CORPORATE GOVERNANCE, FINANCIAL PERFORMANCE & AGENCY COST IN INDIAN FIRMS

Ph.D. THESIS

by

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ROORKEE-247667 (INDIA)
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ROORKEE

CANDIDATE'S DECLARATION

I hereby certify that the work which is being presented in the thesis entitled " **CORPORATE GOVERNANCE, FINANCIAL PERFORMANCE & AGENCY COST IN INDIAN FIRMS** " in partial fulfilment of the requirements for the award of the Degree of Doctor of Philosophy and submitted in the Department of Management Studies of the Indian Institute of Technology Roorkee, Roorkee is an authentic record of my own work carried out during a period from July, 2012 to March, 2018 under the supervision of Dr. A. K. Sharma, Associate Professor, Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee.

The matter presented in this thesis has not been submitted by me for the award of any other degree of this or any other Institution.

(NIDHI BANSAL)

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

Date: March, 2018

(A. K. Sharma)
Supervisor

ABSTRACT

The present study examines the association between corporate governance mechanisms and firm performance, corporate governance mechanisms and agency cost and between agency cost and firm financial performance considering firms listed at National Stock Exchange CNX 500, Mumbai, India during 2004-2013. It also investigates the relative importance of significant components so as to identify which component is most important than others. Three relatively underexplored variables have been included in the study. The underexplored components of corporate governance mechanism are audit committee independence, frequency of audit committee meetings and presence of remuneration committee. The study examines a sample of 251 Nifty 500 companies for a period of 10 years (2004-2013) as there was changes in corporate governance mechanism of Indian firms after incorporation of Indian Companies Act 2013 and data for these years can draw out meaningful results. Quantitative approach is followed for analyzing secondary data. Panel feasible generalized least squares method is used to analyze the relationship between corporate governance practices and firm performance, corporate governance mechanisms and agency cost and between agency cost and firm financial performance. Discriminant analysis is used to analyze the ranking of significant variables discriminating high profit firms from low profit firms and high cost firms from low cost firms. Eviews 9 and SPSS 22 software has been used to examine the hypothesized relationships. Components such as board size, promoter shareholding, remuneration committee, firm size, firm age and leverage are the key significant variables affecting financial performance of a firm. While examining the supplementary role of audit committee characteristics with firm performance, it was found that board independence becomes significant component of corporate governance mechanism affecting negatively to firm performance when accounting measures are considered. Board independence was found to be the most important discriminating variable between high profit firm and low profit firm, followed by audit committee independence, leverage and promoter shareholding. Board size, concentrated shareholding, short term debt to total debt, firm size and firm age were found to have significant relationship with agency cost of a firm. Executive compensation was found to have positive relationship with firm performance and SGA expenses have negative relationship with firm

performance and leverage is the most prominent factor affecting agency cost of a firm followed by concentrated shareholding, firm size, board size, short term debt to total debt. Findings of this study may be useful for organizations similar to the ones considered in the study or smaller organizations (SMEs) which are not listed on stock exchanges. They could attempt to encourage such relationships that have been found to be positively influencing firm performance, reducing agency cost and improve their access to external financing and gain stakeholders confidence.

Key words: Corporate governance, audit committee, remuneration committee, firm performance, agency cost, India

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(Nidhi Bansal)

TABLE OF CONTENTS

LIST OF TABLES

Table No. **Title** **Page No.**

LIST OF FIGURES

LIST OF ABBREVIATION

Abbreviations	Full Form
MNC	Multinational Companies
CEO	Chief Executive Officer
CFP	Corporate Financial Performance
ROA	Return on Assets
ROE	Return on Equity
NYSE	New York Stock Exchange
US	United States
BSE	Bombay Stock Exchange
NSE	National Stock Exchange
OLS	Ordinary Least Square
IND	Independent Directors
AC	Audit Committee
RC	Remuneration Committee
NC	Nomination Committee
R&D	Research & Development
BRIC	Brazil, Russia, India, China
ACM	Audit Committee Meeting
NED	Non-Executive Directors
PSU	Public Sector Undertaking
CG	Corporate Governance
CMIE	Centre for Monitoring Indian Economy
ROCE	Return on Capital Employed

TOQ	Tobin's Q
LSDV	Least Square Dummy Variable
REM	Random Effects Model
ECM	Error components model
BS	Board Size
BIND	Board Independence
PS	Promoter Shareholding
FS	Firm Size
LEV	Leverage
FA	Firm Age
Mcap	Market Capitalization
LLC	Levin Lin Chu
LN	Log Natural
DW	Durbin Watson
COWN	Concentrated ownership
BDTD	Bank debt to total debt
STDTD	Short term debt to total debt
EC	Executive directors' compensation
CII	Confederation of Indian Industries
FDI	Foreign Direct Investment
FII	Foreign Institutional Investors
SEBI	Securities and Exchange Board of India
SGA	Selling, General and Administrative Expenses
SME	Small Medium Enterprises
SPSS	Statistical Package for the Social Sciences

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

With increased liberalization and industrialization, demand for capital (and investment thereof) for business activity has increased (Ghosh et al. 2008) which poses the serious question of protecting and correctly utilizing the money invested. There is a growing realization in emerging economies including India that a country's business environment must be created and maintained in such a manner which is beneficial for gaining domestic as well as international investors' confidence and encourage them to make investments in the corporate of such economies (Mishra, 2016; Mukherjee, n.d).

In 1932, Berle & Means were the first to raise the topic of separation of ownership and control that exist in the corporate. From then, the subject of corporate governance came into existence. The recent intense focus on the subject from businesses, academics and policymakers (Keasey et al. 1997) is primarily due to an increasing concern over the incidence of corporate fraud and fraudulent financial reporting. Broadly defined, corporate governance may be understood as the set of practices, rules and regulations through which a firm is controlled and directed (Okougbo, 2011, Puri et al. 2010). It aims at balancing stakeholder (management, customers, shareholders, financers, government, suppliers and society) interest, and offers a framework to achieve company goals (Solomon, 2007). The definition of corporate governance continues to evolve as academics and professional bodies suggest new areas of responsibility. The traditional notion that effective governance refers first and foremost to profit maximization included accountability and responsibility of the corporate as well as safeguarding the interest of shareholders and other stakeholders (Monks and Minow 1995; Keasey et al. 1997).

However, conflict of interest between shareholders and managers gives rise to agency problem (managers do not work in the interest of owners) (Abdel-Meguid et al. 2014; Jensen & Meckling, 1976, Wellalage & Locke, 2013). Theoretically, there are three ways to increase the likelihood that management will act in the interest of shareholders: bond them contractually to do so;

monitor them to ensure that they do so; and/or provide them with incentives so that it is in their own interest to do so (Denis 2001). It is difficult to rely on dispersed shareholders to act as effective monitors, due to their lack of expertise and incentive to monitor. Therefore, a better solution lies in designing and using incentive mechanisms by granting a manager a highly contingent, long-term incentive contract ex ante to align managers' interests with those of the owners or shareholders (Tseng et al. 2009). Therefore, regulators, in order to overcome agency problem, proposed to compensate agents on the basis of performance (Tosi Jr, & Gomez-Mejia, 1989). Consequently, the issue of executive pay has been one of the key indicators of the effectiveness of a corporate governance system and has motivated more research (Becht et al. 2003). According to Greenbury (1995) and Conyon & Peck (1998), remuneration arrangements are a strategic tool used to attract, retain and motivate key employees in an increasingly international labour market. This measure however, brought along, its own set of challenges. A major problem that arose was that managers started focusing more on short term performance (at the expense of long term interests) of firm so as to get good compensation and enhance personal reputation (Murphy, 1999). Further, in order to make the firm's performance look better, managers' resort to manipulation of financial information also (Abdul Rahman, & Haneem Mohamed Ali, 2006; Efendi et al. 2007). Thus, funds invested by investors were misused and mismanaged (Dunne, 2013). To protect long term interests of investors and firm and reduce mismanagement/misuse of funds due to short term orientation of managers, recent studies suggested long-term oriented changes in executive directors' compensation such as increasing the time to cash in their stock options, providing them with restricted stock which can be sold after fulfillment of certain conditions, etc. (Edmans, 2012; The Economist, 2014). Therefore, policy makers consistently seek ways to strengthen corporate governance measures so as to minimize misuse of shareholder money (Becht et al. 2003). Further, strong corporate governance mechanisms in a country help enhance the nation's image internationally and face global competition (Pant & Pattanayak, 2008).

The antecedent to recent corporate governance growth is linked to the history of corporate scandals and crises (Hopt, 2011) as well as the problem of agency existing between managers and shareholders or between concentrated shareholders and minority shareholders. According to Kirkpatrick (2009), "The development and refinement of corporate governance standards has

often followed the occurrence of corporate governance failures that have highlighted areas of particular concern". In the aftermath of failures, rules and regulations are incorporated that soon become the best practices of corporate governance in the international arena. The positive byproduct of the scandals and crisis is that it exposes where regulation has gaps and is not effective (Hopt, 2011). The real concern for corporate governance may be credited only to scandals occurring in the early 1980s and 1990s in the most developed Anglo-American countries namely the United States (US) and the United Kingdom (UK). The Asian financial crisis of 1997, implicated poor corporate governance in concerned countries, but subsequently initiated corporate governance reform in almost all major developing and emerging countries. A serious crisis in corporate governance with a successive chain of corporate frauds occurring first in the US and then later in Europe and Asia Pacific, in the early part of this century shattered investors' confidence very much. Corporate governance attained an enthusiastically discussed topic and unavoidable policy issue for regulators, legislators and governments. The regulatory response to these similar scandals led to the establishment of global standards of corporate governance with many common features across among all the jurisdictions, but with a different line of focus and own uniqueness (Dunee & Helliar, 2002; Hopt, 2011).

Corporate governance was implicated as one of the main reason for global financial crisis of 2007-08, by many scholars while other factors were assumed to be playing just a supplementary role (Fetisov, 2010; Kirkpatrick, 2009; Yeoh, 2010). All the national economies and international organizations were seriously concerned with the dangerous situation of corporate governance and its wider implications on the shareholders, stakeholders and the general public. Observing the importance of good corporate governance, the UNCTAD report (2010) makes it clear that "the link between corporate governance and broader range of stakeholder has never been clearer."

The collapse of Enron was an eye opener for the investors and policy makers that bad governance can lead to big losses. Further, scams such as Olympus (Flannery, 2011), Cadbury, Nigeria (Abdullahi et al. 2010), Satyam, Saradha, Sahara, etc. (Bhasin, 2013; Singh et al. 2010; Sen et al. 2014) emphasized the need of having strong corporate governance measures. As a result, policy makers suggested establishing a monitoring mechanism in the form of remuneration committee and audit committee comprising mainly of non-executive, independent or outside directors (Pathak & Wells, 2008). All of this legislation has increased the responsibility of audit

committees and boards of directors. The new rules hold directors and auditors legally responsible for all the working of their companies.

Audit committees are an essential element of corporate governance system to monitor fair financial reporting process (Aldamen et al. 2011; Bukit & Iskandar, 2009) which improves stakeholders' confidence and firm performance (Wild, 1996). Importance of independent directors is also evident from literature on corporate governance. In the 1990s, the Cadbury Report (Cadbury Committee, 1992) and numerous other studies (Greenbury, 1995; Hampel, 1998) suggested that a greater number of non-executive independent directors be appointed on corporate boards and chief committees (i.e. audit, nomination and remuneration committees) in order to increase their effectiveness. Corporate Acts of various countries (developed as well as developing) had established the importance of audit committee in monitoring the reliability of financial reporting process to protect the interest of shareholders and stakeholders. Bhasin (2015) had identified in his study that out of 40 major capital markets there are only 9 capital markets that do not form audit committee. This means that rest of the 31 countries have accepted the importance of audit committee in protecting the interest of all stakeholders thereby improving firm performance.

Remuneration committee was suggested for limiting the incentives provided to managers and inside directors (Conyon and Peck, 1998). Setting up of audit committee was aimed at preventing manipulation of financial information (Bhardwaj & Rao, 2015; Zhang et al., 2007). Studies assert that presence of audit committee leads to increased investor confidence in the firm (Kueppers, & Sullivan, 2010). For the first time in 1977, NYSE (New York Stock Exchange) issued guidelines for setting up of audit committee with independent directors as a part of its listing requirement (Jackson, 2010). In the same line, regulatory agencies in India developed Clause 49 of listing agreement. After amendments in the Indian Companies Act (2013), Clause 49 of listing agreement was also revised, which suggested increasing the role and responsibilities of audit committee and remuneration committee (Bhasin, 2016). Formation of remuneration committee has been made compulsory for listed companies in India (Indian Companies Act, 2013).

1.2 PROBLEM STATEMENT AND MOTIVATION OF THE STUDY

With the collapse of big business houses, it has become a matter of concern for the investors and regulators that what corporate governance practices should be followed by corporations. It has become an important area of research for many scholars in the field of corporate finance. However, most of the study has been largely restricted to the Unites States and a few other developed nations.

The issue of corporate governance framework has acknowledged little consideration in emerging economies like India. The continued focus on a company's corporate governance mechanism by researchers reveals the importance of this area for new possible directions and views to implement in future research (Thenmozhi & Narayanan, 2016). Regulators are also concerned about the corporate governance practices followed by Indian corporations as FIIs and FDIs bring ample amount of investment in India which is used in the development of the economy. Fig. 1&2 shows the trend of investment by Foreign Institutional Investors (FII) and other foreign investments in the Indian capital market over a period of 10 years (2004-2013).

Over the years, relevance and importance of corporate governance has increased. What are the important corporate governance components affecting financial performance and agency cost of a firm? What is the relationship of corporate governance with (a) financial performance, and (b) agency cost? What is the additional role of audit committee in enhancing financial performance of a firm? Do all components have equal importance in corporate governance framework of a company? These are the important questions that have motivated the researcher to conduct this research. The empirical study attempts to fill these gaps and bring some useful outcomes for Indian corporations.

The general problem found during extensive literature review is that there is lack of consensus in the outcomes with respect to the relationships between corporate governance and (a) financial performance, and (b) agency cost. Though previous research has examined the relationship between various elements of corporate governance [such as board structure (Ameer et al. 2010; Dharmadasa et al. 2014; Brickley et al. 1997), ownership structure (Ameer et al. 2010; Nuryanah & Islam, 2011), managerial ownership (Abdel-Meguid et al. 2014; Nuryanah & Islam, 2011) promoter shareholding, audit committee independence, gender diversity, etc.] and firm

performance but results remain inconclusive. Predominantly previous literature such as Prentice & Spence (2007), Pucheta-Martinez & de Fuentes (2007) had emphasized on analyzing the impact of audit committee on financial reporting process but studies related to its impact on financial performance of a firm are limited. Apart from financial reporting process audit committee is involved in discussing the financial statements with other board members (Bhasin, 2013) which are helpful in formulating investment strategies. Therefore the focus of this study is to identify the impact of two important characteristics of audit committee i.e. independence of audit committee and frequency of meetings of audit committee on financial performance of a firm. Further, formation of remuneration committee has become a mandatory requirement in India after the incorporation of Indian Companies Act 2013. It is considered as an important component of corporate governance by developed countries and many of the emerging economies as well. Therefore, to fill the gap, need was felt to study the component along with other components of corporate governance. Increasing more monitoring in the firm gives rise to agency cost, therefore, need was also there to find out the corporate governance framework to be followed by Indian corporations which could reduce the agency problem between directors and shareholders i.e. reduce the agency cost of the corporations.

During the extensive review of literature, it was also observed that none of the studies attempted to identify the ranking of important corporate governance components affecting financial performance and agency cost of the firm which the corporations must emphasize for their improvement. Therefore, attempt was made to identify the ranking of components of corporate governance affecting financial performance and agency cost which is also beneficial for the investors in determining the profitability of firms based on corporate governance mechanism.

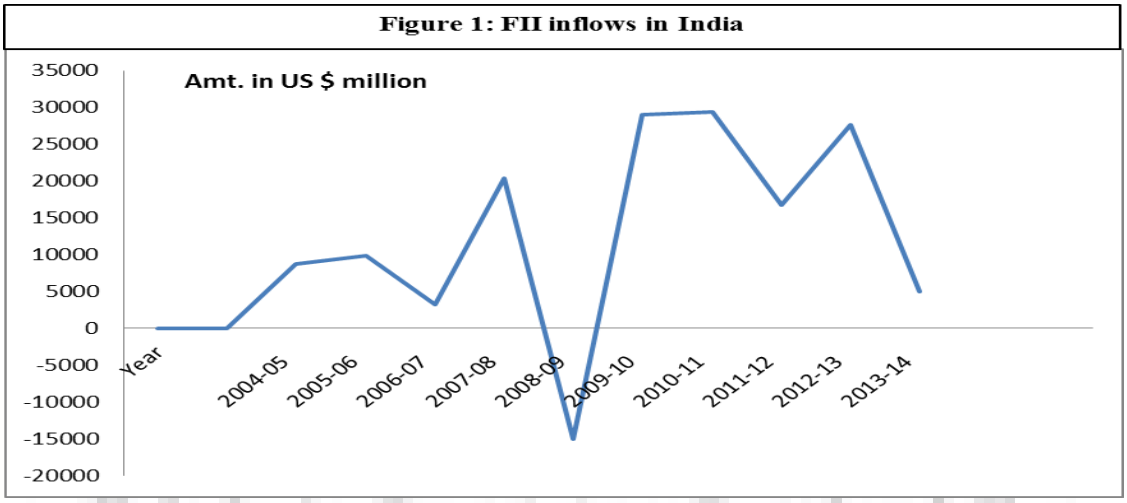

Figure 1 **FII inflows in India**

Source: RBI, Statistics

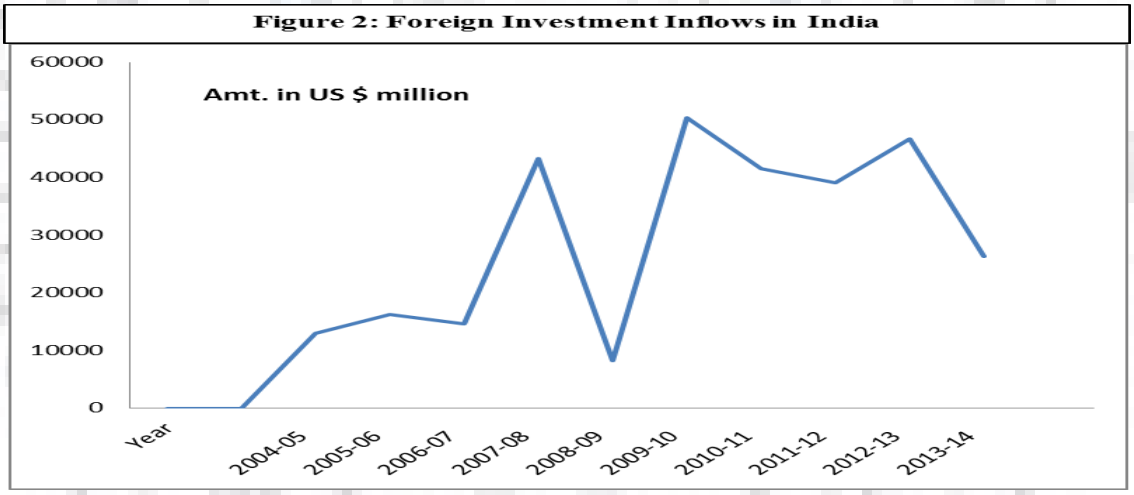

Figure 2 **Foreign Investment Inflows in India**

Source: RBI, Statistics

1.3 CORPORATE GOVERNANCE SYSTEM IN INDIA

Since 1991, India has observed a remarkable increase in the number of companies listed on its stock exchanges (Kulkani & Maniam, 2014), and integration with the global economy **(**Ramakrishnan, 2007**).** It was the same year when India announced its liberalization policy and the need of corporate governance was felt so as to attract foreign and domestic investment. With

the enactment of Securities and Exchange Board of India (SEBI) in 1992, Indian companies started seeking equity capital from the market spaces created by liberalization (Ghosh & Phani, 2004; Pande & Kaushik, 2012). In 1996, Confederation of Indian Industries (CII) took the first initiative. They suggested voluntary codes of corporate governance, titled *Desirable Corporate Governance: a Code*, in 1998 (Pande, 2011). To make certain codes of corporate governance statutory, SEBI, in 1999, set up Kumar Mangalam Birla committee. Based on the recommendations of the committee, *Clause 49 of Listing Agreement* was enforced in 2000, focusing on board independence, board representation and formation of audit committee apart from some other recommendations. Two more committees were formed in 2002 - Naresh Chandra committee by the Department of Company Affairs and Narayan Murthy committee by SEBI. Naresh Chandra committee recommended financial and non-financial disclosure along with certain other rules for auditors of a company. Report of Narayan Murthy committee was submitted in February, 2003 which transformed Clause 49's disclosure requirements for Indian public limited companies (Rani et al. 2014). Further, the Ministry of Company Affairs constituted Irani Committee in 2004 for reviewing Indian Companies Act 1956 and making it comparable to international standards. Based on their report, Companies Bill 2008 was introduced in the Lok Sabha. However, the Bill could not be passed. Again on 14th December 2011, Companies Bill 2011 was introduced in the Lok Sabha which was referred to the Parliamentary Standing Committee headed by Mr. Yashwant Sinha. Based on the recommendations of the committee, certain amendments were made in Companies Bill 2011 and reintroduced as Companies Bill 2012. This bill was passed in both the houses one by one and subsequently incorporated into Companies Act 2013 (Sanjeev, 2013). The major changes introduced by Indian Companies Act 2013 could be summarized in following points:

i. Every listed company is required to have at least one women director in their board.

ii. Every listed company is required to have at least one third of the total directors as independent irrespective of chairman of the board being executive or non-executive director.

iii. Now appointment of independent directors will be made out of data bank maintained by Ministry of Corporate Affairs.

iv. Role and responsibilities of members of audit committee was increased in the Act with the requirement of having majority independent directors.

v. Now every listed company is required to set up nomination and remuneration committee which was voluntary before the incorporation of the Act.

1.3 CHAPTER PLAN OF THE STUDY

The chapter plan of the present study is a sequential arrangement of its broad components and sub components. It is an organization of the present study in an orderly and logical manner. It is useful for a systematic and focused analysis of the problem. It is to be designed in a careful manner as it results in the attainment of the research objectives. The chapter plan of the study is presented to provide a blue print of the present study and attainment of its desired goals in a progressive manner. The entire study has been covered under six chapters and the chapter plan is as follows:

Chapter 1 – Introduction: The first chapter starts with the introduction of the various aspects of the corporate governance in the world, corporate governance system in India and concluded with the motivation and problem statement of the present study.

Chapter 2 – Review of Literature: The second chapter reviews the available literature on corporate governance. It includes review of important corporate governance theories and literature review of empirical studies on corporate governance – components affecting performance, theory implications; and review of studies on corporate governance affecting agency cost. This literature review of corporate governance will help to develop the understanding of the issue and to identify the research gap that needs consideration and further investigation.

Chapter 3 – Research Design: This chapter contains the research framework used in the present study. It includes the research objectives, hypotheses and research variables used in the present study. Furthermore, it covers the research methodology, data selection and source, empirical framework; and statistical tool and research models that are applied to test the research hypothesis and achieve research objectives.

Chapter 4 and Chapter 5 – An Empirical Analysis: These two chapters constitute the core of the study as they present the empirical findings and interpretation of the research objectives using various models and tools mentioned in the third chapter. Using the results obtained from the tools used, these chapters help to solve the various research questions related to the present study.

Chapter 6 – Summary, Conclusions and Suggestions: The last chapter of the thesis provides the summary of the major empirical findings and concludes the research by providing the solution to the research questions of the present study. It discusses the management implications and policy recommendation that can be drawn from the present study. It also highlights the limitations of the study that provide the platform for future research work in the area of corporate finance.

Bibliography and **Annexure** are exhibited at the end.

Chapter 2

REVIEW OF LITERATURE

2.1 INTRODUCTION

Existing body of literature on different aspects of corporate governance is of considerable amount. To maintain the focus of the study, this chapter provides only relevant literature review. The chapter starts with the discussion of the fundamental theories of corporate governance that are vital to the purpose of identifying the relationship between corporate governance, agency cost and firm financial performance. The review starts with the impact of board size, proportion of independent directors on the board, promoter shareholding, CEO duality, audit committee independence, frequency of audit committee meetings, and presence of remuneration committee on financial performance and agency cost of firm in the world context. Then, the focus is narrowed down by discussing corporate governance in the Indian context, followed by the conclusion of the chapter.

Due to the remarkable investment by Multinational companies (MNCs) in the global economy in the form of foreign direct investments (FDI), they have become more important in the global economy. Recent studies find internationalization strategies to be associated with information asymmetric, moral hazards and other systematic risks, especially when MNCs invest in emerging economies with weak legal protection, an uncertain business environment and cultural distances of the emerging economies (Carpenter & Fedricksо, 2001). Therefore, the last decade has seen increases in both policy and research devoted to corporate governance in MNCs.

The next section explains relevant theories of economic and business management.

Chapter 2: REVIEW OF LITERATURE

2.2 THEORIES RELATED TO THE STUDY

There are four major theories of corporate governance: stewardship theory, stakeholder theory, resource dependency theory and agency theory that provide the foundation for corporate governance in modern corporations.

2.2.1 Stewardship Theory

Stewardship theory is a framework where corporate managers are stewards who are motivated to work for the accomplishment of corporate goals and maximization of the interests of shareholders to which they are entrusted. The theory believes that corporate executives are not individualistic, but rather they are motivated by corporate goals. According to this theory, corporate managers are considered as stewards who are naturally aligned with the motive of achieving corporate objectives and upliftment of the interests of corporate owners (Davis et al. 1997). Therefore, this type of steward works hard in the organization to provide maximization of shareholders' wealth in the long run. The roots of stewardship theory have been derived from the work of McGregor (1960) i.e. theory Y of management philosophy. In his theory Y, McGregor highlights the motivated role where people are self-directed for the accomplishment of corporate goals. They work hard because work is self-satisfying.

Stewardship theory assumes that giving freedom in working enhances the output of the organization. According to it, corporate managers can excel in the job given to them when proper authority and power to make organizational decisions is delegated to them. The theory makes several assumptions about the behavior of senior management. They believe that combined role of CEO and chairman of the board enhances firm performance since they are given power and recognition in the organization where they have spent their lives working for it (Donaldson and Davis, 1991). Therefore, they can make superior decisions than other outside directors.

However, the theory fails to account for the basic nature of man where corporate managers will not act in good faith or may act in a manner unfavorable to stockholders (Acharya & Viswanathan, 2007; Tirole, 2006) because they are concerned with the monetary incentives they receive from the company. Corporate governance model based on stewardship theory may lead to management entrenchment and poor performance.

2.2.2 Stakeholder Theory

Stakeholder theory of corporate governance is based on general systems theory of Ludwig Von Bertalanffy. He argued that need is there to think of a system as a whole as modern corporations have become more complex (Bertalanffy, 1968). This is because different parts of a system interact with each other and have some effect on the total system as well as on other parts. Similarly, several studies have considered that all the stakeholders of a corporation are its part and the corporation is a system (Gharajedaghi, 2007; Kohli & Saha, 2008). Therefore the theory extends benefits of corporate activities to all stakeholders and not only to the shareholders (Atanassov & Kim, 2009). The key stakeholders of a corporation are employees, customers, creditors, suppliers, shareholders, community, competitors, the government and the global economy (Dunne et al. 2013; Zábojníková, 2016). The assumption of this theory is that organizations should take care of the parties they are interacting outside the system also.

2.2.3 Resource Dependence Theory

Resource dependence theory suggests that board of directors of a corporate are not only the effective monitors of the managers but they are also an important source of arranging critical resources for the corporate that are useful in maximizing the financial performance. Firstly, they provide essential resources in the form of their valuable experience, expert advice and knowledge (Haniffa and Cooke, 2002). Secondly, they facilitate access to important business contacts (Haniffa and Hudaib, 2006). Thirdly, they provide capital and access to political/business elite (Nicholson and Kiel, 2003, Tey & Idris, 2012) and finally, they provides a critical link to a firm's external environment and significant stakeholders, such as creditors, suppliers, customers, and competitors.

2.2.4 Agency Theory

Agency theory predicts that in modern corporations there is a problem of conflict of interests between managers and shareholders because shareholders delegate the responsibility upon corporate managers to manage the firm's assets (Nguyen, 2015). However, managers are concerned with their personal goals (Abdel Shahid, 2003) that usually conflict with the long term

shareholders' objective of wealth maximization. They pursue such actions that accomplish their own interests only without taking care of shareholders' wealth (Drucker, 1954). In this way, in the long run the company will undergo financial distress. Company will consistently underperform because corporate managers would be using investors' money for their benefits.

Agency theory assumes that corporate managers are short term oriented. They tend to concentrate on improving short-term financial performance by taking excessive risk contrary to the long-term benefits of the company (Crnigoj & Mramor, 2009; Mallin, 2008).

According to agency theory, corporate managers are inclined towards increasing their salaries and perquisites and engage in self-dealing by owing large proportion of corporate stock. Such kind of problem does not exist in other forms of business organizations such as sole proprietorship, partnership etc. where owners are themselves the managers of the business. Agency-related problem leads to information asymmetry because corporate managers are unlikely to equally distribute information to stockholders (Rutherford & Buchholtz, 2007).

In general, to reduce agency conflicts and monitor manager's actions, stockholders must incur agency related costs. The agency costs are in the form of fees paid to board of directors, external auditors and accountants, compensation paid to align the interest of managers with that of investors, as well as external consultants to review management performance (Ntim, 2009). Coleman et al. (2006) evaluated financial performance of Australian pension funds and concluded that agency costs due to conflicts of interests adversely affect financial performance. This implies that conflicts of interests and increase agency costs reduce financial performance in modern corporations.

2. 3. REVIEW OF LITERATURE

2.3.1 BOARD SIZE, FINANCIAL PERFORMANCE AND AGENCY COST

2.3.1.1 The Theoretical link between Board Size, Financial Performance and agency cost

The overall size of the corporate board is considered to be an important board structure variable (Kalsie & Shrivastav, 2016; Rodriguez-Fernandez et al. 2014). Consequently, the existing data as per various studies has tried to establish a factual as well as a theoretical link between the size of the board and CFP with mixed outcomes (e.g., Lipton and Lorsch 1992; Yermack, 1996).

As for the theoretical part, one proposal is that boards that are large in size are bad for financial performance while smaller ones are better and more favorable toward improving financial performance (e.g., Lipton and Lorch, 1992; Sonnenfeld, 2002). This is typically due to financial cost implications because of the large size of the board while they try to control, plan and organize the business of the firm. Secondly, the knowledge provided by a larger board is more reliable and enriched, which enhances the managerial capabilities to make better and sound decisions (Yawson, 2006). Finally, it is observed that the corporate board's business monitoring capability is directly correlated with the size of the board (John and Senbet, 1998; Mousa et al. 2012) as a larger board consists of individuals with diverse backgrounds and expertise; this enables the board to scrutinize and monitor managerial decision in a much better manner, especially in contrast to a dominant CEO.

That is, 'ceteris paribus' larger boards consume more pecuniary and non-pecuniary company resources in the form of remuneration and perquisites than smaller boards.

More specifically, Lipton and Lorsch (1992) suggest that optimum board size in a corporation must fall between eight and nine directors. They argue that as corporate board size goes beyond a maximum number of ten directors, additional costs of having larger boards typically associated with slow decision-making are higher than any marginal gains from intense monitoring of management's activities. Thirdly, it is contended that smaller boards are more likely to be cohesive, and to have more effective discussions. This is because all directors are able to candidly contribute and express their ideas and opinions within the limited time available (Lipton

and Lorsch, 1992). Finally, Yawson (2006) argues that larger boards suffer from higher agency problems and are far less effective than smaller boards. Thus, limiting corporate board size may improve efficiency.

On the other hand, a contrary theoretical view (agency and resource dependence) is that larger boards are better for corporate financial performance (e.g., John and Senbet, 1998; Yawson, 2006). Firstly, larger boards bring with it diversity in skills, increased business contacts, and experience that smaller boards may not have, which offers greater opportunity to secure critical resources (Haniffa and Hudaib, 2006). Similarly, larger boards offer greater access to their firm's external environment, which reduces uncertainties and also facilitates securing critical resources, such as finance, raw materials, and contracts (e.g., Pearce and Zahra, 1992; Goodstein et al., 1994). Secondly, larger boards help in providing expert business advice with the help of their knowledge base which in turn helps management in making improved decisions (Yawson, 2006). Finally, the monitoring capacity of the board is expected to be positively related with board size (John and Senbet, 1998). This is because a larger number of people with their vast experience and expertise will be able to question management decisions with greater monitoring power (Kiel and Nicholson, 2003). This will help balance the power of otherwise a dominant CEO.

2.3.1.2 The Empirical Evidence on Board Size, Financial Performance and agency cost

Board size is one of the important elements of corporate governance mechanisms that reduces the agency problems by ensuring the proper conduct of the agents of business (Field & Mkrtchyan, 2016). Larger board size improve firm performance due to their diversity in terms of knowledge, skills and experience (Ghasemi & Ab Razak, 2016). Literature does not provide a definite stand point with respect to the size of the board and its impact on firm performance. However, emerging economies have their own jurisdictional structures. Although, Mauritius code of corporate governance does not define a number for board size, it states that "the board should be of sufficient size to meet the requirements of the business but should not be so large as to be unwieldy". In Malaysia also, there is no specific board size (Securities Commission Malaysia, 2012).Bangladesh code of corporate governance requires firms to have board members between 5 and 20 (Securities and Exchange Commission Bangladesh, 2012) whereas in Thailand it should be between 5 and 12 (Stock Exchange of Thailand, 2012). In India, it should be between 3 and 15

for a public limited company (Chapter XI, Indian Companies Act 2013). Several studies have been conducted in different countries to examine the relationship between board size and firm performance. In a study of ten developed countries considering market to book value of equity for 12 months, De Andres et al., (2005) found a negative association between board size and firm value. Similar results were found by Cheng (2008) and Harvey Pamburai et al. (2015). On the other hand, several studies have stressed that large boards are in a better position to gain diverse opinions and get broader perspective with respect to issues which is restricted in case of smaller boards (Ujunwa, 2012; Saibaba & Ansari, 2012; Coles et al. 2008). Saibaba & Ansari (2012) found significant and negative relation between board size and firm performance, and using spline regression found that board size for Indian companies should be between 9 and 20. It is clear that different studies have given mixed results with respect to the relationship between board size and performance, and that the relationship differs with context. Looking at the arguments of larger boards, we infer that larger boards decrease firm performance.

Kumar & Singh (2013) in their study based on 176 Indian companies, examined the effect of corporate board size on firm value and found that the ideal board size for Indian companies is 10. The boards having less than 10 directors may suffer from lack of resources and expertise required to enhance firm performance. The study predicted that there is negative relationship between board size and financial performance of a firm.

Saibaba (2013) also examined the impact of board size on the valuation of companies listed in BSE 100 index along with some other corporate governance variables. The analysis found that optimum board size of Indian firms is from 9 to 12. Board size beyond 12 members becomes insignificant. There is no significant relationship found for boards having more than 12 board members.

Dwivedi & Jain (2005) conducted a study on 367 firms listed in India having sales in excess of Rs. 2.5 billion in the financial year 2001-2001. The firms were 8% of total listed firms but 81% of the total sales of all listed companies. They found that firms with larger boards experience low agency cost and high firm value. They value for larger boards since they have more expertise and skills. Similarly using a sample of 771 firms for the years 2001 to 2005, Saravanan (2009) interpreted a positive association of board size with firm value. Xie & Fukumoto (2013) in their study based on Japanese companies examined the relationship of board size to firm performance

and found that smaller boards are significantly and positively related with firm performance whereas larger boards are significantly and negatively related with firm performance. Further the analysis was extended, taking square of log of board size, and results revealed there is a hump shaped relation between board size and firm performance, which implies that a bigger board size might be good for companies under certain circumstances.

2.3.2 BOARD INDEPENDENCE, FINANCIAL PERFORMANCE AND AGENCY COST

2.3.2.1 *The Theoretical Link between the Percentage of independent directors, Financial Performance and agency cost*

Presence of independent directors in the board of a company ensures reduction of agency problem as well as the problem of information asymmetry (Jensen, 1993). In the present study, board independence refers to the proportion of independent directors to the total number of directors in a company. Past researchers views board independence in two ways: some are in favour of more independent directors on the board and some are in favour of more executive directors on the board.

Fama and Jensen (1983) suggested that independent directors can improve board monitoring and performance of firms by reducing agency costs of firms. They also help in monitoring and controlling the opportunistic behavior of management (Al-Matari, et. al. 2012; Goel & Ramesh, 2016). According to agency theory, a board having more independent directors (i.e. board members not related to promoters or directors of company) would probably be more effective in monitoring the company's CEO and other executive directors. On the basis of the arguments above, it can be said that board independence might be a probable substitute to formal engagement by large shareholders (Jackson, 2010).

Researchers and academicians supporting more independence of the board base their opinions on agency theory, stewardship theory and resource dependency theory. Fama and Jensen (1983) had given strong theoretical arguments supporting board independence who work for protecting the interest of shareholders. Fama (1980), Sonnenfel (2002) and Sarkar et al. (2006) view that boards having more executive directors are less liable for their decisions. They find ways to expropriate

wealth of shareholders by creating information asymmetry in the company and in the market. Chhaochharia & Grinstein (2009) points out the ability of independent directors towards making unbiased decisions and Baranchuk & Dybvig (2009) opines that independent directors provide resources to the organization such as their wide experience, business links, reputation in the market etc. Jensen in 1993 had stressed on the need of appointment of independent directors since they can speak the truth with constructive criticism on the actions of management and executive directors for the benefit of stakeholders.

Black et al. in their study in 2006 had explained the benefits of appointment of independent directors on the board of a company. They say that if firms have required proportion of independent directors in the board then they are able to present true and fair view of the company in front of stakeholders. Stakeholders' confidence on the working of the company increases since they rely on the actions and roles and responsibilities of independent directors (Fama & Jensen, 1983). Therefore, supporters view that existence of higher proportion of independent directors on the board improves firm performance.

However, opponents such as Bozec (2005), Weir et al. (2002) view that since independent directors do not have full knowledge about the working and complexities of the company; they cannot help in improving firm performance and cannot help in making strategic decisions. Due to their indulgency in the working and boards of other companies, they might not be able to provide full concern towards the upliftment of a particular company (Jiraporn et al. 2009). Therefore, they view that excessive presence of independent directors on the board hinders the growth of the company and lower quality decision making.

