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The Impact of Board Structure on Corporate Performance in India

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Abstract

The present paper examines the status of corporate governance in India with special reference to board of directors. It investigates the impact of board of directors on corporate performance of top Indian companies. The board characteristics taken as independent variables are - board size, board composition, CEO duality, board activity, attendance during the meetings, board busyness i.e. directorships in other companies and gender diversity. Sample of top companies listed on BSE is taken to study impact of board characteristics on corporate performance for the year 2015-16 using multiple regression technique. Corporate performance of the companies is measured by Return on Assets and Price to Book Ratio. Size of the company, age and leverage are taken as control variables. The study finds that bigger boards have negative impact on corporate performance while board independence affects performance positively. Frequency of meetings as well as attendance therein is a positive factor influencing corporate performance. As believed in theory, busyness of directors in other companies is found to have negative impact and gender diversity, as anticipated, contributes positively towards corporate performance.

Keywords; *Corporate Governance, Board Size, Board Composition, CEO Duality, Gender Diversity, Boards of Directors.*

INTRODUCTION

The most prevalent type of business organisation in the present time is 'Company'. These companies are established on the basis of separation of ownership and management. The real owners of the business are shareholders. But being large in number and geographically dispersed, they are unable to participate in day to day operations of the concern. So, they appoint managers for running day to day operations and entrust their investment with them. Managers function on behalf of shareholders. They take care of day to day operations. It is an effective system but the drawback of this arrangement is that there is scope of opportunistic behavior by managers as their interests may not coincide with shareholders. Managers may indulge in self-seeking behavior i.e. pursuit of personal

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interests over shareholders' interests, entrenchment and unreasonable compensation for themselves etc. leading to diminished corporate performance and reduced shareholders' value. Thus, they take undue advantage of absence of the shareholders. This is referred to as 'Agency Problem'. Hence the need of a control mechanism arises through which the interests of shareholders can be safeguarded. So, shareholders appoint board of directors to monitor and supervise management and take decisions in former's favour. It satisfies the shareholders that an appropriate governance structure is in place. The directors also advise management on strategic issues. Directors are expected to play the role of custodian of shareholders' interests. Thus the role of board of directors becomes most important. As directors are at the apex of the internal control system; the ultimate responsibility for the functioning of the corporation and safeguarding the trust of shareholders rests with them. In order to protect shareholders' interests, boards of directors have to perform the lead role as the most important internal corporate governance mechanism.

BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

Corporate governance and role of board of directors have gained significant importance in recent times due to corporate scandals and scams like Enron in US (2001), HIH Insurance in Australia (2001) Healthsouth in US (2003) and Satyam in India (2009) etc. These scandals are related to weak corporate governance (Berkman et al., 2009) and erroneous board structure and composition. There has been much interest among scholars, researchers, governments including international agencies towards corporate governance due to financial scandals of late 1990s and global financial crisis of 2008. Corporate governance is looked upon as a measure to enhance investor confidence and attract investments. The Cadbury Committee of U.K. in January, 2000 defined corporate governance as – "the system by which companies are directed and controlled". Ensuring better corporate governance practices in the corporations will result in boosting investors' confidence as investors have the belief that a company with good corporate governance can reduce the risk and attract further investment (Agrawal and Knoeber, 1996). The firms having high governance score have a high market value (Black et al., 2006). It is now well recognized that corporate governance plays an important role in enhancing firm value (Erickson et al., 2005; Cho and Kim, 2007). Firms having weak governance structures face more agency problems and managers of those firms get more private benefits due to weak governance structures (Core et al., 1999). Thus, there is need of better corporate governance mechanisms and more specifically sound board structures to make the Indian companies fundamentally strong.

INDIAN CONTEXT

There is much interest in corporate governance in India due to opening up of economy. The world has become one market and there is increasing trend in listing of Indian companies on international stock exchanges. For promoting long term economic development, firms need finance in the form of foreign investment. On international level, Indian companies have to compete with foreign companies for finances at national and international stock exchanges. They have to be globally adroit and are required to be have strong governance mechanisms including sound board structures to maintain the faith of shareholders. As such the focus on foreign investment in India has necessitated a more transparent approach to corporate operations (Jackling and Johl, 2009). Evidence suggests that firms in emerging economies are discounted in financial markets because of weak governance (Shleifer and Vishny, 1997). Improvements in corporate governance can enhance investor confidence and increase these firms' access to capital (Rajagopalam and Zhang, 2009).

