CORPORATE GOVERNANCE AND PERFORMANCE: A STUDY OF CANADIAN COMpanies -2009

by

Aji Jacob
B.S Chemical Engineering., Howard University, 2006

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION

THE UNIVERSITY OF NORTHERN BRITISH COLUMBIA

April 2010

© Aji Jacob, 2010
ABSTRACT

Following the episodes of WorldCom, Enron, Parmalat, Lehman Brothers, Nortel (in Canada), corporate governance and its impact on shareholder value has been brought into the forefront of the debate. Studies on the relationship between corporate governance and the performance of firms to date suggest a positive association between corporate governance and various measures of performance of companies. Unlike the widely dispersed ownership in countries like United States and United Kingdom, the ownership of companies in Canada is concentrated; a controlling shareholder (usually a wealthy family) owns majority of the equity and ownership of firms. In Canada, studies on the relationship between corporate governance and various performance indicators of firms are mixed. The present study examines the relationship between corporate governance and firm performance in Canada using financial performance data of 152 firms in 2009 and corporate governance ranking of those firms.

The empirical results based on regression (ordinary least squares) showed that an overall corporate governance variable has a positive impact on firm’s performance in Canada. These results are invariant to the choice of firm performance indicators like Return on Asset (ROA) and Return on Equity (ROE). These results are broadly in conformity with earlier studies (although there were mixed results in earlier empirical investigation). These results are also interesting given the fact that Canadian ownership structure is more concentrated. Most of the Canadian companies are listed also in US markets and that provides impetus for corporate governance practices to be implemented in Canada as well. Given these facts, the empirical results are not surprising. Apart from
these facts, these results are based on data set of 152 Canadian companies for 2009 only; there is need for more empirical verification and calibration. But that is beyond the scope of the present study due to constraint of resources and time.
# TABLE OF CONTENTS

Approval ........................................................................................................................................... II  
Abstract .......................................................................................................................................... III  
Table of contents .............................................................................................................................. V  
List of Tables ..................................................................................................................................... VI  
List of Charts ....................................................................................................................................... VII  
Acknowledgements ............................................................................................................................ VIII

Chapter I Introduction .......................................................................................................................... 1

Chapter II Literature review .............................................................................................................. 4  
Section 2.1 Corporate governance concept ..................................................................................... 4  
Section 2.2 Board composition, characteristics and company performance ..................................... 6  
Section 2.3 Managerial ownership and firm performance .................................................................. 15  
Section 2.4 Compensation and firm performance ............................................................................. 19  
Section 2.5 Shareholder rights issues ................................................................................................. 23  
Section 2.6 Corporate governance and Organizational performance .............................................. 25  
Section 2.7 Literature review summary ............................................................................................... 31

Chapter III Data base and methodology .......................................................................................... 33  
Section 3.1 Data base ......................................................................................................................... 33

Chapter IV Empirical Results ............................................................................................................ 37  
Section 4.1 Summary Statistics and Some Stylized Facts ................................................................. 37  
Section 4.2 Cross-Sectional Results ................................................................................................ 39  
Section 4.3 Conclusions ..................................................................................................................... 42

Chapter V Concluding Observations ................................................................................................. 43  
Bibliography ....................................................................................................................................... 45
LIST OF TABLES

Table 3.1 Definition of Variables and Sources 35
Table 4.1 Basic Descriptive Statistics 38
Table 4.2 Determinants of Firm Performance in Canada - 2009 (ROA and ROE) 39
Table 4.3 Determinants of Firm Performance in Canada – Dependent Variables – ROA and ROE - 2009 41
LIST OF CHARTS

Chart 3.1  Weights of Various Corporate Governance Components in Globe and Mail Index
ACKNOWLEDGEMENT

I am heartily thankful to my supervisor, Dr. Ajit Dayanandan, whose encouragement, supervision and support from the preliminary to the concluding level enabled me to develop an understanding of the subject. I would also like to thank Dr. Balbinder Deo for his valuable input in this research project. My wife Shyvi and Son Alan have sacrificed their valuable time in order for me to successfully complete this project. It is a pleasure to thank those faculty members who helped me to successfully complete the MBA program. At this moment, I also would like to make a special reference to the enormous support that I received from the colleagues and the management of my employer FMC Corporation, Prince George.
Introduction

The issue of corporate governance of firms has been in the forefront of debate in recent times. The episodes of WorldCom, Enron, Parmalat, Lehman Brothers etc, has highlighted the role corporate governance in a firm’s performance\(^1\). Corporate governance relates to the ways in which the suppliers of finance to corporations assure themselves of getting a return on their investment\(^2\) (Shleifer and Vishny 1997).