2.3.2.2 *The Empirical Evidence on the Percentage of Independent directors, Financial Performance and agency cost*

Research outcomes are found to be in consonance with the conflicting nature of theoretical grounds for independent directors. A strand of empirical literature reports higher performance of firms having high number of independent directors. Using a sample of 189 public listed companies of Colombo stock exchange for 2013, Dharmadasa et al. (2014) reported that a greater number of independent directors on the board improve the monitoring capacity of the firm along

with its profitability. Leung et al. (2014) did a comparative analysis between family firms and non-family firms on a sample of 487 firms from Hong Kong for 2005-06 to ascertain the difference in the impact of independent directors in both types of firms. The results of his study revealed that non family firms have more positive impact of independent directors on firm performance than family firms.

In close proximity, Nuryanah and Islam (2011) report significant positive association of board independence with firm performance of 46 Indonesian listed companies for a period of 3 years from 2002-2004. Similarly, Saibaba in 2013 finds that as far as time value is not considered, results show positive relationship of board independence and firm performance but when time was given consideration, results became insignificant for 95 companies listed in Bombay Stock Exchange of India.

In contrast, researchers such as Brick and Chidambaran (2010) and Coles et al. (2008) stated that advisory role of independent directors (as compared to monitoring role) led to greater profits. In a sample of 91 New Zealand listed firms in 2004-06, Koerniadi, & Tourani-Rad (2012) find a statistically negative link between proportion of independent directors and various measures of firm performance in. Several other researchers (Balasubramanian et al. 2010; Meyer & de Wet, 2013; Sarkar et al. 2006) are of the view that due to lack of complete information about the firm, independent directors cannot contribute to profits. Moreover, it is the competence of the board that matters more than its independence.

It was found that emerging economies face weaker external governance mechanism which led to contrasting results. Therefore to protect the interest of minority shareholders, such economies recommend more independence in the boards of companies. In Bangladesh, at least one fifth of the total number of directors should be independent (Securities and Exchange Commission Bangladesh, 2012) whereas in Mauritius at least two directors need to be independent directors (Ministry of Financial Services, Good Governance and Institutional Reforms, 2016). The jurisdiction of Thailand mandates that listed companies in Thailand should have at least 50% of the total directors independent (Stock Exchange of Thailand, 2012). In Malaysia, at least one third board members must be independent (Securities Commission Malaysia, 2012). In Sri Lanka at least two directors or one third of the total board members should be independent (whichever is higher) (The Securities and Exchange Commission of Sri Lanka & The Institute of Chartered

Accountants of Sri Lanka, 2013). In India, before the incorporation of Indian Companies Act 2013, independence of the board depended on the chairman of the board. "If the Chairman is a non-executive director, at least one-third of the Board should comprise of independent directors and in case he is an executive director, at least half of the Board should comprise of independent directors" (Clause 49). After incorporation, Indian Companies Act 2013 requires that every listed company must have at least one third of the total board members as independent directors.

A third stream of researchers failed to identify any significant relationship of proportion of independent directors with firm performance. For example, in a sample of 1409 firms listed in Greek Stock Exchange, Bekiris in 2013 report that independent directors do not have any significant relationship with firm value. Similarly, Haniffa and Hudaib (2006) in their study based on a sample of 347 listed companies of Malaysia from 1996 to 2000, find that there is no significant relationship proportion of independent directors in the firm and their performance.

As discussed, the evidences fails to provide any certain relationship between board independence and firm performance, Therefore, it is still unclear how board structure influences critical decisions of the firm and thereby firm performance. Hence, it requires further investigation. Keeping this in mind we infer that higher board independence leads to better firm performance.

2.3.3 PROMOTER SHAREHOLDING, FINANCIAL PERFORMANCE AND AGENCY COST

2.3.3.1 The Theoretical Link between Promoter Share ownership, Financial Performance and agency cost

Ownership of shares by promoters of the company is another important part of CG mechanism, and has been suggested as a possible solution to the problems of agency. Promoter has been defined by the market regulator of India i.e. Securities Exchange and Board of India (SEBI) as, "a person or persons who are in overall control of the company or persons, who are instrumental in the formulation of a plan or programme pursuant to which the securities are offered to the public and those named in the prospectus as promoters". Promoter shareholding, also known as founding family ownership, is a prerequisite to align the interest of founders with that of other investors (Jensen & Meckling, 1976). According to a statement given by Mr. Rahul Bajaj,

Chairman of Bajaj group and quoted by Pattanayak (2008) from Business Standard, 2005, "More than 75 percent of large listed Indian companies are family owned, in which a family has a significant shareholding in the company…companies where management has little or no stake in the company constitute less than 5 percent of the large, listed companies. In a company managed by owners, there is a very strong motivation for managements to work for a long term share price increase". The statement clarifies the prime motive of promoters which is ensuring long term increase in share prices. Promoter ownership includes two opposing theoretical hypothesis: Convergence-of-interests and Entrenchment.

The agency theory suggests that the promoter share ownership helps reduce the conflicts of interest between promoters and shareholders (Jensen and Meckliong, 1976; Jensen 1993; Fama, 1980). Convergence of interest explains that increase in shareholding of promoters aligns their interests with that of other shareholders and reduces the chances of being indulged in opportunistic behavior. The greater the promoters' share ownership, the more inclined they are to maximize shareholders wealth lest they lose the wealth as well. The promoters thereby, have additional motivations to actively monitor managerial actions that help reduce agency cost and improve company's financial performance.

Coming to the second part of the theory, entrenchment provides an alternative explanation to convergence-of-interests (Short and Keasey, 1999). It maintains that at low levels of promoter share ownership, internal and external market forces can help align the interest of promoters and shareholders. However, at higher levels of promoter share ownership, they may hold sufficient voting power to guard themselves from any disciplinary forces due to internal or external market factors and they may continue to pursue non-wealth maximizing goals. For instance, the directors with large share ownership may give in to private benefits in the form of higher remuneration and permanent employment rather than going for increasing shareholders value. All of this results in director entrenchment, where the shareholders are unable to remove a non-performing director. Promoters having control over the corporate resources through voting rights may indulge in overinvestment, empire building and so on that might lead to underperformance. Therefore, the promoter share ownership and performance relationship in this case, is observed to be negative.

Furthermore, the theory also suggests that combining the two hypotheses of convergence-of-interests and entrenchment may result in a non-linear relationship between promoter share

ownership and company's financial performance (e.g., Morck et al. 1998; McConnell and Servaes, 2005). This implies that a lower level of share ownership the promoters may help enhance the firm's financial performance but at higher levels of ownership, the entrenchment come into play, and the financial performance of the firm suffers.

2.3.3.2 The Empirical Literature on Promoter Share ownership, Financial Performance and agency cost

Empirical literature regarding the association between promoter ownership and financial performance of a firm shows mixed results. Some of the studies found positive relationship whereas some concluded negative relationship. Moreover results of some studies brought nonlinear relationship.

Pattanayak (2008) observed the relationship between promoter ownership and financial performance of a firm as proxied by Tobin's Q on a sample of 1833 Bombay stock Exchange listed firms for the year 2001 to 2004 and reported nonlinear relationship between the two. This recommends that market value of the firm first increases, then declines and then again increases with the increase in promoter share ownership. Consistent with the results McConnell et al., (2005) found nonlinear relationship between promoter ownership and firm value.

Using an unbalanced panel sample from 2001 to 2008 on 500 firms listed in Bombay Stock Exchange India Halder and Rao (2011) reported significantly positive relationship between promoters's holding and firm performance in comparison to non-promoter's holding. Consistent with the evidence of Halder and Rao (2011), Kumar and Singh (2013) document a significant and positive association between promoter ownership and firm value as proxied by Tobin's Q in a sample of 176 firms listed on Bombay Stock Exchange India for 2008-09. Further in their study they also reported promoter's holding less than 40% of total shareholding has negative relationship with firm performance whereas promoter's holding more than 40% has significant positive association with Indian firms' performance. The reason of such positive relationship was pointed by Casson, (1999) that due to the personal interest of promoters in firms, promoters' concentrate on improving long term firm profitability of the firm.

In contrast, Chen et al. (2005) observed no association between founders' ownership and firm value when measured by Return on Equity, Return on Assets and dividend payment on a sample of 412 firms listed in Hong Kong stock exchange. Similarly, Sarkar and Sarkar (2008) concluded that promoter shareholding did not influence firm value in case of low growth firms; however, promoter shareholding did show an impact on firm value in case of high growth firms.

It is clear from the discussion above that the relationship between promoter shareholding and firm performance varies with context. Therefore we infer that higher promoter shareholding improves firm performance

2.3.4 CEO DUALITY, FINANCIAL PERFORMANCE AND AGENCY COST

2.3.4.1 The Theoretical Link between CEO Duality, Financial Performance and Agency Cost

CEO duality is another board structure variable with the potential to reduce or worsen the agency problems. In CEO – Chairman Duality one individual assumes the role of the CEO we well as the chairman of the board. CEO is responsible for day-to-day management of the firm and implementing board's decisions while being the chairman entails nominating new board members, reviewing the performance of the senior management, setting up outlines for the meetings and taking care of the disputes, which may arise within the board (Laing and Weir, 1999, Schmid & Zimmermann, 2008).

There are three hypotheses regarding CEO duality

- Stewardship;
- Resource dependence;
- Agency Theories

As per the stewardship and the resource dependence theories, CEO duality can have a positive impact on the firm's performance, as the CEO is an insider and tend to have a greater understanding and knowledge of the strategic channeling and opportunities that the firm and its management faces in contrast to a non-executive chairman (McDonald et al. 2008; Weir et al., 2002).

Secondly, the nature of duality enables the CEO to have a sharper and more effective focus on the firm, its goals and objectives and thereby giving the CEO the chance to improve the management attributes and performance of the firm without much interference from the board (Garrow et al. 2012; Haniffa and Cooke, 2002). Thus, the duality may lead to much better performance as it allows for rapid and efficient decision making due to clear and explicit leadership (Haniffa and Hudaib, 2006). Thirdly, it is argued by Vafeas and Theodorou (1998) that duality also enables avoiding extra compensation to the chairman, thereby resulting in reduced cost to the firm. Lastly according to Bozec (2005) the role of duality is associated with a unified leadership that improves managerial culpability.

Now taking a look at the other side of the coin, the other stream of theoretical literature i.e. the agency theory suggests that the dual role of CEO can have adverse effects on the firm's performance (Lipton and Lorsch, 1992; Jensen, 1993). The theory further elaborates that duality would cause problems as the board's ability to monitor the CEO effectively gets compromised as one of the major functions of the chairman is to conduct board meetings and supervise the process of hiring and firing, evaluating and compensating the CEO. Consequently, the agency theorists contend that separating the role of the CEO and chairman will help enhance board's independence and provide effective checks and balances over the managerial conduct of the senior management including the CEO (Bliss, 2011; Lipton and Lorsch, 1992; Haniffa and Cooke, 2002). For instance, if the CEO is found to be non-performing it would be easier for the board to remove him/her from office, preventing the top management from pursuing goals centered toward self-interest rather than the wellbeing of the firm.

2.3.4.2 The Empirical Evidence on the Role or CEO Duality, Financial Performance and Agency Cost

Developed countries like the US do not favor a common leadership structure where the position of CEO and chairman of the board is held by the same person (Krenn, 2014). In emerging countries, some jurisdictions remain silent over the matter of CEO duality. However, Mauritius code of corporate governance favors a unitary structure and Malaysia recommends that the two positions should be held by two different persons.

Chapter 2: REVIEW OF LITERATURE

Empirical literature examining the effect of dual position on firm performance and agency cost showed mixed results such as Drakos & Bekiris (2010) who conducted a study using an unbalanced sample of 1409 firm year observations from 2000 to 2006 for the firms listed on Athens stock exchange. Their objective was to overcome the problem of endogeneity between variables. They found that leadership structure in the firms i.e. CEO duality do not have any significant relationship with firm value. Similary, Abels & Martelli (2012) investigated the association of CEO duality with the firm performance of 500 large US companies in terms of sales revenue for the year 2008. They report that CEO duality is an insignificant factor affecting firm performance as measured by unadjusted ROA. Consistent with the results, Dharmadasa et al. (2014) also report insignificant results for 189 Colombo listed companies for the year 2013.Similar results were found by Yasser et al. (2011). Rhoades (2001) suggested that unity of command was more important than independence of board in firms where performance was weak.

By contrast, Obradovich, & Gill (2013) report that dual position of CEO and chairman held by single person positively impacts value of a firm based on a sample of 333 American firms listed on NYSE from 2009 to 2011. Similar results were given by Donaldson and Davis in 1991 using a sample of 321 US firms for the years 1985 to 1987. They too report that firms having CEO-Chairman position duality is performing better than firms with separate roles.

A third group of empirical papers suggests negative impact of CEO duality on firm performance. Using a sample of 950 US firms over 1997–2011, Duru et al. (2016) reports that CEO duality has significantly negative effects on firm performance as long as independent directors are less in the board. But, as independent directors increase in the board, negative effect turns to positive effect. They employ System GMM method to estimate a dynamic model of the relationship between CEO duality and firm performance. Similarly, Lin (2011) report a negative relationship of CEO duality to firm performance as measured by ROA and ROE for an unbalanced sample of Taiwan listed companies for 3 years from 2007 to 2009. On the same line, Darus, & Mohamad (2011) also report significant negative association between the CEO duality and financially distressed companies performance for a sample of 176 Malaysian listed companies over a period of 2004 to 2006. According to Duru et al. (2016), several firms' activist shareholders (e.g., Goldman Sachs, News Corp, and JP Morgan Chase) had proposed prohibition of CEO duality. However, some

firms (e.g., Chevron Corporation 2012) were in support of CEO duality that enhances the value of a firm. Several other researchers such as Rashid (2013), Ujunwa (2012); Kaymak and Bektas (2008) criticize the dual role of chair-CEO stating, it would negatively affect interest of shareholders.

2.3.5 AUDIT COMMITTEE INDEPENDENCE, FINANCIAL PERFORMANCE AND AGENCY COST

2.3.5.1 The Theoretical Link between Audit committee independence, Financial Performance and Agency cost

The efficacy of audit committee and its contribution to governance and performance of firms have received much attention worldwide from regulators, government bodies and researchers (Bouaziz & Triki, 2012; Nuryanah & Islam, 2011, Sarkar, 2013). Basically, audit committees are expected to interact equally with management and the external auditor of a corporation. They may question them on important topics such as accounting estimates, management decisions, audit of the firm, etc. Audit committees tend to observe the risk profile of the firm and its activities with the help of legal issues and regulations applicable at the firm (Klein, 2002). According to Blue Ribbon Report (1999), audit committee plays a vital role in monitoring board activities. The presence of audit committee in a company could reduce fraudulent activities in the company (Abbott et al. 2002). In 1992, Cadbury committee also reported that an audit committee should have more number of independent directors because of the importance of their independent decisions meant for safeguarding the interest of investors. As mentioned in section 177 of Indian Companies Act (2013), "Audit committees are a measure of ensuring self-discipline, constituted with the object to strengthen and oversee management in public companies and to ensure that the board of directors discharges their functions effectively". The Act acknowledged the significance of an audit committee and assigned to it added roles and responsibilities. Independence of the audit committee does, to a great extent, assure strict vigilance over managerial activities in a firm. Jurisdictions of emerging economies have their own structure for audit committee composition with a major emphasis on its independence. Mauritius and Bangladesh recommend inclusion of at least one independent director in the audit

committee whereas China recommends more than 50% independent directors in audit committee. India and Korea recommends minimum three directors or two-thirds of the total members as independent directors (whichever is higher). In Malaysia, majority of the total audit committee members, including the chairman, should be independent (Abdul Rahman, & Haneem Mohamed Ali, 2006). Israel and Thailand code of corporate governance recommends 100% independent directors in audit committee (SOX Act, Malaysian Companies Act, Securities and Exchange Act of Thailand, Companies Ordinance of Hong Kong, China, Companies Act of India, etc.).

2.3.5.2 The Empirical Evidence between Audit committee independence, Financial Performance and Agency cost

Ameer et al. (2010) in their study based on a sample of 277 non-financial Malaysian firms listed over the period 2002-2007 report that firms having more independent directors in the audit committee outperform firms that have more inside directors. Therefore, they suggest a significant and positive association of independent directors in audit committee with firm performance. Abbott et al. 2002; Arslan et al. 2014; Carcello et al. (2009); Klein (1998) provided evidence in their studies, that quality of audit reports and firm performance improved in firms with more independent audit committees. But, Aldamen et al. (2011) view that the studies conducted at the time of economically healthy period could not give appropriate results. He believes that corporate governance practices which sustain the profitability of firm in exogenous shock conditions could be recognized as good corporate governance practices. Therefore he conducted a study during global financial crisis in 2008-09 on S&P 300 firms considering number of audit committee characteristics. The sample size for the study consists of 120 firms in which 60 firms were high performing and 60 firms were low performing based on the quartile. The results of his study explain that along with expertise and experience of audit committee members, their independence is also a significant attribute of audit committee in improving firm performance. In line with the above study, Saibaba and Ansari conducted a study on Indian market in 2011. The sample size used for the study was 96 firms listed in 200 indices other than those listed in BSE 100 over a period of 2 years i.e. 2007 and 2008. The results reveal that along with other attributes of audit committee, audit committee independence helps in improving firm performance in India.

On the other hand Darus et al., (2011) in their study plans to research the effect of corporate governance changes in moderating corporate failures in Malaysia for a three year time frame from 2004 to 2006. Utilizing 176 Malaysian firms (88 distressed organizations and 88 non-distressed organizations), the effect of corporate governance qualities, specifically board structure, ownership structure and internal control systems on the poor performance of organizations in Malaysia were researched with regards to agency theory. Results uncover critical negative relationship between CEO duality and money related distress condition and audit committee independence was also insignificant in alleviating money related pain states of firms.

Though the above discussion emphasizes a positive relationship between audit committee independence and firm performance, the academic literature on audit committees is inconclusive on the matter of their purpose.

2.3.6 AUDIT COMMITTEE MEETINGS, FINANCIAL PERFORMANCE AND AGENCY COST

2.3.6.1 The Theoretical Link between Frequency of Audit committee meetings, Financial Performance and Agency cost

Frequency of audit committee meetings plays an important role in determining the efficient corporate governance framework of any country (Mohd Saleh et al. 2007). They are the effective monitors of the company if they meet more often. An audit committee that meets less frequently is considered to be inactive because they remain ignored of the proceedings of the company and therefore, they would not be able to provide true information to the investors. Menon and Williams (1994) emphasized on two essential audit committee characteristics— its independence and frequency of meeting—to decide if the board had visible faith in the audit committee that it could regulate and control the management; it was found that these attributes could improve monitoring and performance of a firm. The number of audit committee meetings is considered as a proxy for audit committee activity (Xie et al. 2003). Therefore, the audit committee that meets more frequently with the internal auditors is better informed about auditing and accounting issues. When an important auditing or accounting issue arises, the audit committee can direct the proper level of internal audit function to address the problem promptly. Therefore, an audit

committee that meets frequently can reduce the possibility of financial fraud (Abbott et al. 2004; Mohd Saleh et al. 2007; Raghunandan et al. 1998). Inactive audit committees with fewer numbers of meetings are unlikely to supervise management effectively (Menon and Williams, 1994).One of the recommendations of Blue Ribbon Committee (BRC) report (1999) is the need for frequent audit committee meetings (Bryan et al. 2004). But on the other hand, the effectives of audit committee meeting could be challenged on the condition that merely non-executive directors who are only the part time directors would not be able to identify and explore all issues of the company (Yuan, 2011).

Emerging economies more or less agree on the same number of meetings required to be held by an audit committee in a year. Bangladesh, Mauritius, Malaysia and India recommend minimum 4 audit committee meetings in a year whereas Sri Lanka recommends that audit committee must meet at least 3 times in a year.

2.3.6.2 The Empirical Evidence on the Frequency of Audit committee meetings, Financial Performance and Agency cost

Khanchel (2007) investigated the impact of frequency of audit committee meetings on firm performance using a sample of 624 non-financial US firms of all sizes from 1994 to 2003. The results reveal significant and positive association of audit committee meetings with firm performance. Al-Mamun et al. (2014) suggested that a firm in which frequency of audit committee meeting is high was more vigilant about investors' interest and less incidents of financial statement frauds occurred in such firms. Raghunandan and Rama (2007) emphasizes that Frequency of Audit Committee Meeting can be used as a measure for assessing the alertness of audit committee in monitoring activity. More meetings of audit committee ensure that audit quality is positively related with the information disclosed in the annual report of a company (O'Sullivan et al. 2008). Kyereboah-Coleman (2008) report positive association between frequency of audit committee meetings and market measures of firm performance based on their sample of 103 firms listed on Kenya, Nigeria, Ghana and Johannesburg stock exchanges for a period of five years from 1997 to 2001. Beasley et al. (2000) found that fraudulent firms with earning misstatements have fewer audit committee meetings than non-fraud firms. An active

audit committee with more meetings has more time to oversee the financial reporting process, identify management risk and monitor internal controls. As a result, firm performance increases with audit committee activity (Al-Matari, et. al. 2012).

Yunos et al. (2014) examined the effectiveness of audit committee meetings in recognizing bad news of the corporates. They used the sample of 300 non-financial firms listed in Bursa Malaysia stock exchange from 2001 to 2007. They found that apart from financial expertise of auditors and more independent audit committee, frequency of audit committee is also an important construct of corporate governance mechanism which could prevent frauds in the corporates leading to improved firm performance.

It is thus clear that majority of studies have stressed that Frequency of Audit Committee Meetings is an influencer of firm performance.

2.3.7 REMUNERATION COMMITTEE, FINANCIAL PERFORMANCE AND AGENCY COST

2.3.7.1 The Theoretical Link between Remuneration committee, Financial Performance and Agency cost

In 1998, the Cadbury Committee recommended the formation of remuneration committees in companies' that could compensate directors (London Stock Exchange, 1998). Remuneration committee reviews and assesses the remuneration policy of Chief Executive Officer and the executive directors reporting to the Chief Executive Officer. They work towards any changes required to be made in remuneration policy for the executive directors of a company along with their performance based remuneration plans. Therefore, the committee plays an important role towards protecting the interest of investors by keeping a check on unfair remuneration policies of the firm and at the same time retains and motivates employees to work for the improvement of profitability of the firm by awarding them right compensation for their performance (Garrow, 2010). The theoretical importance of remuneration committee is that in the absence of remuneration committee, executive directors are at their discretion in withdrawing higher salaries which in not congruent with investor's interest. Section 178(1) of Indian Companies Act (2013)

now mandates the formation of Nomination and Remuneration Committee in Indian firms which "assists the board of directors in formulation of remuneration policies for directors, key managerial personnel and other employees. The committee also recommends criteria for determining qualifications, attributes and independence of a director". The jurisdiction of China, Morocco, Sri Lanka, Nigeria and Tanzania recommend mandatory formation of remuneration committee. However, there are no specific requirements in this regard in Kenya, Israel, Bangladesh, Tunisia, Pakistan, Romania and Columbia.

2.3.7.2 The Empirical Link between Remuneration committee, Financial Performance and Agency cost

In 1993 a study was conducted by Main & Johnston on 220 British firms to examine the importance of remuneration committee in British companies. He argued in his study that remuneration committee aligns the interest of principal with that of agent incentive. He found that 30 percent of sample firms have remuneration committee and majority of them were large companies based on sales turnover. However, the committees at that time were not solely consisted of non-executive directors. CEO used to be the chairman of the committee. The results of this study found that less emphasis was paid on the pay structure of directors so as to link it to the performance. In line with this study, Conyon & Peck (1998) and Laksmana (2008) also found that it can contribute towards aligning the interest of the management with that of shareholders by defining compensation mechanisms and creating sound governance in the firm. Klein (1998) reported that remuneration committee was positively associated with firm performance. Conyon & Peck conducted their study on UK firms using a sample of 94 companies from top 100 UK companies based on their market value over a period of 1991 to 1994. The results were in consistent with Main & Johnston. They concluded that higher levels of pay was existing in companies which were having remuneration committee and suggested review of remuneration committee existence for safeguarding the interest of investors. Relatively fewer studies have been conducted to judge the efficiency of remuneration committee in enhancing the performance of firms. Fauzi & Locke (2012) also focused on examining the role of remuneration committee in alleviating agency problems and improving firm performance apart from other

objectives of the study. They used a sample of 79 firms listed in New Zealand Stock Exchange from 2007-2011. They found that remuneration committee helps in improving only market performance and concluded that it is one of the important mechanisms in reducing agency cost of a firm. All these studies focused on the role and importance of considering it as an important variable in the corporate governance framework during the study.

2.3.8 CONCENTRATED SHAREHOLDING AND AGENCY COST

2.3.8.1 The Theoretical Link between concentrated shareholding and Agency cost

Theoretically insiders who are also the shareholders of the firm would work for the benefit of others shareholders as their interest in aligned with that of small investors. But, concentrated shareholding could be harm for a firm when they redirect the resources of company for their personal benefits (Wellalage & Locke, 2012). This results in agency problem between controlling shareholders and investors (Berle & Means, 1932; Jensen & Meckling, 1976; Tirole, 2006). They resist from taking risky projects as they fear losing out their value in the long run. In the present study, concentrated shareholders are the persons who own more than 1% shares of the company. They tend to be the better monitors of the company as they have voting power in the company and they are the part of board management (Andres, 2008). More amount of shareholding could improve firm performance as it reduces the chances of default (Abdul Rahman, & Haneem Mohamed Ali, 2006; Sami et al., 2011; Zeitun, & Gang Tian, 2007). This is because individual and small investors do not have the capacity to monitor the working of management and therefore, the role of concentrated shareholders increases in monitoring the effectiveness of strategic decisions made in the company.

Though nothing has been said in any country corporate governance recommendation with respect to concentrated shareholding, but, empirical studies was found to give conflicting view point of the relationship.

2.3.8.2 The Theoretical Link between concentrated shareholding and Agency cost

The empirical literature on concentrated shareholding was found to exist in small amount which inspired the present study to include it. Tsegba, & Ezi-Herbert (2011) conducted a study on 73 firms listed in Nigeria stock exchange over a period of 2001 to 2007. They failed to examine any significant impact of concentrated shareholders on firm performance of a firm. Firth et al. conducted a study in 2008. Their study analyzes the effect of ownership and governance mechanism component on the agency cost of Chinese firms. The authors have utilized operating, general and administration costs by total sales and resource turnover ratios as the proxy for agency cost. The discoveries propose that organizations with foreign investors have higher agency cost and firms with concentrated ownership have lower agency costs. Dhamija et al. (2014) focused on examining the individual impact of corporate governance variables on financial performance of 41 Nifty firms for a period of 5 years from 2006 to 2010. The results reveal that CEO duality and financial leverage have significant effect on firm performance. Rest of the variables such as concentrated ownership, institutional investors, and firm size does not have any significant effect on financial performance of sample firms. Therefore it was found that the results were totally inconclusive in determining any direction of the relationship between concentrated ownership and agency cost of a firm.

2.4 REVIEW OF EMPIRICAL STUDIES

Table 2. 1 STUDIES FROM DEVELOPED COUNTRIES

YEAR	AUTHOR AND COUNTRY	TITLE OF RESEARCH PAPER	JOURNAL & PUBLISHER	MAJOR FINDINGS
1993	Main, B. G., & Johnston, J., U.K.	"Remuneration Committees and Corporate Governance"	Accounting and Business Research, Taylor and Francis	The purpose of this paper is to elucidate the extent to which remuneration committees have reached in the British boardroom, as both public and open bodies. This research also aims to study the effect of such committees wherever they are present. The criterion for the selection of the two sample firms to be studied in this paper is based on different yet intermingling samples. These two samples are taken from the best ranked five hundred companies as selected by staff from ELC International, one of the 10,000 large firms of Britain as in 1991 and the top 500 companies that were shortlisted by Charterhouse Top Management Remuneration Sample for 1989/90. It has been reported that a remuneration committee with higher pay failed to make any positive influence on the form of incentive payment.

1995	Mehran, H. & Caroll, W. E., U.S.	"Executive compensation structure, ownership, and firm performance"	Journal of financial economics, Elsevier	This paper presents an empirical study with relevant data defining the factors that determine executive compensation structure. It also studies how a company's performance is intrinsically related to the executive compensation structure. The observations related to compensation structure that this paper has elaborated on are: 1) Equity-based executive compensation seems to be more prevalent in firms with more number of external directors. 2) A company's equity holding is inversely proportional to the percentage of equity-based executive compensation. 3) Firms with a larger number of external shareholders tend to invest less in equity based compensations. Tobin Q's proxy findings on a company's performance are as follows: 1. the performance of the company positively influence the percentage of executive remuneration based on equity. 2. There is a positive relation between the performance of the firm and the equity held by managers. Hence this paper tries to draw the conclusion that based on these findings and other factors like stock prices; it is a lucrative idea to link executive compensation with the

				company's performance. Another crucial finding in this paper is that the structure rather than the hierarchy of compensation is the motivating factor for managers to contribute more to the firm's performance.
1996	Agrawal, A., & Knoeber, C. R., U.S.	"Firm performance and mechanisms to control agency problems between managers and shareholders"	Journal of financial and quantitative analysis, Cambridge University Press	This paper investigates the problems between managers and shareholders by examining the seven mechanisms to control agency problems. According to the author there would be simultaneous equation between the mechanisms, but instead observed evidences of interdependent relation between the mechanisms. To carry out further investigation, when cross-sectional estimation was done using OLS regression, it was observed that performance was positively impacted by greater insider relation. On the other hand factors that were negatively affecting performance were: more number of outsiders on the board, greater debt financing and greater corporate control. Further a study of the approach of extended OLS regression showed that there was no sign of relationship between insider shareholding and firm performance.

1998	Klein, A., U.S.	"Firm performance and board committee structure"	The Journal of Law and Economics, University of Chicago Press	The main motive of this paper is to understand and establish the link between company performance and the composition of the board. This study shall be carried out by examining the structure of committees comprising boards and the role of the directors within these boards. The results derive show little linkage between board structure and the way a company performs. However, a deeper analysis of the intrinsic dynamics within the board, considering committee composition, it was seen that there was a significant connection between firm performance and the way in which the board is structured. Firstly, a positive relation is seen to be found between inside directors and their influence on finance committees, accounting functions and finance and stock market measures. Secondly, firms increasing their number of inside directors on two committees experience quite higher coexisting stock returns and returns from investment than firms with fewer inside directors on their committees.
1998	Conyon, M. J., & Peck, S. I.,	"Board control, remuneration	Academy of Management Journal,	The research in the paper aims to assess the connection between board of directors, compensation committees

	U.K.	committees, and top management compensation"	Academy of Management (United States)	and the payment given to the top management and the role of the control exercised by the board and compensation committee in determining the compensation paid to the management staff. The purpose of the analysis was to examine the impact of professional governance and board monitoring (taking into account the proportion of outside board directors, the existence of a compensation committee and the existence of CEO duality) as determinants of the pay received by top management in the UK. The results showed that neither the presence of n0n-executive directors on the board nor CEO duality had any relation to compensation received by the management. Additionally, it was seen that companies that had higher number of outside members in remuneration committees or adopted remuneration committees usually had higher pay packages for their management staff. Evidences also showed that company's performance and management pay were more in sync when the number of outsiders was higher both in board and the remuneration committee.

2003	Singh, M., & Davidson III, W. N., U.S.	"Agency costs, ownership structure and corporate governance mechanisms"	Journal of Banking & Finance, Elsevier	This paper looks to examine the relation between corporate ownership form and agency cost to public corporations that are largely traded and listed NYSE, AMEX & NASDAQ. The time period during which this study was carried out was two years from 1992 to 1994. The empirical study find out that the agency cost in connection to asset utilization is lower when inside ownership is higher. But this has insignificant mark on selling, general and administrative (SG&A) expenses. However, it has been seen that agency cost in terms of both the proxies is not much affected by leverage of equity that is held by external block owners. In fact, the size of the board is negatively proportional to asset turnover and is not related to SG&A cost ratio. Also, agency cost is negatively impacted by leverage.
2004	Bonn, I., Yoshikawa, T., & Phan, P. H., Australia	"Effects of board structure on firm performance: A comparison between Japan and Australia"	Asian Business & Management, Springer	This paper is a comparative study taking into account the following parameters: the number of lady directors in the board, the number of outsider directors inside the board and the average age of directors. These parameters are compared and studied to discern about their impact on the success of the firms in Japan and Australia. The

				study established that the size of the board and the age of its members have a negative connection to the firm's performance in Japan. In Australia it was observed that the ratio of outside directors and female directors positively impacted the firm's performance.
2007	Zhang, Y., Zhou, J., & Zhou, N. , U.S.	"Audit committee quality, auditor independence, and internal control weaknesses"	Journal of Accounting and Public Policy, Elsevier	The purpose of this research is to study the relation between audit committee quality, autonomy of the auditor, and showcasing of the loopholes in internal control of a firm after the Sarbanes-Oxley Act enactment. The conditional logic has been analyzed to find out that a relation exists between the internal control weaknesses, audit committee quality and independence of the auditor. The study reveals that internal control fallouts are likely to be high in case of these two conditions: the audit committees have diminished financial expertise, both accounting and non-accounting and if the auditors have higher independence. In addition to these conditions, it is seen that companies with recent changes in auditor are likely to have greater internal loopholes.

2007	Ozkan, N.	"CEO compensation and firm performance: An empirical investigation of UK panel data"	European Financial Management, Wiley	The aim of this study is to identify the link between CEO compensation and financial performance of UK firms. The study was conducted on a sample of 390 non-financial firms listed in Financial Times Stock Exchange. It was found that there is a significant and positive relationship between firm performance and CEO cash compensation. However, the study found insignificant relationship between firm performance and total compensation of CEO. Further, it was found that institutional shareholding has positive impact on CEO compensation and non-executive directors' shareholding has nonlinear impact on it. It was also found that CEO tenure has negative relationship with CEO pay for performance.
2007	Bonazzi, L., & Islam, S. M., Australia	"Agency theory and corporate governance: A study of the effectiveness of board in their monitoring of the CEO"	Journal of Modelling in Management, Emerald Insight	The comprehensive objective of this paper is to suggest an enhanced dummy for corporate governance that shall be fixed on the following reform: efficient board of directors and thereby, analyze this dummy to examine the effectiveness of the boards and looking over of the CEO.

2008	Florackis, C., U.K.	"Agency costs and corporate governance mechanisms: evidence for UK firms"	International Journal of Managerial Finance, Emerald Insight	The aim of this paper is to find out the factors of agency cost in the UK over a span of three years, from 1999 to 2002. In order to carry out this study, the influence of several corporate governance ways, like, capital structure, ownership, composition of the board and compensation of managers were taken into account. These factors were studied on the two alternative proxies of cost of agency —the proportion of total sales to total assets and the proportion of selling, general and administrative expenses to total sales.
2008	Coles, J. L., Daniel, N. D., & Naveen, L., U.S.	"Boards: Does one size fit all?"	Journal of financial economics, Elsevier	The recent notion is that smaller the board in a firm the better it is. This paper aims to examine the data and the logic behind such an idea. The study puts forth the argument that complicated companies (large firms and diverse firms and firms that depend more on debt financing) require advising more. Based on this hypothesis it was established that complex companies have a larger boards and this relation is driven by external individuals mainly. A weak inference regarding the insider representation was drawn that proved that R&D depth was positively connected to insider

				representation of the board. Also it was seen that while complex firms have bigger boards, R&D intensive firms have larger number of insiders in the board.
2009	Florackis, C. & Ozkan, A., UK	"The Impact of Managerial Entrenchment on Agency Costs: An Empirical Investigation Using UK Panel Data"	European Financial Management, Wiley	This paper studies a sample non-financial UK firm to understand the influence of insider corporate governance structure in controlling the manager shareholder agency cost. The proxies for agency cost used by the researcher are: the asset turnover count and the count of selling, general and administrative expenses to total sales. The author found out that lower asset turnover ratio is exhibited by firms with high levels of managerial entrenchment, leading to higher agency costs. The author puts forth strong evidences to show that the extent of managerial entrenchment is greatly determined by internal corporate governance mechanisms, ownership and board structures and managerial compensation.
2009	Jelinek, K., & Stuerke, P. S., U.S.	"The nonlinear relation between agency costs and managerial equity	International Journal of Managerial Finance, Emerald Insight	The objective of this study is to evaluate the impact of equity ownership of managers on firm performance and agency cost based on a sample of 15186 firm year observations. It was found that managerial ownership

		ownership: Evidence of decreasing benefits of increasing ownership"		has a nonlinear positively significant impact on profitability of firm and asset utilization ratio which is used as one of the proxy of agency cost, whereas, it was found to have significant, nonlinear and negative impact on another measure of agency cost i.e. expense ratio. Based on the results authors suggested that firms should structure managerial incentives in such a way where rewards are based on expense control.
2010	Drakos, A. A., & Bekiris, F. V., Greece	"Endogeneity and the relationship between board structure and firm performance: a simultaneous equation analysis for the Athens Stock Exchange"	Managerial and Decision Economics, Wiley	The aim of this research paper is to examine the connection between the three primary features of the board of directors and the way the form performs. The researcher wanted to find out whether these characteristics were external determinants to the firm's performance. This study went on to prove that the leadership structure and independent of the board does not affect the firm's performance. In fact the firm's performance is inversely proportional to the size to the board. Four simultaneous equations were studied to analyze the internal issues. CEO duality and board size have reverse causality, that is, they have a significant negative relationship to each other. A positive

				relationship was proved between CEO ownership and CEO duality. The reason behind this relationship is due to the fact that the CEO is usually the owner of the form and also holds the maximum ownership. However, reverse causality between size of the board and company performance established negative relation between the two. To ensure robust results, the researcher ran regression for each sample year and changed the proxies to see the changes in the performance. He also took ROA as the proxy for the performance and the results remained the same.
2011	Tsegba, I. N., & Ezi-Herbert, W., Nigeria	"The Relationship between Ownership Structure and Firm Performance: Evidence from Nigerian Listed Companies"	African Journal of Accounting, Economics, Finance and Banking Research, Global Business Investments and Publications LLC	The primary objective of the paper is to see whether alteration or variations in ownership structure greatly impacts the performance of Nigerian firms. The results show signs that prove that dominant shareholding, concentrated shareholding, and foreign ownership structures do not impact the performance of the firm. On the other hand insider ownership is inversely proportional to the performance of the firm.

2011	Aldamen, H., Duncan, K., Kelly, S., McNamara, R., & Nagel, S	"Audit committee characteristics and firm performance during the global financial crisis"	Accounting & Finance, Wiley	The paper attempts to examine the impact of audit committee characteristics on financial performance of a firm during Global financial crisis using a sample of S&P 300 firms for 2008-09. The results suggested that size of audit committee negatively impact market performance whereas expertise of the chairman of audit committee has a positive influence on firm market performance.
2011	Tifafi, F., & Dufour, D.	"Managerial ownership and performance: a simultaneous equation model"	Journal of Business Studies Quarterly, Journal of Business Studies Quarterly Publications	The aim of the present study is to examine the relationship between managerial ownership and performance based on a sample of 36 small size firms of computer industry listed in Nouveau Marché from 1999-2001. Using simultaneous equation model, the study interpreted that there is insignificant relationship between the two. Further, capital held by majority shareholders and main managers found to be negatively associated and leverage was found to be positively associated with firm performance as proxied by book to market value.

