and customers and fulfill the regulatory and legal requirements. Indian corporate governance structure's characteristics are quite different from other countries like USA and UK. There have been numerous important corporate governance initiatives launched in India since the mid-1990s. The first initiative was by the Confederation of Indian Industry (CII), India's largest industry and business association, which came up with the first voluntary code of corporate governance in 1998. The second was by the SEBI, now enshrined as Clause 49 of the Listing Agreement. Finally, it was implemented from January 1, 2006. The SEBI monitors and regulates corporate governance of listed companies in India through Clause 49. Indian regulators and industry representatives have taken important steps to improve the country's corporate governance. Corporate governance reforms in India is divided into two phase. First phase's corporate governance reforms in India were held during 1996-2008. And after Satyam scandal the corporate governance reforms in India were come into the category of second phase. After Satyam scam, Indian regulators make a number of changes in corporate governance. The Indian companies have to follow the mandatory as well as voluntary recommendations to improve the quality of corporate governance standards.

Effective corporate governance helps firms to obtain the external finance and leading to more investment as well as high growth, employment, lower cost of capital by reducing risk and create higher firm valuation. This indicates that there is a relationship between corporate governance and firm performance. This relationship has been measured in various countries like USA, UK, Germany, Hong Kong, Greece, Korea, India, Ukraine etc. But most of the researches related to corporate governance and financial performance have primarily focused on individual components such as board size, board independence, CEO duality, board committee, ownership concentration etc. Biswas and Bhuiyan (2008) [50] suggest that most of the existing studies investigate impact of individual corporate governance characteristics on firm performance which fails to capture the total effect and thus brings misleading results. Therefore the researcher decided to focus on the corporate governance index (CGI) rather than individual components. The CGI effectively summarizes the different aspects of corporate governance and make distinction between good and poor governed firms. On the basis of existing literature and provisions of Clause 49 the researcher decide the attributes of the CGI. Therefore, this paper measured the impact of corporate governance through the CGI on firm performance. The findings of this paper are helpful for those peoples who are concerned with the impact of governance structure on corporate performance.

The remainder of this paper is structured as follows. The second section provides an overview of past literature, which explores the relationship between corporate governance index and firm performance. The third section presents the hypothesis and fourth section, data and methodology. The fifth section describes the construction procedures and

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components of corporate governance index used in the study. The sixth section discusses the results of the paper. The seventh and eighth section concludes the paper by summarizing the main findings, limitations and offering some suggestions for further research.

II. REVIEW OF LITERATURE

Most of earlier studies focus on the individual components of corporate governance such as board size, board independence, CEO duality etc. But this paper measures the impact of corporate governance on firm performance by constructing a corporate governance index. For developing the corporate governance index, the researcher review the literature related to corporate governance index.

Gompers et al. (2003) [48] constructed a corporate governance index to measure the relationship between shareholder rights and firm performance. They used 24 different corporate governance provisions and these provision were further classified into five groups such as director or officer protection (Protection), tactics for delaying hostile bidder (Delay), state laws (State), voting rights (Voting) and other takeover defenses (others). The governance index shows the balance of powers among shareholders and managers. One point was added for each provision that viewed as restriction of shareholders rights and increase management power. Then firms are classified into two portfolios namely democracy and dictatorship on the basis of the index score. In case of 'Democracy' portfolio, firms having lowest management power had stronger shareholders rights. On the other hand in 'Dictatorship' portfolio, the firm with high management power had weaker shareholders rights. They suggest that the reason behind the poor performance is weak shareholder rights.

Mohanty (2003) [51] developed a corporate governance index with the help of nineteen measures of corporate governance to investigate the relationship of CGI and financial performance of firms. The author considers all stakeholders (shareholders, employees, customers, bondholders, suppliers, society and government) not only the shareholders. The behavior of the companies with stakeholders could take positive, negative or neutral form. When constructed the CGI he assigned unequal weights to the nineteen measures of corporate governance. He assigns higher weightage to the shareholders measures as compared to other stakeholders and higher negative weightage to negative form measures. The researcher found that development financial institutions, mutual funds invested funds in better governance records.

Silva and Leal (2005) [6] constructed the CGI to investigate the relationship between quality of corporate governance practices and performance of Brazilian listed companies. Their CGI is composite of fifteen items and covered four broad categories such as board composition and functioning, shareholder rights, ownership and control structure and disclosures. Each item of CGI is related to 'Yes or No' response to a specific question. If answer is 'yes', then value of one is assign to the question, otherwise the value is zero. CGI is the sum of points for each question and maximum index value is fifteen. They found positive and significant relationship between better CG practices and firm performance (ROA). They also found positive but insignificant relationship between better CG practices and firm performance (Tobin's Q). They indicate less than four percent of Brazilian listed companies have good CG practices.