Due to all this, corporate governance was given mandatory status in India in early 2000

through the introduction of clause 49 of the Listing Agreement as all listed companies on stock exchange were required to comply with these norms. The Companies Act, 2013 includes a number of new provisions aimed at improving the governance of public companies. There has been a clear move in India to develop the corporate market to attract foreign investment. The new Companies Act, 2013 has stipulated structural and fundamental changes in the way companies are governed in India and incorporates various lessons from the corporate scams of the recent years. Appointment of independent directors is made compulsory to improve the board oversight processes. The focus of the new Act is on making the existing legislations more meaningful in the context of investor protection and customer interest and making it globally compliant.

RELEVANCE OF THE STUDY

The present study investigates scenario of corporate governance in India relating to board of directors and corporate performance. As the issue of corporate governance is primitive in India and there is little research on corporate governance in India, an investigation of corporate governance features related to Board of directors provides understanding of India's tryst with the global financial markets. The present paper contributes to examine the corporate governance issues and their impact on firm profitability in India. Aspects of board composition and board size are very relevant in the Indian context considering the recent changes brought about by new companies Act, 2013. As there is limited research in India on the role of board of directors as a major feature of corporate governance, it brings insights into improvements in profitability in the global financial markets. The various aspects of effectiveness of board of directors include:

- Board size (Number of directors)
- Board composition (Proportion of independent directors)
- Board leadership (CEO duality)
- Board activity (Frequency of meetings)
- Board attendance (Turnout during meetings)
- Board busyness (Directorships in other companies)
- Gender diversity (Proportion of women directors)
- Directors' Shareholding
- Board Committees and their Independence

REVIEW OF LITERATURE

Researchers see corporate governance problem as a conflict between shareholders and management. A firm's board of directors is expected to perform the pivotal tasks of monitoring and advising top management (Drobetz et al., 2013). The role performed by the board of directors towards monitoring the management and thus improving the corporate performance has been the crux of corporate governance literature. Rose (2005) argues that the corporate board plays a key role in supervising management and aligning their interests with the interests of the shareholders. This paper provides an insight into the aspects of the board size, board composition, CEO duality, board activity and gender diversity as the important drivers in improving profitability. The various scholars study the relationship of board of directors and profitability as:

- **Board Size and Profitability**

A well constituted board with optimum number of directors helps in value enhancement for shareholders. The number of directors on board i.e. board size is a critical factor that influences the performance of a company (Kumar and Singh, 2013). The researchers have been largely interested in the study of the influence of size of board of directors on financial performance of the company. There does not seem to be a

consensus among financial economists as to what size of board is optimum for the companies. The findings of previous studies have shown mixed results with regard to relationship between board size and performance. Some scholars find bigger boards better. Board's capacity for monitoring increases as more directors are added. Also, bigger boards have advantage of wider pool of expertise and greater links with the outside world. Klein (2002) also argued that a large board size should be preferred to small size because of the possibility of specialization for effective monitoring and advising functions. The author asserted that Board size has positive impact on firm's performance i.e. bigger the board size, better the corporate performance. Arslan (2010) found a positive impact of board size on stock market performance of the firms. In the same direction, Zahra & Pearce (1989), Adams & Mehran (2003) and Abidin (2009) found that firms with large board of directors ensure a better performance. There is contradictory view point also. Another strand of literature showed that, the large boards are less effective and have a negative impact on company's performance. Hermalin and Weisbach (2003) claim that smaller, outsider-dominated boards are more effective in monitoring management and thus serve shareholders' interests best. Research in the area suggests that as groups increase in size, they become less effective because of coordination and process problems outweighing the advantages gained from having people of diverse background (Jensen, 1993). Forbes and Milliken (1999) state that larger boards may hamper consensus building and projects may be a victim of board indecisiveness. Fama and Jensen (1983), Lipton and Lorsch (1992) &Yermack (1999) also favour small boards. Jensen (1993), for instance has questioned the effectiveness of boards with more than 7 to 8 members, arguing that such boards are not likely to be effective. Large boards result in less effective coordination, communication, flexibility and decision making. Yermack (1996) also finds that smaller boards lead to higher market values. He finds an inverse relationship between firm value and board size by using a sample of large US corporations; the empirical findings by Kumar & Singh (2013) show a negative relationship of board size with firm value. Kathuria and Dash (1999) argue that firm's performance increases if the board size increased but the contribution of an additional board member decreases as the size of the board increases.