2012	de Oliveira Gondrige, E., Clemente, A., & Espejo, M. M. D. S. B., Brazil	"Composition of the board and firm value of Brazilian public companies"	Brazilian Business Review, Fucape Business School publication	The goal of this research paper is to study the relation between the firm's value and composition of the board. The regression results reveal that firm's value is pleasantly related to the size of the board and leverage. The results revealed by ANOVA suggested that the structure of the board affects firm value and this has been proxied by Tobin Q's Brazilian firms.
2012	Fauzi, F., & Locke, S., New Zealand	"Board structure, ownership structure and firm performance: A study of New Zealand listed-firms"	Asian Academy of Management journal of accounting and finance, Asian Academy of Management and Penerbit Universiti Sains, Malaysia	The context of this paper is New Zealand and this paper aims to empirically study the impact of board composition and ownership structures on the performance of firms. A significant and positive symbiosis is seen between the size of boards and both the measures of firm performance. While the association found between non-executive directors was significantly negative for Tobin's Q, the association was comparatively positive in ROA. A significantly negative relation is seen in both measures of firm performance as far as female directors are concerned. In case of Tobin Q's a positive relation was observed between audit committee and remuneration committee, while nomination committee had an insignificant mark. On the

				other hand, as far as ROA is concerned all associations are significant and positive. Block-holder relationship exhibits a negative relationship when both the measures of firm performance is taken into account. However, the managerial ownership coefficient shows a significant and positive symbiosis in both the performance measures of the firm. While the coefficient for managerial ownership concentration 1 is positive, the coefficient for concentration 2 and 3 are negative. The factors impacting firm performance in New Zealand are: female directors, board of directors, leverage, managerial ownership and size of the firm.
2012	Koerniadi, H., & Tourani-Rad, A., New Zealand	"Does board independence matter? Evidence from New Zealand"	Australasian Accounting, Business and Finance Journal, University of Wollongong, School of Accounting & Finance	This paper aims to unravel the effects of presence of independent directors on firm value by analyzing two metrics: market based performance measures and accounting based ratios. The research showed that the results received from OLS and 2 SLS are very similar. The inference from the research reveal that %IND has a negative correlation to all performance variables and has a significant correlation to ROA and ROE. The findings drawn from board sizes also showed similar results.

				While block-holders were negatively related to performance, busy independent directors had a dual result—they were negatively related to Tobin's Q and positively related to all other measures. Cross-sectional results between lagged CG variables and independent directors showed that lagged performances have a negative but insignificant correlation to individual variables. The researcher delved deep into the research and tested the relation between firm's performance and minority individual directors. He found out that dummy variables are positively related to all measures and significantly related to ROA and ROE. The robust test results showed that most of the autonomous directors on the board in the New Zealand firms had a negative relation to firm performance.
2012	Renders, Annelies & Gaeremynck, Ann, European countries	"Corporate Governance, Principal-Principal Agency Conflicts, and Firm Value in European Listed	Corporate Governance: An International Review, Wiley	The purpose of this paper is to showcase the agency problems between majority and minority shareholders. They plan to do so by making an agency conflict index and also see the effect of voluntary corporate governance over the effectiveness and quality of corporate governance by analyzing a sample of 1064 firm year

		Companies"		observations in 14 of the European Union countries. They aim to find out that when the principal-principal conflict has a greater severity, the relation between good quality corporate governance and firm value is more positive. In order to carry on this study, the researcher took into account three equations: Corporate governance: this equation showed that while deciding the quality of corporate governance majority shareholders considered the costs of installing good governance. Conflict equation: this equation showed that the severity of conflicts reduced with good corporate governance. Variance inflation: this study showed that multicollinearity is not of much concern.

2012	Abels, P. B., & Martelli, J. T., US	"Independence and firm performance"	In Global Conference on Business & Finance Proceedings. Institute for Business & Finance Research.	The research tries to bring out the merits of the independence between the Chief Executive Officers (CEO) and the Chairmen. This independence can influence both the company's performance and the perceived independence of the management. Further empirical research is carried out to check if the titles of CEOs impact the company's performance in big corporations in the US. The comprehensive results showed that CEO duality had little influence on the company's performance when measured statistically (unadjusted ROA). Other factors influencing firm performance (unadjusted ROA) are two-digit NAICS (Manufacturing, Construction, Retail, Mining and Accommodations), age (ranging from55 to 59) and general education (Master degree). While CEO duality was neither significant nor important to corporate performance (adjusted ROA), CEO age was important as well as significant to corporate performance (adjusted ROA).

2013	Bekiris, F. V., Greece	"Ownership structure and board structure: are corporate governance mechanisms interrelated?"	Corporate Governance: The International Journal of Business in Society, Emerald	The premise of this research paper is to study the inter-relationship between ownership structure and board characteristics in small open economy. The research was conducted taking into account unbalanced panel data. However, later the data was balanced on the advice of other researchers. The researcher studied six simultaneous equations. In this study he took one internal variable as dependent and the rest of the internal variables and three or four external variables as independent every time. It was observed that in Greek boards there are an average of 7 members of which 31% is independent. The results further revealed a negative relationship between block-holder ownership and CEO duality, and board independence and CEO duality. From this one can infer that in case of strong board ownership and independence there must be separate positions for CEOs and Chairmen on the board. Board independence and external ownership posed a positive association. The researcher further found out that smaller board size was directly proportional to board independence. Further findings showed positive relation between board size and

				firm size and board size and board independence. In the next equation, the researcher extended the model by adding firm value as the sixth internal variable to be studied as the dependent variable in the next equation. Using OLS revealed two findings to the researcher: positive relationship between firm performance and presence of external block-holders and negative relation between leadership structure and firm performance. Using the 2 SLS methods did not reveal any co-relation between corporate governance mechanism and firm performance.
2013	Lama, T. B., Australia	"Empirical Evidence on the Link Between Compliance with Governance of Best Practice and Firms' Operating Results"	Australasian Accounting, Business and Finance Journal, University of Wollongong, School of Accounting & Finance	This research paper aims to find out the impact of the degenerating state of corporatized governance practices in Australian mid capital companies on the effectiveness of their operations. The findings of this research showcased significantly positive relationship between delta change in governance ranking and delta change in all performance variables. Similar results were found to be replicated when firm size was taken into account. On the other hand leverage was found to have insignificant relationship. Positive association between coefficient of

				growth and ROA and EY was found, while there was negative association with ROE.
2013	Obradovich, J., & Gill, A., U.S.	"The impact of corporate governance and financial leverage on the value of American firms"	International Research Journal of Finance and Economics, Euro Journals publishing	The research analyzes the effect of corporate governance and budgetary leverage on the estimation of 333 American firms recorded on NYSE for a time of 3 years from 2009-2011. The examination investigation was done on all industries and after that it was isolated into manufacturing and service industry. The outcomes uncovered board size dependably has negative relationship with firm value. If there should arise an occurrence of entire industry CEO duality, budgetary leverage, audit council , firm size, return on assets and insider property positively affects firm value. In manufacturing industry additionally CEO duality, audit committee, financial leverage, firm size and insider property positively affect firm value, though if there should arise an occurrence of service industry just budgetary leverage and return on assets have a positive relationship with firm value in America.

2014	Abdel-Meguid, A., Samaha, K., & Dahawy, K., Egypt	"Preliminary evidence on the relationship between corporate governance attributes and audit committee functionality in Egypt: beyond checking the box"	Corporate Governance: The International Journal of Business in Society, Emerald	The researcher led the investigation on 100 organizations recorded on Egyptian stock trade. The goal of the investigation was to discover the integral or substitute relationship of non-audit corporate governance determinants to audit committee functionality. Experimental outcomes demonstrate that board size and board autonomy are positively and CEO duality is negatively related to audit committee functionality. The impact of board size was weaker, proposing complementary governance relations. Additionally the investigation discovered negative connection between auditor type and audit committee functionality showing a substitutive governance impact.

2014	Leung, S., Richardson, G., & Jaggi, B., Hong Kong	"Corporate board and board committee independence, firm performance, and family ownership concentration: An analysis based on Hong Kong firms"	Journal of Contemporary Accounting & Economics, Elsevier	The point of the paper is to look at whether the connection between corporatized board and board council independence and firm performance is directed by the grouping of family ownership. The researcher introduced the outcomes without considering the association of board independence and family dummy and discovered insignificant outcomes. At that point taking this communication into account the results showed that one third ownership is decidedly and fundamentally connected with firm performance. Negative and significant affiliation was found between communication variables of one third family dummy and between extent of autonomous directors and family dummy and ROA which affirms that there is no important relationship between board autonomy and firm performance for family firms. The coefficient for the interaction term of prop of IND in AC and Family dummy is negative while for IND Chairman of AC and Family dummy is sure. A similar interaction for RC and NC drew out the noteworthy positive outcomes for non-family firms. This infers higher level of independence

				for corporate boards and board panels is related with enhanced firm performance just for non-family firms. T Test results to demonstrate that familial firms have a lower level of autonomous directors, inferring that they are less inclined to choose autonomous directors to their corporate boards. The average number of independent directors with professional background is fundamentally lower in family firms. The univariate result results to show there is no critical contrast in the % of IND on any of the committees. The multivariate outcomes detailed that family dummy is adversely connected with prop of IND implying that family firms are less autonomous than non-family firms. Rests of the outcomes are predictable with univariate outcomes. For robustness of the result the researcher utilized two methods and results stayed unaltered.

2014	Caixe, D. F., & Krauter, E., Brazil	"The Relation between corporate governance and market value: mitigating endogeneity Problems"	Brazilian Business Review, Fucape Business School publication	The fundamental goal of the paper is to find out the connection between the adoption of better corporate governance practices and the market estimation of firms. They have tried whether Brazilian organizations recorded in premium corporate governance segments have higher market value contrasted with firms recorded in the traditional market segment. Six conditions were figured to draw out the outcomes taking one of the two dependent variables and one of the three profitability ratios. The outcomes uncover that both the dependent variables were positively impacted by their slacked value at 1% sig. CGQ got positive and sig coefficients at 1% of every five out of six conditions. The outcomes reveal that the adoption of improved corporate governance hones positive effects on market value. EBITDA/TA was found to have significant connection in the two models in which it was utilized, while ROIC was found to have significant positive relationship at 10% with EV/TA. In this manner it was translated that accounting performance emphatically impacts market value.

2014	Peni, E., U.S.	"CEO and Chairperson characteristics and firm performance"	Journal of Management & Governance, Springer	This paper adds to the current writing by evaluating whether, and also how, CEO and Chairperson attributes to be specific, age, experience, industriousness, quality, and sexual orientation impact firm performance. Moreover, the effect of CEOs and Chairs is looked at. The detailed experimental outcomes propose that organizations with woman CEOs/Chairs may beat male-driven firms. Besides, the industriousness of the CEO or Chair is by all accounts adversely identified with Tobin's Q and ROA, whereas outcomes concerning CEO/Chairperson age are blended. Chair and CEO experience and quality and CEO duality are positively identified with firm performance.
2015	Alabede, J. O., & Muff, T., UK	"Board Structures and Financial Performance of UK Top Firms: An Investigation of the Moderating Role of the Directors' Compensation"	Issues in Social and Environmental Accounting, Indonesian Center for Social and Environmental Accounting Research and Development	The examination was attempted to research the collaborating impact of directors' pay on the association between corporate board structures and Tobin Q utilizing UK FTSE 350 firms. It examines how corporate board structures identify with monetary performance and the impact of directors' budgetary remuneration on such relationship. The discoveries of the examination recommend that board composition is positively

				connected with money related performance (Tobin q). In the investigation it was discovered that most (94 percent) of the FTSE 350 firms works non-duality structure as suggested by Corporate Governance Code of UK. In any case, this investigation gives prove, which recommends that non-duality board authority was feebly identified with budgetary performance (Tobin q). Other than that, the examination additionally demonstrates that the impact of directors' pay interfaces positively with board organization to impact budgetary performance. By suggestion, this finding shows that money related rewards to the outside directors play an unavoidable part in impacting the connection between corporate board and budgetary performance.
2016	Lee, S. K., Bosworth, W., & Kudo, F.	"Compensation Committees: Independence and Firm Performance"	Managerial Finance, Emerald	The purpose of this study is to examine the relevance of 100% independent compensation committee in improving firm performance by comparing firms that have not complied with the requirement with that of firms that have complied. The sample size used in the study is 47 firms from small cap, mid cap and S&P 500 firms for the period 2010 and 2011. The authors view

				that statistically negative results of Industry adjusted ROA and Tobin's Q would interpret that the non-complying firms are performing less than complying firm. On the other hand, statistically positive results will interpret that more number of insiders are good for firms. The results also proved the same that non complaint firms have lower firm performance than firms which have 100% independence in compensation committee.
2016	Michelberger, K., Lithuania	"Corporate governance effects on firm performance: a literature review"	Regional Formation and Development Studies, Klaipeda University Journal	The aim of this study is to evaluate the recent literature on corporate governance and its impact on firm performance so as to identify the potential problems leading to inconsistent results. The studies considered in the paper are published in the journals having ABS Academic journal rating of at least 3. The author divided the considered literature into 2 groups, one, in which study is conducted on company level using single corporate governance variable and second, in which study is conducted using multiple corporate governance variables for longer duration of time. After critically examining the empirical researches done in past, the

				author concludes that there is lack of specific model defining good governance and it differs from country to country. He pinpoints that studies with small sample or for short duration could not bring any strong results. Therefore, future research must continue to opt for larger samples and for longer duration which could capture long term impact and the researchers must focus on standardized financial research metrics.
2016	Duru, A., Iyengar, R. J., & Zampelli, E. M., U.S.	"The dynamic relationship between CEO duality and firm performance: The moderating role of board independence"	Journal of Business Research, Science Direct	The purpose of this paper is to examine the impact of board leadership structure on firm performance and its moderating effect with board independence. The sample size used in the study is 950 firms from 1997-2011. The research concludes that as long as board independence is at lower levels, CEO duality has significant negative effective on operating performance of a firm. But, as soon as board independence increases, the effect also converts to positive effect. The authors suggest that independent directors monitoring could improve the role and working of CEO in the firms.

Table 2. 2 STUDIES FROM OTHER ASIAN COUNTRIES

YEAR	AUTHOR AND COUNTRY	TITLE OF RESEARCH PAPER	JOURNAL	MAJOR FINDINGS
2002	Prevost, A. K., Rao, R. P., & Hossain, M., New Zealand	"Determinants of board composition in New Zealand: A simultaneous equations approach"	Journal of Empirical Finance, Elsevier	The purpose of this paper is to identify the potential endogeneity between board composition and firm performance using an unbalanced sample of firms listed in New Zealand stock exchange from 1991 to 1997. The results reveal that board composition and firm performance jointly affect each other positively. The study also pinpointed that increased responsibility of outside directors failed to improve their monitoring capacity.
2003	Gibson, M. S., Eight emerging markets	"Is corporate governance ineffective in emerging markets?"	Journal of Financial and Quantitative Analysis, Cambridge University Press	The focus of this study is to identify the link between CEO turnover and firm performance; to access whether in case of poorly performing firms CEO turnover is high or not. A sample of 1200 firms from 8 emerging markets is used for the study. The study found positive results indicating high CEO turnover when performance of firms in emerging markets go down.

2007	Firth, M., Fung, P. M., & Rui, O. M., China	"How ownership and corporate governance influence chief executive pay in China's listed firms"	Journal of Business Research, Elsevier	The article creates models of CEO pay in light of a comprehension of the one of a kind financial and structural changes embraced by the privatized State Owned Enterprises. The article researches whether a CEO's compensation relies upon the association's performance and whether ownership and boardroom attributes affect both pay and the pay-for-performance connection. The discoveries demonstrate that CEO pay depends, partially, on the association's operating benefits and this shows incentive systems are being utilized to inspire top managers. All the more intricately, the discoveries of this examination demonstrate a positive pay– performance connection in China when performance is measured as profit for resources. Along these lines, firms remunerate their CEOs when their organizations have great operating benefits. Conversely, stock returns don't influence CEO remuneration. The article gives proof that state ownership acts to diminish pay levels and the existence of an outside shareholder acts to expand pay levels. Foreign invested firms have higher pay-for-performance sensitivities. Internal

				administration has an effect on CEO remuneration. Firms with board of directors pay their CEOs less, firms with a great deal of non-executive directors will probably utilize performance based pay, and a firm that has a joint CEO/chairman position is more averse to utilize performance based pay.
2008	Firth, M., Fung, P. M., & Rui, O. M. China	"Ownership, governance mechanisms, and agency costs in China's listed firms"	Journal of Asset Management, Springer	This paper analyzes the effect of ownership and governance mechanism component on the agency cost of Chinese firms. The authors have utilized operating, general and administration costs by total sales and resource turnover ratios as the proxy for agency cost. The discoveries propose that organizations with foreign investors have higher agency cost and firms with concentrated ownership have lower agency costs. Government shareholding has no impact on agency cost. Bigger firms and higher pay have lower agency cost and older firms have higher agency costs.

2008	Hasan, T., Kadapakkam, P.-R., & Kumar, P. C.	"Firm investments and corporate governance in Asian emerging markets"	Multinational Finance Journal, Multinational Finance Society	The primary aim of this study is to identify the relationship of corporate governance standards with that of determinants of firm investment for a sample of Asian emerging markets. It found that better corporate governance standards open the door of foreign investment trusting the interest of minority shareholders. In case of any confusion in protection of the interest of minority shareholders, firms have to rely on internal resources only.
2008	Su, Y., Xu, D., & Phan, P. H., China	"Principal – Principal Conflict in the Governance of the Chinese Public Corporation"	Management and Organization Review, Wiley	This paper looks at the effect of principal - principal conflict on agency cost of Chinese board of directors. It found that ownership focus had a U molded association with board composition, board size and the presence of autonomous directors. The discoveries delineate diminishing agency costs in the board at first at low to medium levels of focus, by expanding costs at higher concentration levels because of the power and entrenchment of extensive investors. They say that there is some moderate level of ownership focus that can successfully adjust both vital agent and principal -

				principal agency conflict and limit monitoring expenses.
2010	Ameer, R., Ramli, F., & Zakaria, H., Malaysia	"A new perspective on board composition and firm performance in an emerging market"	Corporate Governance: The International Journal of Business in Society, Emerald	The real target of the paper is to look at the connection between board arrangement and firm performance utilizing a board level conglomeration variable. The author has segregated the example in a few typologies. Utilizing the percentage of inside, non-autonomous and outside directors and foreign directors the boards are named as bullies or buddies or believers or best. The outcomes uncover that firm boards with a high representation of outside and foreign directors are related with better performance contrast with those firm boards that have a lion's share of insider official and associated non official executives. Furthermore the outcomes demonstrate that ownership by family, foreign and institutional investors significantly affect the company's performance. Clearly, outside shareholding have an altogether higher effect when contrasted with family and institutional ownership. The strength of results was checked by including some different factors. In the wake of controlling the effect of these different factors results reveal that organizations with foreign directors have a

				critical positive effect on firm performance. The purpose for this is such firms focus on few business portions so they can think more. It is likewise discovered that R&D and firm diversity has essentially negative effect and government linkage has no effect on firm performance. Further the researcher inspected the non-straight impact of ownership on firm performance utilizing communication variable of family ownership and family CEO and squared terms of family, foreign and institutional ownership. The outcomes discovered critical negative coefficient on the Family-CEO and noteworthy positive coefficient on the business Q proportion. Squared foreign is fundamentally positive and squared institutional ownership is altogether negative relationship with firm performance.

2010	Ramdani, D., & Witteloostuijn, A. Van.	"The impact of board independence and CEO duality on firm performance: A quantile regression analysis for Indonesia, Malaysia, South Korea and Thailand"	British Journal of Management, Wiley	The aim of the study was to explore the association of board independence and CEO duality on performance of firms' listed in Indonesia, Malaysia, South Korea and Thailand in 2001-02. Quantile regression was used in the study to overcome the weakness of linear regression. The results suggests that the two variable has significant impact on average performing firms and the impact level is insignificant when the firm is low performing or high performing.
2011	Nuryanah, S., & Islam, S., Indonesia	"Corporate governance and performance: Evidence from an emerging market"	Malaysian Accounting Review, UiTM Press	The principle inspiration of the investigation was to look at the viability of the corporate governance practice in Indonesia by inspecting the connection between internal corporate governance components and company performance. The outcomes demonstrate that board autonomy, audit committee freedom and board leadership freedom was having critical positive association with organization's performance. Correspondingly, both outsider ownership (institutional and singular ownership) and leverage additionally affect organization performance fundamentally and positively. The investigation neglected to identify any connection

				between size of board and audit committee, management ownership and company performance. At last the outcome demonstrates that an organization having an audit committee led by an autonomous member and one of its members having accounting/ finance related capability negatively affects performance.
2011	Lin, C. J, Taiwan	"An examination of board and firm performance: Evidence from Taiwan"	International Journal of Business and Finance Research, IBFR publications	The investigation dissected the effect of board structure on firm performance to find out about the impact of authority structure and governing body on firm performance. The results of this examination show that duality; board size affects both ROA and ROE. The investigation additionally found that number of supervisory executives impacts ROA and ROE and family controlled directors affect ROE. Outside autonomous executives impacted Tobin's Q, ROA and ROE. Inside directors impact ROA and ROE. By breaking down various measured organizations, it was found from the Tobin's Q that huge and little estimated organizations are not influenced by board structure. However medium estimated organizations are decidedly influenced by board size and quantities of outside free

				directors. As far as ROA and ROE, duality, board size, and family controlled executives yielded a negative effect on vast measured organizations and supervisory directors and inside directors yielded positive effect. Outside autonomous directors positively affect ROE yet have no effect on ROA. In medium sized organizations, supervisory directors, outside autonomous executives and inside executives positively affect ROA and ROE. In small sized organizations, outside free directors positively affect ROA and ROE. As far as ROA supervisory directors and inside executives have a positive effect.

2011	Shan, Y. G., & McIver, R. P., China	"Corporate governance mechanisms and financial performance in China: Panel data evidence on listed non-financial companies"	Asia Pacific Business Review, Taylor Francis	The target of this paper is to give observational confirmation because of corporate governance attributes and corporate ownership concentrations on the money related performance of Chinese organizations. The investigation gave prove that there is a negative and critical connection between Tobin's Q and extent of autonomous directors. Same outcomes were discover when this extent in controlled by firm size (IND* firm size). Immaterial outcomes were found with respect to extent of supervisory directors even when it is controlled for firm size. The examination likewise discovered that there is critical negative connection between Top 10 investors and firm performance yet there was fundamentally positive relationship when it is controlled for firm age. Inconsequential outcomes were discovered for state control however there was critical positive affiliation when state control is joined with firm age. The same immaterial outcomes were discovered for outside ownership and when it's controlled by firm age.

2011	Ibrahim, H & Samad, FA	"Agency costs, corporate governance mechanisms and performance of public listed family firms in Malaysia"	South African Journal of Business Management, Sabinet Publications	This paper explore the effect of corporate governance components, for example, board size, free directors and duality on performance, as a device in mitigating an agency costs amongst family and non-family firms in Malaysia and establishes that non family ownership encounters low agency cost as its asset utilization is higher. Then again family firms encounter low agency costs as their cost proportion is less. The examination affirms that family firms in Malaysia are sensitive towards agency cost and corporate governance systems. In it they have considered asset utilization proportion ratio and expense ratio as intermediaries of agency cost and Tobin Q and ROA as intermediaries for firm performance.

2011	Cheung, YL. Stouraitis, A. and Tan, Weiqiang	"Corporate Governance , Investment , and Firm Valuation in Asian Emerging Markets"	Journal of International Financial Management & Accounting, Wiley	The paper inspects the impacts of corporate governance and family ownership on firm valuation through speculation productivity in Asian developing markets. Tobin's Q is utilized as an intermediary for market valuation. The discoveries recommends that there is a positive connection between changes in corporate governance score and changes in firm value and positive and critical connection amongst investment and level of corporate governance i.e. better corporate governance prompts better investment effectiveness. The discoveries demonstrate that the positive connection between corporate governance practices, investment and firm valuation holds for non-family firms and collaboration term amongst transparency and investment is negative and huge for firms with concentrated ownership. The impact of changes in corporate governance index on firm valuation was additionally broke down and it was discovered that higher firm valuation results because of change in general corporate governance through investment efficiency by increasing transparency.

2011	Darus, F., & Mohamad A., Malaysia	"Corporate Governance and Corporate Failure in the Context of Agency Theory"	Journal of American Academy of Business, Cambridge	This study plans to research the effect of corporate governance changes in moderating corporate failures in Malaysia for a three year time frame from 2004 to 2006. Utilizing 176 Malaysian firms (88 distressed organizations and 88 non-distressed organizations), the effect of corporate governance qualities to be specific board structure, ownership structure and internal control systems on the poor performance of organizations in Malaysia were researched with regards to agency theory. Results uncover critical negative relationship between CEO duality and money related distress condition. This suggests leadership structure influences the performance of organizations. The discoveries propose that CEO duality will decrease agency problem as the agent will act to his greatest advantage and give better vital vision and authority in organizations' objectives and goals contrasted with an autonomous chairman. This thus will bring about the quick performance of association's operational choices and enhanced performance. The other governance and internal control instruments identified in the examination (board freedom,

				management ownership, family ownership, audit committee autonomy and audit committee expert) were not huge in alleviating money related pain states of firms.
2012	Firth, M. A., & Rui, O. M., China	"Does one size fit all? A study of the simultaneous relations among ownership, corporate governance mechanisms, and the financial performance of firms in China"	Corporate Governance: Recent Developments and New Trends, Springer	The primary inspiration for this paper is to inspect whether there is one arrangement of governance components that is fitting for recorded firms in China (i.e., one size fits all). They examined the accompanying issues with regards to China: (1) the interrelations among the administration devices; (2) the relations between firm value and the administration frameworks; and (3) whether the administration components are substitutes for each other to such an extent that there is no single or subset of systems that emerge as the antecedents to great budgetary performance. Study discovered solid proof to demonstrate that substitution and reciprocal impacts of the diverse administration instruments exist. Regression results to demonstrate that governance instruments are interrelated and the decision of one system relies upon the decision of others. Understanding of the straight regression results is that many control instruments affect firm performance when the interdependencies of the

				other control components are disregarded. The collaboration terms are generally irrelevant. While in an OLS setting, researchers locate that institutional ownership, substantial shareholdings, board freedom, remuneration, debt levels, and government control are critical elements related with firm performance these outcomes vanish when the inborn endogeneity is controlled for by means of the simultaneous equations approach.
2012	Braga-Alves, M. V., Morey, M.	"Predicting corporate governance in emerging markets"	Journal of International Money and Finance, Elsevier	The aim of this study is to identify the predicators of corporate governance in emerging markets using a sample of 24 emerging markets for 7 years. The study found that firm size is one of the effective predictors affecting corporate performance followed by political risk of the economy. But the effect of level of political risk is adverse to level of firm governance and positive to the changes in firm governance.
2013	Tariq, Y. B., & Abbas, Z., Pakistan	"Compliance and multidimensional firm performance:	Economic Modelling, Elsevier	The primary motivation behind the investigation is to discover the viability and adequacy of the present code of corporate governance by utilizing financial approach

		Evaluating the efficacy of rule-based Code of corporate governance"		corporate governance i.e. by discovering the connection between compliance with company's effectiveness and money related performance. The investigation found that however compliance score is essentially and emphatically related with firm performance yet the extent is low which demonstrates that the relationship is not much linear. Asset development has indicated reliably positive and huge relationship with measures of budgetary performance aside from ROA. Association's age is adversely critical with ROA, ROE and ROCE. D/E ratio has same impact with all measures of money related performance. Firm size is emphatically and essentially related with ROE and ROCE models. Profit per share is decidedly and fundamentally connected with all measures. Regarding technical efficiency the examination found that compliance score has significantly positive effect on technical efficiency under both irregular impacts Tobit and bootstrapped Tobit. Further positively noteworthy affiliation is discovered just in the middle of DPS and TE. The researcher has additionally partitioned the compliance score into high and low compliance and found that the two has negative

				relationship with firm performance which infers that past a specific limit of compliance the outcomes are never positive.
2013	Velnampy, T., Sri Lanka	"Corporate governance and firm performance: a study of Sri Lankan manufacturing companies"	Journal of Economics and Sustainable Development, International Institute for Science, Technology and Education, US	The point of the paper was to discover the effect of corporate governance on firm performance. The present investigation is started to discover that to what degree corporate governance impact on firm performance? The outcomes failed to discover any relationship between the determinants of corporate governance and firm performance. Researcher recommended that the directors of the board should gather in playing their vital role legitimately for the exercises of the organizations and furthermore counsel the organizations to include more free directors inside the benchmark for the number of directors.
2013	Xie, J., & Fukumoto, Y., Japan	"A new finding for corporate board size effects: evidence from Japan"	The Singapore Economic Review, World Scientific Publisher	The point of this paper is to reconsider the connection between firm performance and board size of Japanese organizations. In general the outcomes gave confirm that smaller boards have positive huge relationship and bigger boards have essentially negative connection with firm

				performance. In basic regression board size was found to have noteworthy positive connection in the two models. Log of assets and change of assets additionally found to have critical positive connection at 1% level in the two models. Normal tenure was emphatically critical in OLS yet adversely huge in fixed effect model. Non CEO chairman was not huge in either display. Budgetary keiretsu was noteworthy in OLS yet unimportant in fixed effect reverse was the situation of outsider ratio. If there should arise an occurrence of quadratic relationship, square of board size was altogether negative. Comparable outcomes were discovered when square of log of board size was considered. At the point when the specimen was partitioned into 2 sections, huge positive connection was discovered when board size was not exactly or equivalent to 25 and negative connection was discovered when board measure was more than 25. Accordingly the researcher deciphered that there is a protuberance formed connection between firm performance and board size, which infers that a greater board size may be useful for organizations in specific

				situations.
2013	Rashid, A., Bangladesh	"Corporate governance, executive pay and firm performance: Evidence from Bangladesh"	International Journal of Management, The International Association of Engineering and Management Education Publications	The examination goes for looking at the impact of ownership structure, board composition, board size and CEO duality on official pay and official pay on firm performance in 94 non-money related firms recorded on the Dhaka Stock Exchange, Bangladesh for the time of 2000-2009. From the investigation, it is discovered that there is no noteworthy connection between ownership structure and official pay. There is a critical positive connection between board structure and official pay; there is a noteworthy negative connection between board size and official pay and CEO duality and official pay. In any case, there is a positive connection between official pay and firm performance.
2013	Maurovic, L. & Hasic, T., Pula	"Reducing agency costs by selecting an appropriate system of corporate governance"	Corporate Governance: The International Journal of Business in Society, Emerald	The study was conducted to identify whether one tier system of corporate governance is more effective in reducing agency cost than two tier system or vice versa. The analysis of different legal systems revealed that effectiveness of corporate governance depends on number of factors rather than one tier system or two tier

				systems.
2013	Lei, Q., Lin, B., & Wei, M., China	"Types of agency cost, corporate governance and liquidity"	Journal of Accounting and Public Policy, Elsevier	The reason for the investigation was to think about the connection amongst governance and liquidity when the agency costs of entrenched administration and self-serving controlling investors are available through the example of all Chinese A-share firms recorded on the Shenzhen and Shanghai stock trades between 2006 and 2008. The investigation thoroughly analyze how agency conflicts between large controlling investors and minority investors may differently affect liquidity. The investigation uncovered out the outcomes that the corporate governance systems, for example, administration remuneration, controlling investor monitoring and board freedom, which decrease the agency cost additionally help in bringing down offer approach spread for state owned enterprises which are more inclined to administrative entrenchment and numerous layer corporate structures and a higher level of partition amongst control and income rights are related with higher offered ask spreads in non-state firms.

2013	Meyer, E. & Wet, J., South Africa	"The impact of board structure on the financial Performance of listed South African companies"	Corporate Board: Role, Duties & Composition, Virtus Inter Press	This examination concentrates on the part of the corporate board of directors and the connection between the elements of board structure and the money related performance of recorded South African organizations. The examination results found that the extent of free non-official directors had a huge beneficial outcome on firm performance as measured by income per offer and enterprise value, yet had no huge impact on Tobin's Q ratio. Board ownership had a noteworthy negative connection with firm performance as measured by profit per share, enterprise value and Tobin's Q ratio. The number of directors serving on the corporate board had a huge beneficial outcome on firm performance as measured by profit per share, enterprise value and Tobin's Q ratio. The examination proposes that more prominent autonomous non-official director representation, bring down board share-ownership and bigger board sizes ought to be urged to improve firm performance.
2014	Dharmadasa, P., Gamage, P., &	"Corporate governance, board	South Asian Journal of Management,	The researcher led the examination on 189 open recorded organizations of Colombo stock trade and discovered

	Herath, S. K., Sri Lanka	characteristics and firm performance: evidence from Sri Lanka"	Association of Management Development Institutions in South Asia Publication	absence of connections between CEO duality, board composition, interlocking directorate, board diversity and firm performance. The investigation gives factually no proof to help the theory that a higher extent of family directors on the board diminishes firm performance. There is absence of measurable confirmation to help that the presence of female directors upgrades firm performance. The examination likewise found that there is huge negative relationship of board size with both accounting and market based firm performance. Board freedom and firm performance is found to have huge and positive connection with firm performance.

2014	Lattemann, C., BRIC	"On the convergence of corporate governance practices in emerging markets"	International Journal of Emerging Markets, Emerald	The aim of the present study is to analyze the corporate governance mechanism that affects BRIC nations the most. The study was conducted on 135 largest BRIC firms listed in Forbes 2000 list in 2009. It was observed during the study that there is a fear among the nations that on non-complying with essential corporate governance norms, the nations would lose foreign market investors. To achieve the objective of the study and proving hypotheses, various constructs were formulated for regression model. The authors found huge difference in the corporate governance practices amongst BRIC nations. They also argue that firm value is not determined on the basis of quality of corporate governance.
2014	Yunos, R. M., Ahmad, S. A., & Sulaiman, N., Malaysia	"The influence of internal governance mechanisms on accounting conservatism"	Procedia-Social and Behavioral Sciences, Elsevier	The point of the paper is to observationally look at the relationship between the characteristics of the board of directors and audit committee on accounting conservatism. The researcher has utilized Basu (1997) model to quantify accounting conservatism. A dummy variable (D) interfaces with return variable (R) to intermediary for terrible news, while the fundamental

				impact on return (R) is an intermediary for uplifting news. Connection impact of autonomous directors on the board and monetary specialists in board with the intermediary of awful news infer that higher the extent of IND and budgetary specialists on the board, the speedier the awful news is perceived into income in respect to uplifting news. Positive huge coefficient on ACM has demonstrated that the basic of four gatherings held every year promotes effective function of audit committee. ID in audit committee was found not noteworthy. From the above outcomes, it can be accepted that the size of the board would not be an issue as there are different systems working viably to screen the money related reporting procedure. CEO duality likewise had no impact on asymmetric timeliness.
2015	Azeez, A. A, Sri Lanka.	"Corporate governance and firm performance: evidence from Sri Lanka"	Journal of Finance, Wiley	This examination has explored the connection between corporate governance and firm performance in Sri Lanka. Results demonstrate that board size is contrarily connected with firm performance. In addition, the outcomes uncover that the partition of the two posts of CEO and chairman has a critical positive association

				with the firm performance. In any case, the existences of non-official directors on the board are not related with firm performance of the recorded organizations in Sri Lanka.
2015	Harvey Pamburai, H., Chamisa, E., Abdulla, C., & Smith, C., South Africa	"An analysis of corporate governance and company performance: a South African perspective"	South African Journal of Accounting Research, Traylor and Francis	This study analyzes the connection between corporate governance systems and company performance. The investigation report four principle results. In the first place, board size is observed to be adversely and essentially identified with EVA recommending that organizations with smaller boards perform superior to those with bigger boards. Second, the connection between Tobin's Q and the extent of non-executive directors (NEDs) on the board is both positive and critical, proposing that organizations with higher extents of NEDs appear to perform superior to those with lower extents of NEDs. Third, recurrence of board meetings is adversely and fundamentally identified with both the ROA and the Tobin's Q proposing that organizations which hold board meetings less as often as possible seem to perform superior to those holding board meetings all the more as often as possible. Fourth, the connection

				between organization size and two performance measures (EVA and ROA) is both positive and huge, recommending that bigger organizations appear to perform superior to littler ones. Besides, the relationship amongst leverage and the ROA is negative and barely huge, proposing that organizations with less debt seem to perform superior to those with more debt.
2016	Rafique Yasser, Q., & Al Mamun, A., Malaysia, Pakistan and Australia	"Audit committee structure and earnings management in Asia Pacific"	Economics and Business Review, University of Ljubljana Publication	The purpose of this study is to examine the effectiveness of audit committee in improving firm performance and audit quality of developing economies with that of developed economies. The sample from Malaysia, Pakistan and Australia is taken in different proportions to make a total of 240 firms from 2011 to 2013. Based on the regression results, the authors opine that audit committee with more members are effective monitors of the management and enhances financial reporting quality. The study failed to identify any significant impact of audit committee meeting on financial performance of firms from three economies. Similar are the results for audit committee size.

2016	Ararat, M., Black, B. S., Yurtoglu, B. B., Turkey	"The effect of corporate governance on firm value and profitability: Time-series evidence from Turkey"	Emerging Markets Review, Elsevier	In the study a corporate governance index was developed comprising of board structure, disclosure, shareholders' rights, board procedure and ownership. Panel data regression technique was applied on Turkish listed firms between 2006 and 2012. Further principal component analysis was applied to identify the most important sub index. The results reveal that corporate governance index predicts higher profitable firms.
2016	Fuzi, S. F. S., Halim, S. A. A., & Julizaerma, M. K., Malaysia	"Board Independence and Firm Performance"	Procedia Economics and Finance, Science Direct	The aim of this paper is to analyze the available literature on board independence and firm performance and testify if independent directors have positive influence on firm performance or not. After the review of extensive literature from developed and developing economies, the authors conclude that the companies all over the world are employing independent directors on their board for the compliance of regulations whereas the studies failed to find any positive impact of board independence on firm performance.
2016	Yilmaz, C., & Buyuklu, A. H.,	"Impacts of corporate governance on firm	Eurasian Journal of Economics and	The main objective of the study is to assess the impact of corporate governance practices on financial performance

	Turkey	performance: Turkey case with a panel data analysis"	Finance, Eurasian Publication	of firms in Turkey using a sample of 92 firms for the period 2007 to 2013. The study failed to identify any significant relationship between board independence and firm performance whereas, share of independent members and leverage were negatively associated with firm performance and foreign ownership was found to be positively related with firm performance.