Zheka (2006) [65] constructed overall CGI for a transitional country, Ukraine. It is called Ukraine corporate governance index (UCGI) and its sub-indices were shareholder rights, board independence, chairman independence and transparency/ information disclosure. The researcher found strong positive relationship between CGI and firm performance in transition economy. This shows that corporate governance issues not only for developed and developing economies but also for transitional economy.

Varshney et al. (2012) [53] constructed the CGI on the basis of both internal and external corporate governance mechanisms to examine the relationship between corporate governance and performance of Indian firms. They used value based and traditional measures to investigate the relationship. The researchers found positive relationship between CGI and firm performance.

Sarkar et al. (2012) [61] constructed a corporate governance index for 500 firms listed in India on the basis of information related to four important corporate governance mechanisms like board of directors, audit committee, auditor and ownership structure. The index has been created in two parts. A sub- index was made for each of corporate governance mechanism in first step. Second, sub- indices average is calculated to compute CGI of a firm. Their results show strong relationship between CGI and market performance of the firms. It means the firms with better corporate governance structure earn better rate of return in the market. So, Indian market rewards those firms that have strong corporate governance mechanisms.

Table 1 helps the researcher in identifying the methodology for construction of corporate governance index used in existing literature. The table shows that various countries such as USA, Greece, Colombia, Spain, India and Thailand constructed CGI to measure the relationship between corporate governance practices and firm performance.

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Researchers are using different techniques to measure the relationship like regression, survey etc. Most of the studies found positive relationship between CGI and firm performance.

Table 1 : Summary of Literature Review

S. No.	Statement	Previous Studies
1	A positive non significant relationship between CGI and firm performance was found	Gutierrez and Pombo (2005) [31]
2	A Positive and statistical significant relationship was found between Indian CGI and firm performance	Balasubramanian et al. (2008), Hodgson et al.(2011), Sarkar et al. (2012) [40, 3,61]
3	Better governed firms are more profitable and valuable and pay out more cash to their shareholders	Brown and Caylor (2006) [30]
4	Negative relationship between board size and firm performance	Ghosh (2006) [58]
5	Board structure changes not affected the agency costs	Mcknight and Weir (2009) [49]
6	Found negative relationship of board independence and operating performance in prior to 2002. But after 2002 find positive relationship with in it	Bhagat and Bolton (2009) [55]
7	Found positive and significant relationship between better CG practices and firm performance	Silva and Leal (2005) [6]

III. RESEARCH HYPOTHESIS

To achieve the objective, following research hypothesis has been formulated:

H_{01} : There is a no relationship between corporate governance index and firm performance.

IV. DATA AND METHODOLOGY

This study comprises companies of BSE- 500 index which was established on 9 August, 1999 and represents nearly 93 percent of total market capitalization on BSE. This study use data of BSE- 500 listed companies for the period of 2001 to 2012 because large numbers of corporate governance reforms and corporate scandals have taken place in India during this period. The firm level data have been collected from “Prowess” a database of Indian companies, maintained by the Centre for Monitoring the Indian Economy (CMIE). Annual reports of the companies are taken from the company’s websites. This paper sample excludes all banking and financial services companies because they are governed by Banking Regulation Act. Only 144 companies provide corporate governance reports from 2001 to 2012. Then the sample consist of 64 companies due to non - availability of corporate governance data in the reports that is required for construction of corporate governance index. The final sample set after removing outliers and companies with incomplete financial data consist of 49 companies over a period of 12 years.

Methodology of Corporate Governance Index Construction

This paper construct the corporate governance index on the basis of above mentioned five corporate governance mechanisms namely, Board of directors, Audit committee, Remuneration committee, Shareholders and investors grievances committee and Ownership structure. This paper takes the attributes within a specified governance mechanism and use binary coding (1 or 0) to score each attribute. And then aggregate the score of all attributes. The simple aggregation of scores means the researcher construct unweighted index. Unweighted indices are widely used by various researchers for index construction [62, 33]. The attributes used in the index were obtained from the standards specified in the Clause 49 regulations as well as from various academic studies.