In modern corporations, the problem of corporate governance is related to the separation of ownership from control of firms\(^3\). The seminal articles of Jensen and Meckling (1976) and Demsetz and Lehn (1985) discusses the agency problem associated with separation of ownership and control. According to Jenson and Meckling (1976), a manager who owns anything less than 100 per cent of the cash flow rights of the firm have potential conflicts of interest with the remaining shareholders who do not exercise control

---

1 Concerns about corporate governance have developed historically in reaction to major confidence crises, corporate frauds and market failures, and this prompts us to examine the role that corporations play in the economy (Hendry 2005).

2 This definition is relatively narrower and the major criticism about this definition was that it addresses only the investor returns. There are other stakeholders such as employees, communities, supplies and customers and interests of all these groups are also needs to be internalized in corporate governance definition (Tirole 2006).

3 Agency theory argues that the central problem of corporate governance is how shareholders ensure that self-seeking executives act in the shareholders’ interests rather than their own. The division of ownership and control has had wider ramification for the nature of corporate governance. Salaried managers who are running the companies are hired on behalf of the shareholders who are the owners of the company. According to the agency theory, the managers may behave opportunistically to maximize their own welfare (Arrow, 1985).
over the firm. They argue that managerial ownership (through bonus, stock options) increases the alignment of interests of managers with outside shareholders (Jensen and Meckling 1976). One of the important issues in corporate governance is how the interests of public shareholders are aligned with corporate goal. The public shareholders, who normally have first claim on firm's cash flow, feel the adverse consequences of poor corporate governance. Good corporate governance is important as it promotes the efficient use of resources. It also enables firms in attracting low cost investment capital.

The relationship between corporate governance and the performance of firms is widely researched (Shleifer and Vishny, 1997, Love, 2010). Most of the evidence to date suggests a positive association between corporate governance and various measures of performance of companies. Unlike the widely dispersed ownership in countries like United States and United Kingdom, the ownership of companies in Canada is concentrated a controlling shareholder (usually a wealthy family) owns majority of the equity and ownership of firms (Morck and Yeung, 2006). Some studies with respect to Canada on various aspects of corporate governance like board composition and firm value show that greater independence of the board does not have a positive influence on firm value (Erickson, Park, Reising and Shin, 2005). On the other hand, another study of state-owned enterprises in Canada showed that board size and board independence is positively related to firm technical efficiency (Ben-Amar and Andre 2006; Bozec and Dia 2007). Given the divergent empirical results with regard to corporate governance variables and firm performance in Canada, it would be interesting to examine empirically using some of the recent data, the relationship between corporate governance and firm performance in
Canada. The present study contributes to the literature and debate on the relationship between corporate governance and firm performance based on 152 Canadian companies for 2009.

The study is organized as follows: Chapter II reviews the literature on the subject. Chapter III discusses the data base and methodology. Chapter IV presents the results of the empirical investigation and Chapter V summarizes the conclusions.
Chapter II

Literature Review

The literature on corporate governance is rich and has been rapidly growing both inside academia and outside academia. In this chapter we briefly review the theoretical and empirical literature on the impact of corporate governance on company financial performance. This chapter is organized as follows: Section 1 deals with the concept of governance. Section 2 reviews the relationship between board composition, characteristics and firm performance. Section 3 reviews the relationship between the Managerial ownership in the firm and the firm performance. Section 4 examines the relationship between executive compensation and firm performance. Section 5 deals with the link between Shareholder rights issues and firm performance. Section 6 briefly reviews the empirical literature on various indicators of corporate governance and firm performance. Section 7 summarizes the conclusions of this chapter.

Section 1 Corporate governance-concept

The separation of ownership and control in firms leads to the need for corporate governance (Berle and Means, 1932; Shleifer and Vishny, 1997). According to Shleifer and
Vishny (1997), corporate governance is the mechanism in which suppliers of finance assure themselves a return on their investment. Fama (1980) disregard the entire notion of ownership of the firm and argues that there is only contractual relationship between the firm, security holders and the managers. According to Fama (1980), market is the leading force that discipline bad performance.

Jensen and Meckling (1976) describe the firm as a “black box” operating with the objective of maximizing profits subject to certain constraints. An agency relationship is a contract under which the principal assign the agent to perform some service on their behalf which involves delegating some decision making authority to the agent. As the relationship between the stockholders and manager of a corporation is a pure agency relationship, the issues associated with the “separation of ownership and control” are intimately associated with the general problem of agency and when management do not own the entire firm’s equity, shareholders incur agency costs resulting from management’s shirking and perquisite consumption and a zero agency cost firm can be one where the manager is the firm’s sole shareholder (Jensen and Meckling 1976).

According to Rezaee (2004), corporate governance addresses the agency issues raised by the separation of ownership and control of corporations. Corporate governance is the mechanism by which a corporation is managed and monitored. Corporate governance determines a power-sharing association between corporation executives and investors. Effective corporate governance mechanisms facilitate this relationship by providing structure through which the objectives of both parties are clearly are defined, the policies and
procedures are established to ensure achievement of these objectives; and activities, affairs, and performance are monitored (Rezaee 2004).