Table 2. 3 STUDIES FROM INDIA

YEAR	AUTHOR AND COUNTRY	TITLE OF RESEARCH PAPER	JOURNAL AND PUBLISHER	MAJOR FINDINGS
2004	Praveen Bhasa, M. India	"Understanding the corporate governance quadrilateral"	Corporate Governance: The International Journal of Business in Society, Emerald	The objective of the paper is to posit four different governance mechanisms in currency and the attendant implications that they have on the governance of corporations. The author has divided the whole world into 4 types of corporate governance models: market centric, relationship based, transition economies and emerging governance model. He has discussed the problems and benefits of all governance models. He has considered India in the last model which is making it the

				mixture of first and second model.
2005	Dwivedi, N., & Jain, A. K.	"Corporate Governance and performance of Indian Firms: The effect of board size and ownership"	Employee Responsibilities and Rights Journal, Springer	The principle goal of the paper was to research the connection between corporate governance and firm performance for a specimen of Indian firms in 1997-2001. The outcomes uncovered that greater boards have frail relationship with firm value yet the affiliation is certain. Open shareholding, executives' shareholding have negative impact on firm value, foreign shareholding has constructive outcome however Indian institutional investors have immaterial relationship with firm value.
2005	Phani. B V., Reddy, V. N., Ramachandran, N., & Bhattacharyya, A. K.	"Insider Ownership, Corporate Governance and Corporate Performance"	SSRN	The paper attempts to examine the impact of insider ownership on performance of an Indian firm. The sample was collected for a period of one year. The study concludes that insider ownership affects the performance of firms differently for different industries. It also summarizes that outside investors prefer greater insider shareholding whereas foreign investors prefer lower level of insider shareholding.

2006	Ghosh, S.	"Do board characteristics affect corporate performance? Firm-level evidence for India"	Applied Economics Letters, Taylor and Francis	The examination inspects the effect of boards of non-budgetary firms on monetary performance in India for 2003 and discovered that if certain firm particular elements are controlled, bigger boards have a tendency to impact firm performance i.e. board size impacts performance. In the examination it was likewise discovered that non-official directors have a positive relationship with firm performance.
2008	Pattanayak, M.	"Insider ownership and firm value: evidence from Indian corporate sector"	SSRN	The target of the paper was to break down how insider ownership influences Indian corporate esteem. The examination was led on 1833 BSE recorded Indian firms over the period 2001-2004. The investigation uncovered out the outcome that while 'Merging OF INTEREST' or 'Observing' HYPOTHESIS predicts a positive relationship, the 'ENTRENCHMENT' speculation predicts a negative one between insider shareholding and firm value. There is non-direct and non-monotonic connection between insider shareholding and firm value i.e. administration moves from arrangement to entrenchment and to arrangement as their ownership stake increments in the firm. The other finding of

				hugeness is that foreign promoter/associate shareholding is positively affecting firm value.
2009	Saravanan, P	"Corporate Governance Characteristics and Company Performance of Family Owned and Non-Family Owned Businesses in India"	Great Lakes Herald, Great Lakes Institute of Management Chennai	This paper considers the effect of promoters' family control and corporate governance on firm value. The information were broke down utilizing a 't' test to discover is there any critical distinction in the firm an incentive between promoter family controlled and non-promoter family controlled firms. Numerous regression investigations were led to recognize the elements that influence firm value. Results show that the firm value isn't observed to be fundamentally influenced by either 'kind of firm' (that is FCF or NFCF) or 'Corporate Governance' factors when these factors are balanced for the firm performance factors. The main exemption is the board size, which is critical at .01 levels.

2009	Jackling, B., & Johl, S.	"Board structure and firm performance: Evidence from India's top companies"	Corporate Governance: An International Review, Wiley	This paper explores the connection between inside administration structures and money related performance of Indian organizations. The adequacy of boards of executives, including board synthesis, board size, and parts of board authority including duality and board hecticness are tended to in the Indian setting utilizing two speculations of corporate governance: office hypothesis and asset reliance hypothesis. Contemplate gives some help to parts of organization hypothesis as a more prominent extent of outside directors on boards were related with enhanced firm performance. The thought of isolating positions of authority in a way predictable with organization hypothesis was not upheld. For example, the idea that capable CEOs (duality part, CEO being the promoter, and CEO being the main board chief) detrimentally affect performance was not bolstered. There was some help for asset reliance hypothesis. The discoveries recommend that bigger board size positively affects performance in this manner supporting the view that more prominent presentation to the outside condition enhances access to different assets and along these lines

				decidedly impacts on performance. The investigation however neglected to help the asset reliance hypothesis as far as the relationship between recurrence of executive gatherings and performance. Thus the outcomes demonstrated that outside executives with numerous arrangements seemed to negatively affect performance, proposing that "hecticness" did not include an incentive as far as systems and upgrade of asset availability.
2009	Rani, N., Yadav, S. S. & Jain, P.K.	"The Role of Corporate Governance on Financial Performance Changes Associated with Mergers and Acquisitions"	Global Journal of Business Excellence, Global Institute of Flexible Systems Management	The paper aims to examine the difference in financial performance of Indian companies post merger and acquisition based on corporate governance score. A total of 93 companies were taken listed in Bombay Stock Exchange and National Stock Exchange of India whose merger and acquisition deals were announced between January 2003 and December 2006. The results claimed that companies having better corporate governance score perform better post-merger and acquisition.
2010	Pattanayak, M	"Does 'Insider' Dominance Destroy Firm Value? Study of	The Asia Pacific Journal of Economics & Business, University	The expansive goal of this paper is to unravel the performance and entrenchment impact of insiders or establishing relatives in recorded Indian firms. This

		an Emerging Market Economy"	of Barcelona, Australia	examination demonstrates that exclusive when insiders turn out to be excessively effective versus their shareholding sum because of 'establishing family' or comparable status, do they represent a hazard to minority lined up with the firm. Devolution of property rights to outside promoters or partners additionally seems to profit financial specialists. The outcomes recommend that the interests of insiders investors' interests. Actually, a noteworthy curvilinear relationship is recorded between insider shareholding and firm an incentive as proxied by Tobin's Q. Firm an incentive with expanded family shareholding yet just when the last's advantage is completely increases move from arrangement, to entrenchment, to arrangement with the firm as their ownership stake in the firm increments. The investigation's underlying example comprises of 1,833 recorded firms in the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) of India.
2011	Pahuja, A, India	"Linkage Between Board Effectiveness and Quality of	IUP Journal of Corporate Governance, IUP Publications	The goal of the paper was to decide the adequacy of the board in Indian organizations. In the initial step Tobin's Q was entered, furthermore log of book estimation of

		Corporate Governance: Indian Evidence"		advantages and thirdly board viability list was entered in the model. The outcomes uncovered huge positive connection at each progression. All other control factors don't have critical positive or negative coefficients i.e. they don't impact the needy variable. Power of the outcomes was checked by trading intermediary for firm size, showcase performance and benefit. Supplanted factors were log of market capitalization, market to book esteem and ROA individually. The examination uncovered similar outcomes.
2011	Bagchi, D., India	"An Analysis of Relationship Between Corporate Governance of Firms and Their Capital Market Performance"	IUP Journal of Applied Finance, IUP Publications	The point of the examination is to discover the relationship of corporate governance record as for the market returns of the supply of the organization. The researcher developed four distinct portfolios notwithstanding clever list. The outcomes gave prove that the profits of the portfolio alongside the changes of such returns shaped under various corporate governance classes are not altogether not the same as each other. Likewise irrelevant outcome was found between portfolio return and clever return. The examination gave confirm that no unusual returns are earned by the

				portfolios which are built on the premise of good corporate governance standards. Drive reaction investigation by means of auto regression demonstrates that both varying and low portfolio has comparative motivation reaction on clever return. The other portfolio has demonstrated diverse reactions on clever return however not altogether.
2011	Haldar, A., & Rao, S. V. D., India	"Empirical Study on Ownership Structure and Firm Performance"	Indian Journal of Corporate Governance, Institute of Public enterprise	The primary point of the investigation was to contribute towards the continuing verbal confrontation of corporate governance as to which ownership a mass amplifies firm performance. The fundamental target was to discover how firm performance gets affected by ownership structure, i.e., fixation and diffuseness of shareholding design. The investigation was performed in the wake of confining the performance measure to lie in the vicinity of first and 99th percentile to handle the issue of exceptions. The outcomes demonstrate that there is noteworthy and positive connection between firm performance and promoters holding and non-promoters holding don't contribute much to the firm performance.

2011	Chatterjee, S. D.	"Board composition and performance in Indian firms: A comparative analysis empirical"	The International Journal of Management Science and Information Technology, North American Institute of Science & Information Technology	This paper endeavors to depict the connection between board synthesis and performance in Indian firms. Indian firms have been characterized into four gatherings—open part endeavors (PSUs), remain solitary firms, private business amass partnered firms, and auxiliaries of outside firms. Results show that the bigger boards are less powerful in Indian firms, aside from on account of PSUs. Board measure is turning into an unimportant variable in deciding the performance of Indian PSUs. Shockingly, board autonomy is irrelevant over all classes in India.
2011	Saibaba, M. D., & Ansari, V. A.	"Audit committees and corporate governance: a study of select companies listed in the Indian bourses"	IUP Journal of Accounting Research & Audit Practices, IUP Publications	The study was conducted to identify the impact of audit committee independence, board independence on firm performance based on a sample of 96 firms listed in 200 indices other than those listed in BSE 100 over a period of 2 years i.e. 2007 and 2008. In the study, authors have tried to develop an audit committee index and subsequently aimed at finding out the relationship of audit committee index to firm performance. Analysis of the data revealed that audit committee index has a significant and positive link with firm performance for Indian firms. This means that audit committee plays an

				important role in improving the performance of Indian firms.
2012	Saibaba, M. D., & Ahmad Ansari, V.	"Impact of Board Size: An Empirical Study of Companies Listed in BSE 100 Index"	Indian Journal of Corporate Governance, SAGE	The point of this investigation is to look at the relationship board size and firm valuations of organizations recorded in BSE 100 list. The cross segment examination found that board size in emphatically however unimportantly identified with Tobin's Q. in light of the suspicion of non-linearity, the consequences of board information regression uncover that board measure has huge negative relationship with Tobin's Q while board size square is found to have huge positive affiliation. Utilizing the condition from above board information regression the ideal board measure was found through halfway separation. Again the researcher broke down the relationship utilizing the log of board size and log of board freedom and found that in pooled regression board size and board autonomy was altogether and emphatically related where as in settled impacts demonstrate board measure was decidedly and board freedom was adversely yet inconsequential connected. In irregular impact display board size was

				decidedly and essentially related yet board freedom was adversely and irrelevantly connected. Utilizing spline regression board extend was observed to be in the middle of 9 and 20.
2012	Saravanan, P.	"Corporate governance and company performance- a study with reference to manufacturing firms in India"	SSRN	The aim of the study was to examine the impact of corporate governance variable on the value of firm and difference in the corporate governance practice of manufacturing firms from non-manufacturing firms. The study used a sample of 1732 firms listed in Bombay Stock Exchange from 2001 to 2010. The results reported that board size has a significant and positive impact on firm value of manufacturing firms. It also suggests that after considering control variables, corporate governance variables significantly affect firm value and there was no significant difference between manufacturing firms and non-manufacturing firms based on corporate governance variables.

2013	Claessens, S., & Yurtoglu, B. B.	"Corporate governance in emerging markets: A survey"	Emerging Markets Review, Elsevier	The paper is a review of research conducted on corporate governance in emerging markets. Through the review of studies, authors found that there is dearth of corporate governance studies in emerging markets and moreover in developing economies. Review of extent literature concludes that better governed firms are able to achieve efficiency, reduced cost of capital, easy access to financing. This has been documented by many countries. It has been suggested in the study that more studies are required in the areas of complex ownership structures, stakeholder's role and enforcement.
2013	Kumar Naveen; Singh J.P., India	"Effect of board size and promoter ownership on firm value: some empirical findings from India"	Corporate Governance: The International Journal of Business in Society, Emerald	The motivation behind this paper is to inspect the impact of corporate board size and promoter ownership on firm an incentive for chose Indian organizations For examination of the information the example is isolated into 2 sections in light of advantage estimate. The examination presumes that board measure is adversely connected with firm value (however not critical) and Promoter ownership was observed to be decidedly associated. Again the example was partitioned into two in view of board size and found that coefficient of board

				size is more for littler board organizations than for bigger board organizations which derived that perfect board measure for Indian organizations lies over the middle board size of 10. The littler boards (having not as much as equivalent to 10 executives) might not have enough skill and assets to improve firm performance. The investigation anticipated a more positive connection between board size and firm an incentive for bigger organizations than for littler organizations and the model backings this theory. Thirdly the example was isolated into 3 relying on the promoter ownership and found that on bring down levels of ownership control, the promoter's advantage may not be completely lined up with the organization or more certain ownership control on firm, promoter can assume esteem expansion part
2013	Saibaba, M. D., India	"Do Board Independence and CEO Duality Matter in Firm Valuation?-An Empirical Study of Indian Companies"	IUP Journal of Corporate Governance, IUP Publications	This paper inspects the effect of board autonomy and chief duality on the valuation of organizations recorded in BSE 100 file. Cross area results uncover inconsequential consequences of president duality, board size and board freedom. Pooled regression results uncover positive and huge aftereffect of edge, ln deals,

				chief duality and board autonomy whereas board size and ln resources are altogether and contrarily related. Settled impact regression gave proof of immaterial relationship. Arbitrary impacts GLS regression results uncover similar outcomes. With the end goal of enhancing board size spline regression was led. The outcomes uncover that ideal board measure is from 9 to 12. Past that the board measure winds up plainly inconsequential.
2013	Sahu, T. N., & Manna, A.	"Impact of Board Composition and Board Meeting On Firms' Performance: A Study of Selected Indian Companies"	Vilakshan, The XIMB Journal of Management	The present examination explores observationally whether the corporate board creation and executive meeting influence the exhibitions of chose Indian assembling organizations i.e. on 52 Indian assembling organizations (from 11 unique enterprises or around five from every industry) recorded in Bombay Stock Exchange (BSE). The outcomes show that board size and executive gatherings positively affect corporate performance though the freedom of the board and nearness of non-official director in the board has negative effect. No noteworthy relationship has been found between the extent of official directors in the board and performance of organizations.

2013	Bijalwan, J. G., & Madan, P.	"Corporate governance practices, transparency and performance of Indian companies"	IUP Journal of Corporate Governance, IUP Publications	The motivation behind this paper is to look at the effect of corporate governance on association's budgetary performance in the Indian setting in light of a specimen of 121 organizations recorded on the Bombay Stock Exchange (BSE), India, for the period 2010-2011. The investigation depends on an organized poll. The examination finds a positive and huge connection between the level of straightforwardness and association's money related performance. Thus, corporate governance approaches and practices of the firm are additionally observed to be emphatically identified with firm performance. The outcomes likewise recommend that corporate governance approaches and straightforwardness and exposure are decidedly and altogether related.
2013	Vemala, P., & Nguyen, D. "Zone" T.	"Joint effects of ownership structure, agency costs, and liquidity on firm value: The case of	Journal of International Business & Economics, American Research Institute for Policy Development	The study was undertaken with the aim of examining the interacting effect of ownership structure, firm liquidity and agency cost on the value of firm. Using a sample size of 136 Indian firms from 2005 – 2007 the results revealed positive association of the variables jointly with

		India"		firm value.
2014	Mishra, S., & Mohanty, P., India	"Corporate governance as a value driver for firm performance: evidence from India"	Corporate Governance: International Journal of Business in Society, Emerald	The significant goal of the paper was to look at corporate governance issues in India and set up the connection between corporate governance and money related performance. The outcomes in stepwise regression uncovered that legitimate pointers are feeble in foreseeing ROA though board proficiency marker and proactive markers have noteworthy association with ROA. Additionally composite CG measure likewise has critical association with ROA. The outcome deciphered that agreeing to lawful component does not support financial specialist certainty as there can be not kidding infringement in bookkeeping measures.
2014	Gupta, P., & Sharma, A. M.	"A study of the impact of corporate governance practices on firm performance in Indian and South Korean companies"	Procedia-Social and Behavioral Sciences, Elsevier	The examination tries to see whether higher and better corporate governance prompts better performance of the organizations. It is found in the examination that corporate governance practices have restricted effect on both the offer costs of the organizations and in addition on their money related performance

2014	Dhamija, A.K., Yadav, S.S. & Jain, P.K.	"The Impact of Corporate Governance on the Financial Performance: A Study of Nifty Companies"	International Research Journal of Finance and Economics, Euro Journals	The present study focuses on examining the individual impact of corporate governance variables on financial performance of 41 Nifty firms for a period of 5 years from 2006 to 2010. The results reveal that CEO duality and financial leverage have significant effect on firm performance. Rest of the variables such as concentrated ownership, institutional investors, and firm size does not have any significant effect on financial performance of sample firms.
2015	Bhasin, M. L.	"Audit Committee Mechanism to Improve Corporate Governance: Evidence from a Developing Country"	Modern Economy, Scientific Research Publishing	This paper tries to "add to our comprehension of the esteem and capability of an AC as a CG instrument in a creating nation like India." It looks to analyze the structure and capacities that are at present performed by an AC in the Indian corporate world. This investigation plays out a "substance" examination on the AC reports of the best 500 recorded organizations in India amid 2006 to 2009 to decide the data substance of these reports and the degree to which these reports comply with the Clause 49 necessities of the SEBI. In particular, the paper covers the accompanying perspectives identified with a review board of trustees: 1) The structure and creation of an AC;

				2) The criteria used to choose an AC individuals; 3) Examining the significance of capacities presently performed by an AC and furthermore to dissect any distinctions in the acts of partnerships in such manner; 4) The zones of an AC audit center; and 5) The impacts of gatherings on an AC capacities. The researcher has examined the different patterns around an AC attributes viz., measure, arrangement, movement, and in addition, the degree of non-review administrations gave by evaluators in the best 500 recorded Indian organizations. Almost certainly, it is basic for the Indian organizations to acknowledge and proceed with the CG changes that are "separated" by the difficulties of the "new" thousand years.
2016	Goel, P., & Ramesh, R. S.	"Impact of corporate governance practices on firm profitability: A study of selected industries in India"	Journal of Finance, Accounting and Management, Global Strategic Management Inc	The study explored the corporate governance practices followed by Indian firms along with their impact on the financial performance of firms. The sample used in the study is 120 firms from ET 500 for 2011 - 2013. It was found out that only large companies are following corporate governance norms and small companies are not taking care of these practices. Further, it was found that

				none of the corporate governance variable has any significant impact on financial performance of firms.
2016	Arora, A., Sharma, C.	"Corporate governance and firm performance in developing countries: Evidence from India"	Corporate Governance: The International Journal of Business in Society. Emerald	The purpose of this study is to examine the impact of corporate governance on firm performance of large manufacturing firms using system generalized methods of moments. The sample size used in the study is of 1922 firms from 20 industries of manufacturing sector over the time period of 10 years from 2001 to 2010. The authors failed to find out any significant impact of corporate governance on ROE, profitability and stock returns. However, board size and board independence was found to have significant and negative association with firm performance and board meeting were positively associated with firm performance (ROA).

2.5 CONCLUSION AND GAP ANALYSIS

This chapter did an extensive review of literature pertaining to corporate governance and its impact on firm performance and agency cost. The key corporate governance theories were studied. The empirical studies cover studies undertaken in different parts of the world from1993 to 2016. While doing this extensive review of past literature, some of the key gaps were identified. It was found that the results of the studies conducted in developed economies are inconclusive and emerging economies are lacking far behind in conducting such studies. Many of the important corporate governance attributes were overlooked by studies conducted in emerging economies such as audit committee characteristics, remuneration committee etc. Moreover, studies have given a model affecting financial performance and agency cost but they lacked in providing ranking of importance to the significant variables of corporate governance. Thus, the rationale of doing this study is to gain a clear understanding of the relationship of corporate governance mechanism in lower middle income economy to not only firm performance but also to agency cost; considering some very important attributes of it i.e. audit committee independence, frequency of audit committee meeting and presence of remuneration committee. Addressing the gap in the literature, an attempt has been made to provide a ranking structure of corporate governance variables which could distinguish between high profit firms and low profit firms and high agency cost firms and low agency cost firms. Our research findings could be the comparison to the findings of previous research and theories. This is how this thesis adds to the scientific literature.

CHAPTER 3

RESEARCH DESIGN

3.1 INTRODUCTION

This study aims to empirically discuss the various attributes of corporate governance mechanism affecting financial performance and agency cost of a firm in lower middle income economies like India. A number of studies have been conducted in the past with respect to the importance of corporate governance in safeguarding the interest of shareholders and stakeholders which we have discussed in the previous chapter of literature review. Though, ample work has been done in the past, but, some aspects remain untouched by the past researchers for Indian markets. Thus, the research related to Indian markets needs more attention. The core purpose of the study is to test the relationship between Corporate Governance, Financial Performance and Agency Cost on a more factual ground

The aim of this chapter is to identify and pinpoint the rationale and objective of conducting this study along with the scope of work to be covered in the study. Further the study discusses the hypothesis formulated to achieve the objectives and the sample and time duration selected for the purpose. The research design, data sources and methodology to achieve the main objectives happens to be four-fold. This chapter elaborates and explains the research methodology that is adopted to fabricate the results and insights provided in this study. Then, the study aims to clarify and describe the rationale behind using specific methodologies and choices that were made at various stages of the study. The chapter concludes with a discussion on the research tools and techniques utilized to analyze the research variables used in this secondary data analysis.

3.2 OBJECTIVES OF THE STUDY

The core objective of the study is to examine the Impact of Corporate Governance on Financial Performance of some selected Indian firms as well as on the Agency Cost of such firms. The study is titled likewise as, “Impact of Corporate Governance on Financial Performance and

Agency Cost: A study of Indian Firms". The study includes the effects of the audit committee as well as the remuneration committee and their various characteristics in addition to certain CG mechanisms and specific variables on the financial performance of Indian firms as well as the incurred cost to the agency due to related factors. Consequently, the study incorporates comparing specific factors of CG with the financial performance of several sample companies and tries to establish a link between certain performance indicators and corporate governance mechanisms. Furthermore, the study focuses on finding out the relationship between mechanisms of corporate governance and the agency cost of the sample Indian firms. To further clarify the focus and direction of the study, the following are the key objectives taken into account.

1. To get an insight of contemporary corporate governance framework in India and changes recommended in Companies Act 2013.
2. To scrutinize the impact of corporate governance framework on firm financial performance.
3. To examine the complementary or supplementary role of audit committee characteristics in affecting financial performance of a firm.
4. To identify the ranking of variables of corporate governance mechanism affecting firm performance.
5. To analyze the variables of corporate governance mechanisms affecting agency cost.
6. To identify the ranking of corporate governance variables affecting agency cost.
7. To identify the relationship of agency cost to financial performance of a firm.

3.3 SCOPE OF THE STUDY

The importance of defining the scope of study is to limit the investigations to the basic issues, and in maintaining a structured approach for achieving the objectives of the study. The following are the broad areas of investigation that constitute the scope of the study:

1. The present study is limited to corporate governance practices in India only.

2. Sample firms are selected from companies listed in NSE 500, India that are non-financial.

3. The analysis is based on 10 years data (2004-2013) as there was changes in corporate governance mechanism of Indian firms after incorporation of Indian Companies Act 2013 and data for these years can draw out meaningful results.
4. Only internal corporate governance mechanism is studied.
5. The focus of the present study is limited towards identifying the role of corporate governance in protecting the interest of shareholders.

3.4 HYPOTHESIS OF THE STUDY

For achieving the objectives of the study within the limited scope as described in preceding section, following hypotheses were formulated:

H_{01}: There is no significant relationship between corporate governance mechanism and firm financial performance of the selected Indian non-financial firms.

H_{02}: There is no complementary or supplementary role of audit committee characteristics in enhancing the financial performance of selected Indian firms.

H_{03}: There is no significant association of certain corporate governance mechanism and firm specific variables with agency cost of selected non-financial Indian firms.

H_{04}: There is no significant relationship between agency cost and firm performance of selected non-financial Indian firms.

3.5 SAMPLE SELECTION

The sample firms used in achieving the objectives by examining the relationship between corporate governance mechanism and firm performance as well as agency cost, were chosen from companies listed in National Stock Exchange - 500 (NSE-500), India. The sample was found adequate since it covers 94% of total market capitalization of the total NSE India stock market. The results based on such sample could be generalized on similar other firms as well as other SMEs (Small to Medium Enterprises) that could develop themselves by adopting the positive policies of relationships proved in this study.

Initially, the work was started with the list of 500 companies listed in NSE – 500. Further on, financial companies were excluded from the list. The reason behind this step was that financial companies are governed by several other laws such as Banking Regulations, Insurance Regulations etc. and their governance structure is different and the focus of the present study was on Indian Companies Act, 1956 & 2013 and clause 49 of listing agreement. Therefore, we were left with a sample of 426 non-financial companies belonging to the industries such as automobiles, cement, chemicals, construction, consumer goods, energy, fertilizers and pesticides, healthcare services, industrial manufacturing, IT, media & entertainment, metals, papers, pharma, services, telecom and textile industries. The segregation of all sample firms according to the industry is given in table… After that, we found that some of the firms' data was not available for all sample years (from 2004 – 2013); therefore, we excluded them from our sample also. Thereafter, we were left with 251 companies for analyzing the relationships. Refer annexure for the list of sample Indian firms used in the panel data analysis.

Table 3. 1 Industry classification

INDUSTRY	Number of Companies	% of total companies
AUTOMOBILE	18	7
CEMENT & CEMENT PRODUCTS	9	4
CHEMICALS	10	4
CONSTRUCTION	19	7
CONSUMER GOODS	42	17
ENERGY	24	9
FERTILISERS & PESTICIDES	10	4
HEALTHCARE SERVICES	2	1
INDUSTRIAL MANUFACTURING	24	9
IT	17	7
MEDIA & ENTERTAINMENT	3	1
METALS	23	9
PAPER	2	1
PHARMA	22	9
SERVICES	12	5
TELECOM	4	2
TEXTILES	10	4
Total	251	100

3.6 TIME PERIOD CONSIDERED

The time period considered for the study is from 2004 to 2013 i.e. time duration of 10 years. The logic behind keeping this sample time period was that we would be able to find out long term impact of corporate governance mechanism on firm performance and agency cost. Secondly, as opposed to the existing studies that use only one to two year cross-sectional data, analyzing ten year data with both cross-sectional and time series attributes would prove to be much reliable in a way to confirm whether the observational relationship holds over a longer period of time, making this study distinguishable from others. Thirdly, such a time period can be safely assumed to have considered the fluctuations of market as the economy cannot remain same over a period of 10 years and indirectly affects the working and decisions of companies. Fourthly, new companies act came in India in 2013. It has made certain changes in the corporate governance framework for corporates working in India. Therefore, the study period was considered till the end of March 2013.

Moreover, the study was started in 2012 with the mindset of submitting it in 2015, however, due to some unavoidable reasons, it got extended. At that time the most appropriate time frame that could be used for the study and which could have brought considerable results was from 2004 to 2013. Therefore, only this time period was considered and no study was conducted to study the changes during pre-enactment of new companies act and post enactment of new companies act. Further, it was also found during the extensive review of previous literature that the studies published in 2015 and 2016 and have considered Indian market has also focused their study till 2013 which we have discussed in the literature review section. Therefore, the time period from 2004 to 2013 was best for the study and study beyond 2013 could be a base for new study.

3.7 DATA AND SOURCE

The data for corporate governance variables, firm specific variables, financial performance variables and agency cost variables were collected from CMIE (Centre for Monitoring Indian Economy) prowess database. The data which was not found on CMIE prowess database was collected from individual annual reports of companies extracted from their websites. Some of the data was collected from NSE India website (nseindia.com) and rest of the data which was not

found anywhere was extracted from capitaline database and money control website (moneycontrol.com)

3.8 RESEARCH VARIABLES

3.8.1 DEPENDENT VARIABLES

3.8.1.1 Corporate financial performance

Corporate performance is the outcome of effective strategic planning and efficient execution of these plans. It refers to the output of management processes with relation to the goals of a firm (Fauzi et al. 2010). Daft 1991 had explained corporate performance as the capacity of an organization to effectively utilize its resources for achieving its goals. Ventrakaman and Ramanujam (1986) divided corporate performance into financial performances and operational performances. According to them financial performance may be based on market performance such as market capitalization, Tobin's Q, stock price, earnings per share and dividend payout ratio, etc. or accounting performance such as ROA, ROE, ROCE, etc. and Operational performance is based on: (i) market share, (ii) product quality, and (iii) marketing effectiveness.

Stakeholders such as investors, creditors, suppliers, etc. are more concerned towards financial performance of the firm and the management of the firm is responsible towards them (Rani & Mishra, 2008). Higher financial performance in turn improves the wealth of stakeholders and business opportunities for the firm. Although measuring financial performance is believed to be a less complicated task, also, it has its specific ramifications. In the past, researchers have adopted different methods of measuring financial performance. They have adopted a combination of accounting based performance measure and market based performance measure.

As one of the measures of Corporate Financial Performance, accounting returns majorly focus on how the earnings of the company respond to the managerial policies of the same (Cochran and Wood, 1984, Saad & Idris, 2014). These CFP measures only take into account the historical attributes of the firm's performance as they may be biased due to managerial manipulations (Orlitzky et al. 2003) and varying accounting procedures (Branch & Gale, 1983). These

compromises of the growth of operating income, sales, assets and debt to asset ratio (McGuire et al. 1988; Tseng et al. 2013), operating return on sales as well as operating return on assets (Cochran and Wood, 1984).

Next, the Investor returns or Market measures majorly focus on market performance and thus, are more forward looking. Unlike accounting returns, investor returns are less likely to be biased due to different accounting procedures, they represent the investors' assessment of the firm's ability to generate economic earnings in the future (McGuire et al. 1988). Although the stock market based performance measures are not without obstacles (McGuire et al. 1988). For instance, the use of market measures indicates that an investor's assessment of the valuation of the firm's financial performance is an adequate measure of performance (McGuire et al. 1988). This outlook adopts excess value (EV) (Cochran and Wood, 1988), alpha (risk-adjusted return) as well as total return (McGuire et al. 1988). Furthermore, it is also argued by Griffin and Mahon (1997) that accounting measures should be given priority as market measures may be taking into account more than just CFP than the market derived measures (Carroll, 2000).

Now we take a look at "financial ratios' as measures of CFP, according to some experts, these ratios are well-accepted technique to measure a firm's financial performance (Gupta et al. 2011). This study taken into account both the accounting and the market measures to solve subjectivity's problems taking market-related data and it additionally completes the measure. To further understand the relationship between CG and CFP, different models to assess the CG-CFP relationship are adopted. The succeeding sections elaborate more on all the financial variables utilized in this study.

Accounting measures face limitations due to manipulation by the management; therefore, multiple performance measures were used because of the inherent limitations in any single financial measurement [Boyd, Gove, and Hitt 2005].

3. 8.1.1.1 *Return on Assets (ROA)*

ROA is the most widely used measure of financial performance. It is the ratio of net income to total assets of a firm and is used to evaluate the efficiency of the management in utilizing company's assets to generate revenue. This ratio specifies "what the company can do with what it

has got?" i.e. how many rupees of earnings they derive from each rupee of assets they control (Velnampy & Pratheepkanth, 2012). A higher ROA means higher value creation for shareholders because of its positive correlation with the stock prices, especially in asset heavy organizations such as manufacturing firms (Simpson and Kohers, 2002). It has been formulated as:

$$ROA = \frac{Net\ Income}{Total\ Assets} \times 100$$

3.8.1.1.2 *Return on Equity (ROE)*

As an accounting measure, it is used a great deal in economic literature. It is a measure of profitability which calculates how much profit a firm has earned for every rupee of shareholders' equity and shows how well a company uses investment to generate earnings. ROE is equal to the net income of a financial year (after preferred stock dividends but before common stock dividends) divided by total equity (excluding preferred shares), stated as a percentage (Bin & Abbas, 2013). It is a measure to keep a check on management that how efficiently they are utilizing the contributions from shareholders. According to Reimann (1989), "The reason behind the adoption of ROE as a measure was that it gave more reliable results than earnings per share (EPS)".

$$ROE = \frac{Net\ Income}{Shareholders\ Equity} \times 100$$

$$Shareholders\ Equity = share\ capital + reserves\ and\ surplus + share\ premium$$

3.8.1.1.3 *Market Capitalization*

Market capitalization of a company is the value of its shares outstanding at a particular point of time, it is equal to the price of the share times the number of shares outstanding at that point of time (Alam & Chain, 2012). Since outstanding shares are bought and sold in the stock market, market capitalization is taken as the opinion of the investors towards a company (Alam, 2013). It has been formulated as follows:

$$MCap = Share\ price\ as\ on\ 31\ march \times shares\ outstanding\ as\ on\ 31\ march$$

3.8.1.1.4 *Tobin's Q*

Tobin's Q is defined as the market value of the firm to the book value of its assets. It is a popular method of estimating market value of a firm, developed by Nobel Laureate, James Tobin. By combining capital market data with accounting data, Q implicitly uses the correct risk-adjusted discount rate, imputes equilibrium returns, and minimizes distortions due to tax laws and accounting conventions (Montgomery & Wernerfelt, 1988). This estimator is popularly used by market participants while identifying the market value of a company. In the long run, the market value of the share capital and the book value of debt of the company will be equal to the book value of assets and the ratio will tend to approach 1. However, in the short-term, this ratio can be higher or lower than this. "If Tobin's Q ratio is significantly less than 1, it would mean that market value is lesser than the book value of assets which would mean the company is trading undervalued. In such a case, it would be better for corporate raiders or competitors to buy the firm rather than set up a similar setup/new outfit. This would lead to higher interest by competitors in the said company and demand for it will cause the market price to increase and approach closer to 1" (Borad, 2016).

"If Tobin's Q ratio is significantly higher than 1; it would mean that the firm is earning a rate of return larger than the book value of assets of the firm. In such a case, it would induce market participants to set up similar outfits/companies in order to earn higher than the book value of assets causing an increase in the competition due to new entrants, thereby causing market share to fall and profits to reduce and the Q ratio to start reducing and approaching 1" (Sauaia, & Castro Junior, 2002).

Though, Q ratio cannot be used as a daily indicator to buy or sell stocks but can be used to locate potential takeover targets in cases where Q ratio is less than 1.

$$TOQ = \frac{Market\ value\ of\ firm}{Book\ value\ of\ assets}$$

$$Market\ Value\ of\ firm = Market\ value\ of\ equity + book\ value\ of\ debt$$

3.8.1.2 Selling, General and Administrative expenses

This variable has been used as a proxy of agency cost of a firm. Selling, General and Administrative Expenses are a major non-production cost presented in an income statement. Examples of SG&A include sales commissions, advertising, promotional materials, compensation of the company's officers as well as the marketing, sales, finance and office staffs, rent, utilities, supplies, computers, etc. that are outside of the manufacturing function. Firms with high SGA expense ratio are expected to experience high agency costs between managers and shareholders (Harvey, Lins, & Roper, 2004).

Largely, SGA expenses consist of the combined costs of operating the company, which breaks down to:

Selling: The sum of all direct and indirect selling expenses, which includes salaries (excluding those related to the production itself which are cost of goods sold), advertising expenses, rent, and all expenses and taxes related to selling the company's products and services;

General: General operating expenses and taxes that are directly related to the general operation of the company, but do not relate to the other two categories such as building rent, consultant fees, depreciation, insurance, supplies, subscriptions and utilities.

Administration: Executive salaries and general support and all associated taxes related to the overall administration of the company. Salaries of senior executives, benefits attributable to corporate management as well as any legal staff and costs of general services such as accounting are examples of administrative expenses.

3.8.1.3 Executive compensation

Executives, CEOs and top Management team are paid huge salaries and perquisites to motivate them to create wealth through firm's performance and is in the best interest of shareholders (Ravi, 2016). It is a combination of financial compensation and non-financial awards paid to higher executive management of the company for the services provided by them. It is a mixture of salary, bonuses, shares or call options on the company stock, benefits, and perquisites and rewards on performance paid to CEO and other executive directors of the company. In the

present study, we have included basic salary, bonus and perquisites paid to CEO and other executive directors. As the data for stock options are not available for all Indian firms, therefore, we have excluded it.

3.8.2 Independent Variables

Board Size: It is the total number of directors in the board of a company

Board Independence: It is the proportion of independent directors to the total directors in the board of a company

CEO duality: It is the condition when dual position of CEO and chairman of the board is occupied by one person.

Promoter shareholding: It is the percentage of shares owned by the promoters of the company.

Audit committee independence: It is the proportion of independent directors in the audit committee of the company.

Audit committee meetings: It is the number of meetings of audit committee held during a financial year

Remuneration committee: It is the presence of remuneration committee in the company. Before incorporation of Indian Companies Act 2013, formation of remuneration committee was voluntary and was based on the discretion of the company.

Concentrated Shareholding: It is the percentage of shareholders holding more than 1% of the total shares of the company. These shareholders are regarded as majority shareholders who have better monitoring capacity in the company.

3.8.3 Control variables

The usage of a comprehensive set of control variables has the potential to the following:

- Preventing firms from theoretically reaching ‘equilibrium’ or ‘optimal difference endogeneity’, which is a situation where different firm choose different CG structures;
- Preventing omitted variable(s) endogeneity (Larker and Rusticus, 2010).

Therefore, to overcome potential bias due to omitted variables and endogeneity, the control variables such as firm size (FS), leverage (LEV), and firm age (FA), are included in the regression analysis in this model in addition to the major independent variables of focus.

It should also be noted that while these control variables have been chosen on the basis of theory and prior evidence, they are inexorably limited due to the fact, they may be exhaustive, which is the case with every other positive accounting research (Van Lent, 2007; Larker and Rusticus, 2010). Moreover, certain variable that affect CFP and CG, could not be included in this model due to the lack of available data and adequate academic links.

3.8.3.1 Firm size

Firm size is considered to be positively correlated to better corporate governance due to the cost implications of compliance and regulatory mechanisms, complexity of operations, and greater agency problems (Jensen, 1986). This further implies that larger firms may enjoy market valuation and/or lower cost of capital obtained from external resources (Botosan, 1997). On the other hand, Klapper and Love (2004) contend that smaller firms tend to enjoy better growth opportunities due to the greater need for external funding. This implies that smaller firms need to have a better corporate governance structure in order to attract external investment at a cheaper cost and increase financial performance. Besides, faster growth is also more likely to correlate positively with financial performance and especially Tobin's Q as it reflects future growth opportunities that can be nabbed by a firm.

Though practically speaking, the relationship between financial performance and firm size is sort of ambiguous. According to experts such as Agarwal and Knoeber (1996) and Durney and Kim (2005), there is a negative relationship between a firm's size and Tobin's Q, While Haniffa and Hudaib (2006) suggest that ROA is positively correlated with firm's size. Hence, it is assumed that there is negative relationship between firm size and Tobin's Q, but a positive relationship with Return on Assets.