Components of Corporate Governance Index

This paper considers five important governance mechanisms to capture the overall state of corporate governance of a company. These five governance mechanism are the (1) Board of Directors, (2) Audit Committee, (3) Remuneration Committee, (4) Shareholders and Investors Grievances Committee (SIGC) and (5) Ownership Structure.

(a) Board of Directors

Board of directors is the most powerful player in the corporate governance matters due to separation in ownership, control and management. The board of directors appoints managers to handle day to day activities of the organization and these managers report to the directors. These directors act as middlemen between management and shareholders. Board of directors is responsible to shareholders for all activities of the managers. The board of directors is the backbone of corporate governance. They perform many functions in the firm such as taking strategic decisions, establishing objectives, formulation and implementation of policies and evaluate performance of CEO and other management personnel. They decrease the agency cost, rewarding top executives and it leads to maximize shareholders wealth [17, 46].

This paper considers the important attributes that explain the corporate governance state with respect to board of directors. These attributes are following:

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1. Board Size
2. Percentage of Independent Directors
3. CEO Duality
4. Presence of Non-executive Chairman
5. Number of Board Meetings Held

(b) Audit Committee

The audit committee is the important governance mechanism that is designed to assure that company produces significant, adequate and reliable information that investors as well as various stakeholders can use to assess the company performance. The audit committee is also required because external auditor's main interaction with the board of directors is by the audit committee. The audit committee provides all necessary information to external auditor that are essential to carry out the audit process effectively and functioning of external auditor. The audit committee wants independence from the management which is required at the time of verification of financial statements prepared by management and internal auditors. Fama and Jensen (1983) [17] and Klein (1998 and 2002) [5, 4] suggests that audit committee helps to reducing the information irregularity among shareholders and management.

This paper considers the following three important attributes of audit committee:

1. Size of audit committee.
2. Presence of independent directors.
3. Number of audit committee meetings held.

(c) Remuneration Committee

The compensation or remuneration committee assesses the executive's performance; determine suitable compensation packages and make recommendations to the board. It is believed that the presence of this committee increases the board power when CEO is not the member of this committee [1]. Agency theory also suggests that compensation committee directors determine the suitable design of executive pay and align the management and shareholders interest [34]. Sapp (2007) [57] found that increase in the proportion of independent directors in compensation committee increases the level of CEO compensation. In India, remuneration committee and non-mandatory nature of its recommendations was incorporated by the SEBI under Listing Agreement of Clause 49. The committee should comprise at least three directors all of whom should be non-executive directors, the chairman being an independent director.

The following five attributes are considered related to remuneration committee:

1. Existence of committee.
2. Size of remuneration committee.
3. Presence of independent directors.
4. Number of meetings held.
5. Committee chaired by independent director.

(d) Shareholders and Investors Grievances Committee (SIGC)

Shareholders and investors grievances committee is mandatory according to Clause 49 and this committee shall be formed under non-executive director chairmanship to look into the redressal of investors and shareholders complaints. These complaints are related to transfer of shares, non-receipt of declared dividend, non-receipt of balance sheet etc. which are immediately attended by companies. Auditor also clearly mention in its certificate if any complaints pending against the company for a period of more than one month. Investors can file complaint against the company at the company's registrar office, SEBI, department of company affairs and Stock Exchange. The number of meetings of this committee depends on business requirements. The following four attributes are considered related to shareholders and investors grievances committee:

1. Size of committee.
2. Presence of independent director.
3. Number of committee meetings held.
4. Committee chaired by non-executive director.

(e) Ownership Structure

Ownership structure is one of the important internal mechanisms of corporate governance and it has been widely studied in developed countries like USA and UK. Ownership structure is the main source of firm's agency costs and it is the root of corporate governance problems. Earlier literature on ownership structure as governance mechanisms focus on agency costs arising due to separation of ownership and control and investigate the relationship between ownership structure and firm performance. Claessens and Djankov (1999) [56] and Cho and Kim (2007) [15] found positive impact of ownership structure on firm performance. On the other side, Xu and Wang (1999) [66] and Abor and Biekpe (2007) [24] found negative impact of ownership structure on firm performance. Generally, agency theory is used to analyze the relationship between agents and principals. But there is a growing need to recognize the conflict among the different classes of ownership. Khanna and Palepu (2000b) [63] reports superior firm performance for highly diversified groups and lower firm performance for the least diversified groups. We use following attributes to consider the firm's ownership structure. These attributes related to ownership structure are used for construction of CGI by [61].

1. Percentages of promoter's ownership.

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2. Percentage of foreign institutional investor's ownership.
3. Percentages of domestic financial institutions ownership.
4. Percentage of dispersed ownership.