- **Board Composition and Profitability**

Board composition is another board characteristic that needs consideration. The instances of corporate scandals, for example, Enron, Satyam and WorldCom led to the issue as to what composition of board is best able to monitor management. Board consists of two different types of directors: executive and non-executive. Executive directors are responsible for the day-to-day affairs of the company. They have direct responsibility for business functions such as finance and marketing (Weir and Laing, 2000). A non executive independent director is defined as an independent director who has no affiliation with firm except for his/her directorship (Clifford & Evans, 1997).

Board Composition is the ratio of independent directors in relation to total number of directors. There is an apparent presumption that boards with significant outside directors will make different and perhaps better decisions than boards dominated by insiders. The independence of board is a mechanism to reduce manager's discretion and opportunism. Research has shown that a high proportion of independent directors on the board improve the quality of financial disclosure and subsequent financial performance of companies (Chen et al., 2010). Fama& Jensen (1983) suggested that non executive directors can play an important role in effective resolution of agency problem & their presence on the board can lead to more effective decision making. Bhagat found significant *positive* relation between board independence and operating performance for the period 2003-2007. Rosenstein & Wyatt (1990) reported a positive stock price reaction at the announcement of the appointment of independent director, implying that the proportion of outside

directors affects shareholders' wealth. Uadiale's (2010) study also revealed a positive association between directors sitting on the board & corporate financial performance. She suggested that the composition of outside directors as members of the board should be sustained and improved upon. Weir & Laing (2000) also indicated that the proportion of non executive directors on board has positive effect on the Tobin's Q in UK. Jackling & Johl (2009) found a positive and significant relationship between board composition and financial performance as measured by Tobin's Q. However, the results of empirical studies are varied on this matter also. Estes (1980) indicated that it is hard for outside directors to understand the complexities of business. Chugh et al. (2011) said that an excessively autonomous board with a higher proportion of independent directors lowers the profitability. Hsu (2010) employed UK data of failed firms and matched against non failed firms and concluded that over emphasizing on independence of board is not favourable to firm's survival. It is argued that outside directors often lack the time and information to meaningfully contribute to the complex management process (Mintzberg, 1983). Yermack (1996) and Bhagat and Black (1999) also found a negative relationship between the proportion of outside directors and corporate performance**.** On the other hand, Hermalin and Weisbach (2001) found no relationship between board composition and performance (using Tobin's *Q* as the performance measure).

- **CEO Duality and Profitability**

A Chairman is the chief of board of directors and CEO is responsible for execution of the company's long term strategy. Chairman is the most powerful member on the board of directors. He/she provides leadership to the firm's officers and executives. It is Chairman's responsibility to ensure that the firm's duties to shareholders are being fulfilled. He oversees management and acts as link between the board and top management. The CEO is responsible for execution of the company's long term strategy. He is head of the management. He is accountable to shareholders and board of director for company's performance.

According to Brickley et al. (1997), duality is the allocation of the same person as CEO and also Chairman of the board for the same period. It means that same person is assigned dual role of execution as well as monitoring. This dual leadership structure results in concentration of power in one person's hands. One of the main tasks of the board is to evaluate top management including CEO. In firms, where CEO is chairman of the board of directors, it is questionable whether the board will evaluate the CEO genuinely. CEO duality has been blamed for governance failures in Enron, WorldCom and HIH and hence firms are under pressure to split the chairman and CEO roles. Fama and Jensen (1983) and Jensen and Meckling (1976) suggest that CEO duality may hinder board's ability to monitor management and thereby increase the agency cost. Because CEO duality signals the absence of separation of decision management and control, the board will be unable to effectively monitor and evaluate the CEO (Fama, F. and Jensen, M., 1983). So, splitting the titles of CEO and Chairman of the Board will improve firm performance. Agency theory believes that the separation of the chairman and CEO roles leads to greater scrutiny of managerial behavior and thus leads to better performance (Lorsch & MacIver, 1989; Millstein, 1992).