3.8.3.2 Leverage

An emerging and extensive theoretical and factual literature strongly suggests that in the real time, a firm's capital structure can have an impact on its profitability and performance. Other experts suggest a negative relationship between gearing (a measure of firm's financial leverage) and profitability. This can be explained from two major academic perspectives, tax and agency.

From a firm's capital structure perspective, interest payment on debt are tax deductible and all else equal, firms that are highly leveraged should be able to generate higher profit and revenue. Though, the cost of financial difficulties, such as bankruptcy that are usually associated with highly leveraged firms, may hinder a firm's ability to generate profit (Myers, 1977).

From an agency point of view, higher levels of financial leverage can help increase performance by reducing internal conflicts and problems due to 'free cash flow' by opportunistic managers (Jensen, 1986; Lukose & Rao, 2003; Lukose & Rao, 2004). Moreover, debt financing also improves performance by inducing enhanced monitoring by lenders (Agarwal and Knoeber, 1996). However, In light of mixed theoretical and factual evidence, it is assumed that leveraging, as proxied by the ratio of total debt to equity will be significantly correlated with financial performance, without specifying the direction of the coefficient.

It is the ratio of long term debt to total debt. According to the MM (Modigliani-Miller) approach, the capital structure of a firm cannot affect the market value of a firm; but if more debt reduces the agency cost of the firm, then it will have a significant relationship with firm performance (Jensen, 1986). Interesting results were reported by many authors when they found the relationship between high leverage and firm performance (Pant & Pattanayak, 2007). The studies provided evidence that high leverage was negatively related with ROA but positively related with TOQ; i.e. it had negative impact on accounting performance of a firm but positive influence on market measure of firm performance (Cheng, 2008). The difference in viewpoints of Jensen (1986) and other authors may be interpreted as a result of over-leverage in firms.

3.8.3.3 Firm age

Firm age is calculated as the number of years elapsed since the incorporation of the firm. The relationship between age of the firm and firm performance cannot be established with certainty.

Though, some authors point out that mature firms perform well due to the goodwill developed overtime as compared to a new firm (Majumdar, 1997); others suggest that new firms are better than older firms as matured firms fail in adopting new technologies promptly due to their rigidness and sluggishness (Anderson & Reeb, 2003).

3.8.3.4 Bank debt to total debt

It is the amount of debt procured from bank and is calculated as a percentage of total debt of the company. Banking institutions plays the role of suppliers of finance through which they gather such information that may well be unavailable to outside investors. In this way, they take the advantage of their position and are able to monitor the firm (Ivashina, Nair, et al. 2009). They act as reducing information asymmetry problems between management and outside investors (Florackis, 2008). It is a tool to identify lender's ability in mitigating agency problem.

3.8.3.5 Short term debt to total debt

It the amount of short term debt employed in the total capital structure of the company. It helps in overcoming free cash flow problems (Florackis, 2008). It forces managers to "cast out funds they might otherwise use in unprofitable projects or empire building investments." Moreover, short-term debt also allows creditors to trigger bankruptcy when the firm's assets may be more productively employed elsewhere (Harvey, Lins, & Roper, 2004). It is also a tool to identify lender's ability in mitigating agency problems

RESEARCH VARIABLES

Table 3. 2 Variables for financial performance relationship

Characteristics	Proxy Variable
Dependent Variable(s)	
Firm performance: Tobin's Q	Ratio of market value of firm to book value of total assets

Firm performance: market capitalization	Product of share price of the firm with the number of shares outstanding
Firm performance: Return on Assets	Ratio of net income to total assets
Firm performance: Return on Equity	Ratio of net income to shareholders' equity
Independent Variables	
Board Size	Total number of directors on the board
Board Independence	Ratio of number of independent directors to number of total directors on the board
Duality	CEO duality
Promoter Shareholding	% of total shares held by promoters of the company
Audit committee meetings	Number of meetings held during a year
Audit committee Independence	Number of independent directors in audit committee
Remuneration and Nomination Committee	Presence of remuneration and nomination committee
Control variables	
Size	Log of total assets
Age	Age from the year of incorporation
Leverage	Ratio of total debt to total assets

Table 3. 3 Variables for Agency cost relationship

Characteristics	Proxy Variable
Dependent Variable(s)	
Agency cost	Selling, General and Administrative expense ratio
	Executive Compensation
Independent Variables	
Board Size	Total number of directors on the board
Board Independence	Ratio of number of non executive directors to number of total directors on the board
Duality	CEO duality
Promoter Shareholding	% of total shares held by promoters of the company
Concentrated ownership	Sum of the stakes of firm's shareholders with equity ownership greater than 1%
Audit committee meetings	Number of meetings held during a year
Audit committee Independence	Number of independent directors in audit committee
Remuneration and Nomination Committee	Presence of remuneration and nomination committee
Control variables	

Bank debt to total debt	Ratio of bank debt to the total debt of the company
Short term debt to total debt	Ratio of short term debt to the total debt of the company
Size	Log of total assets
Age	Age from the year of incorporation
Leverage	Ratio of total debt to total assets

3.9 CONCEPTUAL FRAMEWORK

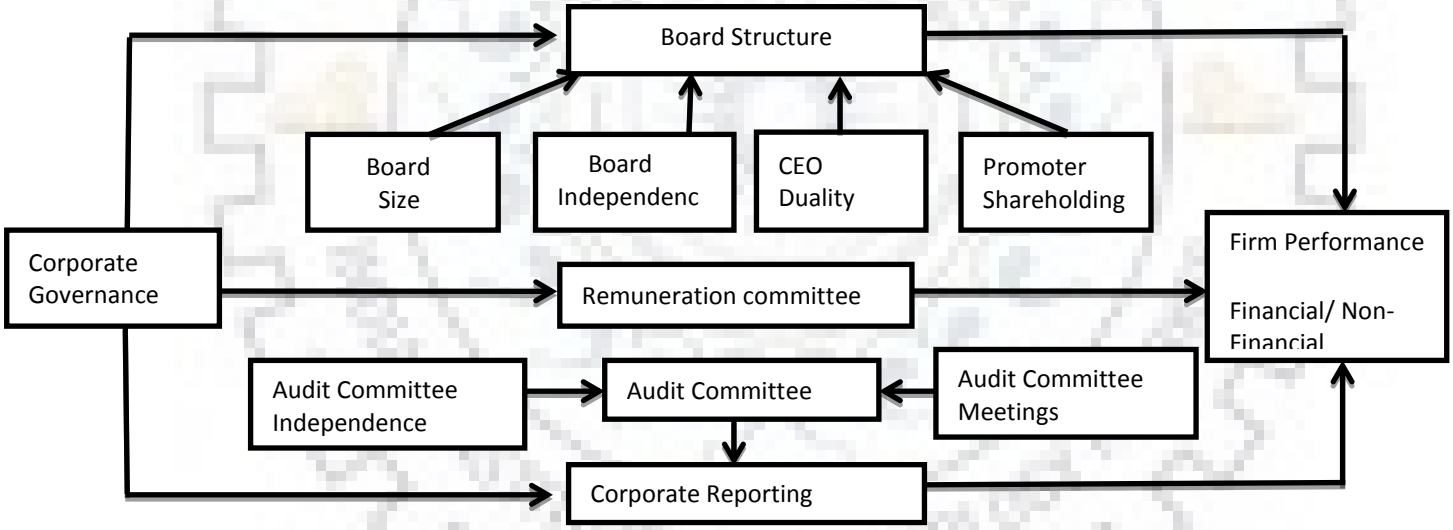

Figure 3: ***Conceptual framework of corporate governance and firm performance***

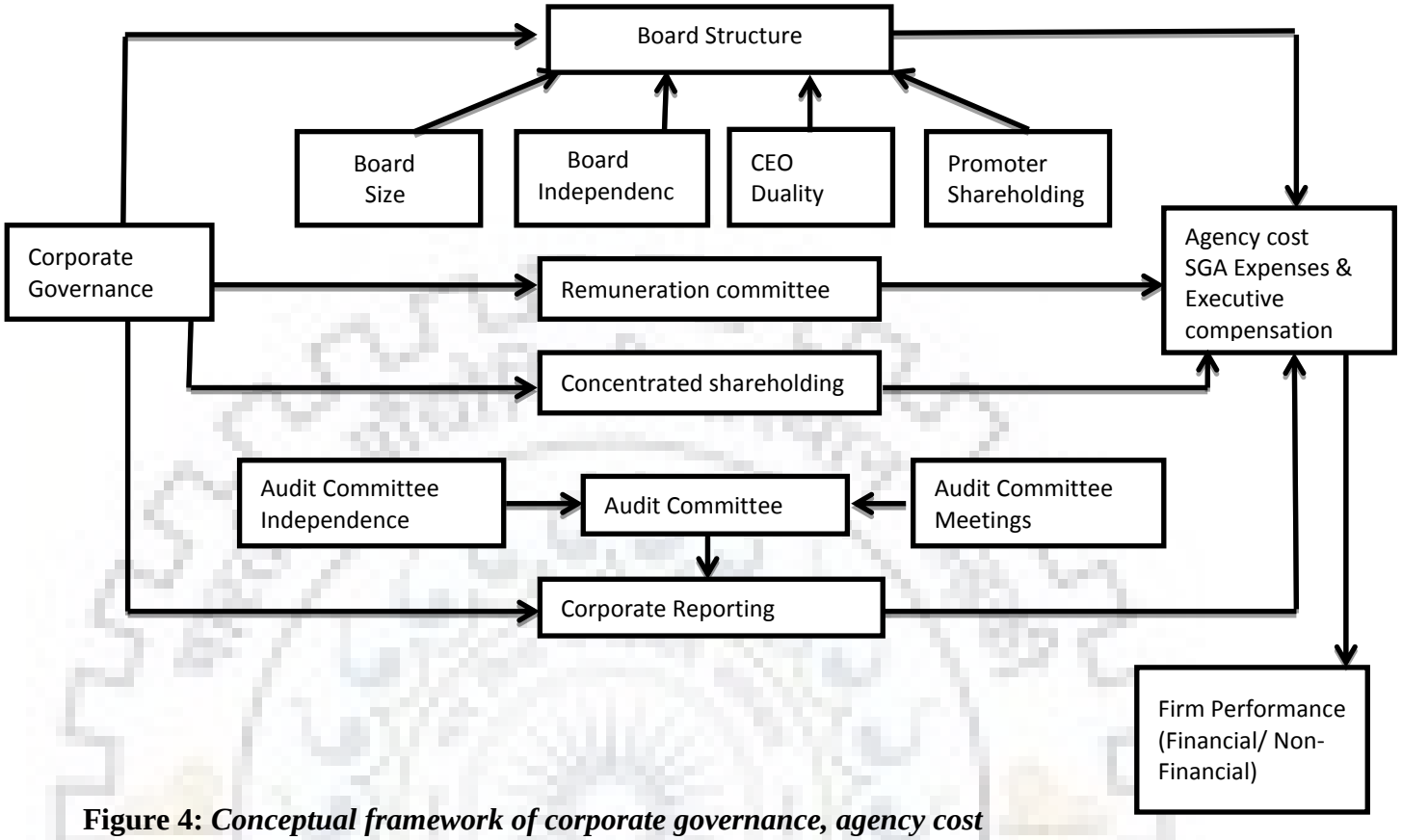

Figure 4: ***Conceptual framework of corporate governance, agency cost and firm performance***

3.10 RESEARCH METHODOLOGY

3.10.1 Data Pre-Testing

The data was examined for redundancy, normal distribution, skewness, and heteroscedasticity. In order to overcome these issues, Winsorized method, Box-Coz transformation was performed.

3.10.2 Unit Root Test for Stationary

Unit Root test was conducted in order to find out whether the panel data was stationary. The difference of transformed variables was used to check the Unit Root existence, the probability should be equal to zero if the data is stationary.

3.10.3 Hausman Test

A model where fixed effects estimation would be adequate, a Hausman test is conducted to verify whether random effects estimation would be almost as good (Kollias et al. 2008). In such a case, the Hausman test is a test of H0: the random effect would be steady and efficient, versus H1: the random effect would be unsteady and inconsistent. If the test statistic is large (p value > 0.05), fixed effects must be used or else random effect (p value < 0.05).

3.10.4 Research Techniques for Panel Data Analysis

In an empirical analysis, selecting the correct panel data regression model is vital for accuracy (Tey & Idirs, 2012). The efficiency and steadiness of the estimated intercepts and slope coefficients is dependent on the choice of the appropriate estimator, each having different properties. The selection of a fixed and random effects model is the first choice the researcher has to make (Oikonomou et al. 2012; Olokoyo, 2013). As this study consists of large, Indian, publicly traded firms listed in the NSE 500 index, the fixed effects model seemed to be most instinctive option as Baltagi (2005) affirms, "The fixed effects model is an appropriate specification if we are focusing on a specific set of N firms . . . and our inference is restricted to the behavior of this set of firms " (p. 12). In contrast, if the selected firms in the study represent random draws from a large subset, the random effects model is preferable. Another model that can be used is pooled ordinary least squares (OLS). This model is considered to be most restraining of all the methods as it specifies constant coefficients for both intercepts and slopes (whereas fixed effects, for example, specifies constant slope coefficients but allows the intercepts to be different between firms). The pooled OLS method is found to be inconsistent when the fixed effects estimator is appropriate (Cameron and Trivedi, 2005). Performing likelihood ratio redundant fixed effects tests results in a strong rejection of the null hypothesis that these effects are redundant. So, the pooled OLS method is inappropriate. In light of the above discussion, it seems that the fixed effects estimators would be most suitable in this study. It is also noticeable that in all equations, the set of industry dummy variable is not overtly used in the specification as this piece of cross-sectional heterogeneity is constant over time (assuming that a firm maintains its original business orientation) and as such is captured by the intercepts (Kaur et al., 2013). Panel data sets require estimation of robust standard errors also. If the residuals of the model for a given company are correlated across years or across firms then the standard error of the estimated coefficients will be

upward or downward biased. In the case of downward bias, the statistical implication of the study results will be overestimated and the conclusion drawn might be invalid. In fact, a lot of studies in the finance works have left this issue ignored or have been addressed in an inadequate manner. Identifying the inferences of this matter, a significant effort is made to challenge it in a better and efficient way. The incorporation of fixed effects/dummy variables in the specified models deals with this issue and leads to unbiased standard errors, as long as the time-series dependence is fixed and not time-decreasing. Conversely, there is no evidence or bias to anticipate that cross-sectional dependence will arise in the residuals of the fixed effects model. Moreover, owing to the two-dimensional nature of the residuals and the fact that the cross-sections are randomly stacked, the detection of such dependence is not a simple process. As a rule of the thumb, Breusch-Godfrey serial correlation LM tests on the cross-sectional samples (year by year) are performed and do not, in total, provide significant hints of the existence of cross- sectional dependence. Maintaining the same rationale, performing White's heteroskedasticity tests in the cross-sectional, year-by-year samples provides evidence of cross-sectional heteroskedasticity in the residuals. To justify this, the diagonal White cross-sectional heteroskedasticity robust coefficient covariance estimator (adjusted for panel data) is applied (Narend, & Thenmozhi, 2016). Therefore, unless otherwise specified all the statistics reported will be the outcome of the implementation of the above processes which should lead to the estimation of robust standard errors. Now winsorization is a process of transformation where the values of outliers are replaced by specific threshold value (In this case the bottom and top 1% of the observations are replaced by the 1st and 99th percentile of the relevant practical distribution respectively). In addition, pooled quantile regressions are also estimated and verify the robustness of the analysis to outliers (The impact of corporate social performance on financial risk and utility: A longitudinal analysis). This part explains how the secondary data will be analyzed using panel data regression to test the research proposition. Following are key techniques applied in the analysis:

PANEL DATA REGRESSION

The Feasible Generalized Least Square Method was used with attributes of cross section weights which allows for cross-sectional heteroskedasticity also referred as Weighted Least Square and White’s cross section coefficient covariance method. For this part of the study, various

multivariate econometric models would be built and analyzed. The section (presented in below paragraph) will provide detailed description of the panel data technique.

Panel Data Analysis

The basic regression is based on the understanding that values don't change across the sample, while panel data regression overcomes this limitation by allowing values to vary in a systematic and/or random manner across parts of the sample data or even from one observation to another.

Usually, panel data or longitudinal data refers to data consisting of time-series observations of a number of individuals. That's why, observations in panel data involves at least two dimensions.

- A cross sectional dimension indicated by subscript i;
- A time series dimension indicated by subscript t.

Even though, panel data could include more complex grouping or hierarchical structure.

Panel data set comprises of observations on multiple entities (individuals), where each entity is observed at two or more points in time. Baltagi (2005) defines the term 'Panel Data' to the pooling of observations on a cross section of individuals, such as households, countries and firms, over several time periods. Thus, it provides multiple observations on each individual in the sample. Panel data allows control for variables which cannot be observed or measured like cultural factors or difference in business practices across companies, or variables that change over time but not across entities (i.e. national policies, federal regulations, international agreements, etc.) hence, it accounts for individual heterogeneity. Panel data is a special case of multilevel data and can have a more complicated clustering or hierarchal structure (Hsiao & Hsiao, 2006, Yaffee, 2003). With panel data one can include variables at different levels of analysis (i.e. students, schools, districts, states) suitable for multilevel or hierarchical modeling. Panel data sets are currently widely used, primarily in social sciences and econometric analysis due to several major advantages over conventional cross sectional or single time series data sets (Hsiao & Hsiao, 2006).

In short, we use panel data to:

- *Get rid of omitted variable bias*
- *Make the best of the available information*

- *Test theories that predicts changes*
- *Test theories that predict parameter heterogeneity*

A regular cross sectional regression model has indexing on its variable denoting individuals, and a regular single time series has indexing denoting time period. Panel data regression combines both of these, thus having double indexing on its variables. For example, a simple panel data regression model could be of the form.

$$\gamma_{it=} \alpha + \beta' X_{it} + u_{it}, \text{i} = 1,2, \dots\dots\dots, \text{N} ; \text{t} = 1,2, \dots\dots\dots\dots, \text{T} \quad (3.1)$$

Where i denote the cross sectional dimensions and t denotes the time series dimension. γ_{it} is a dependent variable, α is a scalable, β is a [Kx1] vector of the regression coefficient, X_{it} is an observation on the *i*th individual in t^{th} time period on K explanatory variable, u_{it} is an error component of the model, which is usually of either an one way form or a two way form. Most of the panel data applications utilize a one way error component models for the disturbances, it is of the form

$$u_{it} = u_i + v_{it}, \quad (3.2)$$

Where u_i denotes the unobservable individual specific time invariant effect and v_{it} denotes the remainder disturbances (Baltagi, 2005). For example, in case when γ_{it} measures a relative change of sale of a company, X_{it} may contain observable variables like size and age of the company, and a change in the number of personnel. The unobservable company-specific effects that are not included in the regression are captured by the u_{it}. These may include effects like the managerial skills of the company's executives, motivation of the employees, and available resources of company.

Another common form of the error component of the model (4.1) is a two way error component. Two way error components differ from one way component in that it has an additional time specific individual invariant component. Thus it is of the form

$$u_{it} = \mu_i + \lambda_t + v_{it}, \quad (3.3)$$

In the above equation, λ_t term could contain factors like effects of business cycle and economic situation of the industry. The model (4.1) can be further divided as either fixed effects model or

random effects model based on the terms of error component of the model that can be assumed as a fixed constant or as having random variation.

In the case of fixed effect model, μ_i and λ_t are assumed as fixed parameters to be estimated and the remainder disturbance stochastic with v_{it} independent and identically disturbance as IID (0, α_v^2). The X_{it} are assumed as independent of v_{it} for all i and t. In the random effect model, the μ_i andλ_t are assumed random. In this case, μ_i ~ IID (0, α_μ^2), λ_t ~ IID (0, α_λ^2) and v_{it} ~ IID (0, α_v^2). These are also assumed to be independent of each other. In addition, X_{it} is independentμ_i, λ_t and v_{it} for all i and t (Baltagi, 2005).

Estimation models – types of panel data regression models

In this section, two estimation methods are presented for various types of Panel data regression models. First, an estimator for fixed effects one way error component regression model called least square dummy variable estimator is introduced. Second, an estimator for random effects one way error component model called generalized least square estimator is derived.

Fixed Effect Method or Lease Squares Dummy Variable (LSDV) Estimator

The LSDV estimator is used to estimate the coefficients of the fixed effect model with one way error component. In this model, the time invariant cross section specific component is assumed to be a fixed constant. The model assumes that the slope coefficients of the regressor do not vary across individuals. In other words, the uniqueness of each individual unit is fixed as constant, when the intercept is moving for each individual along with the slope coefficients.

Since we are using dummies to estimate the fixed effects it is also called the least square dummy variable estimator (LSDV).

Random Effects Model/Generalized Least Square (GLS) Estimator

If the dummy variables represent a lack of knowledge about the (true) model, the disturbance term u_{it} can express this ignorance. This approach is suggested by the proponents of the so called error components models (ECM) or random effects model (REM) (Gujarati & Porter, 2003). The

random effects specifications assume that the corresponding effects are realizations of independent random variables with mean zero and finite variance. Most importantly, the random effects specification assumes that the effect is uncorrelated with the idiosyncratic residual.

In a case of finite sample size, where μ_i is assumed to be random, the OLS estimator is not the best linear unbiased estimator anymore. Because μ_{it} and μ_{is} both contain μ_i, the values of the error term are correlated. Therefore, the generalized least square estimator becomes the best linear unbiased estimator.

Fixed Effects or Random Effects

The choice between Fixed and Random effects can make a surprising amount of difference in the estimates of the parameters, especially when there are only few observations available for different individuals over time (Hsiao & Hsiao, 2006). A general rule has been presented by Baltagi (2005) that, the fixed effect model is an appropriate choice if the focus is on a specific set of N individuals and the inference is restricted to the behavior of this set. The random effect model is an appropriate choice in a situation where the random sample from N individuals is drawn from a large population. In this case, it is important to confirm that the panel is representative and can be generalized to the whole population. In other words, the issue is not whether μ_i can be viewed as random draws from a common population, or whether the conditional distribution of μ_i given X_{it} can be viewed as identical across i (Hsiao & Hsiao, 2006). One way to decide whether to use a fixed effects or a random effects model is to test the misspecification of (4.2), where μ_i is assumed to be random and uncorrelated with X_{it} (Hsiao, 2003). There are several specification tests for this. Hausman test is a statistical test which evaluates significance of an estimator against another estimator (Hausman, 1978). Hausman test can be used to compare the estimates of fixed and random effect models, both of which are consistent under the null hypothesis but which will have difference probability limits if H_0 is not satisfied (Baltagi, 2005).

$$H_0 : E(u_{it} \mid X_{it}) = 0 \tag{3.4}$$

3.10.5 **DISCRIMINANT ANALYSIS**

Originally developed in 1936 by R.A. Fisher, Discriminant Analysis is a classic method of classification that has stood the test of time. Discriminant analysis often produces models whose accuracy approaches (and occasionally exceeds) more complex modern methods. Discriminant analysis can be used only for classification (i.e., with a categorical target variable), not for regression. The target variable may have two or more categorical data. The objective of a discriminant analysis is to classify objects, by a set of independent variables, into one of two or more mutually exclusive and exhaustive categories (Alayande, & Adekunle, 2015). Discriminant analysis involves deriving the linear combination of the independent variables that will discriminate best between the a priori defined groups (Peacock, 1979). Given a set of independent variables, discriminant analysis attempts to find linear combinations of those variables that best separate the groups of cases. These combinations are called discriminant functions and have the form displayed in the equation.

The discriminant model has the following assumptions:

- Multivariate Normality
- Data values are from a normal distribution. We can use a normality test to verify this. However, please note that normal assumptions are usually not "fatal". The resultant significance tests may still be reliable.
- Equality of variance-covariance within group
- The covariance matrix within each group should be equal. Equality Test of Covariance Matrices can be used to verify it. When in doubt, try re-running the analyses using the Quadratic method, or by adding more observations or excluding one or two groups.
- Low multicollinearity of the variables

When high multicollinearity among two or more variables is present, the discriminant function coefficients will not reliably predict group membership. We can use the pooled within-groups correlation matrix to detect multicollinearity. If there are correlation coefficients larger than 0.8, we exclude some variables (Alayande, &Adekunle, 2015).

Evaluation Criteria for Discriminant Analysis

When results of a discriminant analysis are obtained, there are three basic questions to ask: (1) which independent variables are good discriminators? (2) How well do these independent variables discriminate among the two groups? (3) What decision rule should be used for classifying individuals? More complete answers to these questions require a synopsis of the theoretical derivation of the discriminant function. The other steps to look for are;

(i) Deriving the Discriminant Function, and (ii) Determining the Effect of Independent Variables (Alayande, & Adekunle, 2015).

The discriminant functions and related analysis will be done using Multiple Discriminant Analysis in the SPSS. The stepwise method will be used to select from all the quantitative factors initially considered for inclusion in the model. The stepwise method involves entering the independent variables into the discriminant function one at a time on the basis of their discriminating power. Eventually, either all independent variables will have been included in the function, or the excluded variables will have been judged as not contributing significantly toward further discrimination.

CHAPTER 4

AN EMPIRICAL ANALYSIS OF CORPORATE GOVERNANCE AND FINANCIAL PERFORMANCE AND DISCRIMINANT ANALYSIS

4.1 INTRODUCTION

The main objective of this chapter is to determine the components of corporate governance mechanism that affect the financial performance of the selected Indian firms. Secondly the chapter will focus on examining the supplementary role of audit committee characteristics: audit committee independence and frequency of audit committee meetings, on corporate governance mechanism in their impact on financial performance of selected firms. Further, the chapter will analyze the ranking of significant components in which they are important for Indian firms and will also give a discriminating score so as to discriminate high profit firms from low profit firms. This chapter will investigate hypothesis 1 and 2 based on the objectives 2, 3 and 4 of the study mentioned in chapter 3. Panel data regression models have been applied to analyse the components of corporate governance mechanism and discriminant analysis have been applied to identify the ranking of significant components of corporate governance mechanism affecting firm profitability and a discriminating score.

The components are studied with the help of various firm specific variables. The variables are identified on the basis of literature review and a panel data regression technique was applied to examine the impact of these variables on the financial performance of the selected Indian firms. For validation of the theory, the results of the panel data regression analysis will be matched with the expected relationships.

In this chapter, the empirical findings of the various panel data models and discriminant analysis results are presented. Before presenting the results of various models used in the study, some prerequisite and essential analysis of data was performed to confirm the statistical viability of the models and their sample data. This includes testing for stationarity using Levin-Lin-Chu (LLC) test, descriptive statistics of variables, test for multicollinearity using correlation analysis, autocorrelation check using Durbin Watson (D-W) statistic and Hausman test to choose between

fixed effect and random effect model. Thus, panel data analysis and all other essential tests will be performed with the help of E-views version nine statistical software to present the empirical findings of the current study.

4.2 TEST FOR STATIONARITY

The test for stationarity in a data set is a test to check the presence of unit roots in a given data series. If a data set has a unit root, it means that it is a non-stationary series. A stationary time series is one which moves around a constant mean value. The data set used in the present study is panel in nature. Hence, the study adopts the panel data unit root test advocated by Levin, Lin and Chu (2002). The test will present the results of both individual effects and individual effects with trend. In other words, results with trend and without trend. If data is found to be non-stationary, then the series will be differentiated to further test for stationarity.

4.2.1 LEVIN-LIN-CHU (LLC) TEST

The LLC test for panel unit root is a first unit root test developed for panel data and presented by Levin, Lin and Chu in 2002. It is based on Augmented Dickey-Fuller (ADF) test with different lag lengths across the units of the panel. The test can use for both small and large panel data sets.

The traditional ADF test equation can be expressed as follows:

$$\Delta X_{it} = \alpha_i + \beta_i X_{i,t-1} + \gamma_i t + \sum_{j=1}^{k} \sigma_{ij} \Delta X_{i,t-j} + \varepsilon_{i,t} \quad (4.1)$$

In equation 4.1, the unit root null hypothesis of $\beta_i = 0$ is tested against the alternative hypothesis $\beta_i < 0$. The alternative hypothesis agrees with the stationarity of data ($X_{i,t}$). The problem with ADF is that it reveals low power of the data under stationary process. On the other hand, LLC panel data version of the ADF test restricts standard error by keeping it identical on the basis of data individuality and increase the power of the data series. LLC model can be expressed as follows:

$$\Delta X_{it} = \alpha_i + \beta X_{i,t-1} + \gamma_i t + \sum_{j=1}^{k} \sigma_{ij} \Delta X_{i,t-j} + \varepsilon_{i,t} \quad (4.2)$$

In equation 4.2, the panel unit root null hypothesis $\beta_1 = \beta_2 = \ldots\ldots = \beta = 0$ is tested against alternative hypothesis $\beta_1 = \beta_2 = \ldots\ldots = \beta < 0$. LLC assumes cross sectional independence and acceptance of alternative hypothesis assures that data is free from the unit root (Pesaran, 2015).

Table 4. 1 Results of LLC Panel Unit Root Test

	No Trend		**Trend**	
Variables	**t statistic**	**p value**	**t statistic**	**p value**
BS	-36.4496	0.0000	-35.5606	0.0000
BIND	-106.266	0.0000	-123.88	0.0000
DUALITY	-1.90595	0.0283	-2.55684	0.0053
PS	-1454.99	0.0000	-2600.39	0.0000
ACIND	-252.762	0.0000	-197.423	0.0000
ACM	-25.2707	0.0000	-31.0913	0.0000
RC	-2.96201	0.0015	-7.11031	0.0000
FS	-27.7693	0.0000	-29.0388	0.0000
LEV	-79.6394	0.0000	-93.8736	0.0000
FA	-95.928	0.0000	-98.024	0.0000
ROA	-14.3423	0.0000	-25.0621	0.0000
ROE	-14.623	0.0000	-32.5504	0.0000

TOQ	-14.1755	0.0000	-46.4831	0.0000
Mcap	-87.491	0.0000	-82.06	0.0000

BS is the board size, BIND is the proportion of independent directors on the board, Duality is the CEO duality i.e. the position of CEO and chairman of the board is held by same person, PS is the promoter shareholding, ACIND is the proportion of independent directors in the audit committee, ACM is the frequency of audit committee meetings, RC is the presence of remuneration committee in the firm, FS is the firm size, Lev is the leverage, FA is the firm age, ROA is the return on assets, ROE is the return on equity, TOQ is the Tobin's Q, Mcap is the market capitalization.

Note: H_0: Non Stationary or Unit Root

Estimates are statistically significant at 5% level of significance.

Source: CMIE prowess, Statistical Tool: E-Views 9

Table 4.1 depicts the results of LLC panel unit root test for all dependent and independent variables covered under this chapter. It shows the results of both when a time trend is excluded (No trend) and when a time trend (Trend) is included. It is evident from the results that all variables are stationary when a time trend is excluded and when a time trend is included. Thus, the time series is free from the problem of unit root.

4.3 EMPIRICAL RESULTS

As discussed earlier, the present study will employ panel data regression models to determine the components which affect the financial performance of the selected Indian firms. This section includes descriptive statistics of data, correlation matrix to check the problem of multicollinearity, results of panel data regression models developed to test the Hypothesis 1 and 2, Durbin – Watson (D-W) statistics to check autocorrelation. As a rule, D-W score ranging between 1.5 and 2.5 indicates that the data is free from the problem of autocorrelation and serial correlation.

Prior testing the hypothesis and running panel data models, the sample data was tested for normality and heteroscedasticity. The data have been normalized and standardized by detecting outliers, which helps in solving the problem of heteroscedasticity.

4.3.1 Descriptive Statistics

Table 4. 2 Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std. Dev.
ROA	0.087	0.074	0.759	-0.517	0.078
ROE	0.262	0.166	9.729	-2.598	0.687
TOQ	2.226	1.329	42.241	0.000	3.166
MCAP	10074.670	1659.273	351320.000	2.144	29445.980
BS	9.866	10.000	22.000	3.000	2.873
BIND	51.639	50.000	100.000	0.000	13.055
DUALITY	0.362	0.000	1.000	0.000	0.481
PS	51.367	51.000	99.590	0.000	18.361
ACIND	85.020	100.000	100.000	0.000	17.861
ACM	5.008	4.000	15.000	0.000	1.594
RC	0.736	1.000	1.000	0.000	0.441
FS	1.998	2.003	2.547	-0.271	0.246
FA	40.030	32.000	150.000	4.000	24.963
LEV	0.778	0.510	10.947	-4.230	1.004

Source: CMIE prowess, corporate governance reports, annual reports of companies

Statistical Tool: E-Views 9

Results of descriptive analysis are given in table 4.2. 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 and 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.

4.3.2 Correlation Analysis

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 4.3 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 4. 3 Correlation Matrix

	BS	BIND	DUALITY	PS	ACIND	LN_ACM	RC	FS	LN_LEV	LNFAGE
BS	1	-0.056	0.054	-0.016	0.107	0.224	0.087	0.364	-0.012	0.047
BIND	-0.056	1	0.034	-0.179	0.486	-0.053	0.155	-0.141	0.030	0.033
DUALITY	0.054	0.0341	1	0.116	0.060	0.068	-0.140	0.117	-0.055	-0.028
PS	-0.016	-0.1789	0.116	1	-0.132	-0.091	-0.175	0.087	-0.023	-0.048
ACIND	0.107	0.4856	0.060	-0.132	1	0.093	0.143	0.023	0.057	-0.053
LN_ACM	0.224	-0.0532	0.068	-0.091	0.093	1	0.029	0.296	-0.106	0.072
RC	0.087	0.1552	-0.140	-0.175	0.143	0.029	1	-0.050	0.106	-0.038
FS	0.364	-0.1410	0.117	0.087	0.023	0.296	-0.050	1	-0.181	0.059
LN_LEV	-0.012	0.0302	-0.055	-0.023	0.057	-0.106	0.106	-0.181	1	-0.048
LNFAGE	0.047	0.0333	-0.0280	-0.0484	-0.0532	0.0719	-0.0385	0.0586	-0.0482	1

4.3.3 Hypothesis Testing

The main objective of the study is to examine the components of corporate governance mechanism affecting financial performance of selected Indian firms (Hypothesis 1). The determining variables will cover both firm specific and corporate governance variables. The data will be analyzed for the period from 2004 to 2013. The panel data regression technique will be adopted to test the corporate governance components. The study will further test the supplementary role of audit committee characteristics in the context of Indian firms (Hypothesis 2). The objective is to examine the supplementary role played by audit committee independence and audit committee meetings in enhancing the impact of corporate governance mechanism on financial performance of Indian firms. The theory validation test will be done with the help of cross check of expected relationship with the actual relationship drawn using panel regression models.

Following section investigates the hypotheses (1 and 2) and presents their results to achieve objectives of the present study:

4.3.3.1 Hypothesis 1

H_{01}: There is no significant relationship between corporate governance mechanism and firm financial performance of the selected Indian non-financial firms.

The main purpose of this hypothesis is to know the relationship between financial performance and both corporate governance mechanism and firm specific variables of sample firms. In other words, the objective is to examine the key variables which affect the financial performance of the selected non-financial Indian firms. Based on the result of Hausman test, panel data fixed effects regression model is employed to test the above relationship. ROA, ROE, TOQ and MCap are used to represent financial performance of sample firms. Therefore, four panel data regression models were developed to test the Hypothesis 2. The four panel regression equations are presented as follows:

Model 1

$$ROA = \alpha_0 + \beta_1(BS)_{it} + \beta_2(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RS)_{it} + \beta_6(FS)_{it} + \beta_7(LEV)_{it} + \beta_8(FA)_{it} + \mu_{it} \quad (4.3)$$

Model 2

$$ROE = \alpha_0 + \beta_1(BS)_{it} + \beta_2(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RS)_{it} + \beta_6(FS)_{it} + \beta_7(LEV)_{it} + \beta_8(FA)_{it} + \mu_{it} \quad (4.4)$$

Model 3

$$TOQ = \alpha_0 + \beta_1(BS)_{it} + \beta_2(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RS)_{it} + \beta_6(FS)_{it} + \beta_7(LEV)_{it} + \beta_8(FA)_{it} + \mu_{it} \quad (4.5)$$

Model 4

$$MCap = \alpha_0 + \beta_1(BS)_{it} + \beta_2(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RS)_{it} + \beta_6(FS)_{it} + \beta_7(LEV)_{it} + \beta_8(FA)_{it} + \mu_{it} \quad (4.6)$$

4.3.3.2 Hypothesis 2

H_{02}: There is no complementary or supplementary role of audit committee characteristics in enhancing the financial performance of selected Indian firms.

The main purpose of this hypothesis is to know the relationship between financial performance and both corporate governance mechanism and firm specific variables of sample firms after including audit committee independence and audit committee meetings in the models. In other words, the objective is to examine the complementary or supplementary role of audit committee characteristics in the selected non-financial Indian firms. Based on the result of Hausman test, panel data fixed effects regression model is employed to test the above relationship. ROA, ROE, TOQ and MCap are used to represent financial performance of sample firms. Therefore, four panel data regression models were developed to test the Hypothesis 3. The four panel regression equations are presented as follows:

Model 5

$$ROA = \alpha_0 + \beta_1(BS)_{it} + \beta_2(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(ACIND)_{it} + \beta_6(ACM)_{it} + \beta_7(RC)_{it} + \beta_6(FS)_{it} + \beta_7(LEV)_{it} + \beta_8(FA)_{it} + \mu_{it} \quad (4.7)$$

Model 6

$$ROE = \alpha_0 + \beta_1(BS)_{it} + \beta_2(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(ACIND)_{it} + \beta_6(ACM)_{it} + \beta_7(RC)_{it} + \beta_6(FS)_{it} + \beta_7(LEV)_{it} + \beta_8(FA)_{it} + \mu_{it} \quad (4.8)$$

Model 7

$$TOQ = \alpha_0 + \beta_1(BS)_{it} + \beta_2(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(ACIND)_{it} + \beta_6(ACM)_{it} + \beta_7(RC)_{it} + \beta_6(FS)_{it} + \beta_7(LEV)_{it} + \beta_8(FA)_{it} + \mu_{it} \quad (4.9)$$

Model 8

$$MCap = \alpha_0 + \beta_1(BS)_{it} + \beta_2(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(ACIND)_{it} + \beta_6(ACM)_{it} + \beta_7(RC)_{it} + \beta_6(FS)_{it} + \beta_7(LEV)_{it} + \beta_8(FA)_{it} + \mu_{it} \quad (4.10)$$

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, audit committee meetings, return on equity, Tobin's q and market capitalization, log of these variables was taken.

Table 4.4 shows the empirical results of model 1, 2, 3 and 4 where, in model 1 and 2, return on assets and in model 3 and 4 return on equity are used as a proxy for firm financial performance. The model is regressed at a significance level of 5% and 10%. In model 1 and 3, audit committee characteristics are ignored to check out the relevance of other corporate governance variables on accounting measures of firm performance. In model 2 and 4, audit committee characteristics are

also taken into consideration to find out the complementary or supplementary impact of audit committee on firm financial performance.