The division of authorities and responsibilities of different participants in the corporation is specified by corporate governance and the basics of a proper corporate governance are the underlying concept of accountability and responsibility instead the idea of who has the power and who is in charge. “Under effective corporate governance, management is accountable to the board of directors and the board of directors is accountable to the shareholders with the purpose of creating shareholder value” (Rezaee 2004).

Section 2: Board composition, characteristics and company performance

An alternative to direct monitoring by stakeholders is governance through the board of directors, who are elected by shareholders. The relationship between shareholders, board and top management is a subject of last literature. Board composition of an organization can be defined as the combination of several elements such as board independence, board size, independence of compensation committee, independence of audit committee, independence of nominating committee that recommends new directors in to the board etc. Other factors that can influence the board composition are the division between the roles of the CEO and the chairperson of the board, number of directors serve together in various organizations’ boards, the number of companies’ boards a director serves, CEO succession planning procedure etc. We briefly review some of the important aspects of board of directors in the following paragraphs.

CORPORATE GOVERNANCE AND PERFORMANCE: A STUDY OF CANADIAN COMPANIES -2009
Board composition

The composition of board of directors is a key element in the internal governance of any organization. Board independence is mostly determined by the ratio of inside to the outside directors. Various researchers have varying opinions about the relationship between the number of insiders and outsiders on the board and its impact on the performance of a corporation. Those organizations that deviate from an optimal number of independent directors may eventually meet with poor corporate performance (Pfeffer 1972). Baysinger and Butler (1985) argue that companies where the board is dominated by non-executive directors perform better than boards that are not (Butler and Baysinger 1985). In Klein’s (1998) opinion there is a positive relationship between the presence of inside directors and the performance of a firm notably when the inside directors serves in finance and investment committees. When a majority of inside directors included in these committees the firm accounting and stock market performance improves (Klein 1998).

According to Vance (1968), a large percentage of outside directors is negatively linked with corporate performance. Similarly Bhagat and Black (1999) argue that there is a negative correlation between the proportion of independent directors and firm performance. It is argued that boards with, a high proportion of NEDs may be detrimental to companies as they may stifle strategic actions (Goodstein et al., 1994), overwhelm the company in excessive monitoring (Baysinger and Butler, 1985), lack the business knowledge to be truly effective and lack real independence (Demb and Neubauer, 1992). Dahya et al. (1996), Stewart (1991) and Rechner and Dalton (1991) suggest that by reinforcing responsibility and authority to executive managers, effective performance may be achieved.
The literature has increasingly suggested that boards dominated by outsiders or non-
executive directors (NEDs) may help to alleviate the agency problem by monitoring and
controlling the opportunistic behavior of management (Williamson, 1985; and Jensen and
Meckling, 1976) and also by ensuring that managers are not the sole evaluators of their own
performance (Baysinger and Hoskisson, 1990). Such boards may also help in reducing
management consumption of perquisites (Brickley and James, 1987) and removing non-
performing CEOs and other board personnel (Weisbach, 1988; and Pettigrew and McNulty,
1995). Pearce and Zahra (1992) believe that boards dominated by Outside directors may
influence the quality of directors’ deliberations and decisions and provide strategic direction
and enhancement in performance. Outside directors also provide diverse world view due to
their expertise, prestige and contacts (Tricker, 1984; Kesner and Johnson, 1990; and Grace et
al., 1995).

The empirical evidence on the value of outside directors on corporate performance is
mixed. Millstein and MacAvoy (1998) found US corporations with a higher proportion of
active independent boards perform much better than those with passive, non-independent
boards. Using Economic Value Added (EVA) as a measure of performance, the California
Public Employees’ Retirement system (Calpers) concluded that companies with boards
engaged in governance practices that signal independence outperform their peers and
produce higher returns for their shareholders (Regan, 1998).

According to Dehaene et al (2001), the number of external directors has a significant
role in an organization’s performance. It was found that the ROE of the company improves
when the number of external directors increases in the company director board. Their study
also reveals that there is no significant impact on firm performance from higher number of board directors or from the combination of CEO-Chairman and conclude that the size of directors will not enhance the company net income and a smaller board may take decisions and act upon the much quickly.

Studying board composition in New Zealand, Prevost, Rao and Hossain (2002) find that firm performance and board composition are together determined with each having a positive influence on the other. Firm performance can be impacted by board composition as well that the board composition may affect firm performance (Prevost, Rao and Hossain 2002). This research finding reiterate the idea that outside board members have a positive influence on firm performance and that better performing firms are motivated to add independent members to the board. Very high levels of inside ownership are associated with higher outside directors as most often firms increase their use of outside directors in order to mitigate the potential negative entrenchment effect brought about by high inside ownership (Prevost, Rao and Hossain 2002).