Contrary to agency theory, stewardship theory maintains that holding both positions by one person would enhance firm performance with that holding two positions by one person can monitor the firm unambiguously and can have a unique command throughout the firm (Adams et al. 2005; Davis et al. 1997; Finkelstein & D'Aveni 1994). Stewardship theory maintains that CEO duality creates a unity at the top of the organization (Donaldson and Davis, 1991). CEO duality, therefore, helps to avoid confusion among managers, employees and other stakeholders as to who is the boss and facilitates more timely and more effective decision-making (Finkelstein & D'Aveni, 1994). Otherwise, the firm may

experience conflicts at the top, reduced speed and effectiveness indecision-making and, finally, poor performance (Brickley et al., 1997; Donaldson& Davis, 1991).

Given the different approaches of Agency theory and Stewardship theory, evidence on the impact of duality is mixed. Rechner & Dalton (1991) report that in periods with high financial returns (1978-1980) the non-duality firms out-performed the duality firms. Splitting the role of the chairman and the CEO has led to greater financial performance (Coles et al., 2001). Sarkar & Sarkar (2009) consider duality as an obstacle to the board's role since it allows weakening the control making by directors. Westphal (1999) also emphasizes that CEO's intervention on the board, or even taking up the chairman's position, may end up in diminished involvement and effectiveness of board members. Through studying both accounting and stock market data, Bhagat& Black (1999), do not obtain evidence that greater independence results into higher performance. Arslan (2010), on the basis of sample of companies for the period between 1995 and 2006 concluded that separation is not found to have any impact on the stock market performance of the firms.

- **Board Activity and Profitability**

The frequency at which board meets is a indicator of their activity. The frequency of board meetings may beviewed as akey element in board effectiveness. Indeed, there are explanations both infavour of and against a positive relationship between the frequency of meetings and corporate financial performance. Apositive link between the board meetings and firm performance was explained by Conger et al. (1998). In the same furrow, Donaldson and Preston (1995) found a positive relationship between corporate financial performance and number of meetings. A negative relation between board meetings was established by Vafeas (1999). Jensen (1993) suggested that boards should be relatively inactive and higher board activity is likely to symbolize a poor performance.

The frequency of board meetings may be viewed as a key element in board effectiveness. Effectiveness of a board depends on how often the board members meet to discuss the various issues facing a firm (Vafeas, 1999). Diligent boards will enhance the level of oversight, resulting in improved firm performance.

Indeed, there are explanations both in favour of and against a positive relationship between the frequency of meetings and corporate financial performance. A negative relation between board meetings was established by Vafeas (1999). Increase in board meetings is considered to represent the intensity of board activity (Vafeas, 1999) which may be due to lack of coordination and consensus issues. On the other hand Conger et al. (1998) views board meetings as an important resource in improving the effectiveness of the board. A positive link between the board meetings and firm performance was explained by him. In the same furrow, Donalds on et al. (1995) also found a positive relationship between corporate financial performance and number of meetings. Not only the number of meetings, but also the quality of decisions taken is an important factor. By increasing the number of meetings, active participation in them, sincere involvement, and fruitful contribution, board activity can be made a productive partaker to decision making.

- **Board Busyness**

Number of director ships held in other companies is an indicator of busyness of directors. It has important bearing on the quantity and quality of time devoted by a director towards the affairs of a particular company and hence affects profitability. Fama and Jensen (1983) contend that multiple board appointments can signal director quality. Their appointment to various boards might be the outcome of the superior performance enjoyed earlier by the firm for which the individual served as a director. Some studies favour the multiple director ships as exposure to more companies helps in development of connections and moreover it increases the exposure of

directors and they can contribute more prolifically as they get equipped with more knowledge, experience and skills. Directors have better access to suppliers, customers and other resources which they can provide to the organizations they work, thereby increasing their financial performance. More director ships held by any director is a measure of his/ her worth. On the contrary, some scholars hold that multiple director ships hinder the involvement of directors as they get over occupied in different companies and are unable to contribute productively and supervise the management. This leads to decline in performance. According to some scholars, multiple director ships have negative impact on corporate performance. As the directors serve on several boards, they may not be able to understand each business well enough to be effective in performing their jobs (Bathala & Rao, 1995). According to Kiel and Nicholson (2003), any director who sits on more than five boards is actually doing a disservice to the companies' shareholders. There is even increased probability of accounting frauds (Beasley, 1996). According to Companies Act, 2013, "No person, after the commencement of this Act, shall hold office as a director, including any alternate directorship, in more than twenty companies at the same time. Provided that the maximum number of public companies in which a person can be appointed as a director shall not exceed ten. For reckoning the limit of public companies in which a person can be appointed as director, directorship in private companies that are either holding or subsidiary company of a public company shall be included."

