Audit Committee, Corporate Governance and Firm Performance: Empirical Evidence from India

Nidhi Bansal¹ & Anil K. Sharma²

¹ Department of Management Studies, Indian Institute of Technology Roorkee, India
² Correspondence: Nidhi Bansal, Department of Management Studies, Indian Institute of Technology Roorkee, 247667, India. E-mail: nidhibansal111@gmail.com

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Abstract

Considering the endorsement of Indian Companies Act (2013), the study examines the role of audit committee characteristics (independence and frequency of meetings) in addition with other components of corporate governance (duality, promoter shareholding, board composition, and board size) in improving firm performance. Fixed effect panel data regression was applied on 235 non-financial public limited companies listed in NSE 500. The time period considered was ten years (2004 to 2013). Return on Assets, Return on Equity, Tobin’s q and Market Capitalization were used as proxy of firm performance. Results reveal significant positive association of board size and CEO-Chairman dual role with firm performance. However, findings did not reveal any additional effect of audit committee independence and its meeting frequency on the financial performance of Indian firms. Regulators and policy makers may reexamine the significance of greater independence of board and audit committee in context of firm performance.

Keywords: audit committee, board characteristics, companies act (2013), corporate governance, India

1. Introduction

Both foreign and domestic investment is very important for the growth of any economy. However, occurrence of financial frauds gives a bad image not only to the firm in which the fraud occurred, but also to the country (Bhasin, 2013). Such instances result in lower investment from domestic and foreign investors, hampering the economic growth of the nation. In the light of such scandals, corporate governance assumes much prominence. Infamous frauds such as Enron, WorldCom, Satyam, etc. highlight the importance of strong corporate governance.

Accurate and true financial information is the basis on which investment decisions are made. However, some organizations resort to ‘window dressing’ or manipulation of financial data which does not depict a true picture of the financial position of the firm. Hence, a body like independent audit committee is required to keep in check such unscrupulous activities. The presence of independent auditors goes a long way in ensuring investor trust (Corplaw Blog, 2014; Leung et al., 2014). The audit committee’s role is significant in ensuring the potency of internal control structure (Nuryanah & Islam, 2011). It assesses the financial statements of a firm and performs the role of an intercessor among board of directors, managers, external and internal auditors, and ensures transparency and proper flow of information (Bhardwaj & Rao, 2015). Regulatory measures laid down in Indian Companies Act (2013) suggest increasing the independence of audit committees.

It is widely accepted that companies get additional advantage from investors when they voluntarily adopt corporate governance practices in addition to mandatory recommendations (Aggarwal & Williamson, 2006). Firm, efficient and transparent corporate governance is a key to the profitability, desired growth and stability of a firm. Corporate governance has gained more prominence due to the competitiveness of the business world across all sectors, both nationally and internationally. Keeping this in view, Indian Companies Act (2013) has increased the role and responsibilities of audit committees. Their expanded roles include scrutinizing financial statements, evaluating investments and assets etc.

The present study empirically examines the relationship between company performance and audit committee independence and frequency of their meetings. The study also tests the degree of impact that board size, CEO duality, promoter shareholding and proportion of outside directors on the board have on the performance of a
firm. This study contributes to existing literature in two ways: First, an additional measure of firm performance (market capitalization of a firm) has been considered in the study in order to observe the impact of determinants of corporate governance (audit committee, duality, board size, and composition and promoter shareholding) on a firm’s market performance. Market capitalization is the market value of a firm derived by multiplying share price of the firm with the number of shares outstanding. It was included as an additional measure because it did not include accounting aspects, thus was a variable that could not be manipulated. Second, role of audit committee in improving financial performance of a firm was systematically examined. This was done in accordance with the recommendations of Ameer et al. (2010) and Beasley et al. (2000) who proposed that audit committee independence and frequency of meeting of audit committee helped in reducing financial frauds in a firm, thereby possibly enhancing the firm’s financial performance.

The relation between audit committee characteristics and firm performance is particularly important to the accounting profession because auditors have a responsibility to identify the actual position and value of a company in terms of income shown, assets and equity value as depicted by the financial statements (Indian Companies Act, 2013). Audit committee is considered vital to maintaining transparency in a firm. The members of audit committee are also part of the board of directors which is responsible for formulating strategies for improving the financial health of the firm. So, if the audit committee presents a true picture of financial statements in front of the members of board of directors and the CEO, they would be in a better position to draw effective strategies towards increasing the performance of the firm (Bhardwaj & Rao, 2015). According to Subrata Sarkar (NSE Quarterly briefing, 2013), “The audit committee is an important governance mechanism designed to ensure that a company produces relevant, adequate and credible information that investors as well as independent observers can use to assess company performance”. There have been a number of cases in India such as Satyam, Sahara, Saradha, etc. (Bhasin, 2013; Sen et al., 2014) as well as abroad such as Enron Corporation, Global Crossing, WorldCom, Adelphia, Tyco etc. (Bhasin, 2013; Hogan et al., 2008; Pathak & Wells, 2008) where frauds were committed and investors cheated. These frauds were such that they were not identified from financial statements at the time. Emphasizing the need for an independent audit committee, Bhasin (2013) asserted that one of the factors contributing to the Satyam fraud was weak independent directors and audit committee. Had audit committee comprised greater number of independent directors, the financial accounts might not have been manipulated for so long. Yunus et al. (2014) stressed on frequent meetings of the audit committee for it to be more effective.