Erickson et al (2005) examined the relationship between board composition and firm value in the presence of significant ownership concentration using publicly traded Canadian companies. According to the study, the greater board independence does not have a positive impact on firm performance. The evidence from the study indicates that firm value has a negative relation to the proportion of outside directors in Canada (Erickson, et al. 2005). This is mainly due to the fact that outside directors are generally not effective monitors in a Canadian-type governance environment. Lefort and Urzua (2008) examine the importance of independent directors as an internal governance mechanism in companies with high
ownership control. Using a four year, 160 company board composition data, the study finds that an increase in the outside company directors in the board creates a positive impact on the company value (Lefort and Urz'ua 2008). While the board composition and corporate performance outcome varies from context to context and there is no unique governance model applicable, it is essential to examine what roles the regulations can take part in to make the boards more effective. In New Zealand, the 1993 Companies and Financial Reporting Acts that impose liability for poor decision-making had a discernible impact on the relationship between outside board representation and firm performance. The study finds that the Companies and Financial Reporting Acts did not improve the positive relationship between outside board representation and firm performance. Thus, the legislation appears to be low impact on the relation between board composition and firm performance (Hossain, Prevost and Rao 2001).

In contrast, Agrawal and Knoeber (1996) found a significant negative relationship between board outsiders and firm performance based on Tobin’s Q. Rhoades et al. (2000), using meta-analysis, found a weak link in performance when there is dominance of either insiders or outsiders on the board as opposed to a balanced board. Baysinger and Butler (1985), Mehran (1995) and Klein (1998) all report non-significant relations between accounting performance and the proportion of outside directors. Similarly, Daily and Dalton (1998) found no relationship between independence of the board and corporate performance, irrespective of the type of performance indicators used (accounting or market return) and the manner in which ‘board composition’ is measured (outside, interdependent, affiliated). Bhagat and Black (2000) came to the same conclusion using both performance measures.

**Board size**

The board size is an aspect of board composition that can influence the corporate governance structure of an organization. According to Jensen (1993), when board increase, they become less effective in monitoring the managers as the coordination and the process problem outweigh the benefit of a large board. Lipton and Lorsch (1992) states that the norms of behavior in most boardrooms are dysfunctional, because the directors rarely criticize the policies of top managers or hold candid discussions about corporate performance. Mintzberg (1983) as cited by (Dalton, Johnson and Ellstrand 1999) points out that board member’s assessments of top executives are susceptible to manipulation when boards are large and diverse. Board size can be considered as measure of an organization’s ability to form environmental links to secure critical resources (Dalton, Johnson and Ellstrand 1999).

Researches in to the optimum board size yielded some interesting results. According to Jensen(1993), when board get beyond seven or eight people, they are less likely to function effectively and will be controlled and manipulated by the CEO much easily. Other scholars recommend restricting the board membership to ten people, and they prefer the size of eight to nine (Lipton and Lorsch 1992). The Cadbury committee (Cadbury Committee 1992) recommends that the ideal size of the board should be between eight to ten members.
The empirical evidence suggests that the size of the board does matter (Monks and Minow, 1995) as it influence the degree of monitoring, controlling and decision making in a company. Small boards are said to help in alleviating the effort problem and in becoming more effective (Jensen, 1993; and Lipton and Lorsch, 1992). However, when small firms grow too big, boards become more symbolic rather than being a part of the management process (Hermalin and Weisbach, 2000).

Conversely, bigger boards may be constructive for some companies because a bigger board provides diversity that would help companies to secure critical resources and reduce environmental uncertainties (Pfeffer, 1987; Pearce and Zahra, 1992; and Goodstein et al., 1994). Lipton and Lorsch (1992) advocate board membership to be between eight and nine, and any additional benefits from increased monitoring gained by additional membership will outweigh the costs associated with slow decision making, the effort problem and easier control by the CEO (Jensen, 1993).

Using a sample of large US corporations and controlling for other variables, Yermack (1996) found a significant negative relation between board size and market performance based on Tobin's Q. Eisenberg et al. (1998) also found similar patterns using a sample of small and midsize Finnish firms. In contrast, Holthausen and Larcker (1993) failed to find an association between the two variables using US data. A study that draws a large sample of firms from 52 countries to investigate the relationship between firm performance and the number of directors find that there is a positive relationship between the prior performance and the number of directors (Heaney, et al. 2007).
Duality and Multiple board membership

Another corporate governance issue that has given rise to concerns is the role duality or the 'dominant personality' phenomenon, where the CEO is also the chairman of the board. Stewart (1991) argues in favor of the role duality as it helps enhance decision making by permitting a sharper focus on company objectives and promoting more rapid implementation of operational decisions. Likewise, Dahya et al. (1996) believe that role duality allows a CEO with strategic vision to shape the destiny of the firm with minimal board interference, which could also lead to improved performance resulting from clear, unfettered leadership of the boards (Rechner and Dalton, 1991). In contrast other scholars believe that although there is no problem if the two roles are combined, separation of the two roles will, on the other hand, provide essential checks and balances over management's performance (Argenti, 1976; Stiles and Taylor, 1993; and Blackburn, 1994) as someone who holds two top positions is more likely to pursue strategies which advance personal interests to the detriment of the firm as a whole (Jensen and Meckling, 1976; and Jensen, 1986).