- **Gender Diversity & Profitability**

In the recent years, gender diversity in corporate board rooms has gained significant attention. Gender diversity provides equitable representation to women. It is beneficial for the company as it allows access to broader talent pools. Such diversity benefits firms through effective problem-solving. The presence of women on board provides a good contrast to the skill set possessed. The different range of experiences brought by women is found to be good for governance. Women have gradually increased their presence in many organisations at managerial level. They have entered boardrooms of many companies but still their presence is not adequate compared to developed countries. That is why Companies Act, 2013 has made it mandatory to have at least one woman director for certain classes of companies. A report by Catalyst found that Fortune 500 companies with the highest representation of women board directors attained significantly higher financial performance, on average, than those with the lowest representation of women board directors. Report found a very strong correlation between corporate financial performance and gender diversity. Diversifying boards with women can lead to more independence, innovation, and good governance and maximize company's performance. Having diverse boards provide legitimacy to an organization in the eyes of stakeholders (Hillmanetal., 2007). Erhardt et al. (2003) examine the relationship between gender on boards of directors with return on asset and investment as measures of firm financial performance. They found that board diversity is positively associated with the financial indicators of a firm's performance. Gupta et al. (2015) in their study found that boards with higher gender diversity will be more sensitive to all stakeholders other than just shareholders, hence enhancing firm's non financial performance. Campbell & Minguez-Vera (2008) investigated the link between the gender diversity of the board and firm financial performance. They found that gender diversity has a positive effect on firm value. Their results suggest that greater gender diversity may generate better economic gains. Shrader et al. (1997) find some evidence of a significant negative relation between the percentage of female board members and accounting measures of performance. According to them, not only the presence, but also right number and proportion of female directors is important to influence performance positively. Adams & Ferreira (2009) also found that average effect of gender diversity on firm performance is negative. This may be due to the fact that too much monitoring can decrease shareholders value.

Companies Act, 2013 made significant provisions relating to composition of board of directors. Requirement of compulsory inclusion of one-woman director on the board of certain classes of companies is one of the most significant provisions relating to board of directors. Internationally, companies are required to keep 33-50% quota for female directors' board membership. In certain countries there are very strict norms and even penalties for non compliance of this requirement. The final deadline for complying with one-woman mandate was 1 April, 2015.

- **Directors' Shareholding and Profitability**

A potentially important factor that may reduce manager-shareholder conflicts is stock ownership by board members (both executive & nonexecutive). To the extent the board members own part of the firm, they develop share holder like interest and are less likely to engage in behaviour that is detrimental to shareholders. In other words, managerial share holding shall align the interests of share holders and managers. As the company's performance increases, the managers benefit via their equity interests in the company (Jensen & Meckling, 1976). Morck et al. (1988) argued that higher levels of equity ownership may decrease the financial performance since managers with significant ownerships takes may gain such power that they neglect or become less considerate of interests of other shareholders. However, using accounting data, Bhagat & Black (1999) showed a significant correlation between stock owned by outside directors and corporate performance. Guest (2006) found in UK firms that board ownership has a strong positive impact on long run share returns. But Coles et al. (2008) conclude that ownership does not have any explanatory power on firm performance measured by Tobin's Q.

- **Board Committees and their Independence**

Committees are the mode of board's functioning. The companies have three tiers of the governance pyramid: Shareholders - Board of Directors, Committees of the Board and (Executive Management. Cadbury Committee (1992) recommended the formation of Audit Committee with independent directors. Greenbury Committee (1995) gave 'Code of Best Practices' which included formation of Remuneration Committee and provisions relating to disclosure through independent committees. Klein (1998) also studied the structure of board committees and emphasized on the role of inside directors in some committees. According to him, In committees like Finance and Investment, inside directors play an important role. So, Board committees, their independence and their activity level have an important bearing on board processes and corporate performance.

In the present paper, board size, its independence, CEO duality, board activity, board busyness and gender diversity are variables of interest.

OBJECTIVE OF THE STUDY

This study is undertaken to investigate the impact of independent variables i.e. board characteristics such as board size, its independence, CEO duality, board activity, board busyness and gender diversity on dependent variable, that is, corporate financial performance represented by 'ROA' and 'Price/ Book Value' of top Indian companies.