While significant studies have been carried out on corporate governance and its association with a firm’s financial performance (Mishra & Mohanty, 2014; Rodriguez-Fernandez et al., 2014; Velnampy, 2013), very few have considered the role of audit committees. The concept of audit committee is as old as the agency theory given by Fama and Jensen (1983) which emphasizes the independence of boards and committees so as to reduce agency cost. Menon and Williams (1994) also suggested that the frequency of audit committees meetings and composition of audit committee were two probable indicators of the committee’s efficiency. The Indian Companies Act (2013) has also recommended a minimum of two third independent members in the committee, and a minimum of four meetings in a year. Jemison and Oakley (1983) asserted that an audit committee having all members as outside directors is a crucial component of corporate governance. The US Securities and Exchange Commission strongly emphasizes that it is better not to have an audit committee at all rather than having all inside directors as members of the audit committee as they would never show the real picture of the financial position of the firm and mislead investors.

Enactment of Indian Companies Act (2013) has made rules regarding the presence of an independent audit committee more stringent in order to curb financial frauds. This study seeks to determine the impact of the role of independent audit committees on firm performance in addition with other corporate governance measures. Major findings of our studies are: (1) independent audit committee is significantly and positively related to return on equity and frequency of audit committee meetings is significantly and positively related to Tobin’s Q and market capitalization. (2) independence of board of directors is significantly and inversely related to firm performance (except when performance measure is return on equity where the relationship is insignificant); (3) there is significantly positive relationship between duality on the board and firm performance; and (4) board size and promoter shareholding has significant and positive impact on some measures of firm performance.

The rest of the paper is structured as follows: Section 2 reviews literature on board of director composition, audit committee characteristics and firm performance. Section 3 describes the objectives of the study. Section 4 determines the conceptual framework and Section5 presents data analysis. Section6 lays down the empirical outcomes of the study. Section7 mentions limitations, and Section 8 concludes the study with future research directions.
2. Literature Review

An important task the board of directors has to perform is to improve value of the firm and ultimately increase shareholder wealth (Fama & Jensen, 1983). Shareholders themselves give this right to the board when they invest in a firm (Fama, 1980). However, shareholders generally lack the resources to monitor how the management and board utilize the money invested by them (Grossman & Hart, 1980; Holmstrom, 1982).

The variables considered in this study (board size, board composition, duality, promoter shareholding) have been found to have some impact on the financial performance of a firm which has been measured based on return on assets, return on equity and Tobin’s q in various research papers (Ibrahim & Samad, 2014; Kiel & Nicholson 2003; and Rhoades et al., 2001). However, the relevance of audit committee characteristics has not been investigated much. The present study addresses this gap by investigating importance of the role of audit committee (in addition with board size and composition, promoter shareholding and duality) on a firm’s financial performance.

2.1 Independent Variables

2.1.1 Board Independence and Firm Performance

Whether independence of board has a positive or negative effect on firm performance has been a subject of significant study. Brickley et al. (1994), and Fama and Jensen (1983) supported independence on the board as they believed that it could reduce agency cost and result in stricter monitoring of board activities, thereby improving firm performance. Studies suggest that a greater number of independent directors on the board increase firm efficiency (Dharmadasa et al., 2014; Lin, 2011; Pahuja, 2011). Denis and Sarin (1997) suggested that board independence helped in improving stock prices of firms. The key reason behind these findings may be that independent directors do their best in making a project profitable since their reputation is at stake (Eisenberg et al., 1998). If the project fails, their reputation and earnings also suffer. Some researchers (Koerniadi & Tourani, 2012; Leung et al., 2014; Shan & McIver, 2011) however, are of the opinion that there cannot be a positive association between the independence of directors and firm performance as independent directors may not have adequate information and knowledge about the firm. Authors such as Balasubramanian et al., (2010); Lange and Sahu (2008) and Sarkar et al. (2006) opine that quality of the board is more important as compared to independence for improving firm performance.