Empirical analyses of the impact of role duality on various corporate performance measures have yielded conflicting results. Boyd (1995) found evidence of better performance for US firms with role duality. However, Rhoades et al. (2001) found firms with a separation of the two roles consistently have higher accounting returns compared to those that have the roles combined. In contrast, Peel and O'Donnell (1995), Dahya et al. (1996) and Balinga et al. (1996) found no significant difference in the performance of companies with or without role duality. The UK studies by Vafeas and Theodorou (1998) and Weir and Laing (1999) also came to the same conclusion. Davidson et al. (1996), using a
two-sample t-test, found the results to be mixed in sign and not statistically significant. Brickley et al. (1997) found no systematic link between duality status and organizational performance or market value.

Multiple board membership and same directors serving various boards are creating a close knit bloc of directors. This also makes the directors dysfunctional as they have less time to serve the interests of the shareholders. Multiple directorships makes the members of the board of directors very busy and make the incapable of delivering their job efficiently. This in turn influences the firm performance.

Empirical evidence concerning multiple board membership provides mixed results. A study by Sarkar and Sarkar (2009), in the context of India found that multiple directorship has positive aspects as interconnected board directors are able to arrange better access to external capital. The study argues that independent directors with multiple appointments can exert much more positive impact on company performance as apparently they are much more committed in their governance role, attending more board meetings against directors with fewer appointments. However excessive multiple directorships for inside directors are likely to hurt company value. These conclusions are largely in contrast to the current evidence from the US studies and provide support to the “quality hypothesis” that busy outside directors are likely to be better directors, and the “resource dependency hypothesis” that multiple directors may be better networked thereby helping the company to establish more linkages with its external environment (Sarkar and Sarkar 2009).
Most often multiple board memberships can be resulted in less number of board meetings. Less frequent board meetings can be a challenging issue with regards to corporate performance. Conger et al (1998) suggests that the duration of a board meeting is an important resource that can improve the effectiveness of the company board. (Conger, Finegold and Lawler III 1998). According to Vafeas (1999), role of corporate boards in public corporations is a central issue in financial and academic world.

The study by Vafeas (1999), suggests that board meeting frequency is related to corporate governance and ownership characteristics that agree with contracting and agency theory. The market may find a board less valued if boards meet frequently mainly due to the fact that the share price declines followed by higher meeting frequencies. However, years with an abnormally high meeting frequency are followed by improvements in operating performance. The study also examined the CEO turnover in firms that have an abnormal board meeting frequency. The rationale behind this examination was that the authority to recruit and dismiss the top executives is vested in the board of directors. There is no evidence found in this study that there is any significant relation between board meeting frequency and CEO turnover. This study results has specific importance as it reveals the day-to-day effect of board monitoring on corporate performance. In addition to that, the results of this study are consistent with prior research suggesting that companies adjust the structure of their boards in response to poor performance (Vafeas 1999).

Section 3: Managerial ownership and firm performance

Shareholding pattern of the directors and managers can also affect the company performance significantly. If the board of directors and the higher executives like the CEO,
own significant amount of company shares, the interests of shareholders and the managers can be better aligned.

The relationship between firm ownership structure and firm performance has been an ongoing debate in the corporate finance literature and finance circles for a long time. In the wake current corporate scandals like Enron, Nortel, WorldCom etc., this subject of corporate governance has much more relevance. It is the managers or agent’s natural tendency is to assign the valuable resources of the firm in their own best interests, which in turn may conflict with the interests of outside shareholders.

If the equity ownership of the managers increases, their interests will coincide more closely with those of outside shareholders, and hence the conflicts between managers and outside shareholders can be minimized up to an extent (Jensen and Meckling 1976). The studies of (Morck, Shleifer and Vishny 1988), (Hermalin and Weisbach 1991) and (McConnell and Servaes 1990) identify that “alignment of interest” take places at low levels of managerial ownership but can create “entrenchment” at higher levels of management ownership by using Tobin’s q as a proxy of firm value and they report a quadratic functional form and do not detect any inverse relationship between firm performance ownership structure especially over the 5–25% ownership range.