In model 1, it is found that except board independence and CEO duality, all other corporate governance and firm specific variables i.e. board size, promoter shareholding, presence of remuneration committee; firm size, leverage and firm age have significant relationship with ROA. Moreover, it is found that board size, presence of remuneration committee, leverage and firm age have negative association with ROA and promoter shareholding and firm size have positive relationship with ROA.

Insignificant negative relationship of board independence with firm performance indicates that Indian firms cannot progress when there are too many independent directors on the board(i.e. lesser the number of independent directors on the board, better the firm performance). However, CEO duality is found to be positively but insignificantly related with ROA for the sample firms. The positive relationship may be due to the reason that a single person acting as CEO as well as Chairman of the board tend to overcome the problem of disputes created in between two positions and therefore, gives his best efforts towards optimum utilization of the assets of the firm

Negative and significant relationship of board size with ROA may be due to the reason that large number of directors on the board of Indian companies fails to maintain proper coordination and communication leading to inadequate key strategic decisions. Thereby, utilization of assets in profitable projects and investments might be decreasing. Similarly, presence of remuneration committee tends to negatively impact firm performance. The reason behind such finding may be that remuneration committee failed to encourage executive and non-executive board of directors in strategic formulation of decision which could improve utilization of assets. Apart from these corporate governance variables, leverage and firm age are also found to be negatively impacting return on assets and the reason could be that large amount of debt is increasing the interest burden on the firm due to which the return is getting reduced and old firms failed to adapt new techniques required for the improvement of the working of the company.

Increased shareholding of promoters tends to improve the working of the board in strategically utilizing assets in profitable projects so as to increase the return on assets. They might be

controlling the decisions of other board members towards utilization of assets. Similarly, large firms have more assets which would likely increase the return earned from its utilization. More assets mean more productivity of the firm and more return on assets.

The examination of R square of model 1 shows that 81.5% of the changes in firm performance of the sample firms can be explained by all the significant independent. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.88. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. It is also referred as Weighted Least Square. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

In model 2, two audit committee characteristics are included to evaluate the complementary or supplementary impact of corporate governance and firm specific variables on firm financial performance. The empirical results report that impact of board independence became significant with the inclusion of audit committee characteristics. Rest of the variables did not report any change in their impact on firm performance. Moreover, audit committee independence as well as audit committee meetings are also found to have insignificant relationship with ROA for the sample firms. However, audit committee independence is found to be positively related which may be due to the reason that independent directors in audit committee are playing a positive role in providing more accurate financial information to other board members, which helps in informed and intelligent decision making. More independent directors in audit committee help in improving the monitoring ability of committee and thereby safeguard the interest of stakeholders. Negative relationship of audit committee meetings for the sample firms might be due to the reason that some of the firms are not at all having any meeting in a year. Such firms fail in timely detection of the wrongful deeds of the board of directors and cannot provide transparent accounting information to the stakeholders and other board members leading to negative results.

The value of r square (81.29%) indicates that audit committee characteristics does not play any complementary role in improving the relationship of corporate governance mechanism to firm performance. However, it can be said that overall model fit is good and is free from the problem of autocorrelation. The current model also adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

In model 3, it is found that promoter shareholding, presence of remuneration committee, firm size, firm age and leverage are significantly related with firm performance. Moreover, promoter shareholding and leverage are found to be positively associated and presence of remuneration committee, firm size and firm age are found to be negatively associated with ROE. Promoter shareholders are always interested in cash flow rights; therefore, they put great efforts in formulating strategies that could improve the return on equity invested in the company. Higher amount of leverage could have improved monitoring ability of the firms, due to which, more strategic decisions formulated amongst board of directors helps in increasing return on equity. However, presence of remuneration committee reduces the output of board of directors towards strengthening the policies of firm in earning more return. Larger firms and more amounts of assets did not prove beneficial in earning more returns and older firms face the constraint of easily adopting new technologies for the improvement of the working of the firm.

Board size, board independence and CEO duality failed to provide any significant relationship with firm performance. However, it is found that board size and board independence are negatively related with ROE. The reason behind such finding may be that large number of members on the board fails to agree at a common point leading to wastage of time and efforts of members and delay in taking timely strategic decisions. Similarly, more number of independent directors on the board are not providing any fruitful results. They failed to properly monitor the working of executive directors and are not able to provide unbiased decisions for the working of the company in the interest of shareholders and stakeholders. Another reason for such negative relationship could be lack of proper knowledge about the company resulting in inadequate advice to the executive directors. Positive relationship of CEO duality to ROE may be due to the reason that single person occupying both positions is beneficial for Indian companies.

The examination of R square of model 3 shows that 79% of the changes in firm performance of the sample firms can be explained by all the significant independent. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.64. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. It is also referred as Weighted Least Square. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

In model 4, to evaluate the complementary and supplementary role of audit committee characteristics, model is rerun taking audit committee independence and audit committee meetings into consideration. The empirical results report complementary role of audit committee characteristics towards board independence. By including audit committee 2 characteristics, board independence which was earlier an insignificant variable, became significant for the sample firms. Other than board independence, promoter shareholding, audit committee independence, audit committee meetings, presence of remuneration committee, firm size, firm age and leverage are found to have significant relationship with ROE. However, the direction of relationship remains unchanged after inclusion of audit committee characteristics. Moreover, it is found that audit committee independence is positively and frequency of audit committee meetings is negatively affecting ROE. The reason behind such relationship may be that more number of independent directors in audit committee improves monitoring capacity of audit committee. They emerge as true value generator of the company. They help the company is proper adoption of accounting principles and practices and provide true and fair financial information to the board of directors which helps them in formulating better strategies. Frequency of audit committee meetings are deemed to be an important factor in improving the working of a company, but, for sample firms, results are opposite to the theory. The possible reason might be that audit committee members are unable to properly trace and discuss the working of the company leading to negative results.

The value of r square (79.28%) indicates that audit committee characteristics does not play any complementary role in improving the relationship of corporate governance mechanism to firm performance as there is insignificant change from model 3 when audit committee characteristics were not included. However, it can be said that overall model fit is good and is free from the problem of autocorrelation. The current model also adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Table 4. 4 Regression Analysis using feasible generalized least square model (Model Summary)

Variable	ROA				ROE			
	Model 1		Model 2		Model 3		Model 4	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
BS	-0.0009	-2.3839**	-0.0009	-2.3758**	-0.0004	-0.9826	-0.0005	-1.5621
BIND	-0.0001	-1.7716	-0.0002	-2.4949**	0.0000	-0.1388	-0.0001	-5.2801**
DUALITY	0.0037	0.7076	0.0040	0.7785	0.0041	1.1092	0.0053	1.7414
PS	0.0003	2.5378**	0.0002	2.4602**	0.0007	5.3557**	0.0007	11.4843**
ACIND	----	----	0.0001	1.4502	----	----	0.0001	3.5207**
LN_ACM	----	----	-0.0018	-0.5695	----	----	-0.0069	-2.4951**
RC	-0.0094	-3.6201**	-0.0091	-3.4402**	-0.0033	-1.3421**	-0.0032	-1.8576**
FS	0.0798	16.7777**	0.0800	16.8249**	-0.0690	-12.4126**	-0.0679	-11.3145**
LN_LEV	-0.1173	-16.9644**	-0.1175	-16.8477**	0.0578	9.8317**	0.0588	20.3355**
LNFAGE	-0.0777	-17.5273**	-0.0771	-17.1587**	-0.0782	-4.7962**	-0.0795	-8.4766**
C	0.4156	21.1252	0.4144	20.3107	1.6741	56.0093	1.6793	64.9774

R-squared	0.8146	0.8129	0.7903	0.7928
F-statistic	38.3262	37.5712	32.8883	33.0937
Prob(F-statistic)	0.0000	0.0000	0.0000	0.0000
Durbin-Watson stat	1.8841	1.8825	1.6405	1.6440

** denote significance at 5% and * denote significance at 10%

BS is the board size, BIND is the proportion of independent directors on the board, Duality is the CEO duality i.e. the position of CEO and chairman of the board is held by same person, PS is the promoter shareholding, ACIND is the proportion of independent directors in the audit committee, ACM is the frequency of audit committee meetings, RC is the presence of remuneration committee in the firm, FS is the firm size, Lev is the leverage, FA is the firm age, ROA is the return on assets, ROE is the return on equity, TOQ is the Tobin's Q, Mcap is the market capitalization.

Table 4. 5 Regression Analysis using feasible generalized least square method model (Model Summary)

Variable	TOQ				Mcap			
	Model 5		Model 6		Model 7		Model 8	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
BS	-0.0030	-1.5814	-0.0027	-1.3450	0.0068	4.1079**	0.0062	3.7503**
BIND	0.0002	0.7549	0.0002	0.6338	0.0003	1.3500	0.0001	0.4240
DUALITY	0.0389	1.7175*	0.0375	1.7286*	0.0243	1.6620	0.0240	1.6513
PS	-0.0001	-0.2311	0.0000	0.0425	-0.0010	-2.9300**	-0.0009	-2.6169**
ACIND	----	----	-0.0001	-0.5480	----	----	0.0003	1.6034
LN_ACM	----	----	0.0379	2.1593**	----	----	0.0077	0.5185
RC	-0.0783	-5.5750**	-0.0807	-5.8184**	-0.0388	-3.8602**	-0.0395	-3.9661**
FS	-0.6504	-29.5641**	-0.6664	-29.1253**	0.2795	13.3087**	0.2753	13.0652**
LN_LEV	1.2760	47.8713**	1.2764	47.3914**	5.9291	271.0329**	5.9510	268.9748**
LN_FAGE	0.1039	3.8064**	0.1033	3.7729**	-0.1129	-5.5010**	-0.1078	-5.0874**

C	0.5873	6.0542	0.5814	5.8023	-5.0505	-63.9015	-5.1190	-61.8452
R-squared	0.8093		0.8090		0.8461		0.8460	
F-statistic	70.0884		69.3101		2230.0380		2168.4010	
Prob(F-statistic)	0.0000		0.0000		0.0000		0.0000	
Durbin-Watson stat	1.7722		1.7704		1.6461		1.6459	

** denote significance at 5% and * denote significance at 10%

BS is the board size, BIND is the proportion of independent directors on the board, Duality is the CEO duality i.e. the position of CEO and chairman of the board is held by same person, PS is the promoter shareholding, ACIND is the proportion of independent directors in the audit committee, ACM is the frequency of audit committee meetings, RC is the presence of remuneration committee in the firm, FS is the firm size, Lev is the leverage, FA is the firm age, ROA is the return on assets, ROE is the return on equity, TOQ is the Tobin's Q, Mcap is the market capitalization.

Table 4. 6 Comparison of the results of model 1, 3, 5 and 7

Variable	expected relationship	calculated relationship				
		ROA	ROE	TOQ	Mcap	overall
BS	negative	negative*	negative	negative	positive*	largely negative
BIND	positive	negative	negative*	positive	positive	mixed
DUALITY	positive	positive	positive	positive*	positive	positive
PS	positive	positive*	positive*	negative	negative*	mixed
RC	positive	negative*	negative*	negative*	negative*	negative
FS	positive	positive*	negative*	negative*	positive*	mixed
LEV	positive	negative*	positive*	positive*	positive*	largely positive
FA	negative	negative*	negative*	positive*	negative*	largely negative

Table 4. 7 Comparison of the results of model 2, 4, 6 & 8

Variable	expected relationship	calculated relationship				
		ROA	ROE	TOQ	Mcap	overall
BS	negative	negative*	negative	negative	positive*	largely negative
BIND	positive	negative*	negative*	positive	positive	mixed
DUALITY	positive	positive	positive	positive*	positive	positive
PS	positive	positive*	positive*	negative	negative*	mixed
ACIND	positive	positive	positive*	negative	positive	largely positive
ACM	positive	negative	negative*	positive*	positive	mixed
RC	positive	negative*	negative*	negative*	negative*	negative
FS	positive	positive*	negative*	negative*	positive*	mixed
LN_LEV	positive	negative*	positive*	positive*	positive*	largely positive
LNFAGE	negative	negative*	negative*	positive*	negative*	largely negative

Table 4.5 shows the empirical results of model 5, 6, 7 and 8 where, in model 5 and 6, Tobin's Q and in model 7 and 8market capitalization is used as a proxy for firm financial performance. The model is regressed at a significance level of 5% and 10%. In model 5 and 7, audit committee characteristics are ignored to check out the relevance of other corporate governance variables on accounting measures of firm performance. In model 6 and 8, audit committee characteristics are

also taken into consideration to find out the complementary or supplementary impact of audit committee on firm financial performance.

In model 5, it is found that CEO duality, presence of remuneration committee; firm size, leverage and firm age have significant relationship with TOQ whereas board size, board independence, promoter shareholding were inconclusive to show any significant relationship. Moreover, CEO duality, firm age and leverage are found to be positively related and presence of remuneration committee and firm size are found to be negatively related with TOQ.

The examination of R square of model 5 shows that 80.93% of the changes in firm performance of the sample firms can be explained by all the significant independent. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.77. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. It is also referred as Weighted Least Square. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Insignificant negative relationship of board size with firm performance indicates that Indian firms bear the disadvantages when there is large number of directors on the board (i.e. lesser the number of directors on the board, better the firm performance). The reason behind such relationship may be clashes in the view point of large number of board members, lack of coordination and disagreement towards key strategic decisions. Similarly, promoter shareholding is also found to have negative impact on TOQ. Though it has been found most of the time that promoter shareholders are the insiders and they have knowledge about company and its future and therefore, they would work for increasing the value of firm. But, on the other hand such negative relationship could be due to entrenchment effects between majority shareholder and minority shareholders leading to fall in market value of firm. However, independent directors on the board play a positive role towards improvement of market value of firm as a percentage of book value of assets. Independent directors provide their valuable unbiased feedback on the

various policies and strategies formulated by the CEO and other executive directors. They help in gaining the confidence of investors which results in improved market value of the firm.

Thus, CEO duality, presence of remuneration committee; firm size, leverage and firm age are the key significant factors affecting Tobin's Q of sample firms. The positive relationship of CEO duality is coming from stewardship theory, where CEO duality benefits the firm while maintaining control over board and facilitates timely and more effective decision making. The slow and ineffective decision making due to separation of two positions could contribute to poor performance of firm. Negative impact of presence of remuneration committee could be because of the reason that Indian firms are making this committee voluntarily and promoter shareholding is also high in the sample firms. Therefore, chances are that proper independence of the committee is not maintained and the committee is working under the influence of majority shareholders leading to failure in gaining confidence of market. Larger firms are more inclined towards research and development activities, which sometimes did not bring positive results. In such cases, there is no improvement in the productivity of the firm and such firms poorly perform in the market. But, on the other hand, an old firm gains the advantage of market reputation and more market share leading to market value positively linked with its market image. Positive relationship of leverage is attributed to the advantage of increased monitoring by the debt owners.

In model 6, the two audit committee characteristics are included to evaluate the complementary or supplementary impact of corporate governance and firm specific variables on firm financial performance. The empirical results report that impact of promoter shareholding was changed to positive and insignificant instead of negative and insignificant on Tobin's Q with the inclusion of audit committee characteristics. Rest of the variables did not report any change in their impact on firm performance. Further, frequency of audit committee meetings is found to be significantly and positively associated with firm performance but, audit committee independence is found to have insignificant relationship with TOQ for the sample firms. However, audit committee independence is found to be negatively related which may be due to the reason that independent directors in audit committee are providing fair view of financial statements of the company without the data and figures being manipulated which brings the true picture of the company in front of investors leading in the fall in market value. Positive relationship of audit committee meetings for the sample firms might be due to the reason that members are able to effectively

supervise the management and in case of any discrepancy found in the financial reporting process, they can timely inform the board and can demand timely line of action.

The value of r square (80.9%) indicates that audit committee characteristics does not play any complementary role in improving the relationship of corporate governance mechanism to firm performance. However, it can be said that overall model fit is good and is free from the problem of autocorrelation. The current model also adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

The table also shows the empirical results of model 7, where it has been found that promoter shareholding, presence of remuneration committee and firm age are negatively and significantly associated with firm performance as proxied by market capitalization of sample firms.

On the other hand, board size, firm size and leverage are found to have significant positive relationship with the financial performance of sample firms. Further, board independence and CEO duality are found to have insignificant relationship with market capitalization. Moreover, duality and promoter shareholding are found to have positive relationship.

The examination of R square of model 7 shows that 84.61% of the changes in market capitalization of the sample firms can be explained by all the significant independent variables together. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistics of 1.64 depicts that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. It is also referred as Weighted Least Square. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Thus, board size, promoter shareholding, presence of remuneration committee, firm size, leverage and firm age are the key factors affecting financial performance of the sample firms. Promoters holding large shares in the company could result in expropriation of minority shareholders rights. The advice of promoters is more centered towards their own interest which

gives a feeling of exploitation to the minority shareholders. Indian firms where on an average 51% shareholding is owned by promoters, there is maximum possibility of exploitation of minority shareholders and thus this could adversely affect the image of the firm in the market. Therefore, increased promoter shareholding could reduce market capitalization of firm. Similarly, presence of remuneration committee is also not boosting the confidence of investors. They are not able to control the compensation paid to CEO and other executive directors and therefore, negatively effects firm performance.

On the other hand, large boards tend to improve the firm performance because of the resource dependency theory. The larger the number of members on the boards, more resources they can bring to the firm. There are chances of variety of suggestions that could improve the image of firm in the minds of investors. Further, larger firms could employ more number of directors and more resources leading to positive influence of size on performance. Leverage also improves firm performance by providing better monitoring on the working of management. Therefore, firms have to consider all these factors for improving firm performance.

In model 8, the two audit committee characteristics are included to evaluate the complementary or supplementary impact of corporate governance and firm specific variables on firm financial performance. The empirical results report no change in the behavior of any corporate governance and firm specific variable with the inclusion of audit committee characteristics. Moreover, audit committee independence and frequency of audit committee meeting is found to be insignificantly and positively related which may be due to the reason that independent directors in audit committee could provide fair view of financial statements of the company to the board and help in making effecting strategic decisions and more number of meetings are more inclined towards timely detection of fraud by the management which again could help in making timely decision making..

The value of r square (84.6%) indicates that audit committee characteristics does not play any complementary role in improving the relationship of corporate governance mechanism to firm performance. However, it can be said that overall model fit is good and is free from the problem of autocorrelation. The current model also adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

4.3.4 Discriminant Analysis

Discriminant analysis is used in the study to analyze data. It is a technique which, in the standard multivariate way, captures the link shared by a categorical dependent variable and multiple independent variables by developing a composite of such independent variables. Discriminant analysis is a good technique for identifying the most important variables affecting the dependent variable from an array of apparently important variables (Press and Wilson, 1978). Possibly the most common application of this analysis is to determine the measures that discriminate between the groups from an array of many measures employed in the study. We have also used this technique to establish an equation that can indicate whether a firm earns high return on assets or low return on assets.

Table 4. 8 Group Statistics

ROA_category		Mean	Std. Deviation	Valid N (list wise)	
				Unweighted	Weighted
low profit	BS	9.576316	2.3777844	114	114.000
	BIND	59.640881	7.4224488	114	114.000
	ACIND	88.566667	10.7098306	114	114.000
	PS	51.326079	16.5829809	114	114.000
	FIRM AGE	39.078947	23.2001277	114	114.000
	LEV	.412368	.3536042	114	114.000
	ACM	1.594298	.2122028	114	114.000
	FS	7.533860	1.3207349	114	114.000
high profit	BS	10.107299	2.6705539	137	137.000

	BIND	46.368229	9.2302056	137	137.000
	ACIND	74.755474	14.9192775	137	137.000
	PS	51.401015	18.3279745	137	137.000
	FIRM AGE	40.821168	26.1882142	137	137.000
	LEV	.568686	.3687635	137	137.000
	ACM	1.576569	.2313879	137	137.000
	FS	7.685766	1.3614146	137	137.000
	BS	9.866135	2.5505781	251	251.000
	BIND	52.396445	10.7282166	251	251.000
	ACIND	81.028287	14.8461024	251	251.000
	PS	51.366980	17.5224662	251	251.000
Total	FIRM AGE	40.029880	24.8421034	251	251.000
	LEV	.497689	.3695601	251	251.000
	ACM	1.584622	.2226157	251	251.000
	FS	7.616773	1.3425580	251	251.000

The above table (Table 4.8) shows the descriptive statistics of the variables and it is divided between high profit and low profit. Smaller board size tends to bring less profit for firm and larger

board size put efforts to increase profits of a firm. On the contrary, lesser proportion of independent directors on the board and in the audit committee leads to better profits for the firm

and higher proportion of independent directors on the board and in the audit committee leads to weak profits. In other words, it means that independence of the board and the audit committee is inversely related to profit. Higher leverage means low cost and vice versa. Promoter shareholding is neutral towards profit generation. Older firms earn more profits and new firms earn less profit. Similarly, large firms take the advantage of their resources and earn more profits. Further, employment of more debt in the capital structure of the firm leads to more profits and vice versa. More audit committee meetings reduces the profits of the firm. Large firms incur less cost and vice versa.

Table 4. 9 Pooled within group matrices

Correlation

	BS	BIND	ACIND	PS	FIRM AGE	LEV	ACM	FS
BS	1.000	-.079	.071	-.017	.037	-.040	.300	.104
BIND	-.079	1.000	.266	-.151	-.058	.061	-.087	-.028
ACIND	.071	.266	1.000	-.222	-.049	.183	.081	-.067
PS	-.017	-.151	-.222	1.000	-.085	-.034	-.106	-.007
FIRM AGE	.037	-.058	-.049	-.085	1.000	-.039	.046	-.178
LEV	-.040	.061	.183	-.034	-.039	1.000	-.180	.035
ACM	.300	-.087	.081	-.106	.046	-.180	1.000	.203
FS	.104	-.028	-.067	-.007	-.178	.035	.203	1.000

This table (Table 4.9) shows the correlation between variables to check multicollinearity problem. It is clear from the table that there is no multicollinearity problem in the data, as the

highest correlation amongst the variables is 0.30 and therefore, discriminant analysis can be applied on it.

Table 4. 10 Box's Test of Equality of Covariance Matrices

Box's M		2.137
F	Approx.	2.128
	df1	1
	df2	171938.757
	Sig.	.145

The null hypothesis of box's test table (Table 4.10) is that both groups have equal population variance matrices. The significance value is greater than 0.05. Therefore, we accept null hypothesis and conclude that both groups have equal variance and could be compared.

Table 4. 11 Order of discriminating variables entered in the model

Step	Entered	Wilks' Lambda
		Statistic
1	BIND	.619
2	ACIND	.581
3	LEV	.547
4	PS	.537

In table 4.11, variables selected to be included in the discriminant function is identified based on their order of wilk's lambda. The wilk's lambda decreases up to the process of inclusion of promoter shareholding with other three variables, i.e. board independence, audit committee independence and leverage. These four variables are the most important variables that discriminate between high profit firms and low profit firms. Board independence is found to be the most important discriminating variables, which is quite logical, that higher proportion of independent directors plays the role of effective monitors, monitoring the working of executive directors and management. Since, they are not directly related to the profits of the firm, they would work to safeguard the interest of investors and stakeholders which in turn safeguards their own reputation in the market. Sometimes the possibility is that excess independence of the board leads to negative results. They could create confusion in strategic decision making since they are ignorant of many facts of the company. But, they are an important discriminating variable among firms.

Similar is the case with proportion of independent directors in audit committee. They are the second most important corporate governance variable discriminating between high profit and low profit firms. Independent directors in audit committee are given high consideration in corporate governance rules of different countries. They are the people who are responsible for genuine financial reporting process which is in the interest of shareholders and other stakeholders. They are responsible for presenting true and fair picture of financial statements of the firm in front of other board of directors. Therefore, they occupy an important place in taking the firm high or low.

Third variable found important to be included in the model is leverage. It indicates amount of amount of debt employed in the capital structure of a firm. Debt holders are the external monitors of the firm. They are concerned for the repayment of their interest and principal amount. They can cause bankruptcy risk for the firm. Therefore, they also hold an important position in the discriminating function of a company. Fourth important discriminating variable is the promoter shareholding. They are a very important pillar of a company. They are the effective monitors as they hold a large part of shareholders. They are the major shareholder of an Indian firm. For their own benefit, they will always try to improve the profits of the firm. Therefore, it is intuitive that this variable should be considered in assessing the financial profit of a firm.

Table 4. 12 Standardized and Unstandardized Discriminant Function Coefficients

Variables included	Function	
	1	
	Standardized	Unstandardized
BIND	.844	.091
ACIND	.564	.036
LEV	-.232	-.990
PS	-.002	.012
(Constant)		-7.787

Table 4.12 shows the standardized and unstandardized coefficient of discriminating variables of firm profit. The unstandardized coefficients measure the contribution of each variable in the discriminating equation, but these coefficients do not report the relative importance of the variables. The standardized coefficients are the product of unstandardized coefficient and its standard deviation. The standardized coefficients of discriminant function are of abundant systematic importance. When the sign is ignored, each coefficient represents the relative contribution of its associated variable to that function. The sign merely denotes whether the variable is making a positive or negative contribution.

The results indicate that board independence is the most important discriminating variable, followed by audit committee independence. After these two variables, leverage is the most important discriminating variable, and lastly promoter shareholding is of individual importance in discriminating between financial profit of firms. The unstandardized coefficients gives the discriminant score equation.

$$Discriminant\ Score = -7.787 + 0.091(BIND) + 0.036(ACIND) + (-)0.990(LEV) + 0.012(PS) \quad 4.6$$

Table 4. 13 Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.537	153.699	4	.000

The table 4.13 of Wilks' Lambda shows statistical significance of discriminant function. Since the sig. value is less than 0.05, therefore, we can say that the discriminant function generated is statistically significant.

Table 4. 14 Functions at Group Centroids

ROA_category	Function
	1
low profit	1.014
high profit	-.844

The table 4.14 reports the point of comparison between firms having high profit and firms having low profit. For the purpose group centroid values are used. On the basis of average of the two values, the discriminant score from table comes 0.085. If the score of the discriminant equation is more than 0.085, the firm is anticipated to bear low firm profit and if score is less than 0.085, then they are expected to bear high profits. This is the discriminating point for the firms.

Table 4. 15 Classification Results

			Profit	Predicted Group Membership		Total
				low profit	high profit	
Cases Selected	Original	Count	low profit	66	18	84
			high profit	21	76	97
		%	low profit	78.6	21.4	100.0
			high profit	21.6	78.4	100.0
Cases Not Selected	Original	Count	low profit	28	2	30
			high profit	5	35	40
		%	low profit	93.3	6.7	100.0
			high profit	12.5	87.5	100.0

a. 78.5% of selected original grouped cases correctly classified.

b. 90.0% of unselected original grouped cases correctly classified.

The primary purpose of this analysis is to determine how well firm profit could be predicted using corporate governance and firm specific data. The functions developed with average data from 2004 to 2013 were used to predict firm profit for 251 non-financial high market capitalization Indian companies. The results are reported in table 4.15. The prediction results are information in that these variables are more effective in predicting the financial profits of Indian firms. From the table, we have checked the strength of the above generated discriminating based on classification results. It is a robust test designed to check whether the results generated through the process fit in other conditions. The firm financial profit based on accounting data was segregated in two parts with the help of Bernoulli function. 70% of all observations were chosen for foreseeing discriminant equation. The rest (30%) of the observations were employed to assess equation strength. Approximately 79% of chosen observations classified correctly while 90% of the unselected observations were accurately classified. Any discriminant equation which classifies more than 70% cases correctly is considered good (Malhotra 2007). So we can conclude that our scores are also reasonably good.

CHAPTER 5

AN EMPIRICAL ANALYSIS OF CORPORATE GOVERNANCE AND AGENCY COST AND DISCRIMINANT ANALYSIS

5.1 INTRODUCTION

This chapter analyzes the relationship of corporate governance mechanism with the agency cost of selected Indian firms. The chapter will also analyze the impact of agency cost on financial performance of Indian firms. Then, it will examine the ranking of significant components of corporate governance mechanism affecting agency cost of Indian firms, giving a discriminating score, which would be used to discriminate high cost bearing firms from low cost bearing firms.

In other words, this chapter will investigate hypotheses 3 and 4 based on objectives 5, 6 and 7 of the study mentioned in chapter 3. The variables are identified on the basis of literature review and a panel data regression technique was applied to test the relationship of corporate governance mechanism with the various parameters of agency cost of the sample firms. Selling, general and administrative expenses and executive compensation are used as proxy for agency cost in testing the above relationships.

In this chapter the various findings of the various panel data models are presented. Before presenting the results of various models used in the study, some prerequisite and essential analysis of data was performed to confirm the statistical viability of the models and their sample data.

This includes testing for stationarity using Levin-Lin-Chu (LLC) test, descriptive statistics of variables, test for multicollinearity using correlation analysis, autocorrelation check using Durbin-Watson (D-W) statistic and Hausman test to choose between fixed effect and random effect model. Thus, panel data analysis and all other essential tests will be performed with the help of E-Views statistical software version 9, to present the empirical findings of the current study.

5.2 TEST FOR STATIONARITY

The test for stationarity in a data set is a test to check the presence of unit roots in a given data series. If a data set has a unit root, it means that it is a non-stationary series. A stationary time series is one which moves around a constant mean value. The data set used in the present study is panel in nature. Hence, the study adopts the panel data unit root test advocated by Levin, Lin and Chu (2002). The test will present the results of both individual effects and individual effects with trend. In other words, results with trend and without trend. If data is found to be non-stationary, then the series will be differentiated to further test for stationarity.

Table 5. 1 Results of LLC Panel Unit Root Test

	No Trend		Trend	
Variables	**t statistic**	**p value**	**t statistic**	**p value**
BS	-36.4496	0.0000	-35.5606	0.0000
BIND	-106.266	0.0000	-123.88	0.0000
DUALITY	-1.90595	0.0283	-2.55684	0.0053
PS	-1454.99	0.0000	-2600.39	0.0000
ACIND	-252.762	0.0000	-197.423	0.0000
LN_ACM	-25.2707	0.0000	-31.0913	0.0000
RC	-2.96201	0.0015	-7.11031	0.0000
COWN	-4.35632	0.0000	-10.732	0.0000
BDTD	-236.218	0.0000	-208.808	0.0000
STDTD	-22.5612	0.0000	-47.9744	0.0000
FS	-27.7693	0.0000	-29.0388	0.0000

LEV	-79.6394	0.0000	-93.8736	0.0000
FA	-95.928	0.0000	-98.024	0.0000
ROA	-14.3423	0.0000	-25.0621	0.0000
ROE	-14.623	0.0000	-32.5504	0.0000
TOQ	-14.1755	0.0000	-46.4831	0.0000
Mcap	-87.491	0.0000	-82.06	0.0000
EC	-8.26802	0.0000	-21.3994	0.0000
SGA	-4.20404	0.0000	-10.2256	0.0000

BS is the board size, BIND is the proportion of independent directors on the board, Duality is the CEO duality i.e. the position of CEO and chairman of the board is held by same person, PS is the promoter shareholding, ACIND is the proportion of independent directors in the audit committee, ACM is the frequency of audit committee meetings, RC is the presence of remuneration committee in the firm, COWN is the concentrated shareholding of holders holding more than 1% shares, BDTD is the ratio of bank debt to total debt, STDTD is the ratio of short term debt to total debt, FS is the firm size, Lev is the leverage, FA is the firm age, ROA is the return on assets, ROE is the return on equity, TOQ is the Tobin's Q, Mcap is the market capitalization, EC is the compensation paid to executive directors, SGA is the selling, general and administrative expenses.

Note: H_0: Non Stationary or Unit Root

Estimates are statistically significant at 5% level of significance.

Source: CMIE prowess, Statistical Tool: E-Views 9

Table 5.1 depicts the results of LLC panel unit root test for all dependent and independent variables covered under this chapter. It shows the results of both when a time trend is excluded (No trend) and when a time trend (Trend) is included. It is evident from the results that all variables are stationary when a time trend is excluded and when a time trend is included. Thus, the series is free from the problem of unit roots.

CHAPTER 5: EMPIRICAL ANALYSIS: AGENCY COST

5.3 EMPIRICAL RESULTS

As discussed earlier, the present study will employ panel data regression models to analyse the various relationships of the corporate governance of the selected Indian firms. This section includes descriptive statistics of data, correlation matrix to check the problem of multicollinearity, results of panel data regression models developed to test the Hypothesis 3 and 4, Durbin – Watson (D-W) statistics to check autocorrelation. As a rule, D-W score ranging between 1.5 and 2.5 indicates that the data is free from the problem of autocorrelation and serial correlation. Prior testing the hypothesis and running panel data models, the sample data was tested for normality and heteroscedasticity. The data have been normalized and standardized by detecting outliers, which helps in solving the problem of heteroscedasticity.

Correlation analysis of the independent variables found to have no multicollinearity problem. None of the variables are highly correlated. It is found to have maximum of .467 correlations between board independence and audit committee independence, which comes under permissible limit.

5.3.1 DESCRIPTIVE STATISTICS

Table 5. 2 Descriptive Analysis

	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
LN_SGA	2.71	2.75	4.92	0.00	0.74	-0.55	4.28
SGA_EXPENSEas a % of total income	18.25	14.65	135.46	0.00	14.62	2.20	9.79
LN_COMPENSATION	0.19	0.09	1.68	0.00	0.25	1.89	7.36
compensation as a % of total income	0.26	0.10	4.37	0.00	0.41	3.46	21.13
ROA_PERCENTAGE	8.76	7.46	75.95	-51.73	7.72	0.95	11.05
ROE_PERCENTAGE	17.78	16.17	122.63	-120.54	18.48	-0.01	14.55
M_CAP	10074.67	1659.27	351320.00	2.14	29445.98	6.02	48.03
LN_MCAP	7.58	7.41	12.77	0.76	1.74	0.28	3.28
LN_TOQ	0.98	0.85	3.77	0.00	0.54	1.42	5.93
TOBINS_Q	2.23	1.33	42.24	0.00	3.17	6.03	54.44

BS	9.87	10.00	22.00	3.00	2.87	0.58	3.48
BIND_PERCENTAGE	51.64	50.00	100.00	0.00	13.05	-0.30	4.37
DUALITY	0.36	0.00	1.00	0.00	0.48	0.57	1.33
PS_PERCENTAGE	51.37	51.00	99.59	0.00	18.36	0.04	3.16
ACIND_PERCENTAGE	85.17	100.00	100.00	0.00	17.47	-1.31	6.13
ACM	5.01	4.00	15.00	0.00	1.59	1.83	8.11
LN_ACM	1.57	1.39	2.71	0.00	0.28	0.52	5.58
RC	0.74	1.00	1.00	0.00	0.44	-1.07	2.15
LN_STDTD	1.46	1.36	4.62	0.00	1.34	0.32	1.72
BDTD	20.97	9.01	100.00	0.00	25.45	1.23	3.51
CONCENTRATED_OWNERSHIP	19.31	17.69	80.73	0.00	12.50	1.02	4.80
FIRM_AGE	40.03	32.00	150.00	4.00	24.96	1.29	4.91
FS	7.62	7.52	12.61	2.24	1.48	0.35	3.38
LEV	0.78	0.51	14.76	-19.18	1.15	1.00	63.85

CHAPTER 5: EMPIRICAL ANALYSIS: AGENCY COST

The descriptive analysis table explains the characteristics of each dependent and independent variables. From table 5.2, it is clear that large Indian firms have on an average 10 directors, while some firms have as high as 22 board members and some have as low as 3 directors on their board. Further, on an average 52% of Indian boards comprises of independent directors. Some of the firms have 100% independent directors on their boards whereas some of the firms do not have any independent directors on their boards. Therefore, we can say that even large Indian firms at some point of time are not following corporate governance rules of maintaining at least 33% independence of the board if chairman of the board is a non-executive director and at least 50% if chairman of the board is an executive director. There are 36% firms where Chairman of the board and CEO post are held by same person. In addition, promoter shareholding in Indian firms is quite high, with an average holding of 51%, highest being 100% and lowest being 0%. Similarly, independence of audit committees in these companies is also as high as 100% and as low as 0%, with an average holding of 85%. The analysis found that 74% of the large Indian firms have formed remuneration committee voluntarily. The sample firms are on an average 40 years old, which means that more or less the firms are matured and the results of such firms could be generalized on similar as well as younger firms. Further, the analysis brought to our concern that the sample companies are earning maximum 76% Return on their assets and minimum (-) 52% approx. The reason behind this negative ROA was found out to be company going into high losses. Similarly, the sample companies are earning highest of 122% ROE and lowest of (-) 120%. The reason found was that either the company was going into losses or has made fresh issue of their equity. Thereby, ROE becomes negative. The sample companies are providing compensation to the executive directors on an average 26% of total income. Selling, general and administrative expenses of sample companies comprises of 18% of total income on an average, whereas some of the companies are incurring highest of 135% SGA expenses in a year. The mean of Tobin's Q of sample companies is 2.2 crores. The sample companies used to have 5 audit committee meetings in a year and had 10074.67 crores market capitalization on an average.

5.3.2 Correlation analysis of independent variables

Table 5. 3 Correlation Analysis

	BS	BIND	DUAL	PS	RC	ACIND	ACM	COWN	BDTD	STDTD	FA	FS	LEV
BS	1	-0.056	0.054	-0.016	0.087	0.099	0.226	-0.015	-0.065	-0.141	0.042	0.391	-0.015
BIND	-0.056	1	0.034	-0.179	0.155	0.467	-0.062	0.186	0.014	0.103	0.026	-0.101	0.048
DUALITY	0.054	0.034	1	0.116	-0.140	0.065	0.065	-0.020	-0.073	-0.062	-0.057	0.144	-0.033
PS	-0.016	-0.179	0.116	1	-0.175	-0.123	-0.096	-0.502	-0.013	0.004	-0.081	-0.004	-0.015
RC	0.087	0.155	-0.140	-0.175	1	0.132	0.029	0.166	0.030	0.054	-0.016	-0.047	0.090
ACIND	0.099	0.467	0.065	-0.123	0.132	1	0.057	0.066	-0.015	0.066	-0.069	0.053	0.092
ACM	0.226	-0.062	0.065	-0.096	0.029	0.057	1	0.016	-0.094	-0.159	0.048	0.341	-0.090
COWN	-0.015	0.186	-0.020	-0.502	0.166	0.066	0.016	1	0.053	0.054	0.004	-0.087	0.000
BDTD	-0.065	0.014	-0.073	-0.013	0.030	-0.015	-0.094	0.053	1	0.183	-0.025	-0.108	0.114
STDTD	-0.141	0.103	-0.062	0.004	0.054	0.066	-0.159	0.054	0.183	1	-0.073	-0.116	0.203
FIRM_AGE	0.042	0.026	-0.057	-0.081	-0.016	-0.069	0.048	0.004	-0.025	-0.073	1	0.021	-0.053
FS	0.391	-0.101	0.144	-0.004	-0.047	0.053	0.341	-0.087	-0.108	-0.116	0.021	1	0.023
LEV	-0.015	0.048	-0.033	-0.015	0.090	0.092	-0.090	0.000	0.114	0.203	-0.053	0.023	1

5.3.3 Hypothesis Testing

In this chapter, hypothesis 3 investigates the impact of corporate governance mechanism on the agency cost of the 251 selected non-financial Indian firms. The study will further test the relationship between agency cost and financial performance (Hypothesis 4). The study also analyses the ranking of components of corporate governance affecting agency cost of the selected firms. The data will be analyzed for the period from 2004 to 2013. The panel data regression technique will be adopted to test the various relationships of the corporate governance, agency cost and financial performance of firm and discriminant analysis will be adopted to identify the importance of significant components of corporate governance affecting agency cost.