2.1.2 Board size and Firm Performance

Several studies have established that board size influences firm performance. De Oliveira Gondriqe et al. (2012); Fauzi, and Locke (2012); Saibaba and Ansari (2012); and Ujunwa (2012) argued that a large board size would bring more knowledge, visions, opinions and investment proposals that would ultimately benefit stakeholders. Hambrick et al. (2008) asserted that smaller boards were incapable of making strategic changes due to their inefficiency in considering various alternatives for firm growth. On the other hand, numerous researchers favour smaller boards and are of the view that large boards lead to non-cooperation and waste of time in decision making as they suffer from social loafing. Thus, their knowledge and skills remain unutilized (Dharmadasa et al., 2014; Drakos, & Bekiris, 2010; Jensen, 1993; Lin, 2011).

2.1.3 Duality and Firm Performance

An important research question is whether CEO duality - when a same person is CEO and Chairman of the board, affects the financial performance of the firm. Existing literature offers differing perspectives in this regard. Some studies (Kaymak & Bektas, 2008; Lin, 2011; Ujunwa, 2012) criticize the dual role of the CEO, as almost absolute decision making authority with one person might not be in the best interest of stakeholders. Bliss (2011) stated that CEO duality is an obstacle for the independence of the board. Researchers such as Brickley et al. (1997); Dahya et al. (1996) argued that a dual CEO role was important as it reduced chances of clashes on viewpoint and enabled timely decision making. Several other studies (De Oliveira Gondriqe et al., 2012; Dharmadasa et al., 2014; Schmid & Zimmermann, 2008) found no correlation between dual CEO role and performance of firm.

2.1.4 Promoter Shareholding and Firm Performance

Promoter shareholding is another important internal corporate governance factor. Agency theory provides arguments both in favor of and against higher promoter shareholding. Significant studies conducted on the topic found that large promoter shareholding could reduce agency cost between principal and agent due to their monitoring capacity (Anderson & Reeb, 2003; McDonald et al., 1998). High promoter shareholding enables the overcoming of free rider problem arising due to dispersed ownership. However, large promoter shareholding has its own disadvantages. It could lead to increased agency cost between majority and minority shareholders.
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In favor of favorable and improve frequency (2004) committee position committee Abbott and members effectiveness. Audit 2.1.5 Audit Committee Independence and Firm Performance

Audit committee is viewed as an important element of corporate governance because independent directors of the audit committee can, through various monitoring processes, keep in check the faulty conduct of managers. Cohen (2011) argued that independence of the audit committee was an important part of audit committee effectiveness. An independent audit committee may help in ensuring the reliability of the financial reporting process by keeping a check on manipulative, self-centered activities of managers. Governance codes all over the world require firms to set audit committees and ensure their independence. Firms that have more independent members in their audit committees have a lesser probability of becoming victims of fraud (Beasley, 1996). Bukit and Iskandar (2009) suggested that earnings management was toned-down by independent audit committees. Abbott (2002) also found an inverse relationship between audit committee independence and earnings management. Arslan et al. (2014); Bouaziz and Triki (2012); Nuryanah and Islam (2011); Yasser et al. (2011) mentioned that independent audit committees improved the quality of audit reports and enhanced performance of firm.

2.1.6 Audit Committee Meetings and Firm Performance

Al-Mamun (2014) was of the view that regular meetings of audit committee could help reduce agency problems and information asymmetry of a firm by providing fair and timely information to investors. If the audit committee is independent, and work of the committee fair, then frauds occurring in firms could be curbed (Yunos et al., 2014). Independent members of the committee could fairly look into financial statements and observe components such as equity, net income, total assets and sales, which represent the performance and financial position of the firm (Subrata Sarkar, 2013). DeZoort et al. (2002) suggested that a company where the audit committee met more frequently was likely to be more careful in safeguarding the interest of its investors. Bryan, (2004) investigated the recommendations of Blue Ribbon Committee (1999) with regard to improvement in the efficiency of corporate audit committees and argued that audit committees would strengthen financial reporting practices, when there were more independent and financially literate members who committed adequate time to the board and met recurrently. Menon and Williams (1994) considered two audit committee traits (meeting frequency and independence) to ascertain if the board directly relied on audit committee as a tool to control managers and found that these two characteristics improved the monitoring of the firm, and could thereby improve its performance. Several studies observing the relationship between audit committee meeting frequency and firm performance have given mixed results. Abdul and Haneem (2006) and Mohd Saleh et al. (2007) provided evidence that lesser number of audit committee meetings improved financial performance of the firm as it reduced the additional cost that was incurred with every meeting, but Kyereboah-Coleman (2008) established favorable outcome of frequent audit committee meetings on market measures of firm performance.