The relationship between the distribution of equity ownership and corporate performance for 349 publicly traded Australian firms in 1986 and 1989 was analyzed by Craswell et al (1997). The results faintly support a curvilinear relationship between insider ownership and corporate performance, although the relationship is both temporally unstable and inconsistent across different firm-size groups. The evidence does not hold institutional
ownership as an important determinant of Australian corporate performance (Craswell, Taylor and Saywell 1997). A study by Chen et al (2003) conducted in 123 Japanese firms in order to find out the relationship between firm performance and managerial ownership, for 9 years and the study was using the equity holding of the board of directors as a proxy for managerial ownership. The study found a significant interest-alignment effect, given the low levels of stockholdings of Japanese managers (Chen, Guob and Mande 2003).

Rose (2005) conducted in Danish firms to examine the relationship between insider ownership and firm value emphasis that there is a significant relationship between insider ownership and firm value (Rose 2005). Therefore an increase in the managers share holding is advised in order to resolve the agency problem.

Managerial ownership and firm performance is relatively new concept in Chinese corporate world. A study by Li, et al. (2007) on privatized Chinese state enterprises concludes that managerial share ownership, particularly CEO ownership, is directly related to firm performance. Firms with higher managerial share ownership significantly outperform those with lower managerial share ownership by 2–3% in terms of operating and net return on assets. Growth in real operating and net profits is also increased up to 70% higher for firms with high managerial share ownership. The ownership-firm performance relationship found to be more effective at low levels of CEO ownership. The study asserts that firm performance keeps increasing as management ownership increases. (Li, et al. 2007).

In line with above mentioned research findings, Bhabra (2007), substantiate earlier research findings of a curvilinear relationship of firm value and insider ownership reported for larger markets. According to the empirical study conducted in a sample of publicly
traded firms with data over 1994-1998 in New Zealand, there is a non-linear cubic relationship between Tobin’s q and the percentage of shares owned by insiders. Insider ownership and firm value were found to be positively related for ownership levels below 14% and above 40% and inversely related at intermediate levels of insider ownership (Bhabra 2007). This research study reiterates the ideas of Jensen and Meckling (1976) that the incentive alignment through share ownership is not linearly related to firm value.

However several other studies have shown that the relationship between the managers’ firm ownership and the corporate performance are not linear. Berle and Means thesis suggests as cited in (Demsetz and Villalonga 2001) that an inverse correlation can be observed between the shareholdings structure and the organizational performance. Demsetz (1983) argues that the ownership structure of a corporation should be considered as an endogenous outcome of decisions that reflect the influence of shareholders regardless of the ownership structure. This means that a firm’s ownership structure reflects decisions made by the current owners or potential owners like traders or of those who are engaged in the acquisition of the firm (H. Demsetz 1983). The ownership structure that emerges ought to be influenced by the profit-maximizing interests of shareholders, regardless of the ownership structure be concentrated or diffuse. This implies that there should be no logical relation between change in ownership structure and change in firm performance (H. Demsetz 1983).

In one of the most classical studies in corporate governance, (Demsetz and Lehn 1985) do not observe any relationship between ownership concentration and corporate profits. Similarly, another research examine the link between acquisition performance and managerial equity holdings using a simultaneous equation system and it is their findings that
managerial ownership does not enhance firm performance, but firm performance negatively affects managerial ownership (Loderer and Martin 1997). By using a three-equation simultaneous equation system in which corporate value, investment, and managerial ownership, are treated as endogenous variables, Cho (1998) finds that investment affects corporate value, which, in turn, affects ownership structure, but there is no reverse causality from ownership to corporate value.

Using long-term return, Han and Suk (1998) examined the effects of insider ownership and institutional ownership simultaneously against stock return of several firms and they argue based on empirical evidence that as insider ownership increases, stock returns increase but excessive insider ownership can hurt corporate performance (Han and Suk 1998). Other schools of thoughts argue that many prior studies fall short to control for unnoticed firm heterogeneity and, therefore, the documented evidence of relationship between managerial ownership and firm performance can possibly be unauthentic (Himmelberg, Hubbard and Palia 1999).

Conflicting research studies that describe the relationship between the board structure and firm performance is presented across the geographical areas and this mandates further investigation that considers the unique characteristics of the location and the context in which the firm operates.

Section 4: Compensation and firm performance

As we discussed about the agency problem, one of the major question arises; what is the root cause for agency issues. Is it because top company executives’ greed for more compensation? The level of compensation and the extent of pay-for-performance for chief
executive officers (CEOs) has been a topic of considerable controversy in the academic and business communities. It is the arguments of the critics of CEO compensation practices that because the board of directors is influenced by the CEO, the board often does not structure the CEO's compensation package to maximize value for outside shareholders. (Core, Holthausen and Larcker 1999).

There are different questions that are being raised by all stakeholders including the shareholders such as the magnitude of firm performance improvement if the executives are paid more and in what form these compensations needs to be structured. It is the opinion of Murphy (1985) that the interests of the manager's and shareholders can be brought in alignment by linking corporate performance and executive compensation (Murphy 1985). Even though several studies have conducted in this subject, still there is no clear answer regarding right compensation structure that can eliminate agency problem and improve firm performance.