Following section investigates the hypotheses (3 & 4) and presents their results to achieve the objectives of the present study.

5.3.3.1 Hypothesis 3

H_{03}: There is no significant relationship of certain corporate governance mechanism and firm specific variables with agency cost of selected non-financial Indian firms.

The main purpose of this hypothesis is to know the relationship between agency cost and both corporate governance mechanism and firm specific variables of sample firms. In other words, the objective is to examine the key variables which affect the agency cost of the selected non-financial Indian firms. Based on the result of Hausman test, panel data fixed effects regression model is employed to test the above relationship. SGA and EC are used to represent agency cost of sample firms. Therefore, two panel data regression models were developed to test the Hypothesis 4. The two panel regression equations are presented as follows:

Model 1

$$SGA = \alpha_i + \beta_1(BS)_{it} + \beta_2(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RC)_{it} + \beta_6(ACIND)_{it} + \beta_7(ACM)_{it} + \beta_8(COwn)_{it} + \beta_9(BDTD)_{it} + \beta_{10}(STDTD)_{it} + \beta_{11}(FA)_{it} + \beta_{12}(FS)_{it} + \beta_{13}(Lev) + \mu_{it} \quad 5.1$$

Model 2

$$Comp = \alpha_i + \beta_1(BS)_{it} + \beta_2(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RC)_{it} + \beta_6(ACIND)_{it} + \beta_7(ACM)_{it} + \beta_8(COwn)_{it} + \beta_9(BDTD)_{it} + \beta_{10}(STDTD)_{it} + \beta_{11}(FA)_{it} + \beta_{12}(FS)_{it} + \beta_{13}(Lev) + \mu_{it} \quad 5.2$$

Table 5. 4 Impact of corporate governance mechanism on agency cost

Variable	LN_SGA		LN_COMPENSATION	
	Model 1		Model 2	
	Coefficient	t-Statistic	Coefficient	t-Statistic
BS	0.009	2.259**	0.003	4.214**
BIND	-0.001	-0.853	-0.001	-3.693**
DUALITY	0.015	0.357	-0.006	-0.401
PS	-0.002	-1.670*	0.000	-0.260
RC	0.096	3.430**	0.011	1.801
ACIND	0.000	-0.371	0.000	2.416**
ACM	0.027	0.931	0.025	4.300**
COWN	0.004	3.293**	0.001	4.243**
BDTD	0.000	0.228	0.000	3.402**
STDTD	0.010	1.659*	-0.010	-3.762**
FA	0.436	6.811**	-0.066	-2.390**
FS	-0.084	-6.575**	-0.033	-6.748**

LEV	0.019	2.942**	-0.002	-1.232
C	1.642	8.875	0.600	7.875
R-squared	0.896		0.751	
F-statistic	73.771		25.749	
Prob(F-statistic)	0		0	
Durbin-Watson stat	1.7328		1.7819	

BS is the board size, BIND is the proportion of independent directors on the board, Duality is the CEO duality i.e. the position of CEO and chairman of the board is held by same person, PS is the promoter shareholding, ACIND is the proportion of independent directors in the audit committee, ACM is the frequency of audit committee meetings, RC is the presence of remuneration committee in the firm, COWN is the concentrated shareholding of holders holding more than 1% shares, BDTD is the ratio of bank debt to total debt, STDTD is the ratio of short term debt to total debt, FS is the firm size, Lev is the leverage, FA is the firm age, ROA is the return on assets, ROE is the return on equity, TOQ is the Tobin's Q, Mcap is the market capitalization, EC is the compensation paid to executive directors, SGA is the selling, general and administrative expenses.

Note: **denote estimate is statistically significant at 5% level of significance, *denote estimate is statistically significant at 10% level of significance.

Source: CMIE Prowess, Corporate Governance reports, Annual reports, Statistical Tool: Eviews 9

Table 5. 5 Comparison of results of model 1 & 2

Variable	predicted relationship	calculated relationship		
		SGA	EXComp	overall
BS	positive	positive**	positive**	positive
BIND	negative	negative	negative**	negative
DUALITY	positive	positive	negative	mixed
PS	positive	negative*	negative	negative
RC	negative	positive**	positive	positive
ACIND	negative	negative	positive**	mixed
ACM	negative	positive	positive**	positive
COwn	positive	positive**	positive**	positive
BDTD	positive	positive	positive**	positive
STDTD	positive	positive*	negative**	mixed
FA	positive	positive**	negative**	Mixed
FS	positive	negative**	negative**	Negative
LEV	negative	positive**	negative	Mixed

Table 5.4 and 5.5 shows the empirical results of model 1 & 2, where, in model 1, selling, general and administrative expenses are used as a proxy for agency cost and in model 2, executive compensation is used as a proxy for agency cost. The model is regressed at a significance level of 5% and 10%.

In model 1, it has been found that promoter shareholding and firm size are negatively and significantly related to the agency cost (proxied by selling, general and administrative expenses) of the sample firms.

On the other hand, board size, remuneration committee, concentrated ownership, short term debt to total debt, firm age and leverage are positively and significantly related to the agency cost of the sample firms. Rest of the variables (board independence, duality, audit committee independence, audit committee meetings, bank debt to total debt) failed to provide any significant relationship. However, apart from board independence all other insignificant variables are found to have positive relationship with selling, general and administrative expenses of the sample firms.

The examination of r square in model 1 shows that 89.6% of the changes in selling, general and administrative expenses of the sample firms can be explained collectively by all the significant independent variables. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.73. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. It is also referred as Weighted Least Square. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Thus, board size, remuneration committee, concentrated ownership, short term debt to total debt, firm age, leverage, promoter shareholding and firm size are the key significant factors that affect the agency cost of the selected 253 non-financial Indian firms. Shares held by the promoters of the firm and large sized firms had an inverse relationship with the agency cost. The promoters of a firm are also the shareholders of the company and due to their high shareholding; they are able to monitor the working of board of directors and CEO. Therefore, they are able to reduce irrelevant expenses of the firm. On the other hand, older firms tend to have high advertising, utilities and repair and maintenance cost.

Similarly, large boards tend to increase travelling expenses of executive directors and CEO for the marketing of their products or for other administrative work. Further, voluntary formation of remuneration committee increases the salaries of staff and short term debt to total debt increases the management work of accounting professionals for the arrangement of timely payment of these debts. Concentrated shareholding i.e. holding shares more than 1% of the total shares tends to increase monitoring expenses in the form of telephone or mailing bills to such shareholders. Hence, executive and independent directors would be required to look after these costs to control agency cost of firm and improve the interest of shareholders.

Tables also show the empirical results of model 2, where it has been found that board independence, short term debt to total debt, firm size and firm age are found to have negative and significant relationship with agency cost (proxied by executive compensation) of sample firms.

On the other hand, board size, audit committee independence, audit committee meetings, concentrated ownership and bank debt to total debt are found to have significant positive relationship with the agency cost of sample firms. Further, duality, promoter shareholding and remuneration committee are found to have insignificant relationship with executive compensation. Moreover, duality and promoter shareholding are found to have negative relationship whereas remuneration committee were found to have positive and insignificant relationship.

The examination of R square of model 2 shows that 75% of the changes in executive compensation of the sample firms can be explained by all the significant independent variables together. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.78. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. It is also referred as Weighted Least Square. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Thus, board size, audit committee independence, audit committee meetings, concentrated ownership, bank debt to total debt, board independence, short term debt to total debt and firm age are the key factors affecting agency cost of the sample firms. More independent directors on the board tend to reduce the number of executive directors on the board, thereby, reducing executive compensation of the firm.

On the other hand, large boards, more independent audit committee and more number of audit committee meetings have a positive relationship with the agency cost. Such mechanism failed to keep a check on increased executive compensation because of their focus on aligning the interest of executive directors and owners of the firm and improving performance of the firm. Concentrated shareholders are also willing to pay high executive compensation so that executive directors work in the interest of them and other owners. Positive relationship of bank debt to executive compensation is because of the resource dependence theory. More banks are offering debt to the company is the advantage of reputation of executive directors for which they are required to be paid handsome salaries. Therefore, firms have to consider all these factors for controlling the agency cost and aligning the interest of executive directors and CEO to the interest of shareholders.

5.3.3.2 Hypothesis 4

H_{04}: There is no significant relationship between agency cost and firm performance along with other corporate governance mechanism and firm specific variables of selected non-financial Indian firms.

The main purpose of this hypothesis is to know the relationship between agency cost and firm performance along with other corporate governance mechanism and firm specific variables of sample firms. In other words, the objective is to examine whether agency cost has an impact on financial performance of the selected non-financial Indian firms. Based on the result of Hausman test, panel data fixed effects regression model is employed to test the above relationship. SGA and EC are used to represent agency cost of sample firms and ROA, ROE, TOQ and Mcap are used to represent financial performance of sample firms. Therefore, eight panel data regression

models were developed to test the Hypothesis 5. The panel regression equations are presented as follows:

Model 1

$$ROA_{it} = \alpha_i + \beta_1(SGA)_{it} + \beta_2(BS)_{it} + \beta_3(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RC)_{it} + \beta_6(ACIND)_{it} + \beta_7(ACM)_{it} + \beta_8(Cown)_{it} + \beta_9(BDTD)_{it} + \beta_{10}(STDTD)_{it} + \beta_{11}(FA)_{it} + \beta_{12}(FS)_{it} + \beta_{13}(Lev)_{it} + \mu_{it} \quad 5.3$$

Model 2

$$ROE_{it} = \alpha_i + \beta_1(SGA)_{it} + \beta_2(BS)_{it} + \beta_3(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RC)_{it} + \beta_6(ACIND)_{it} + \beta_7(ACM)_{it} + \beta_8(Cown)_{it} + \beta_9(BDTD)_{it} + \beta_{10}(STDTD)_{it} + \beta_{11}(FA)_{it} + \beta_{12}(FS)_{it} + \beta_{13}(Lev)_{it} + \mu_{it} \quad 5.4$$

Model 3

$$TOQ_{it} = \alpha_i + \beta_1(SGA)_{it} + \beta_2(BS)_{it} + \beta_3(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RC)_{it} + \beta_6(ACIND)_{it} + \beta_7(ACM)_{it} + \beta_8(Cown)_{it} + \beta_9(BDTD)_{it} + \beta_{10}(STDTD)_{it} + \beta_{11}(FA)_{it} + \beta_{12}(FS)_{it} + \beta_{13}(Lev)_{it} + \mu_{it} \quad 5.5$$

Model 4

$$Mcap_{it} = \alpha_i + \beta_1(SGA)_{it} + \beta_2(BS)_{it} + \beta_3(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RC)_{it} + \beta_6(ACIND)_{it} + \beta_7(ACM)_{it} + \beta_8(Cown)_{it} + \beta_9(BDTD)_{it} + \beta_{10}(STDTD)_{it} + \beta_{11}(FA)_{it} + \beta_{12}(FS)_{it} + \beta_{13}(Lev)_{it} + \mu_{it} \quad 5.6$$

Model 5

$$ROA_{it} = \alpha_i + \beta_1(EC)_{it} + \beta_2(BS)_{it} + \beta_3(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RC)_{it} + \beta_6(ACIND)_{it} + \beta_7(ACM)_{it} + \beta_8(Cown)_{it} + \beta_9(BDTD)_{it} + \beta_{10}(STDTD)_{it} + \beta_{11}(FA)_{it} + \beta_{12}(FS)_{it} + \beta_{13}(Lev)_{it} + \mu_{it} \quad 5.7$$

Model 6

$$ROE_{it} = \alpha_i + \beta_1(EC)_{it} + \beta_2(BS)_{it} + \beta_3(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RC)_{it} + \beta_6(ACIND)_{it} + \beta_7(ACM)_{it} + \beta_8(Cown)_{it} + \beta_9(BDTD)_{it} + \beta_{10}(STDTD)_{it} + \beta_{11}(FA)_{it} + \beta_{12}(FS)_{it} + \beta_{13}(Lev)_{it} + \mu_{it} \quad 5.8$$

Model 7

$$TOQ_{it} = \alpha_i + \beta_1(EC)_{it} + \beta_2(BS)_{it} + \beta_3(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RC)_{it} + \beta_6(ACIND)_{it} + \beta_7(ACM)_{it} + \beta_8(Cown)_{it} + \beta_9(BDTD)_{it} + \beta_{10}(STDTD)_{it} + \beta_{11}(FA)_{it} + \beta_{12}(FS)_{it} + \beta_{13}(Lev)_{it} + \mu_{it} \quad 5.9$$

Model 8

$$Mcap_{it} = \alpha_i + \beta_1(EC)_{it} + \beta_2(BS)_{it} + \beta_3(BIND)_{it} + \beta_3(Dual)_{it} + \beta_4(PS)_{it} + \beta_5(RC)_{it} + \beta_6(ACIND)_{it} + \beta_7(ACM)_{it} + \beta_8(Cown)_{it} + \beta_9(BDTD)_{it} + \beta_{10}(STDTD)_{it} + \beta_{11}(FA)_{it} + \beta_{12}(FS)_{it} + \beta_{13}(Lev)_{it} + \mu_{it} \quad 5.10$$

Table 5. 6 Impact of agency cost on firm performance

Variable	ROA_PERCENTAGE				ROE_PERCENTAGE			
	Model 1		Model 5		Model 2		Model 6	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
LN_COMPENSATION	4.729	6.979**	-----	-----	9.038	5.074**	-----	-----
LN_SGA	-----	----	-4.751	-11.389**	-----	-----	-8.510	-7.682**
BS	0.022	0.271	0.079	1.009	-0.025	-0.118	0.080	0.385
BIND_PERCENTAGE	-0.022	-1.597	-0.031	-2.253**	-0.024	-0.640	-0.040	-1.087
DUALITY	1.824	2.093**	1.993	2.327**	7.782	3.397**	8.095	3.560**
PS_PERCENTAGE	-0.001	-0.034	-0.006	-0.309	0.104	2.067**	0.095	1.901**
RC	0.188	0.333	0.476	0.860	-1.092	-0.739	-0.596	-0.405
ACIND_PERCENTAGE	0.016	1.509	0.020	1.896*	0.032	1.154	0.039	1.427
LN_ACM	-0.116	-0.196	0.377	0.652	0.018	0.012	0.945	0.615
CONCENTRATED_OWNERSHIP	-0.066	-3.015**	-0.037	-1.752*	-0.045	-0.792	0.007	0.115
BDTD	0.006	0.881	0.010	1.566	0.010	0.609	0.018	1.093

LN_STDTD	-0.443	-3.544**	-0.487	-3.987**	-0.905	-2.755**	-0.995	-3.068**
LOG(FIRM_AGE)	0.848	0.657	2.430	1.900*	-9.272	-2.734**	-6.497	-1.913*
FS	-0.944	-3.643**	-1.600	-6.286**	-0.778	-1.141	-1.984	-2.934**
LEV	-1.302	-10.229**	-1.251	-9.990**	-3.625	-10.837**	-3.538	-10.643**
C	13.874	3.694	25.281	6.796	50.567	5.121	71.432	7.230
R-squared	0.614		0.627		0.535		0.542	
F-statistic	13.540		14.318		9.797		10.065	
Prob(F-statistic)	0.000		0.000		0.000		0.000	
Durbin-Watson stat	1.598		1.517		1.528		1.497	

Note: **Estimate is statistically significant at 5% level of significance, * Estimate is statistically significant at 10% level of significance.

Source: CMIE Prowess, Corporate Governance reports, Annual reports

Statistical Tool: Eviews 9

Table 5. 7 Impact of agency cost on firm performance

Variable	LN_TOQ				LN_MCAP			
	Model 3		Model 7		Model 4		Model 8	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
LN_COMPENSATION	0.210	6.285**	-----	-----	0.535	6.666**	------	------
LN_SGA	-----	-----	0.019	0.950	-----	-----	-0.026	-0.402
BS	0.012	3.205**	0.012	3.170**	0.032	3.369**	0.032	3.443**
BIND_PERCENTAGE	-0.001	-1.477	-0.001	-1.120	-0.003	-1.747*	-0.003	-1.944**
DUALITY	0.064	1.767*	0.029	0.766	-0.009	-0.088	0.018	0.169
PS_PERCENTAGE	0.000	-0.448	-0.001	-0.660	-0.001	-0.436	-0.001	-0.378
RC	-0.034	-1.338	-0.053	-1.971**	-0.064	-0.860	-0.074	-0.985
ACIND_PERCENTAGE	-0.001	-2.171**	-0.001	-1.910*	-0.001	-0.981	-0.001	-0.649
LN_ACM	0.025	0.946	0.043	1.624*	-0.013	-0.215	0.040	0.660
CONCENTRATED_OWNERSHIP	-0.001	-1.190	-0.001	-1.227	-0.004	-1.253	-0.003	-1.194
BDTD	0.001	2.968**	0.001	3.194**	0.001	1.942*	0.001	2.267**

LN_STDTD	-0.006	-1.079	-0.010	-1.840	-0.014	-1.005	-0.024	-1.711*
LOG(FIRM_AGE)	0.137	1.788*	0.097	1.262	0.384	2.132**	0.379	2.099**
FS	-0.049	-2.945**	-0.059	-3.475**	0.783	18.738**	0.752	17.871**
LEV	-0.002	-0.260	-0.003	-0.465	-0.147	-6.350**	-0.155	-6.384**
C	0.844	4.118	1.040	5.022	0.424	0.937	0.750	1.621
R-squared	0.842		0.844		0.872		0.869	
F-statistic	45.368		45.883		146.030		142.421	
Prob(F-statistic)	0.000		0.000		0.000		0.000	
Durbin-Watson stat	1.664		1.662		1.784		1.792	

Note: **Estimate is statistically significant at 5% level of significance, * Estimate is statistically significant at 10% level of significance.

Source: CMIE Prowess, Corporate Governance reports, Annual reports, Statistical Tool: Eviews 9

Table 5. 8 Comparison of results of models 1, 2, 3 & 4

Variable	predicted relationship	Calculated relationship				
		ROA	ROE	TOQ	Mcap	overall
Excomp	positive	Positive*	Positive*	Positive*	Positive*	positive
BS	negative	Positive	Negative	Positive*	Positive*	largely positive
BIND	positive	Negative	Negative	Negative	Negative**	negative
DUALITY	positive	Positive*	Positive*	Positive**	Negative	largely positive
PS	positive	Negative	Positive*	Negative	Negative	largely negative
RC	positive	Positive	Negative	Negative	Negative	largely negative
ACIND	positive	Positive	Positive	Negative*	Negative	mixed
LN_ACM	positive	Negative	Positive	Positive	Negative	mixed
Cown	positive	Negative*	Negative	Negative	Negative	negative
BDTD	positive	Positive	Positive	Positive*	Positive**	positive
LN_STDTD	negative	Negative*	Negative*	Negative	Negative	negative
FA	negative	Positive	Negative*	Positive**	Positive*	largely positive
FS	positive	Negative*	Negative	Negative*	Positive*	largely negative
LEV	positive	Negative*	Negative*	Negative	Negative*	negative

Table 5. 9 Comparison of results of models 5, 6, 7 & 8

Variable	predicted relationship	Calculated relationship				
		ROA	ROE	TOQ	Mcap	overall
SGA	negative	negative*	negative*	positive	negative	largely negative
BS	negative	positive	positive	positive*	positive*	positive
BIND	positive	negative*	negative	negative	negative*	negative
DUALITY	positive	positive*	positive*	positive	positive	positive
PS	positive	negative	positive*	negative	positive	mixed
RC	positive	positive	negative	negative*	positive	mixed
ACIND	positive	positive**	positive	negative**	positive	largely positive
LN_ACM	positive	positive	positive	positive**	negative	largely positive
Cown	positive	negative**	positive	negative	positive	mixed
BDTD	positive	positive	positive	positive*	positive*	positive
LN_STDTD	negative	negative*	negative*	negative	negative**	negative
FA	negative	positive**	negative**	positive	positive*	largely positive
FS	positive	negative*	negative*	negative*	positive*	largely negative
LEV	positive	negative*	negative*	negative	negative*	negative

Table 5.6 to 5.9 presents the empirical results of model 1 to model 8. In model 1, ROA is used as a proxy of firm financial performance and executive compensation expenses is used as a proxy of

agency cost. The empirical results of table give a clear indication that agency cost is significantly and positively associated with firm performance. Other than agency cost, CEO and chairman duality is also significantly and positively associated with firm performance.

On the other hand, concentrated ownership, short term debt to total debt, firm size and leverage are found to have negative and significant relationship to firm performance as proxied by return on assets. Other variables such as board size, board independence, promoter shareholding, presence of remuneration committee, audit committee independence, audit committee meeting, bank debt to total debt, firm age are found to have insignificant relationship to firm performance. However, board size, presence of remuneration committee, audit committee independence, bank debt to total debt and firm age are found to have positive relationship and board independence, promoter shareholding and audit committee meetings are found to have negative relationship with firm performance.

The examination of R square of model 1 shows that 61.4% of the changes in firm performance of the sample firms can be explained by all the significant independent variables along with agency cost. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.60. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. It is also referred as Weighted Least Square. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Thus, it has been found in the analysis that increase in executive compensation also increases return on assets. The analysis provides good results as increased compensation is aligning the interest of executive directors and CEO with the interest of shareholders and other stakeholders and therefore, they are working for the betterment of the company. No doubt, it is an additional cost for a company but while doing cost benefit analysis, benefits are more than the cost.

In model 5, it has been found that SGA expenses are negatively and significantly associated with firm performance. Further, board independence, concentrated ownership and firm age are found to have significant negative relationship with firm performance.

On the other hand, duality, audit committee independence, short term debt to total debt, firm size and leverage are found to have significant and positive relationship with firm performance. Rest of the variables such as board size, remuneration committee, audit committee meeting, bank debt to total debt and promoter shareholding are found to have insignificant relationship with firm performance. Apart from promoter shareholding all insignificant variables are found to have positive association with return on assets.

The examination of R square of model 5 shows that 62.7% of the changes in firm performance of the sample firms can be explained by all the significant independent variables along with agency cost. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.52. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. It is also referred as Weighted Least Square. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Thus, the results conclude that a reduction in SGA expenses tends to increase return on assets. It may be due to the reason that some portion of SGA expenses are not bringing fruitful results for the company and they need to be reduced or a check is needed so as to optimize these expenses. Reduction in these expenses could result in better utilization of assets. Therefore, firms need to consider the relationship of agency cost to firm performance along with other variables of corporate governance mechanism.

In model 2, relationship of agency cost along with other corporate governance mechanism and firm specific variables with firm performance as proxied by return on equity is analyzed. In the analysis, it has been found that executive compensation is positively and significantly associated with return on equity. Further, duality and promoter shareholding is also found to be significantly

and positively related with firm performance whereas short term debt to total debt, firm age and leverage are found to have negative but significant relationship with firm performance.

On the other hand, audit committee independence, audit committee meeting, bank debt to total debt, board size, board independence, presence of remuneration committee, concentrated shareholding, firm size failed to provide any significant relationship with firm performance. However, audit committee independence, audit committee meeting, bank debt to total debt are found to be positively and board size, board independence, presence of remuneration committee, concentrated shareholding, firm size negatively related with return on equity.

The examination of R square of model 2 shows that 53.5% of the changes in firm performance of the sample firms can be explained by all the significant independent variables along with agency cost. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.53. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. It is also referred as Weighted Least Square. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Thus, the results conclude that an increase in executive compensation tends to increase return on equity. It may be due to the reason that executive compensation includes stock options. Therefore, their focus may be more inclined towards increasing return on equity. Hence, firms need to consider the relationship of agency cost to firm performance along with other variables of corporate governance mechanism.

In model 6, SGA expenses are used as proxy of agency cost and ROE is used as proxy of firm performance. The empirical analysis of the results reported that SGA are negatively and significantly associated with firm performance. Apart from SGA expenses short term debt to total debt, firm age, firm size, leverage are found to be negatively and significantly related with firm performance and CEO - chairman duality and promoter shareholding to be positively and significantly associated with firm performance.

On the other hand, board size, audit committee independence, audit committee meetings, concentrated ownership, bank debt to total debt, board independence and remuneration committee failed to provide any significant relationship with firm performance. However, board size, audit committee independence, audit committee meetings, concentrated ownership, bank debt to total debt are positively related and board independence and presence of remuneration committee is negatively related with return on equity.

The examination of R square of model 6 shows that 54.2% of the changes in firm performance of the sample firms can be explained by all the significant independent variables along with agency cost. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.50. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. It is also referred as Weighted Least Square. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Thus, the results interpret that negative and significant relationship between SGA expenses and return on equity tends to increase return with the reduction of SGA expenses. This may be due to the reason that revenues of the firm when utilized more on luxuries activities of directors and management in the form of travelling expenses or for excessive advertising of the product, will reduce return left for equity shareholders whereas, the optimal utilization of revenue for SGA expenses will increase the return for equity. Hence, firms are required to consider the relationship of SGA expenses to return on equity along with other corporate governance mechanism and firm specific variables.

Further, in model 3, TOQ is used as a proxy of firm financial performance and executive compensation expenses is used as a proxy of agency cost. The empirical results of table give a clear indication that agency cost is significantly and positively associated with firm performance. Other than agency cost, board size, CEO and chairman duality, bank debt to total debt and firm age is also significantly and positively associated with firm performance.

On the other hand, audit committee independence and firm size are found to be negatively and significantly associated with firm performance. Further, the results report that promoter shareholding, audit committee meeting, board independence, presence of remuneration committee, concentrated ownership, short term debt to total debt and leverage did not have significant relationship with TOQ. However, promoter shareholding and audit committee meeting have positive association and board independence, presence of remuneration committee, concentrated ownership, short term debt to total debt and leverage have negative association with firm performance.

The examination of R square of model 3 shows that 84.2% of the changes in firm performance of the sample firms can be explained by all the significant independent variables along with agency cost. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.66. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Thus, it may be concluded that an increase of executive compensation would increase TOQ. The reason behind this relationship may be that firms are profiting with this type of agency cost. The motive behind providing and aligning the incentives of executive directors with that of shareholders is fulfilled with the improved Tobin's Q. this means that firms are able to achieve more market value with the increase of compensation provided to executive directors. Therefore, firms should take care of executive compensation along with other corporate governance mechanisms and firm specific variables for improving the market value of firm.

The relationships in model 7 shows that SGA expenses failed to provide significant relationship with TOQ. However, board size, audit committee meetings, bank debt to total debt are found to be positively and significantly associated with firm performance and presence of remuneration committee, audit committee independence and firm size to be negatively and significantly related with firm performance .

Similarly, duality of CEO and chairman of the board position, firm age, board independence, promoter shareholding, concentrated ownership, short term debt to total debt and leverage failed to provide any significant relationship with firm performance. But even after insignificant relationship duality of CEO and chairman of the board position and firm age are positively related and board independence, promoter shareholding, concentrated ownership, short term debt to total debt and leverage are negatively related with TOQ.

The examination of R square of model 7 shows that 84.4% of the changes in firm performance of the sample firms can be explained by all the significant independent variables along with agency cost. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.66. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Thus, the results conclude that though SGA expenses do not have any significant relationship with TOQ for the sample firms, however, the relationship is found to be positively associated. The positive association may be due to the reason that SGA expenses are capable to improve the market value of firm by improved selling expenses including selling commission paid to its salesman, by increased utility expenses or building expenses used for increase the level of work of a company. Hence, firms should take care of the relationship of SGA expenses along with other corporate governance variables in explaining the Tobin's Q.

In model 4, executive compensation is used as proxy for agency cost and market capitalization is used as a proxy for firm performance. The empirical results explain that executive compensation is positively and significantly associated with firm performance. Similarly, board size, bank debt to total debt, firm age and firm size are found to have significant and positive relationship with firm performance.

On the other hand, board independence and leverage are found to have negative and significant relationship with firm performance. Moreover, duality of CEO and chairman of the board

position, promoter shareholding, presence of remuneration committee, audit committee independence, audit committee meetings, concentrated ownership and short term debt are found to have negative but insignificant relationship.

The examination of R square of model 4 shows that 87.2% of the changes in firm performance of the sample firms can be explained by all the significant independent variables along with agency cost. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.78. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Thus, the results interpret that executive compensation could increase market capitalization of the company. This means that executive directors when aligned with the interest of shareholders proved beneficial for the company. They work for the benefit of the company by making strategic decisions. Thereby, company working is improved in the stock market of the country. Hence, firms should look in the relationship between agency cost and firm performance along with other corporate governance mechanism and firm specific variables.

In model 8, the empirical results report lack of any significant relationship between SGA expenses and market capitalization. However, board size, bank debt to total debt, firm age and firm size are found to have positive significant relationship with firm performance.

On the other hand, board independence, short term debt to total debt and leverage are found to have negatively significant relationship with firm performance. Further, duality of CEO and chairman of the board position, audit committee meeting, promoter shareholding, presence of remuneration committee, audit committee independence and concentrated ownership failed to provide any significant relationship with firm performance. However, duality of CEO and chairman of the board position and audit committee meeting have positive and promoter shareholding, presence of remuneration committee, audit committee independence and concentrated ownership have negative relationship with market capitalization of the company.

The examination of R square of model 8 shows that 86.9% of the changes in firm performance of the sample firms can be explained by all the significant independent variables along with agency cost. The value of F-statistics exhibits the fit of the relationship model at a significance level of 5%. The Durbin-Watson (D-W) statistic is 1.79. It shows that the model is free from the problem of autocorrelation and serial correlation. The result of the Hausman test rejects the null hypothesis, thereby indicating that fixed effects panel data model is preferred over random effects panel data model to run the regression model. To overcome the problem of cross section dependence, white period coefficient covariance is used and cross section weights are used which allows for cross section heteroskedasticity. Hence the current model adopts the fixed effects panel data approach with cross section weights and white period coefficient covariance method.

Thus, it is clear from the results that SGA expenses have no significant effect on market capitalization of the sample firms; however, there is negative relationship between the two. The reason behind such relationship may be due to the reason that increased SGA expenses have negative impact on the stock market prices of the company. Hence, firms should consider the relationship of SGA expenses with firm performance along with other corporate governance mechanisms and firm specific variables.

5.3.4 Discriminant Analysis

In the analysis, step wise method is adopted. It begins with the selection of variable that discriminates the two groups best. Further, second best discriminating variable is added and so on goes the process, up to the point when no more contribution is made by the variables to the discriminating power. Initially in the process some of the steps are taken to identify whether the two groups could be compared or not. Through the results of table 5.10 we are able to identify that the two groups can be compared to achieve the objective.

Table 5. 10 Group Statistics

SGA_code		Mean	Std. Deviation	Valid N (listwise)	
				Unweighted	Weighted
low cost	BS	9.6013	2.38106	160	160
	BIND	51.4998	10.4186	160	160
	ACIND	84.7975	14.6198	160	160
	LEV	0.8813	0.88298	160	160
	PS	50.6358	17.59796	160	160
	FIRM AGE	39.2813	24.57018	160	160
	BDTD	20.849	19.23774	160	160
	cown	18.136	9.75592	160	160
	FS	7.8264	1.32486	160	160
	ln_ACM	1.5864	0.22941	160	160
	ln_STDTD	1.9394	1.07707	160	160
high cost	BS	10.544	2.58282	91	91
	BIND	51.885	9.42789	91	91
	ACIND	85.8253	11.95239	91	91
	LEV	0.59	0.64415	91	91
	PS	52.5427	17.35438	91	91

	FIRM AGE	41.1264	25.38532	91	91
	BDTD	20.1907	19.63912	91	91
	cown	22.8324	13.37625	91	91
	FS	7.2476	1.29963	91	91
	ln_ACM	1.5818	0.2105	91	91
	ln_STDTD	1.4625	1.08062	91	91
	BS	9.943	2.49269	251	251
	BIND	51.6395	10.05332	251	251
	ACIND	85.1701	13.69717	251	251
	LEV	0.7757	0.81543	251	251
	PS	51.3271	17.49938	251	251
Total	FIRM AGE	39.9502	24.83402	251	251
	BDTD	20.6103	19.34757	251	251
	cown	19.8386	11.40455	251	251
	FS	7.6166	1.34243	251	251
	ln_ACM	1.5847	0.22233	251	251
	ln_STDTD	1.7665	1.10044	251	251

The above table shows the descriptive statistics of the variables and it is divided between high costs and low cost. Smaller board size depicts lower cost and larger board size depicts higher cost i.e. firm having small boards tends to incur less cost than firms having high cost. Similarly, lower board independence and lower audit committee independence means lower cost and higher board independence and higher audit committee independence means higher cost. In other words, it means that independence of the board and the committee is inversely related to cost. Higher leverage means low cost and vice versa. Low promoter shareholding leads to low cost and high promoter shareholding leads to high cost. Low firm age low cost high firm age high cost. High bank debt low cost and low bank debt high cost. Low concentrated ownership low cost and high concentrated ownership high cost. Large firms incur less cost and vice versa. Based on audit committee meetings, more or less there is no difference in the cost. Less compensation less cost, more compensation more cost. High short term debt less cost and low short term debt high cost.

Table 5. 11 Pooled within group matrices

Correlation

	BS	BIND	ACIND	LEV	PS	FIRM AGE	BDTD	cown	FS	ln_ACM	ln_STDTD
BS	1	-0.145	0.01	-0.094	-0.046	0.013	-0.034	-0.01	0.331	0.176	-0.146
BIND	-0.145	1	0.475	0.032	-0.222	0.023	0.043	0.201	-0.167	-0.071	0.202
ACIND	0.01	0.475	1	0.05	-0.186	-0.091	-0.013	0.104	0.054	0.033	0.067
LEV	-0.094	0.032	0.05	1	-0.005	0.046	0.171	0.039	-0.03	-0.137	0.258
PS	-0.046	-0.222	-0.186	-0.005	1	-0.083	-0.017	-0.248	0.012	-0.045	0.009
FIRM AGE	0.013	0.023	-0.091	0.046	-0.083	1	-0.021	-0.038	-0.018	-0.034	-0.131
BDTD	-0.034	0.043	-0.013	0.171	-0.017	-0.021	1	0.002	-0.168	-0.124	0.225
Cown	-0.01	0.201	0.104	0.039	-0.248	-0.038	0.002	1	-0.095	0.025	0.149
FS	0.331	-0.167	0.054	-0.03	0.012	-0.018	-0.168	-0.095	1	0.374	-0.245
ln_ACM	0.176	-0.071	0.033	-0.137	-0.045	-0.034	-0.124	0.025	0.374	1	-0.224
ln_STDTD	-0.146	0.202	0.067	0.258	0.009	-0.131	0.225	0.149	-0.245	-0.224	1

Table 5.11 shows the correlation between variables to check multicollinearity problem. It is clear from the table that there is no multicollinearity problem in the data and therefore, discriminant analysis can be applied on it.

Table 5. 12 Box's Test of Equality of Covariance Matrices

Box's M		83.885
F	Approx.	1.206
	df1	66
	df2	115624.8
	Sig.	0.122

The null hypothesis of box's test table is that both groups have equal population variance matrices. The significance value is greater than 0.05. Therefore, we accept null hypothesis and conclude that both groups have equal variance and could be compared.

Table 5. 13 Order of discriminating variables entered in the model

Step	Entered	Wilks' Lambda
		Statistic
1	LEV	0.952
2	Cown	0.907
3	ln_STDTD	0.876
4	FS	0.831
5	BS	0.794

In this table, variables selected to be included in the discriminant function is identified based on their order of wilk's lambda. The wilk's lambda decreases up to the time of inclusion of board size with other four variables, i.e. leverage followed by concentrated ownership, short term debt to total debt and firm size. These five variables are the most important variables that discriminate between high cost firms and low cost firms. Leverage is found to be the most important discriminating variables, which is quite logical, that more amount of debt attracts more monitoring capacity of the debt holders. They would have the power to sit in the board meetings and understand the working of the organization in which they have invested their money. They can control the excessive cost of the sales incurred by the executive directors.

Similar is the case with concentrated shareholding owners holding more than 1% of the total shareholding of the company. They are the second most important corporate governance variable discriminating between high cost and low cost firms. In the above table we found that high concentrated ownership leads to high cost. Though they would be reducing the agency cost between owner-manager, but, they are also adding some general cost which the firm has to incur in the form of providing timely information regarding the working of the organization. Therefore, it has a positive relationship with the cost.

Third variable found important to be included in the model is short term debt to total debt. It increases the credit risk and liquidity risk of a company. The management would be more inclined to earn profit so that they could timely repay the principal and the interest. Short term debt is a major source of working capital of a company. In cases of non-payment or delay in repayment of such debt, the company has to face adverse reactions in the market. Fourth important discriminating variable is firm size. It indicates amount of total assets influencing the agency cost of a firm. Large firms gain the advantage of economies of scale which could reduce selling, general and administrative expense also. Fifth is board size. Large number of board members results in more sales commission as they would be travelling to different places and can cause more expenses in the form of air bills, luxuries hotels etc. Therefore, it is intuitive that this variable should be considered in assessing the agency cost of a firm.

Table 5. 14 Standardized and Unstandardized Discriminant Function Coefficients

Variables included	Function 1	
	Standardized	Unstandardized
BS	-.371	-.203
LEV	.442	.474
Cown	-.431	-.044
FS	.414	.514
ln_STDTD	.419	.463
(Constant)		-2.216

Table 5.14 shows the standardized and unstandardized coefficient of discriminating variables of agency cost. The unstandardized coefficients measure the contribution of each variable in the discriminating equation, but these coefficients do not report the relative importance of the variables. The standardized coefficients are the product of unstandardized coefficient and its standard deviation. The standardized coefficients of discriminant function are of abundant systematic importance. When the sign is ignored, each coefficient represents the relative contribution of its associated variable to that function. The sign merely denotes whether the variable is making a positive or negative contribution.