2.2 Control Variables

In the process of controlling industry and firm effects, we introduced two control variables – firm leverage and firm age.

2.2.1 Leverage and Firm Performance

Leverage is the ratio of long term debt to total debt of a firm. Though the capital structure of a firm does not much affect its market value (Modigliani-Miller framework), yet, if agency cost of the firm reduces because of higher levels of debt, then capital structure will have a significant relationship with firm performance (Jensen, 1986). Therefore we have taken leverage as a control variable in our study. Interestingly, Olokoyo (2013) and many other authors such as De Oliveira Gondigre et al. (2012), Fauzi and Locke (2012), Lama (2013), Zeitunand Gang Tian (2007) found that high leverage resulted in lower return on assets of firms, but increased Tobin’s Q. This implies that higher amount of debt negatively impacts accounting performance of a firm, but positively impacts market measure of the firm’s performance. This contradiction between findings of Jensen (1986) and those of other authors may be due to some firms being over leveraged.
2.2.2 Firm Age and Firm Performance

Age represents the time that that elapsed since the firm’s incorporation. There is an ambiguous relationship between firm age and firm performance. On the one hand, mature firms perform well as compared to newly established firms due to the goodwill they have developed over time (Mousa et al., 2012). On the other hand, older firms are not easily able to adopt new technologies due to their rigidity and complacency (Anderson & Reeb, 2003). Thus, to account for the effect of firm age on firm performance, we have controlled firm age.

3. Objectives

The present study seeks to achieve the following objectives:

i. Understand the association between board composition and firm performance.

ii. Identify the relationship between board size and performance of a firm.

iii. Assess the relationship of dual role of CEO with firm performance.

iv. Comprehend the influence that promoter shareholding has on performance of firm.

v. Ascertain influence of independence of audit committee and frequency of meetings on firm performance.

4. Conceptual Framework

Following a thorough review of literature, a conceptual model has been proposed to elucidate the relationships and interrelationships among various components of corporate governance and performance of firm. In the model, corporate governance is broadly divided into two parts: 1) board structure (including board size, composition, leadership structure, promoter shareholding); and 2) corporate reporting (comprising audit committee). It is through these two dimensions that corporate governance affects firm performance (financially and non-financially). According to Wild (1996), a firm’s performance improves on disclosure of right quality of financial reports and strengthens investor trust. It is the audit committee that is responsible for revealing true financial information. The presence of an independent audit committee might keep a check on financial frauds, thereby reducing misappropriation of funds and losses to the company. Thus, the funds of the firm would be invested properly and would be more likely to earn returns, improving firm performance. Further, if occurrence of frauds is not allowed, it will increase company reputation and investor trust and confidence.

This study considers only the financial aspects of firm performance and the influence that the degree of independence of audit committee and frequency of meetings has on such aspects.

Source: Adapted from Velnampy and Pratheepkanth (2012).

5. Data and Methodology

The present study analyses 235 non-financial firms listed on the NSE (National Stock Exchange) 500 in India. Financial data were collected from CMIE (Centre for Monitoring Indian Economy) Prowess Database and
corporate governance data were collected from corporate governance reports of all companies considered for the years 2004-2013. To determine the influence of audit committee characteristics (independence and meeting frequency) on firm performance, two models were considered in this study – one model assessed the role of audit committee characteristics (independence and frequency of meetings) with other components of corporate governance (duality, promoter shareholding, board composition, and board size) in improving firm performance; the other model did not include audit committee variables.

In order to avoid the effect of outliers, all dependent and independent variables (except the dichotomous variable) were winsorized at 1% level. This was done in accordance with the recommendation of Oikonomou et al. (2012). Panel unit root test was conducted on each series and it found that panel data did not have unit root problem. The data were found to be stationary at I(0). Fixed effect panel data regression model was used to analyze panel data for examining the association of determinants of corporate governance with financial performance of firms. The results of Hausman test and likelihood ratio redundant fixed effect test supported the use of fixed effect estimation method. Baltagi (2005) also supported the use of fixed effect method over random effect method of estimation when the sample was not drawn randomly from a large population. In this study, the sample of NSE 500 companies is not drawn randomly from the whole population of listed companies. The reason behind considering NSE 500 index is that it represents 95.77% of the market capitalization of all companies listed on NSE.