In their seminal article Jensen and Murphy (1990) describes the problem that corporate America pays its most important leaders like bureaucrats and that is the reason why the CEO’s act like bureaucrats and the solution for this problem is to pay more to the CEO (Jensen and Murphy 1990). In their opinion, equity-based compensation rather than cash compensation provides managers the correct incentive to maximize firm value (Jensen and Murphy 1990).

However, some other scholars are arguing against the above arguments. Some argues that there is little empirical evidence on whether corporations whose executive compensation is more equity-based actually perform better (Mehran 1995). In an empirical study by Mehran (1995), it was found that both Tobin’s Q and return on assets are positively related to
the percentage of executives’ total compensation that is equity-based as well as the percentage of shares owned by top managers. This implies that the compensation certainly affects CEO incentives in ways that have a measurable impact on corporate efficiency (Mehran 1995).

Effectiveness of any corporate governance mechanisms are related to the context in which the corporation is functioning. Thus culture, legal aspects, the nature of the ownership such as family or public and the way market responds to changes can be varying form countries to countries. Unite et al (2008) conducted a study on the relationship between the top executive compensation and firm performance in Philippines. The researchers focused their analysis on the investigation of both the sensitivity and elasticity of executive pay relative to firm performance. According to the researchers the primary advantage of the sensitivity approach is that it has a more natural economic interpretation because of the fact that the coefficient represents the executive's share of value creation. The researchers articulate that, the sensitivity approach provides a natural measure of the severity of the agency problem since agency costs arise when agents receive less than 100% of the value of output (Unite, et al. 2008). The study observed a positive relation between pay and performance and in addition to that the researchers find that in the Philippines this pay–performance relation does not appear to hold for those firms that are affiliated with a family corporate group. The research concludes that affiliation with a family corporate group can affect managerial goals, where market-based and accounting-based measures of performance are relatively less important, and are perhaps overshadowed by non-performance-related group goals (Unite, et al. 2008).
According to (Core, Holthausen and Larcker 1999), organizations in the United States with weaker ownership and monitoring mechanisms have greater agency problems that will be reflected as higher CEO pay regardless of the firm performance. Their study observes that ownership structure and board structure are related with the level of CEO compensation, after controlling for the standard economic determinants of compensation such as the requirement of the firm for a high-quality CEO, previous firm performance, and risk. When it comes to the ownership structure, the study finds that CEO compensation is a decreasing function of the CEO’s ownership stake (Core, Holthausen and Larcker 1999). Additionally, CEO compensation is lower when there is a non-CEO internal board member or an external block holder who owns at least 5% of the shares.

Concerning board-of-director structure, CEO compensation is found to be a decreasing function of the percentage of the board composed of inside directors, and is an increasing function of board size, the percentage of the board who are outside directors appointed by the CEO the percentage of outside directors who serve on three or more other boards and whether the CEO also is board chair. In summary both board characteristics and ownership structures have a substantive cross-sectional association with the level of CEO compensation (Core, Holthausen and Larcker 1999). One hundred and seventy four Japanese corporations were investigated by Basu et al (2007) to determine the relationship between corporate governance mechanisms and executives’ compensation.

The study result finds that greater stock ownership by the board is associated with higher top executive income. Alternately the researchers find that in Japanese firms, top executive compensation decreases as the corporate governance structures become stronger.

CORPORATE GOVERNANCE AND PERFORMANCE: A STUDY OF CANADIAN COMPANIES -2009
As reinforcement to these findings, the research also finds evidence of a negative relation between the compensation predicted by the ownership and monitoring variables and subsequent accounting performance. However no association is found with future return performance of the organization (Basu, et al. 2007). The results suggest that Japanese firms with weaker governance structures have greater agency problems. The results indicate that CEOs at firms with greater agency problems are overpaid and the firms with greater agency problems perform worse (Basu, et al. 2007). Although there is a growing literature linking corporate governance to company performance, there is, equally, a growing diversity of results and this necessitates further study in individual corporate governance mechanisms including external and internal corporate governance control mechanisms as well as corporate governance as a whole and the effect of corporate governance in firm performance.

Section 5: Shareholder rights issues

It can be verified that when shareholder rights are more restricted, the firm is more likely to be diversified and weak shareholder rights allow management to diversify the firm unwisely, resulting in a decline in value (Jiraporn, et al. 2006). While analyzing the shareholder rights in an organization several questions needs to be answered. Can the shareholders to vote for individual directors, or only the entire slate of nominees and the company has a majority voting policy? What is the shareholders say on CEO and executive compensation policy? Companies with better corporate governance practices are tend to be respecting shareholders rights much more than companies with weaker shareholder rights.