HYPOTHESIS DEVELOPMENT

Based on the literature review, following hypotheses were developed:

H_1: The number of directors on the boards of Indian firms is positively associated with firm performance.

H_2: The proportion of outside directors on the board of directors of Indian firms is positively associated with firm performance.

H_3: There is negative association between dual leadership structure and firm performance of Indian firms.

H_4: The number of meetings of board held during the year is positively associated with firm performance of Indian firms.

H_5: The attendance behaviour during meetings of board held during the year is positively associated with firm performance of Indian companies.

H_6: The board busyness, represented by number of director ships held by directors on boards of other firms is negatively associated with firm performance of Indian firms.

H_7: Gender diversity, represented by number of women directors on the boards of Indian firms is positively associated with firm performance.

RESEARCH METHODOLOGY

The objective of the study is to examine the impact of different board characteristics on profitability. Different statistical tools have been applied, such as descriptive statistics, correlation, multiple regression and tests of significance (t-test and F-test) with the help of SPSS to study the relationship between corporate governance and corporate performance using secondary data. The data of India's top companies listed on Bombay Stock Exchange (BSE) for the year 2015-16 has been used to study the impact of various board characteristics over corporate performance. A sample of BSE 200 companies was selected to test the above mentioned hypotheses. Out of these BSE 200 companies, Banks, Financial Institutions and Public Sector Enterprises were excluded as they have different governance structures compared to companies registered under Companies Act, 2013. This resulted into a final sample of 142 companies. The data relating to Board of directors was extracted from Corporate Governance Reports of the companies. Financial data has been obtained from Annual Reports and from the website 'Money Control'. Multiple-regression analysis was used to study the influence of various independent variables on the corporate performance represented by 'ROA' and 'P/BV Ratio' by using SPSS 20.0.

Variables Used in the Model

The different variables used in the empirical model are:

Dependent Variables: Firm's performance is measured here by using 2 parameters. Return on Assets (ROA) and Price to Book Ratio. The data for both the variables has been gathered from the financial statements of the companies.

Independent Variables/Predictor Variables: Board structure as represented by Board Size, Board Composition, CEO duality, Number of meetings, Attendance, Number of directorships and Gender Diversity are the variables of interest.

Table I

Variable	Definition/ Measurement
Return on Assets (ROA)	Net Income/ Average Total Assets
Price to Book Ratio (P/B Ratio)	Market Price per Share / Book Value per Share
Board Size (BS)	Total Directors on the board
Board Composition (BS)	Number of Independent directors / Total Directors on the board
CEO Duality (CD)	1-If the same person is Chairman as well as CEO, otherwise 0
Meetings (MEET)	Total number of meetings held during the year
Attendance (ATT)	Total number of meetings attended / Total meetings held
Directorships (DIR)	Average number of directorships held in other companies per director
Gender Diversity (GD)	Number of women directors / Total Directors on the board
Size (logTA)	Log (Total Assets)
Age (A)	Log (Age)
Leverage (D/E)	Debt/ Equity Ratio

Control Variables: The size of the firm, its age and leverage have been included as control variables. The size of the firm has direct relationship with the profitability. It is represented here by log of Total Assets. Leverage also has the important impact on the profitability. It is here represented debt-equity ratio of the companies. Age of the companies in the year 2016 is calculated according to their incorporation year.

MODEL I :

$$ROA = \alpha + \beta_1\ BS + \beta_2\ BC + {}_3CD + {}_4MEET + {}_5ATT + {}_6DIR + {}_7GD + {}_8logTA + {}_9A + {}_{10}D/E +$$

MODEL II :