Robust standard error is also one important issue to be taken care of in panel data. The residual or the error term of the model might be correlated over time or across firms, i.e., there may be time series dependence or cross section dependence. This leads to biased standard errors of the estimated coefficients. Since the cross sections are arranged alphabetically and not randomly in the present study, cross section dependence cannot be anticipated. Time series dependence was checked for each cross sectional sample using serial correlation LM test and it was found that there was no serial correlation in the data. The mean of each cross section in the study was also nearly zero. This is in agreement with the study of Pesaran (2015), who proposed a null hypothesis that the value of cross-sectional uncorrelated errors ($u_t$ and $u_{ij}$) was almost zero. Symbolically, the hypothesis could be expressed as:

$$H_0: E(u_{it}, u_{ij}) = 0, \text{for all } t \text{ and } i \neq j \text{ (Pesaran, 2015)}$$

For checking the heteroskedasticity in the residuals of cross sections, white test was applied with Huber white coefficient covariance estimator on year wise cross section data. The derived results indicated homoscedasticity in the data. Thereafter, white period standard error was used to estimate robust standard errors and the result provided us with unbiased t statistics.

The four main corporate governance mechanisms explored are: board composition, board size, duality of role of CEO, and promoter shareholding. The common proxies used to measure firms’ accounting performance in previous studies are: ROA, ROE, ROI (Krishnan & Moyer, 1997; and Zeitun & Gang Tian, 2007). Other measures, based on market performance of firms, as used by many authors are: Tobin’s Q (Mousa et al., 2012; Saibaba, 2013; Sami et al., 2011; and Zeitun & Gang Tian, 2007) and price to earnings ratio (P/E) (Abdel Shahid, 2003). In our study, we have used four measures of firm performance – Return on Assets (ROA), Return on equity (ROE), Tobin’s Q and market capitalization. Out of these four measures, three are based on previous studies (ROA, ROE, and Tobin’s Q), and one (market capitalization) has been taken as an additional measure. ROA and ROE are purely accounting measures. Tobin’s Q mixes market value with accounting measures. Market capitalization is purely a market measure and not influenced by accounting records. Further, it is representative of investors’ confidence in the firm which in turn is the result of effective corporate governance mechanisms enforced in the firm. Tobin’s Q is the ratio of market value of firm to the book value of assets. Since debt is a non-tradable instrument in India, market value of firm is taken as the sum of the market value of equity and book value of debt in consonance with Kumar and Singh (2013), Saibaba and Ansari (2012). Though the data for market value of equity were collected from CMIE prowess database using market capitalization as indicator, missing values were filled using yearly stock price average of equities and number of shares outstanding at the end of the year.

The following regression models were used to achieve the objectives:

$$FM_{it} = a_i + \beta_1 BC_{it} + \beta_2 BS_{it} + \beta_3 LS_{it} + \beta_4 PS_{it} + \beta_5 LEV_{it} + \beta_6 FAGE_{it} + u_{it}$$

(1)

$$FM_{it} = a_i + \beta_1 BC_{it} + \beta_2 BS_{it} + \beta_3 LS_{it} + \beta_4 PS_{it} + \beta_5 ACIND_{it} + \beta_6 ACM_{it} + \beta_7 LEV_{it} + \beta_8 FAGE_{it} + u_{it}$$

(2)
Where,

\[
\begin{align*}
    i & : \text{firm}1 \text{ through } 253 \\
    t & : \text{year } 1 \text{ to } 10 \\
    F_{i,t} & : \text{Firm performance for firm } 'i' \text{ at time } 't' \text{ measured using ROA, ROE, Tobin's } Q \text{ and M Cap as proxies} \\
    \text{ROA} & : \text{Return on Assets i.e. the ratio of total income and total assets} \\
    \text{ROE} & : \text{Return on Equity i.e. ratio of net income to shareholder's equity} \\
    \text{Tobin's } Q (\text{TOQ}) & : \text{Ratio of market value of firm to total assets} \\
    \text{Market value of firm} & : \text{Market value of equity + market value of debt} \\
    \text{M Cap} & : \text{Market Capitalization (Stock price * shares outstanding)} \\
    a_i & : \text{time invariant intercept for firm } i. \\
    \text{BC} & : \text{Board Composition i.e. number of independent directors on the board} \\
    \text{BS} & : \text{Board size i.e. total number of directors on the board} \\
    \text{LS} & : \text{Leadership structure i.e. whether the position of Chairman of the board and CEO is occupied by same person. '0' is given when there is no duality and '1' otherwise.} \\
    \text{PS} & : \text{Promoter shareholding i.e. % shares owned by promoters} \\
    \text{ACIND} & : \% \text{ independent directors in the audit committee} \\
    \text{ACM} & : \text{number of meeting of audit committee in a year} \\
    \text{LEV} & : \text{ratio of debt to equity} \\
    \text{FAGE} & : \text{firm age from the year of incorporation} \\
    u & : \text{residual or disturbance term}
\end{align*}
\]

Empirical analysis was carried out to establish the impact of board structure and promoter shareholding on financial performance of the firm. Further, analyses were done to examine the importance of the presence of independent audit committee in improving performance of firm.