The attributes used in construction of CGI were obtained from the standards specified in the SEBI's Clause 49 of the Listing Agreement as well as from various academic studies. Clause 49 of Listing Agreement has to be defined as the Clause number 49 of the Listing Agreement between a company and the stock exchanges on which it is listed. It is compulsory for listed Indian companies to follow the provisions of Clause 49.

Variables

The following variables such as Return on equity (ROE), Return on assets (ROA), Tobin's Q (TQ), Market to book value (MBV), Cash flow and Assets growth are included consistent with the previous literature [48, 6, 42, 67, 64, 39, 40, 3]. ROA is used as measure of company's operating performance. Higher the ROA better will be the profitability position of the company and it means that the company is earning higher return with less investment. ROE shows how much profit a company has generated with the money of shareholders. Tobin's Q represents the market's perception about the firms' future profitability. MBV is also used as measure of market valuation. Cash flow has been measured by divided Cash flow from operations by sales. Assets growth represents the growth of the firm. In this study researcher used leverage, firm size, sales growth and beta as a control variable for measuring the relationship between corporate governance index and firm performance.

The researcher used panel data analysis in this study because panel data sets are able to identify and estimate effects that are not measurable in pure cross-sectional or pure time-series data. This paper sample consist data of 49 companies and over the period of twelve years so it required panel data analysis. This paper has employed the model 1 in measuring the effect of corporate governance index on firm performance. This model is also used by [39].

Relationship between corporate governance and firm performance

$$D\,(TQ, MBV, ROA, ROE, CF\ \&\ AG)_{it} =$$

$$\beta_0 + \beta_1\, CGI_{it} + \beta_2\, FIRM_SIZE_{it} + \beta_3\, SALES_GROWTH_{it} + \beta_4\, BETA_{it} + \beta_5\, LEVERAGE_{it} + \epsilon_{it}$$

(Model 1)

D stands for dependent variables taking values of Tobin's Q, MBV, ROA, ROE, Cash flow (CF) and Assets growth. CGI represents corporate governance index as independent variable. ϵ_{it} Denote error term respectively. The researcher runs the Hausman (1978) test in order to check the more efficient model between fixed and random effects.

V. RESULTS

Descriptive Statistics

Descriptive analysis is used to explain the essential features of data in the study. It provides simple summary about the sample and the measures. A brief description of the variables is provided in this section. Descriptive statistics of dataset of 49 companies are illustrated in table 2. Corporate governance index (CGI) score range between 4 and 19 with standard deviation 2.96.

Table 2: Descriptive statistics of dataset of 49 companies

Variables	Range	Minimum	Maximum	Mean	Std. Deviation
CGI*	15	4	19	12.04	2.96
Tobin's Q	6.12	0.13	6.25	1.29	0.84
ROA	0.74	0.01	0.75	0.15	0.07
ROE	48.49	-8.30	40.18	4.04	5.70
Sales growth	3.32	-0.55	2.77	0.17	0.25
Assets growth	1.51	-0.42	1.09	0.16	0.19
Size	6.86	6.92	13.79	10.18	1.36
Cash flow	1.92	-0.39	1.52	0.15	0.14
Leverage	0.73	0.00	0.73	0.27	0.16
MBV	14.08	0.13	14.21	2.48	2.17
Beta	1.68	0.21	1.89	0.92	0.29
N = 588					

*Corporate Governance Index

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The results indicate that Asian Paints Ltd. has performed better in terms of Tobin's Q and MBV. BEML Ltd. performed poor in terms of both TQ and MBV and also has low corporate governance index score. Mahindra & Mahindra Ltd. has highest corporate governance index score. J B Chemicals & Pharmaceuticals Ltd. has performed better in terms of ROA and Cash flow. EID-Parry (India) Ltd. has performed better in terms of ROE and Tata Power Co. Ltd. in terms of Assets growth. Kesoram Industries Ltd. has performed poor in terms of ROE and Zee Entertainment Enterprises Ltd. in terms of Assets growth.

Table 3 classifies our sample of 49 firms into three groups: *good* corporate governance (CGI above 14), *medium* corporate governance (CGI from 9 to 14) *and poor* corporate governance (CGI below 9). The researcher has obtained these criteria on the basis of z- values. Looking at the year 2012, the result indicates that most of the Indian firms (63.2 percent) are at the *medium* corporate governance practices level in 2012. Moreover, 32.7 percent of the firms are at the *good* corporate governance practices level. Firms with poor corporate governance have decreased from 34.7 percent in 2001 to 4.1 percent in 2012 in our sample. It shows that more corporate governance practices are followed by large number of firms.