The results indicate that leverage is the most important discriminating variable, followed by concentrated ownership of shareholders holding more than 1% of the total shareholding. After these two variables, short term debt to total debt is the most important discriminating variable, then firm size and lastly board size is of individual importance in discriminating between agency costs of firms. The unstandardized coefficients gives the discriminant score equation.

$$Discriminant\ Score = -2.216 + (-0.203)BS + (0.474)LEV + (-0.044)COWN + (0.514)FS + (0.463)STDTD \quad 5.6$$

Table 5. 15 Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.794	56.077	11	.000

The table 5.15 of Wilks' Lambda shows statistical significance of discriminant function. Since the sig. value is less than 0.05, therefore, we can say that the discriminant function generated is statistically significant.

Table 5. 16 Functions at Group Centroids

Agency cost	Function
	1
low cost	.383
high cost	-.673

The table 5.16 reports the point of comparison between firms having high agency cost and firms having low agency cost. For the purpose group centroid values are used. On the basis of average of the two values, the discriminant score from table comes -0.145. If the score of the discriminant equation is more than -0.145, the firm is anticipated to bear low agency cost and if score is less than -0.145, then they are expected to bear high agency cost. This is the discriminating point for the firms.

Table 5. 17 Classification Results

			Agency cost	Predicted Group Membership		Total
				low cost	high cost	
Cases Selected	Original	Count	low cost	107	10	117
			high cost	36	28	64
		%	low cost	91.5	8.5	100.0
			high cost	56.3	43.8	100.0
Cases Not Selected	Original	Count	low cost	42	1	43
			high cost	15	12	27
		%	low cost	97.7	2.3	100.0
			high cost	55.6	44.4	100.0

a. 74.6% of selected original grouped cases correctly classified.

b. 77.1% of unselected original grouped cases correctly classified.

The primary purpose of this analysis is to determine how well agency cost could be predicted using corporate governance and firm specific data. The functions developed with average data from 2004 to 2013 were used to predict agency cost for 251 non-financial high market capitalization Indian companies. The results are reported in table 5.17. The prediction results are information in that these variables are more effective in predicting the agency cost of Indian firms. From the table, we have checked the strength of the above generated discriminating based on classification results. It is a robust test designed to check whether the results generated through the process fit in other conditions. The agency cost based on selling, general and administrative expenses was segregated in two parts with the help of Bernoulli function. 70% of all observations were chosen for foreseeing discriminant equation. The rest (30%) of the observations were employed to assess equation strength. Approximately 75% of chosen observations classified correctly while 77% of the unselected observations were accurately classified. Any discriminant equation which classifies more than 70% cases correctly is considered good (Malhotra 2007). So we can conclude that our scores are also reasonably good.

CHAPTER 6

SUMMARY, CONCLUSION AND SUGGESTIONS

6.1 INTRODUCTION

The corporate governance mechanism helps a firm reduce its agency cost and improves its performance. On the other hand, it safeguards the interest of investors and gives a confidence to the investors to invest in the form of international investments and domestic investments. It ultimately increases the wealth of shareholders. In other words, a firm has to decide its corporate governance mechanism following the mandatory and non-mandatory recommendations for corporate governance and gain the confidence of investors successfully. Various corporate governance theories and assumptions have been presented in the past. The implications of these theories and assumptions have been investigated under the scope of present study. The present study focuses on firms operating in India and listed under NSE 500 index.

The present study was undertaken to examine the variables of corporate governance mechanism that affect financial performance and agency cost of a firm. More specifically the emphasis of the study is to examine the supplementary role of audit committee characteristics in improving firm performance. To fulfil the purpose, the study was divided into 7 objectives and to achieve these 7 objectives we formulated 4 major hypotheses.

This chapter summarizes the major findings of the present study and draws suggestions and recommendations for the Indian small, medium and large enterprises. It aims to provide practical implications to the firms operating in non-financial sectors in India. The present study addresses the seven objectives as mentioned in chapter 3 of the study. This chapter draws the results and conclusions of the addressed research objectives, so that they are achieved. Then it provides the implications of the study and policy recommendations. Finally, the chapter ends with the discussions on the limitations of the study that provide the base for future research work of the study.

CHAPTER 6: SUMMARY, CONCLUSION AND SUGGESTIONS

6.2 SUMMARY AND CONCLUSION

This section summarizes the key findings of the study and answer the research objectives mentioned in chapter 3 of the present study. The first objective has been addressed in chapter 1 of the present study. Second, third and fourth objectives have been empirically addressed in chapter 4 of the present study, whereas the last three objectives are covered under chapter 5 of the present study.

6.2.1 Major changes introduced by Indian Companies Act 2013

For fulfillment of objective 1 of getting an insight of contemporary corporate governance framework in India and changes recommended in Companies Act 2013, following conclusion is made:

- Every listed company is required to have at least one women director in their board.
- Every listed company is required to have at least one third of the total directors as independent irrespective of chairman of the board being executive or non-executive director.
- Now appointment of independent directors will be made out of data bank maintained by Ministry of Corporate Affairs.
- Role and responsibilities of members of audit committee was increased in the Act with the requirement of having majority independent directors.
- Now every listed company is required to set up nomination and remuneration committee which was voluntary before the incorporation of the Act.
- The Audit Committee is required to mandatorily review financial statements and draft audit report.
- Personnel who observe any unethical or improper practice can approach the Audit Committee without necessarily informing their supervisors for a sound whistle blower policy.

6.2.2 To scrutinize the impact of corporate governance framework on firm financial performance.

The main objective of the present study is to identify the key variables of corporate governance framework affecting firm financial performance. The variables are studied with the help of various firm specific variables and they are identified on the basis of past corporate governance studies. The panel feasible generalized least square method is employed to analyze the corporate governance variables. The study was conducted for the period from 2004 to 2013. The key empirical findings of the study are as follows:

1. Variables of corporate governance mechanism such as board size, promoter shareholding, remuneration committee, firm size, firm age and leverage are the key significant variables affecting financial performance of selected 251 Indian firms.
2. The significant and negative relationship between board size and firm performance (ROA) reveals that large sample firms in terms of market capitalization face problems due to large number of directors in the board of the company. Larger numbers are leading to loss rather than benefits that must arise out of their diversified characteristics. The finding is in support of agency theory where large numbers of directors are contributing to the cost to the company rather than to the profits.
3. Relationship of board size is found to be positive and significant with market capitalization contrary to expected negative relationship. In other words, larger boards improved market capitalization of the firm. The result supports resource dependency theory. The positive relationship depicts that larger number of board members bring more expertise along with more access to resources which could help in improving firms' performance from the perspective of resource dependency theory.
4. There is significant and negative relationship between board independence and accounting measures of firm performance (ROE). The negative relationship reveals that the information cost is high in these firms leading to decrease in firm value. However, board independence is found to have positive but insignificant relationship with market measures of firm performance i.e. TOQ and MCap. The positive relationship reveals larger number of independent directors on the board creates a positive image of firm in

the market among the FIIs and other large investors, leading to improved share price in the market. The ambiguity in the results could be because of the reason that all independent directors might not be truly independent and they have certain sympathy with the management.

5. The significant and positive relationship between firm performance (TOQ) and CEO duality of the sample firms reveals that CEO cum chairman of the board have greater knowledge and experience of the working, challenges and strategic goals of these companies. Therefore, they are able to work better than any independent director. The results support resource dependency theory where based on their market reputation and goodwill in the industry, they are able to bring resources to the firm leading to improved firm performance.
6. Promoter shareholding was found to be significant and negatively related with market measures of firm performance (MCap) which is contrary to the expected relationship. However, there is significant and positive relationship of promoter shareholding with accounting measures of firm performance (ROA and ROE). The plausible reason of negative relationship might be that foreign institutional investors who are more incline towards investing in firms where promoter shareholding is less. Therefore, these firms where promoter shareholding is high is creating negative image in the eyes of foreign institutional investors leading to lowering firm performance in the market. Another reason could be that some firms from the sample have excessive promoter ownership (approx 100%) which could have resulted in tunneling the benefits which is bringingnegative results. The positive association is the outcome of positive advising role of promoter in formulating firm's strategies
7. Remuneration committee was found to have contrasting relationship with all measures of firm performance. There is significant and negative relationship between presence of remuneration committee and all measures of firm performance. The plausible reason might be that firms are making remuneration committee voluntarily just to improve their image in the market, but, the committee is not properly performing monitoring role which could curb inadequate payment of compensation to the executive and non-executive directors and thus could have improve firm performance.

8. There is mixed relationship between firm size and firm performance. Positive and significant relationship is found between firm size and ROA and MCap whereas negative and significant relationship is found between firm size and ROE and TOQ. The ambiguity could be due to the reason that although larger firms are able to attract more capital easily at lower cost of capital leading to more effective use of assets, it will also increase the working of the company which would reduce the efficiency of the management.
9. There is a significant and positive relationship between leverage and firm performance largely which reveals that debt holders of the firm are efficiently monitoring the management of the firm. As a result, it is producing positive vibes in the market and internal organization is also controlled.
10. The significant and negative relationship between firm age and firm performance largely reveals that old age Indian high market capitalization firms resists in adopting latest technology which could reduce cost of manufacturing in the firms. As a result, the performance of such firms is poorer that younger firms.

Thus, it is clear from the above discussion that board size, promoter shareholding, remuneration committee, firm size, firm age and leverage are the key significant variables of corporate governance mechanism affecting financial performance of selected 251 Indian firms. These variables have to be considered before deciding the corporate governance framework of the firm.

The results of the present study are in line with Conyon & Peck (1998), Bonn et al., (2004), Ghosh (2006), Goel & Ramesh, (2016), Pattanayak (2008), Drakos & Bekiris (2010), de Oliveira et al., (2010), Chatterjee (2011), Lin (2011), Nuryanah & Islam (2011), Abels & Martelli (2012), Koerniadi & Tourani-Rad (2012), Saibaba & Ahmad Ansari (2012), Kumar & Singh (2013), Meyer & Wet (2013), Obradovich & Gill (2013), Saibaba (2013), Xie & Fukumoto(2013), Dharmadasa et al., (2014), Azeez (2015), Harvey Pamburai (2015).

6.2.3 To examine the complementary or supplementary role of audit committee characteristics in affecting financial performance of a firm.

The present study analyses whether the audit committee characteristics such as proportion of independent directors in the audit committee and frequency of audit committee meetings have any complementary or supplementary role on the effect of corporate governance mechanism on

financial performance of Indian firms. The relationship was tested with the help of four models having different measures of firm performance. Panel feasible generalized least square method is employed to validate the relationship and complementary or supplementary role. The empirical results of the study are as follows:

1. It has been found that board independence becomes significant component of corporate governance mechanism negatively affecting the firm financial performance when accounting measures (ROA) is considered.
2. There is positive relationship between audit committee independence and firm performance (ROA, ROE, MCap). Moreover, the relationship is significant with ROE. This reveals that more number of independent directors monitors the flow of quality information between shareholders and managers. They are able to reduce the chances of earnings management. This reduces the agency problem between the two and improves firm performance.
3. Frequency of audit committee meetings was found to have significant relationship with ROE and TOQ. Significant and positive relationship of audit committee meetings with TOQ reveals that the firms are able to gain confidence of investors by revealing frequent audit committee meetings in the company. As a result, the market price of the firm improves leading to increased firm performance. However, the possible reason for significant negative relationship with ROE reveals that the audit committee is under the influence of executive chairman of the committee and therefore they are unable to provide help in making strategic decisions.
4. The empirical analysis did not provide any evidence of significant complementary or supplementary role of audit committee characteristics on the financial performance of sample firms. This suggests that although audit committee independence and frequency of audit committee meetings helps in reducing the fraud in the firms (as evidenced by several researchers), but, they are not improving the impact of other corporate governance components on financial performance of Indian firms.

Thus, both the audit committee characteristics (audit committee independence and frequency of audit committee meetings) explain the financial performance of 251 sample Indian firms. There

is no supplementary or complementary role of them in overall corporate governance mechanism affecting financial performance of Indian firms. Rather, implications of both components are equally significant in the Indian sector. They have their own relevance in the financial performance.

The results of the present study are in line with Abbott et al. (2002), Khanchel (2007), Raghunandan and Rama (2007), Zhang et al., (2007), Kyereboah-Coleman (2008), Ameer et al. (2011), Nuryanah & Islam (2011),Al-Matari (2012), Bhasin (2015), Fauzi & Locke (2012), Obradovich & Gill (2013), Yunos et al., (2014), Yasser & Al Mamun (2016), Zábojníková (2016).

6.2.4 To identify the ranking of variables of corporate governance mechanism affecting firm performance

The present study investigates the importance of each corporate governance variables in the taken corporate governance framework affecting financial performance of an Indian firm from a sample of 251 firms. The importance of each variable is analyzed with the help of discriminant analysis. The key findings are as follows:

1. It has been found that board independence is the most important discriminating variable of corporate governance framework used in the study. It suggests that Indian firms must keep an optimum number of independent directors in the firm. Greater number of independent directors on the board leads to lowering profits. Therefore, numbers of independent directors on the board distinguish between high profit firms and lower profit firms.
2. The second most dominating variable of corporate governance framework found to be audit committee independence. It is the proportion of independent directors in audit committee who ensure fair financial reporting process. This fair financial reporting helps the management in making better strategies and gains confidence of investors also. The higher the number of independent directors in the audit committee better is the return on assets. Therefore, it helps in distinguishing between high profit firm and low profit firm.

3. The third important variable that distinguishes between high profit firm and low profit firm is the firm specific variable i.e. leverage. It is the usage of debt in the total capital structure of a company. It identifies the monitoring capacity of lenders of funds. But the results of regression revealed that there is a negative relationship of leverage with return on assets. Though it is an effective component affecting profitability of sample firms based on return on assets, results pinpoints that larger amount of debt leads to reversal of outcomes. In other words, the larger the number of debt monitors sitting on the board more is the time taken in decision making.
4. Last but not the least; promoter shareholding is the fourth significant component affecting profitability of sample Indian firms. Promoters work towards effective utilization of assets which results in improved return on assets. They are directly linked with the cash flow rights as they own the shares of the company along with control powers. Therefore, they try to formulate strategies which improve book profits of the firm and return on their investments.

This analysis is a significant contribution of the study because to the best of knowledge of the authors, no study was found to identify the most significant components of corporate governance mechanism from an ample of significant components affecting firm performance of Indian firms. In other words, till date no study was carried to identify the ranking of corporate governance practices, by their influence on profitability of an Indian firm and thus our study provides a new insight into the relative importance of corporate governance practices.

6.2.5. To analyze the variables of corporate governance mechanisms affecting agency cost.

The present study analyses the relationship between corporate governance mechanism and agency cost of the sample firms. In other words, the objective is to determine whether components of corporate governance mechanism affect the agency cost of the selected Indian firms or not. Board size, board independence, CEO duality, promoter shareholding, audit committee independence, frequency of audit committee meetings, presence of remuneration committee and concentrated ownership has been used along with firm specific variables such as bank debt to total debt, short term debt to total debt, firm age, firm size and leverage in identifying the relationship. Selling, general and administrative expenses and executive directors' compensation are used to represent the agency cost for the sample firms. The panel feasible

generalized least square method is used to test the desired relationship. The empirical results of the study are as follows:

1. It has been found that there is a significant and positive relationship between board size and SGA expenses and executive compensation. The positive relationship between the two confirms the concept of agency theory which shows a conflict of interest between equity shareholders and board members. The results signal that board members are more inclined towards increasing the selling and administrative cost which they could have been using for their personal benefits. Larger the number of members on the board, greater is the chances of increased SGA expenses.
2. There is a significant and negative relationship between promoter shareholding and agency cost of sample firms. The relationship specifies that there is no agency theory between majority shareholders i.e. promoters and minor shareholders. Promoters, being one of the equity shareholders, work in the interest of outside shareholders. They tend to minimize SGA expenses by supervising any irrelevant expenses in the day to day operations of the firm.
3. It has been found that there is positive and significant relationship of the presence of remuneration committee with SGA expenses. This governance structure is used from long time in developed countries. But it has come to India only after the enactment of Indian Companies Act 2013. The voluntary adoption of remuneration committee has symbolized that remuneration committee in a company results in increased SGA expenses of the company which is in contrast to our expectation. The reason behind such outcome could be that remuneration committee is failing to keep a check on executive compensation which is a part of SGA expenses. Such committees need to be more independent and vigilant in their work.
4. There is a significant and positive relationship between concentrated ownership and SGA expenses. The shareholders' who own more than 1% shares of the company are the better monitors of the managers. They are concerned with the strategies formulated in the business. They play an important role in monitoring the investment plans made by the

management which would earn more profits for the business. This increases the agency cost of a firm.

5. There is a significant and positive relationship of short term debt to total debt, firm age and leverage with SGA expenses whereas there is significant and negative relationship of firm size with SGA expenses.
6. High executive compensation is also associated with agency problems arising out of separation of ownership from control. Therefore our second variable representing agency cost is the executive compensation. It has been found that board independence is significantly and negatively associated with executive compensation. The negative relationship reveals that independent directors are the efficient monitors of firms in India. They are able to keep a check on the optimal compensation provided to executive directors and due to high independence of boards, executive directors are not able to plunder the wealth of principals.
7. Further the results reveal that in contrast to expected relationship between audit committee characteristics and executive compensation, audit committee is playing an important role in increasing the compensation of executive directors. They are promoting the compensation paid to insiders which signals that the firms are aligning the interest of insiders with that of outside shareholders. It could be felt that in Indian firms, audit committee independence and frequency of audit committee meetings are ensuring more disclosure of executive compensation. Additionally, concentrated shareholding and proportion of bank debt in the total capital structure of the company is also promoting high pay to the executive directors. The reason being the same that the parties are finding it more appropriate to align the interest of executive directors with that of shareholders so that executive directors are concerned in improving firm performance.
8. On the other hand negative relationship of short term debt to total debt, firm age and firm size with that of executive compensation may be due to the reason that short term debt holders are more inclined towards receiving timely payment of their debts. Therefore, more the short term debt in the capital structure of the company, less compensation is paid to executive directors out of the profits available for distribution to different parties. Similarly, matured and large firms are resisting from paying higher pay to the executive

directors. The reason being there are more number of independent directors on the boards of such companies who are the active members of the board and they are ensuring that compensation to executive directors must be in limits which is beneficial for the interest of shareholders of the company.

The results of the present study are in line with Florackis (2008), Florackis, & Ozkan (2009), Firth et al. (2008), Ibrahim, & Samad (2011), Jelinek, & Stuerke (2009), Lei et al. (2013), Maurovic, & Hasic (2013), Mehran, & Caroll (1995), Singh & Davidson (2003), Su et al. (2008).

6.2.6 To identify the ranking of corporate governance variables affecting agency cost.

The present study analyses the most important variable of corporate governance affecting agency cost of Indian firms. The purpose is to identify the ranking of corporate governance variables in the substance of their importance in positively or negatively impacting agency cost of sample firms. Board size, board independence, CEO duality, promoter shareholding, audit committee independence, frequency of audit committee meetings, presence of remuneration committee and concentrated ownership has been used along with firm specific variables such as bank debt to total debt, short term debt to total debt, firm age, firm size and leverage in identifying the relationship. Selling, general and administrative expenses and executive directors' compensation are used to represent the agency cost for the sample firms. Discriminant analysis method is used to test the desired ranking. The empirical results of the study are as follows:

1. Leverage is the most prominent factor affecting agency cost of Indian sample firms. It suggests that more amount of debt in the capital structure of a firm increases debt burden on a firm which reduces the excess cash in the hands of managers. This in result curbs the overinvestment problem in less profitable projects. The presence of more debt holders improves monitoring capacity of the firm who could force managers to run the business profitably. Therefore, presence of leverage in the firm is the most important for affecting agency cost.
2. It has been found that concentrated shareholding is the second most important discriminating variable affecting agency cost of an Indian firm. The shareholders' who own more than 1% shares of the company are the better monitors of the managers. They

are concerned with the strategies formulated in the business. They play an important role in monitoring the investment plans made by the management which would earn more profits for the business. This increases the agency cost of a firm.

3. The third most important discriminating variable of chosen corporate governance framework is the short term debt to total debt. These are the debt holders of the firm whose payment is due in short period of time. If the management becomes ignorant towards profitable business, these short term debt holders could increase bankruptcy risk for the firm. This increases the agency cost of the firm.
4. Firm size was found to be the fourth important variable discriminating between high cost firms and low cost firms. Bigger the size of the firm, more would be the demand towards its maintenance and supervision. This would require more monitors leading to an impact on the agency cost of the firm.
5. Lastly, board size was found to be the important discriminating variable of corporate governance agency cost. More number of board members could improve the monitoring in the firm but at the same time would lead to increased total compensation paid to them to incline the interest of board members with that of shareholders. Therefore, increase or decrease in the size of the board would impact agency cost of the firm.

This analysis is a significant contribution of the study because to the best of knowledge of the authors, no study was found to identify the most significant components of corporate governance mechanism from an ample of significant components affecting agency cost of Indian firms. In other words, till date no study was carried to identify the ranking of corporate governance practices, by their influence on agency cost of an Indian firm and thus our study provides a new insight into the relative importance of corporate governance practices.

6.2.7 To identify the relationship of agency cost to financial performance of a firm.

The present study identifies the impact of agency cost of a firm on the financial performance along with other corporate governance variables considered in the study. In other words, it investigates the combined effect of agency cost and other corporate governance mechanism taken in the study on the financial performance of Indian firms. The relationship was tested with the

help of eight models having different measures of firm performance. Panel feasible generalized least square method is employed to test the desired relationship. The empirical results of the study are as follows:

1. It has been found that the relationship of other corporate governance variables changes with the measures of firm performance as soon as the proxy of agency cost is included in the relationship. This reveals that SGA expenses are highly impacting the overall performance of Indian firms along with its profitability. It was found that board size, board independence, promoter shareholding have changed the direction of relationship which they had earlier.
2. While examining the relationship of agency cost to firm performance, it was found that executive compensation had positive relationship with firm performance and SGA expenses had negative relationship with firm performance. The results are similar to expected relationships except for SGA relationship with TOQ. It was found that TOQ increases with the increase of SGA expenses. The probable reason might be that SGA expenses improve the confidence of debt holders and firm employs more of debt in the capital structure of the firm.
3. The same results were found with respect to control variables. The directions of these variables have also changed to maximum extent. The earlier negative relationship has become positive and positive relationship has become negative with the inclusion of agency cost in the relationship function.

Thus, it was found that agency cost in Indian firms play a major role in affecting the profitability of the firms. They are not only affecting the profitability of the firms but they are also a strong converter of the relationships between corporate governance variables and firm profitability. This reveals that some endogenous relationship could be assumed between agency cost of firm and profitability of the firm. Since, to the best of the knowledge of authors, such relationship was not found to be tested in existing literature. Therefore, comparison of the results with previous literature could not be done.

CHAPTER 6: SUMMARY, CONCLUSION AND SUGGESTIONS

6.3 IMPLICATIONS AND RECOMMENDATIONS OF THE STUDY

The present study contributes to the existing literature and provides an insight of the corporate governance practices significantly affecting Indian firms with a special emphasis on Indian Companies Act 2013. Even though the analysis builds upon known research methods and models used in several similar studies in other countries, the findings are giving support to Indian literature and are unique with respect to its contribution towards supplementary role of audit committee and remuneration committee. It will aid the regulators in making better policies for the development of Indian markets.

The models developed in this study is expected to influence the interest of various researchers in this field especially in emerging economies as this could attract foreign and domestic investment in the markets. Valuable insights and analysis opportunities given by the study models will help the managers and investors to better evaluate the firms' corporate governance framework. It would help them to increase financial performance of the firm. The study also helps the managers in understanding weak as well as strong corporate governance attributes to be adopted in the firm. It provides clear understanding of the investment opportunities in developing and emerging economies like India.

For firms to increase and sustain investor attention towards Indian market, financial performance must be fair and of high quality. Large investors view corporate governance as a value addition to their trust in investing their money. In such a condition, firms should communicate to the investors about the corporate governance practices being followed by them and their impact on the growth of the company. For this, firms require long term view, strategic plans and adoption of effective corporate governance practices. The study has provided an insight into the relationships which could help firms achieve this target.

The implications of this study for the managers of Indian firms are to understand that they can gain advantage by understanding, which corporate governance variables are most significant in improving firm performance. In today's scenario, when every company is blindly following government recommendation of corporate governance without focusing on the importance and fruitfulness of specific corporate governance attributes, this study gives a deeper understanding of the same.

CHAPTER 6: SUMMARY, CONCLUSION AND SUGGESTIONS

The study complements the previous study by establishing a bridge between corporate and investor behavior. This study has taken the key variables of corporate governance framework which leads to improved financial performance and reduction of agency cost. The findings provide an important insight of how companies are required to design their corporate governance framework which attract more investment and that prove to be profitable in the long run.

The major implications for the present study would be that the associations established in this study may be considered a good indicator of relationship mechanisms between corporate governance components and firm performance for similar organizations in lower middle income countries.

Findings of this study may be useful for organizations similar to the ones considered in the present study. They could attempt to encourage such relationships that have been found to positively influence firm performance. Once the positive relationship between good corporate governance and improved firm performance is understood and adopted by similar organizations or even smaller organizations, they can gain the advantage of increased access of external financing. The investors would be more assured about their investment security and growth. Such relationship can improve relations with other stakeholders as well. Moreover, efficiency of investment decisions of firms is improved.

The relationships observed in the study would also be beneficial for middle sized companies and SMEs who are not listed on stock exchanges. SMEs consider corporate governance principles to be of little use for them as they have been formulated for large listed companies. After reviewing the suggested relationships in this study, such SMEs could understand the advantage of these relationships for them and must view that it is truly a beneficial tool for all the businesses irrespective of their size in overcoming the challenges of a rapidly changing business environment while maintaining the confidence of stakeholders. It is not only the shareholders that invest their money in any business; there are other stakeholders such as suppliers (by providing credit supply), banks or financial institutions (providing loan), employees (working for the company) etc., who invest their money in companies and are affected by the financial performance of the business (ACCA, 2015). Such companies can also improve their financial performance by applying these governance principles. SMEs can voluntarily adopt such practices to access expert skill, and gain experience and investor confidence. According to The Association

of Chartered Certified Accountants (June 2015), "Bringing in external independent directors (including non-executive directors – NEDs) gives the SME access to a broader range of skills, experience and personal characteristics. It can also help the SME tap into a wider network of contacts".

Since the major focus of present study is on adoption of independent audit committee, increasing the frequency of audit committee meetings and formation of remuneration committee. We need to emphasize that this would benefit smaller non-financial organizations (the one below top 500 and other middle sized or SMEs) too. The relevance of independent audit committee and frequency of audit committee meetings is suggested through the analysis in the study which pinpoints that if such smaller firms are adopting these policies they can increase their bonding and trust relationship with their stakeholders.

6.4 LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

There are certain limitations to the present study to be kept in mind while interpreting and applying the findings of the study. Problems of corporate governance do not end up by adopting good corporate governance practices of other firms. Before adopting any practices, the firms must identify their strength and weaknesses. Thereafter, they must formulate their own corporate governance model to achieve their strategic goals.

Further, this study examines the impact of board size, board composition, CEO duality, promoter shareholding, audit committee independence, frequency of audit committee meetings and presence of remuneration committee on three financial variables (ROA, ROE and TOQ). All associations have been tested for underlying linear relationships; however, other tests such as regression trees have not been conducted. Future studies could look to incorporate such tests.

The study has not provided any evidence on some more components of corporate governance such as audit committee size, composition of remuneration committee, tenure of independent directors, and compensation of executive directors which could be tested for their influence on firm performance in future studies.

Finally, the study has been undertaken from 2004 to 2013 and has not focused on comparative study of pre enactment and post enactment of new companies act 2013. It is likely that adoption and impact of best practices of corporate governance has changed after the enactment and

enforcement of rules and regulations of Indian Companies Act, 2013 for the purpose of strengthening of corporate governance in India. Therefore, further study would be able to identify the changes that have come in the working and adoption policies of Indian firms with respect to Indian Companies Act 2013.

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ANNEXURE I – LIST OF SAMPLE FIRMS

ANNEXURE I

1	Aarti Industries Ltd.
2	Aban Offshore Ltd.
3	Adani Enterprises Ltd.
4	Aditya Birla Nuvo Ltd.
5	Agro Tech Foods Ltd.
6	Akzo Nobel India Ltd.
7	Alok Industries Ltd.
8	Alstom India Ltd.
9	Amara Raja Batteries Ltd.
10	Anant Raj Ltd.
11	Ansal Properties & Infrastructure Ltd.
12	Apollo Hospitals Enterprises Ltd.
13	Apollo Tyres Ltd.
14	Arvind Ltd.
15	Asahi India Glass Ltd.
16	Ashok Leyland Ltd.
17	Asian Paints Ltd.
18	Atul Ltd.
19	Aurobindo Pharma Ltd.
20	Bajaj Electricals Ltd
21	Balkrishna Industries Ltd.
22	Balmer Lawrie & Co. Ltd.
23	BASF India Ltd.
24	BEML Ltd.
25	Berger Paints India Ltd.
26	Bharat Electronics Ltd.
27	Bharat Forge Ltd.
28	Bharat Heavy Electricals Ltd.
29	Bharat Petroleum Corporation Ltd.
30	Bharti Airtel Ltd.
31	Bhushan Steel Ltd.
32	Biocon Ltd.
33	Birla Corporation Ltd.
34	Blue Star Ltd.
35	Bombay Burmah Trading Corporation Ltd.
36	Bombay Dyeing & Manufacturing Co. Ltd.
37	Britannia Industries Ltd.
38	Cadila Healthcare Ltd.
39	Carborundum Universal Ltd.
40	Century Enka Ltd.
41	Century Textile & Industries Ltd.
42	CESC Ltd.
43	Chambal Fertilizers & Chemicals Ltd.
44	Chennai Petroleum Corporation Ltd.
45	Cipla Ltd.

46 CMC Ltd.

47 Colgate Palmolive (India) Ltd.

48 Container Corporation of India Ltd.

49 Coromandel International Ltd.

50 Crompton Greaves Ltd. (C G Power & Indl. Solutions Ltd.)

51 Cummins India Ltd.

52 Dabur India Ltd.

53 DCM Shriram Consolidated Ltd.

54 DCW Ltd.

55 DeepakFertilisers& Petrochemicals Corp. Ltd.

56 Dishman Pharmaceuticals & Chemicals Ltd.

57 Divi's Laboratories Ltd.

58 Dr. Reddy's Laboratories Ltd.

59 Dredging Corporation of India Ltd.

60 Dynamatic Technologies Ltd.

61 E.I.D. Parry (India) Ltd.

62 EIH Ltd.

63 Elder Pharmaceuticals Ltd.

64 Electrosteel Castings Ltd.

65 ElgiEquipments Ltd.

66 Emami Ltd.

67 Engineers India Ltd.

68 Era Infra Engineering Ltd.

69 Exide Industries Ltd.

70 FDC Ltd.

71 Financial Technologies (India) Ltd. (63 moons technologies ltd)

72 Finolex Cables Ltd.

73 Finolex Industries Ltd.

74 Gabriel India Ltd.

75 GAIL (India) Ltd.

76 Geometric Ltd.

77 Glenmark Pharmaceuticals Ltd.

78 Godfrey Phillips India Ltd.

79 Godrej Consumer Products Ltd.

80 Godrej Industries Ltd.

81 Graphite India Ltd.

82 Grasim Industries Ltd.

83 Great Eastern Shipping Co. Ltd.

84 Gujarat Alkalies& Chemicals Ltd.

85 Gujarat Fluorochemicals Ltd.

86 Gujarat Mineral Development Corporation Ltd.

87 Gujarat Narmada Valley Fertilizers and Chemicals Ltd.

88 Gujarat State Fertilizers & Chemicals Ltd.

ANNEXURE I

89 H.E.G. Ltd.

90 Havell's India Ltd.

91 Heritage Foods Ltd.

92 Hero MotoCorp Ltd.

93 Himachal Fut Com Ltd.

94 HimatsingkaSeide Ltd.

95 Hindalco Industries Ltd.

96 Hindustan Construction Co. Ltd.

97 Hindustan Copper Ltd.

98 Hindustan Oil Exploration Co. Ltd.

99 Hindustan Petroleum Corp. Ltd.

100 Hindustan Zinc Ltd.

101 Hotel Leela Venture Ltd.

102 HSIL Ltd.

103 I T C Ltd.

104 India Cements Ltd.

105 India Glycols Ltd.

106 Indian Hotels Co. Ltd.

107 Indian Oil Corporation Ltd.

108 Indraprastha Gas Ltd.

109 Indraprastha Medical Corp. Ltd.

110 Infosys Ltd.

111 Infotech Enterprises Ltd. (Cyient ltd.)

112 Ingersoll Rand (India) Ltd.

113 Ipca Laboratories Ltd.

114 IVRCL Ltd.

115 J.B. Chemicals & Pharmaceuticals Ltd.

116 Jai Corp Ltd.

117 Jain Irrigation Systems Ltd.

118 Jaiprakash Associates Ltd.

119 Jaiprakash Power Ventures Ltd.

120 Jindal Stainless Ltd.

121 Jindal Steel & Power Ltd.

122 JK Lakshmi Cement Ltd.

123 JSW Steel Ltd.

124 Jubilant Life Sciences Ltd.

125 Jyoti Structures Ltd.

126 Kajaria Ceramics Ltd.

127 Kalpataru Power Transmission Ltd.

128 Kansai Nerolac Paints Ltd.

129 Karuturi Global Ltd.

130 KCP Ltd.

131 Kesoram Industries Ltd.

132 KPIT Technologies Ltd.

133 Lakshmi Machine Works Ltd.

134 Larsen & Toubro Ltd.

135 Lupin Ltd.

136 Mahanagar Telephone Nigam Ltd.

137 Maharashtra Scooters Ltd.

138 Maharashtra Seamless Ltd.

139 Mahindra & Mahindra Ltd.

140 Mahindra Lifespace Developers Ltd.

141 Mahindra Ugine Steel Co. Ltd.

142 Man Industries (India) Ltd.

143 Mangalore Chemicals & Fertilizers Ltd.

144 Mangalore Refinery & Petrochemicals Ltd.

145 Maruti Suzuki India Ltd.

146 Mcleod Russel India Ltd.

147 Mercator Ltd.

148 MMTC Ltd.

149 Monnet Ispat and Energy Ltd.

150 Monsanto India Ltd.

151 Motherson Sumi Systems Ltd.

152 National Aluminium Co. Ltd.

153 Nava Bharat Ventures Ltd.

154 Navneet Education Ltd.

155 NCC Ltd.

156 NDTV Ltd.

157 Neyveli Lignite Corporation Ltd.

158 NIIT Ltd.

159 NIIT Technologies Ltd.

160 NMDC Ltd.

161 Noida-Toll Bridge Co. Ltd.

162 NTPC Ltd.

163 Oil & Natural Gas Corporation Ltd.

164 Opto Circuits (I) Ltd.

165 Oracle Financial Services Software Ltd.

166 Orchid Chemicals & Pharmaceuticals Ltd.

167 Oswal Chemicals & Fertilizers Ltd. (oswalgreentech ltd.)

168 Patel Engineering Ltd.

169 Peninsula Land Ltd.

170 Petronet LNG Ltd.

171 Pidilite Industries Ltd.

172 Piramal Enterprises Ltd.

173 Polaris Financial Technology Ltd.

174 Power Grid Corporation of India Ltd.

175 Praj Industries Ltd.

176 Prakash Industries Ltd.

177 PSL Ltd.

178 PTC India Ltd.

179 Punj Lloyd Ltd.

ANNEXURE I

180 RadicoKhaitan Ltd

181 Rajesh Exports Ltd.

182 Rallis India Ltd.

183 Ramco Industries Ltd.

184 Rashtriya Chemicals & Fertilizers Ltd.

185 Rasoya Proteins Ltd.

186 Raymond Ltd.

187 Rei Agro Ltd.

188 Reliance Industrial Infrastructure Ltd.

189 Reliance Industries Ltd.

190 Reliance Infrastructure Ltd.

191 Ruchi Soya Industries Ltd.

192 Sesa Sterlite Ltd. (VEDANTA)

193 Shanthi Gears Ltd.

194 Shasun Pharmaceuticals Ltd.

195 Shipping Corporation of India Ltd.

196 Shoppers Stop Ltd.

197 Shrenuj& Co. Ltd.

198 Simplex Infrastructures Ltd.

199 Sintex Industries Ltd.

200 Sonata Software Ltd.

201 SRF Ltd.

202 Steel Authority of India Ltd.

203 Sterlite Technologies Ltd.

204 Sun Pharmaceutical Inds.Ltd.

205 Sundram Fasteners Ltd.

206 Swan Energy Ltd.

207 Swaraj Engines Ltd.

208 Tamil Nadu Newsprint & Papers Ltd.

209 Tata Chemicals Ltd.

210 Tata Coffee Ltd.

211 Tata Communications Ltd.

212 Tata Consultancy Services Ltd.

213 Tata Elxsi Ltd.

214 Tata Global Beverages Ltd.

215 Tata Motors Ltd.

216 Tata Power Co. Ltd.

217 Tata Sponge Iron Ltd.

218 Tata Steel Ltd.

219 Tech Mahindra Ltd.

220 The Ramco Cements Ltd.

221 Thermax Ltd.

222 Tinplate Company of India Ltd.

223 Titan Company Ltd.

224 Torrent Pharmaceuticals Ltd.

225 Trent Ltd.

226 TTK Prestige Ltd.

227 Tube Investments of India Ltd.
228 TVS Motor Company Ltd.
229 UFLEX Ltd.
230 UltraTech Cement Ltd.
231 Unichem Laboratories Ltd.
232 Unitech Ltd.
233 United Breweries Ltd.
234 United Spirits Ltd.
235 UPL Ltd.
236 Usha Martin Ltd.
237 Uttam Galva Steels Ltd.
238 V.I.P. Industries Ltd.
239 Vakrangee Ltd.
240 Vardhman Textiles Ltd.
241 Venky's (India) Ltd.
242 Voltas Ltd.
243 VST Industries Ltd.
244 Welspun India Ltd.
245 West Coast Paper Mills Ltd.
246 Whirlpool of India Ltd.
247 Wipro Ltd.
248 Wyeth Ltd.
249 Zee Entertainment Enterprises Ltd.
250 Zensar Technolgies Ltd.
251 Zydus Wellness Ltd.

LIST OF PUBLICATIONS

Papers Published in Refereed International Journals:

1. Bansal, N. and Sharma, A.K. (2016). Audit Committee, Corporate Governance and Firm Performance: Empirical Evidence from India. *International Journal of Economics and Finance, 8*(3) 103-116 **(ABDC listed)**.
2. Goel, U., Bansal, N., & Sharma, A. K. (2015). Impact of Corporate Governance Practices on Working Capital Management Efficiency: A Structural Equation Modelling Approach. *Indian Journal of Finance. 9*(1). 38-48 **(Scopus indexed journal)**

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1. **Bansal, N.** and Sharma, A. K. (2016). Corporate governance and prediction of profitability: A study of Indian firms. International Conference on Financial Markets and Corporate Finance, organized by **IIT Madras**, August 12-13, 2016.
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