6. Empirical Analysis and Interpretation

Results of descriptive analysis are given in table 01. The table shows that Indian firms have 10 members (on an average) in the board of directors. In 37% firms, two main positions - CEO and Chairman of the board, were occupied by a single person. On an average, 51% shares were held by promoters of the company and 5 members were independent on every board. These results are consistent with those of Saibaba, (2013). There are both pros and cons of such high ownership of promoters. On the one hand, due to such high shareholding, promoters will always remain concerned with the profitability of the firm and the shareholding will also reduce agency cost. But on the other hand, promoters may try to restrict entry of outsiders in the firm and work towards personal interests (Jensen & Meckling, 1976). Loebbecke et al. (1989) suggested that such kind of ownership increases the chances of fraud. Results also reveal that on an average, Indian firms have more than 85% of the members of audit committee as independent (members who are in no way linked with the firm and other executive directors). It was found that on an average, 5 audit committee meetings were held by firms. The average return on assets was found to be 9%, and return on equity 80% for Indian firms.

Table 1. Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Maximum</th>
<th>Minimum</th>
<th>Std. Dev.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
<td>5.09</td>
<td>5.00</td>
<td>10.00</td>
<td>1.00</td>
<td>1.80</td>
<td>0.39</td>
<td>2.94</td>
</tr>
<tr>
<td>BS</td>
<td>9.82</td>
<td>10.00</td>
<td>17.00</td>
<td>5.00</td>
<td>2.69</td>
<td>0.43</td>
<td>2.88</td>
</tr>
<tr>
<td>LS</td>
<td>0.37</td>
<td>0.00</td>
<td>1.00</td>
<td>0.00</td>
<td>0.48</td>
<td>0.55</td>
<td>1.30</td>
</tr>
<tr>
<td>PS</td>
<td>50.72</td>
<td>50.83</td>
<td>96.08</td>
<td>0.00</td>
<td>18.02</td>
<td>-0.02</td>
<td>3.13</td>
</tr>
<tr>
<td>LN_FAGE</td>
<td>3.53</td>
<td>3.50</td>
<td>4.94</td>
<td>1.79</td>
<td>0.61</td>
<td>-0.13</td>
<td>2.59</td>
</tr>
<tr>
<td>LN_LEV</td>
<td>1.30</td>
<td>1.26</td>
<td>2.30</td>
<td>-0.58</td>
<td>0.21</td>
<td>0.65</td>
<td>9.38</td>
</tr>
<tr>
<td>ACM</td>
<td>5.02</td>
<td>4.00</td>
<td>11.00</td>
<td>3.00</td>
<td>1.53</td>
<td>1.62</td>
<td>5.80</td>
</tr>
<tr>
<td>INDAC</td>
<td>85.09</td>
<td>100.00</td>
<td>100.00</td>
<td>0.00</td>
<td>17.79</td>
<td>-1.41</td>
<td>6.59</td>
</tr>
<tr>
<td>ROA</td>
<td>0.09</td>
<td>0.07</td>
<td>0.35</td>
<td>-0.15</td>
<td>0.07</td>
<td>0.75</td>
<td>4.33</td>
</tr>
<tr>
<td>LN_ROE</td>
<td>0.80</td>
<td>0.77</td>
<td>2.19</td>
<td>-1.00</td>
<td>0.18</td>
<td>2.42</td>
<td>32.28</td>
</tr>
<tr>
<td>LN_MCAP</td>
<td>9.84</td>
<td>9.67</td>
<td>14.56</td>
<td>3.07</td>
<td>1.68</td>
<td>0.32</td>
<td>3.05</td>
</tr>
<tr>
<td>LN_TOQ</td>
<td>0.38</td>
<td>0.28</td>
<td>3.04</td>
<td>-2.10</td>
<td>0.82</td>
<td>0.41</td>
<td>3.45</td>
</tr>
</tbody>
</table>
Correlation analysis was done so as to find out the correlation of independent variables among themselves. For drawing unbiased results, it is necessary that the variables must not be correlated with each other. It is clear from table 02 that none of the variables are highly correlated. The highest correlation (0.73) was found between board size and board composition as number of independent directors depended on board size. However the correlation value here is within acceptable limits and did not require the elimination of either variable. Robustness test was done using Variance Inflation Factor and similar results were obtained. None of the VIF value was greater than 8 which show that the data did not have multi-collinearity problem.