Table 3: Corporate Governance Rating (Values in percentage)

CGI groups	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Below 9 (Poor CG)	34.7	22.4	18.4	14.3	10.2	6.1	4.1	6.1	10.2	10.2	8.2	4.1
9 to 14 (Medium CG)	57.2	59.2	59.2	63.3	65.3	73.5	83.7	71.5	67.4	59.2	69.4	63.2
Above 14 (Good CG)	8.1	18.4	22.4	22.4	24.5	20.4	12.2	22.4	22.4	30.6	22.4	32.7
Total	100	100	100	100	100	100	100	100	100	100	100	100

The table 4 shows the percentage of attributes those have assigned value one. Looking only at the year 2012, board size 8 to 13 is very common (69.4 percent of the firms). In 93.9 percent firms have 50 percent or more independent directors in their board. In 61.2 percent of firms, the Chairman of the Board and the CEO are not the same person and 59.2 percent firms have non-executive chairman. In 91.8 percent firms conducted board meeting more than 4. In 69.4 percent firms have audit committee consist of more than 3 members. Only 55.1 percent firms audit committee have 100 percent independent directors. All firms' audit committee meets 4 or more times in a year. In 93.9 percent firms establish remuneration committee. Only 32.7 percent firms have more than 3 directors as member of the remuneration committee. Only 65.3 percent firms have 3 independent directors in remuneration committee. In our sample 89.8 percent firms have independent chairman of the remuneration committee. Further 40.8 percent firm's remuneration committee meets at least 2 times in a year. In 18.4 percent firms have more than three directors as member of shareholder and investor grievances committee.

Table 4: CGI Attributes Descriptive Statistics (Values in percentage)

Attributes / Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Board size	65.3	53.1	71.4	73.5	79.6	83.7	77.6	69.4	71.4	73.5	73.5	69.4
Board Independence	55.1	57.1	59.2	65.3	59.2	63.3	67.3	67.3	89.8	87.8	95.9	93.9
CEO duality	61.2	65.3	59.2	63.3	63.3	65.3	63.3	63.3	63.3	63.3	59.2	61.2
Board chairman	57.1	59.2	53.1	55.1	55.1	61.2	59.2	59.2	59.2	61.2	59.2	59.2
Board Meeting	87.8	95.9	91.8	85.7	91.8	98	93.9	89.8	87.8	91.8	83.7	91.8
Audit Size	49	53.1	51	42.9	42.9	61.2	61.2	57.1	53.1	65.3	73.5	69.4
Audit Independence	46.9	49	51	55.1	55.1	49	49	51	53.1	49	51	55.1
Audit Meeting	40.8	63.3	67.3	83.7	93.9	93.9	100	100	98	100	100	100
RC* exist	59.2	67.3	77.6	81.6	83.7	85.7	83.7	83.7	85.7	85.7	87.8	93.9

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RC size	22.4	22.4	22.4	14.3	18.4	26.5	30.6	26.5	26.5	36.7	36.7	32.7
RC Independence	28.6	38.8	42.9	46.9	49	44.9	51	49	51	55.1	57.1	65.3
RC chairman	46.9	63.3	73.5	79.6	79.6	77.6	75.5	77.6	79.6	79.6	81.6	89.8
RC meeting	16.3	30.6	34.7	36.7	34.7	30.6	34.7	36.7	34.7	40.8	38.8	40.8
SIGC* size	28.6	26.5	20.4	28.6	16.3	18.4	24.5	24.5	22.4	20.4	18.4	18.4
SIGC Independence	46.9	42.9	42.9	40.8	32.7	24.5	30.6	36.7	36.7	30.6	30.6	38.8
SIGC chairman	89.8	93.9	95.9	93.9	95.9	98	98	98	98	98	91.8	91.8
SIGC meeting	22.4	30.6	34.7	26.5	30.6	36.7	36.7	42.9	40.8	44.9	51	49
Promoter ownership	32.7	36.7	36.7	36.7	40.8	36.7	32.7	34.7	38.8	38.8	42.9	42.9
FII* ownership	16.3	16.3	14.3	36.7	51	59.2	63.3	61.2	46.9	53.1	61.2	65.3
Domestic ownership	61.2	59.2	59.2	53.1	53.1	59.2	65.3	67.3	65.3	65.3	53.1	53.1
Dispersed ownership	73.5	75.5	75.5	69.4	65.3	55.1	40.8	40.8	44.9	42.9	38.8	32.7