$$P/BV = +{}_1BS + {}_2BC + {}_3CD + {}_4MEET + {}_5ATT + {}_6DIR + {}_7GD + {}_8logTA + {}_9A + {}_{10}D/E +$$

RESULTS AND ANALYSIS

The descriptive statistics of all the variables are shown in Table II. It presents descriptive statistics for all the variables. In the sample of 142 companies, total board positions held were 1439, with an average number of about 10 directors per company. Minimum number of directors in a company was 5 and maximum was 20. Out of total directors, 767 were independent directors. About 53% of the total directors were independent. Minimum independent directors in a company were 29% and maximum were 92%. Only 18% of the companies had less than 50% independent directors. Most of the companies (76% of the total) had independent directors ranging from 50% to 70% which presents a positive image of Indian corporate governance scenario. As regards leadership structure, only 17% companies are found to have CEO duality and 83% have assigned the role of chairman and CEO to separate individual. This is one of the best practices of international corporate governance and symbol of affable scenario from shareholders' point of view. Turning to board's activity level, it is found that on an average, 6 meetings were held by companies during the year with minimum 4 by every company. This shows 100% compliance with statutory requirement of Companies Act, 2013 of holding at least 4 meetings in a year. Most of the companies (70% of total) held 6 or less meetings during the year. Out of total meetings, 85.7% were attended by the directors. 35% companies had 90% or more attendance. It is again an indicator of good practices and principled conduct by the directors. On an average 4 directorships in other companies were held by the directors while 10% directors had more than 7 directorships each. Here also, directors complied with the requirement of law of holding maximum 10 directorships in any public company. Out of total 1439 board positions, 187 were held by women directors i.e. 13% of total. 78% companies had just fulfilled the mandatory requirement of one-woman requirement, while 30 out of 142 companies went beyond mere 'tokenism' to have 2, 3 and even 4 women directors.

Firm size in terms of total assets ranges from 1072.15 crs to 457720 crs with average 20465.60crs. Firms seem to be quite grown-up. Average age of the companies is 43 years with minimum age of 6 years and maximum 119 years. Leverage of the firms, as represented by debt equity ratio is .42 on average. Debt proportion in the companies is found moderate. Average Return on Assets is 10.69%.

Before conducting Regression Analysis to find out effect of board characteristics on the financial performance of the companies, Pearson correlation analysis was carried out to observe the strength and direction of relationship between the variables. Table III presents correlation between ROA, P/BV and independent variables. The basic requirement for linear regression is absence of multi collinearity between the independent variables. As none of the variables have r=0.8 or more, it implies the correlation between different independent variables is low or moderate, hence the problem of multi collinearity can be ruled out. Significant positive correlation is found between board size and gender diversity which shows gender diversity increases board size. Board size and company size have positive and significant correlation

Table II: Descriptive Statistics

Variable	N	Mean	Minimum	Maximum	Std. Deviation
Board Size	142	10.13	5	20	2.52
Board Composition	142	.53	.29	.92	.11
CEO Duality	142	.17	0	1	.38
Meetings	142	6.03	4	10	1.48
Attendance at Meetings (%)	142	85.73	53.10	100	8.33
Number of Directorships	142	3.96	.182	10.44	1.94
Gender Diversity (% of Female Directors)	142	13.00	0	32.40	5.94
Total Assets (In Crs.)	142	20465.60	1072.150	4,57,720	45022.52
Debt Equity Ratio	142	.42	.00	9.05	.90
Age	142	42.63	6	119	25.38
ROA	142	10.69	-43.02	37.02	10.28
P/BV	142	9.30	.00	227.93	21.10

from which we can infer that bigger companies tend to have larger board size. Number of meetings and age have significant positive correlation, which implies that as firms grow with time, number of meetings increase. There is significant negative correlation between directorships and ROA which shows negative impact of board busyness on profitability. CEO duality and board composition have negative but insignificant correlation. This implies that powerful CEOs prefer lesser independent boards. Positive correlation between board

Table III: Correlation Matrix

	Board Size	Board Comp-osition	CEO Duality	Number of Meetings	Atten-dance (% age)	No. of director-ships	Gender Diversity	Total Assets	Age	Debt Equity Ratio	ROA	P/BV
Board Size	1											
Board Composition	-.141	1										
CEO Duality	.066	-.037	1									
Number of Meetings	.089	.007	-.060	1								
Attendance (%age)	-.035	-.008	-.067	-.160	1							
Number of directorships	.013	.082	-.079	-.028	-.019	1						
Gender Diversity	.313**	.127	-.135	.007	.080	.116	1					
Total Assets	.217**	.028	-.062	.102	.077	.019	-.095	1				
Age	.143	.057	-.074	.177*	.100	.120	-.083	.044	1			
Debt Equity Ratio	.016	-.006	.194*	-.074	.010	.006	.041	.074	-.119	1		
ROA	-.069	.058	.036	-.011	.088	-.163*	.033	-.183*	.037	-.408**	1	
P/BV	-.167*	.039	.135	-.028	-.071	-.155	.041	-.124	-.103	.067	-.172*	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

size and number of meetings show that bigger boards meet more due to consensus issues. Board size and attendance have negative but insignificant correlation showing that smaller boards have better attendance compared to big boards. Age of the company and board size are found to have positive but insignificant correlation showing that older companies require bigger boards.