Table 2. Correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>BS</th>
<th>BC</th>
<th>DUAL</th>
<th>PS</th>
<th>ACM</th>
<th>INDAC</th>
<th>LN_FAGE</th>
<th>LN_LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC</td>
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<td>-0.05</td>
<td>-0.11</td>
<td>0.07</td>
<td>-0.05</td>
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</table>

Finally, empirical analysis was done using fixed effect panel data regression. Initially, the analysis was done taking into account corporate governance mechanisms other than audit committee characteristics. Four of the dependent variables (ROA, ROE, Tobin’s Q, market capitalization) were considered in separate models to observe the effect of corporate governance on each performance measure separately. For reducing variance in data relating to firm age, leverage, return on equity, Tobin’s q and market capitalization, log of these variables was taken.

Results were carried at 5%, 10% and 1% significance level. Looking at the results when audit committee characteristics were not considered, they indicate that Indian firms cannot progress when there are too many independent directors on the board; a significant negative association was found between independence of board and performance of firm as measured by return on assets, Tobin’s q and market capitalization (i.e. lesser the number of independent directors on the board, better the firm performance). The remaining performance measure (ROE) proved to have insignificant relation with board independence. This finding is in line with the results of Denis and Sarin (1997) and Ujunwa (2012). Though board size was found to be positively associated with all measures of firm performance, positive and significant associated was found only with Tobin’s Q and market capitalization. Other measures were too inconclusive to establish any significant relationships. Thus, it can be said that as far as accounting measures are concerned, board size does not have any effect on increasing the efficiency of Indian firms in the long run. In consonance with previous studies, (De Oliveira Gondirge et al., 2012; Dharmadasa et al., 2014; Schmid & Zimmermann, 2008), our analysis also brought out the result that leadership structure of a firm or dual position occupied by CEO have strong positive association with firm performance. This means that a single person acting as CEO as well as Chairman of the board majorly influences optimum utilization of the assets and capital of the firm along with several other factors.

Promoter shareholding was found to have significant positive association with only return on equity. This is because promoters will do their best to earn more through cash flow rights. Similar results were given by Andres (2008).

All four models explained well the variance of corporate governance variables on firm performance measures as the value of R square was more than 60% in all cases and the p-value of F statistic was less than 5%.

To analyze the influence of corporate governance mechanisms with inclusion of audit committee characteristics on firm performance, further analysis was carried out. While regulators also believe that the presence of audit committee, and more specifically, a greater degree of independence can reduce financial statement frauds leading to an increase in firm performance, our results did not find any improvement in the overall regression model.

On the basis of ROA analysis, it can be said that independent directors in audit committee share a positive but insignificant relation with performance of firm, however, degree of audit committee independence was found to play a positive and significant role in enhancing firm performance in association with ROE. Tobin’s Q and market capitalization have negative association with firm performance. Though market capitalization
relationship is insignificant but Tobin’s Q relationship is significant. Possible reason could be improper valuation of firm’s assets when there are more independent directors in the audit committee. This finding is in line with results of Bouaziz and Triki (2012). The results indicate that more independent directors in audit committee help in improving the monitoring ability of committee. It was discovered that frequency of audit committee meetings significantly and positively influenced performance of firm when assessed on the basis of Tobin’s q and market capitalization. Results show that inclusion of audit committee characteristics effected a change in association between performance of firm (ROA) and other corporate governance mechanism. After inclusion of audit committee characteristics, board size and promoter shareholding was found to have a positive significant relation with return on assets while leadership structure came out with insignificant relationship. Board composition continued to show a significant negative association.

Leverage was negatively and significantly related to all performance measures except Tobin’s Q. These results are consistent with the findings of Olokoyo (2013), and show that high level of debt decreased returns of firms.

Firm age exhibited the same relationship as was of Tobin’s Q. It seems that less mature firms are improving their returns and their market price. Possible reason for this could be the use of improved technology and their orientation towards growth.

R square values of all models while considering audit committee characteristics were more than 60% which concedes that the model generated is good for determining the financial performance of a firm and can also be used for the population as determined by F statistic (p < 0.0000).