* RC- Remuneration Committee, SGIC- Shareholders & investor's grievances committee, FII – Foreign Institutional investors

In 38.8 percent firms have more than one independent director in shareholder and investor grievances committee. In 91.8 percent firms have NED chairman shareholder and investor grievances committee. And 49 percent firms shareholder and investor grievances committee meets at least four times in a year. In case of ownership structure, only 42.9 percent firms have promoter ownership more than 48 percent. FII ownership is more than 8 percent and 65.3 percent firms have FII ownership. Domestic ownership is more than 14 percent and 53.1 percent firms have domestic ownership. Dispersed ownership is more than 26 percent and 32.7 percent firms have dispersed ownership. CGI is a firm level corporate governance index composed of 21 attributes. The researcher has assigned one value for presence of attributes and zero assigned for absence.

The stationarity of the data is checked before running regression. Levin, Lin, Chu unit root test is applied on panel data. This implies that the data has a unit root. And accept alternative hypothesis that data is stationary.

The researcher has applied panel regression model to find out the relationship between corporate governance index and firm performance by controlling the heteroskedasticity. The Researcher has used redundant likelihood ratio test to check the appropriateness of fixed effect model. If p-value less than 0.05, null hypothesis that independently pooled panels are more efficient was rejected, implying that fixed effects model was preferred to independently pooled panel model. The results are controlled for hetroskedasticity by using white cross –section coefficient covariance method.

The results obtained from the regression analysis indicate that corporate governance index is found to be significantly positively associated with TQ and MBV. The positive relationship indicates that market respond positively with better governed companies. Investors consider these better governed companies less risky and invest their funds at lower cost. The CGI is negatively associated with ROE and Cash flow. The CGI is also found to be insignificantly and negatively associated with ROA and assets growth. The negative relationship indicates that corporate governance does not improve the operating performance of firms.

Table 5: Regression Model Summary

S. No.	Dependent Variables	CGI	Size	Sales Growth	Beta	Leverage	Adjusted R^2	Durbin - Watson	F- Value	Likelihood Ratio Test (Chi-square)	Observation
1	**Tobin's Q**	0.022**	-0.132**	0.225***	-0.334**	-0.649***	0.724	1.123	25.092***	644.344***	588

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			*		*						
2	**MBV**	0.066***	-0.299*	0.988***	0.065	-0.019	0.649	1.125	17.922***	574.439***	588
3	**ROA**	-0.001	-0.019***	0.052***	-0.021***	-0.231***	0.500	1.372	10.186***	345.736***	588
4	**ROE**	-0.114*	2.436***	1.548***	-2.303***	-9.343***	0.573	1.331	13.336***	447.991***	588
5	**Cash Flow**	-0.005**	0.003	0.023	-0.016	-0.323***	0.473	1.816	9.232***	421.986***	588
6	**Assets Growth**	-0.002	0.072**	0.199***	-0.135	0.131*	0.332	1.957	5.550***	212.488***	588

This study rejects the hypothesis (no relationship between corporate governance index and firm performance). This study's findings of positive relationship between CG and firm performance measures (TQ and MBV) are similar to [14, 32, 6, 43, 3]. This study's results are contrary to [25, 47, 35]. The results of negative relationship between CG and firm performance measures (ROE, ROA, Cash flow and assets growth) are similar to [16, 19, 68]. The results are contrary to [6, 32, 29, 59, 3].

VI. CONCLUSION

The purpose of this paper was to measure the relationship between corporate governance index and firm performance by panel regression analysis for the period of 2001 to 2012. The results obtained from the study leads to conclusion that there is link between corporate governance and market valuation measures for firm performance. The positive relation indicates that market respond positively with better governed companies. Investors consider these better governed companies less risky and invest their funds at lower cost. No such relationship is found between corporate governance and accounting measures of firm performance like ROA, ROE, Cash flow and Assets growth. The findings of this study are similar to [12]. The result suggests that although corporate governance may not improve the operating performance of firms, it does improve investor's perception about firm's governance which ultimately leads to increase firm value.

VII. LIMITATIONS AND FURTHER RESEARCH

The researcher suggest future researchers to work on education and experience of board directors and audit committee members, related party transactions, director's remuneration and measure the impact of external governance mechanisms on performance of Indian firms. Further research might include industry wise comparison of Indian firms to improve firm's performance. Finally, due to missing data for some firms, this study could not include all the listed firms on the exchange in the sample.

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