Table IV & V give output of Regression Analysis (R^2, F value and beta values) taking ROA and P/BV as dependent variable respectively. Value of Adjusted R^2 of the Model I is found to be significant. It is .347. It means that 34.7% variation in the ROA is explained by the regression model. Adjusted R^2 of the Model II with P/BV is .192 which means that 19.2% variation in the P/BV is explained by the regression model.

The coefficient of **Board Size** in both the models is insignificant but has negative value implying that smaller boards are better for effective decision making as bigger boards face coordination issues. This finding supports the viewpoint of Hermalin & Weisbach (2003) that larger boards face consensus issues affecting the ROA adversely. Coefficient of **Board Composition** is positive suggesting the productive contribution of independent directors towards profitability. It supports the finding by Bhagat (2008) who found positive relation between board independence and operating performance for the period 2003-2007. Mixed results are found in case of impact of **CEO duality**. Number of **Meetings** play a positive role in improving performance through effective board processes as its coefficient is found positive but insignificant. The variable **Attendance** is significant at 5% level of significance. Its coefficient is positive. It means that attendance behaviour of the directors leads to better decision making and thus higher ROA and P/BV. **Number of directorships** held in other companies is also significant at 5% level of significance in case of ROA. Its coefficient is negative showing that busyness of the directors in other companies affects RO Anegatively. It supports the viewpoint of Bathala & Rao (1995). Positive coefficient of Number of female directors is a sign of favourable impact of **Gender Diversity** on corporate performance. In the same manner, board composition's coefficient is also positive implying importance of contribution of independent directors towards profitability.

Table IV: Regression Results-Dependent Variable-ROA

	Coefficient	Significance
Intercept	14.946	.002
Board Size	-.001	.793
Board Composition	.042	.590
CEO Duality	.040	.313
Meetings	.002	.351
Attendance	.102	.040*
Number of Directorships	-.138	.034*
Gender Diversity	.064	.433
Total Assets	-.201	.019*
Age	-.078	.328
Debt Equity Ratio	-.371	.000
Adjusted R^2	.347	
F-Statistic	4.357	.000*

Table V: Regression Results-Dependent Variable-Price to Book Value

	Coefficient	Significance
Intercept	69.716	.004*
Board Size	-.043	.316
Board Composition	.075	.348
CEO Duality	-.085	.298
Meetings	.070	.396
Attendance	.005	.049*
Number of Directorships	-.090	.260
Gender Diversity	.016	.848
Total Assets	-.401	.000*
Age	-.081	.321
Debt Equity Ratio	-.119	.150
Adjusted R^2	.192	
F-Statistic	3.566	.000*

CONCLUSION

The present study is based on an investigation of sample 142 top Indian companies listed on BSE forming part of BSE 200. Multiple linear regression was used to study impact of board structure on profitability. Seven most important board characteristics were considered to study impact ROA &P/BV as performance measure. The results support smaller, independent and gender diverse board. The role of non executive & independent directors was emphasized through the implementation of Clause 49 in 2005 and The Companies Act, 2013 also provides for appointment of minimum proportion of independent directors on the board. Also, more meetings and better attendance are required to improve board processes. Directors' more involvement in activities and less directorships in other companies is vital for better corporate performance.

The present study supports the agency theory relating to Board Composition while resource dependency theory is rebutted as smaller boards are found better. More research needs to be done on CEO duality as the present study showed mixed about impact of CEO duality on profitability.

LIMITATIONS OF THE STUDY

Like any other research, the present study suffers from some short comings. Some important board characteristics which might have significant impact on corporate performance have been ignored e.g. role of board committees, directors' shareholding and promoters' ownership etc. Secondly, the sample of BSE 200 companies is taken for only one year. Some results are not statistically significant. Results for impact of CEO duality are self contradictory in two models. Also, absence of identifying role of institutional owners can also be considered a main shortcoming.

SCOPE FOR FURTHER RESEARCH

Further studies can be carried out by increasing the sample size or period, including other board parameters like directors' shareholding, ethnic diversity, promoter's ownership, presence of institutional owners etc. Industry specific analysis can also be done provided number of firms in a given sector is sufficiently representative.

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