Table 3. Regression analysis using fixed effect model (model summary)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1 (ROA)</th>
<th>Model 2 (ROE)</th>
<th>Model 3 (TOQ)</th>
<th>Model 4 (M Cap)</th>
<th>Model 5 (ROA)</th>
<th>Model 6 (ROE)</th>
<th>Model 7 (TOQ)</th>
<th>Model 8 (M Cap)</th>
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<tr>
<td>Intercept</td>
<td>0.000</td>
<td>0.000</td>
<td>0.441</td>
<td>0.494</td>
<td>0.000</td>
<td>0.000</td>
<td>0.400</td>
<td>0.490</td>
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<td>BS</td>
<td>0.105</td>
<td>0.562</td>
<td>0.002**</td>
<td>0.000***</td>
<td>0.095*</td>
<td>0.470</td>
<td>0.600</td>
<td>0.001***</td>
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<td>(1.620)</td>
<td>(0.579)</td>
<td>(3.044)</td>
<td>(3.821)</td>
<td>(1.671)</td>
<td>(0.722)</td>
<td>(2.653)</td>
<td>(3.398)</td>
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<tr>
<td>LS</td>
<td>0.045**</td>
<td>0.006**</td>
<td>0.072*</td>
<td>0.008**</td>
<td>0.322</td>
<td>0.005**</td>
<td>0.082*</td>
<td>0.011**</td>
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<tr>
<td>(2.002)</td>
<td>(2.727)</td>
<td>(1.798)</td>
<td>(2.643)</td>
<td>(2.009)</td>
<td>(2.810)</td>
<td>(1.741)</td>
<td>(2.544)</td>
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<tr>
<td>BC</td>
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<td>0.546</td>
<td>0.013**</td>
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<td>LS</td>
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<td>0.854</td>
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<td>0.045**</td>
<td>0.012**</td>
<td>0.903</td>
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<tr>
<td>(1.035)</td>
<td>(2.566)</td>
<td>(-0.184)</td>
<td>(-0.827)</td>
<td>(0.990)</td>
<td>(2.520)</td>
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<td>ACIND</td>
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<td>—</td>
<td>0.530</td>
<td>0.054*</td>
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<td>(0.628)</td>
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<td>(0.530)</td>
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<td>(1.753)</td>
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<td>LN_LEV</td>
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<td>LN_FAGE</td>
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<td>0.000***</td>
<td>0.590</td>
<td>0.000***</td>
<td>0.022**</td>
<td>0.000***</td>
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<td>(-4.050)</td>
<td>(-0.538)</td>
<td>(4.358)</td>
<td>(-2.297)</td>
<td>(-3.750)</td>
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<td>R- squared</td>
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<td>0.849</td>
<td>0.649</td>
<td>0.662</td>
<td>0.708</td>
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<td>Prob (F-statistic)</td>
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<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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</tr>
</tbody>
</table>

\* t statistics are in parentheses.
*** denote significance at 1%, ** denote significance at 5% and * denote significance at 10%.

7. Limitations
Like any other study, this study also has some limitations. The study considers only 235 firms as there was paucity of data concerning firms who did not maintain their annual reports at the end of the financial year. Thus, sample size was reduced. Also, the study focuses only on certain corporate governance determinants (board composition and size, duality of leadership structure, promoter shareholding, audit committee independence and frequency of its meetings) to assess their impact on firm performance. There could be other determinants such as board diversity, institutional ownership, tenure of directors, rotation of auditors, qualification of audit committee members, etc. which may affect firm performance. These factors could be studied further in future. Another
limitation of this study is that it ignores the impact of firm performance on corporate governance mechanisms. This relationship also would make an area for future research.

8. Conclusion and Future Research Directions

The results from this study confirm that board size plays an important role in improving the performance of Indian firms as long as Tobin’s Q and market capitalization is the performance measure. The results are aligned with some of the previous studies (De Oliveira Gondrige et al., 2012; Fauzi, & Locke, 2012; Saibaba & Ansari, 2012; and Ujunwa, 2012). Findings of the study suggest that greater number of board directors results in increased stock prices and investor confidence in the firm. Further, inclusion of more independent board directors would result in lower return on equity. One reason behind this could be that due to insufficient knowledge held by independent directors, they are not able to increase profits. Auxiliary analysis shows that audit committee independence and frequent audit committee meetings improve the performance of some corporate governance mechanisms. This could be due to timely detection of financial statement frauds and presentation of actual financial position in front of board of directors.

Results of this study must draw attention of regulators who progressively advocate an increase in the independence of the board and audit committee. While the Companies Act (2013) stresses that at least 4 audit committee meetings be held in a year, our study found that frequency of audit committee meetings had insignificant influence on firm performance (ROA), and had a negative significant influence on ROE. Thus, more research is warranted to determine the influence of regular meetings of audit committee on firm performance. Also, independence of audit committee was found to have a significant positive relationship only with ROE which cannot be taken as conclusive evidence to say that independence of audit committee significantly affects firm performance as there are other measures of firm performance that need to be considered with respect to independence of audit committee. Further research is warranted to establish the influence of independence of audit committee on firm performance.

Indian Companies Act (2013) has made changes in laws regarding independent directors and their functioning. Future research could look into how, as a result of these regulatory changes, independence of directors would affect firm performance.

References


Balasubramanian, N., Black, B. S., & Khanna, V. (2010). Firm Level Corporate Governance in Emerging


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