The empirical evidences show that firms where shareholder rights are weaker tend to repurchase less stock and this can be due to the fact that the "..managers of firms with weak"
shareholder rights are better able to exploit the weak shareholder rights and retain more cash within the firm, potentially to extract private benefits as alleged by the free cash flow hypothesis. Managers of firms with strong shareholder rights, on the contrary, are forced to disgorge cash to stockholders in the form of repurchases.” (Jiraporn 2006).

An empirical study by Jiraporn, et al. (2006) find that firms where shareholder rights are weak are more likely to be industrially diversified and the explanation for this diversification is that the managers exploit the weak shareholder rights and diversify the firm unwisely. As a result, industrially diversified firms exhibit a reduction in value (Jiraporn, et al. 2006).

According to La Porta et al (2000) corporate governance is a set of mechanisms that outside investors use to protect themselves against expropriation by the insiders. In Asian countries, there is a negative relationship between the separation of ownership and voting rights and firm value (Claessens, Djankov and Lang 2000) and in line with this argument (La Porta, et al. 2002) states that there is evidence of higher firm valuations in countries where better protection is provided for minority shareholders and in firms with higher cash-flow ownership by the controlling shareholder. In their empirical research they explain the consequences of corporate ownership for corporate valuation in different legal regimes and it is empirically proven that poor shareholder protection is penalized with lower valuations, and that higher cash-flow ownership by the controlling shareholder improves valuation, particularly in countries with poor track record of investor protection (La Porta, et al. 2002).
Section 6: Corporate governance and Organizational performance

It is a fact that several studies on the corporate governance has failed to provide convincing answers with respect to the relationship between corporate governance and organizational performance. More and more literatures and studies are being published in this subject area. We discussed recent research on the importance. The number of corporate governance mechanisms and their impact on overall corporate performance are widely discussed. However, all these discussions fail to provide a definite answer about the right choice and number of corporate governance provisions that can provide a definite outcome in terms of corporate financial performance. How various corporate governance provisions affect the outcome of organizational performance is a an important question that has to be answered as most often corporate governance provisions can work as a motivating factor for managers to perform for the benefit of shareholders (Kang and Shivdasani 1995).

According to Heracleous (2001), there some important interwoven reasons why "best practices" in corporate governance failed to find convincing connections between corporate governance and organizational performance. In their article the authors illustrates the reasons for this weak relationship that may be evident in the studies between corporate governance and firm performance are the possibility that "best practices" are irrelevant to performance and the operationalisation of theoretical concepts has low face validity. The studies are too narrow, aiming to relate board attributes directly to organizational performance and ignoring other systemic factors (Heracleous 2001).

In developed countries such as UK, USA, impact of firm-level variation in corporate governance behavior on market value can be minor. In contrast, firm-level governance
behavior has a huge effect on market value in developing countries (Black 2001). In emerging and transitioning countries, effective governance in all economic transactions has a critical role to play (Dharwadkar, George and Brandes 2000). As context has a unique importance in corporate governance analysis (Heracleous 2001), it is essential to examine how corporate governance is related to organizational performance in developing countries as well as in developed countries.

**Firm performance and corporate governance empirical results: a review**

Using Brunswick Warburg corporate governance rankings as a benchmark, a study was conducted on twenty-one Russian firms to examine the corporate governance. The study results suggest that the organizations can significantly improve firm share values through better corporate governance practices, and therefore the cost of raising equity capital can be reduced. It also suggests that the possible value of minimum quality regulation, which can reduce the potential for adverse selection, and thus improve market value of the firm. The implication of this study is that the investors should devote major attention to developing measures of governance behavior and quantifying how governance behavior affects firm value (Black 2001). Another empirical study in Russia finds that firms that can cut unproductive costs and being led capably with outside monitoring can be much more competitive (Judge, Naoumovab and Koutzevol 2003).

While conventional corporate governance mechanisms fail to provide a clear answer to firm performance, it may be necessary to investigate alternate corporate governance strategies. An examination of how alternative corporate governance mechanisms work in
Japan, using a detailed panel data on the equity ownership and bank loans of individual manufacturing companies over the period from 1985 to 1998 was conducted by Hiraki et al (2003). The researchers examined the governance roles undertaken by main bank; interoperate shareholding, and managerial ownership among Japanese manufacturing firms which list their shares on the Tokyo Stock Exchange. The research objective was to investigate on the extent to which alternative governance mechanisms are related to firm value. "...If a particular governance mechanism is effective in monitoring managers, it should enhance firm performance and hence be positively related to firm value across the sample firms" (Hirakia, et al. 2003). The research shows that cross shareholding can have detrimental effect on firm performance whereas a one-way ownership by lending institutions can influence firm performance positively. This means that lenders can influence the performance of Japanese firm by effective monitoring (Hirakia, et al. 2003).

Industries undergo enormous stress during recession times as the agency problem can be aggravated during such testing times. "The incentives for expropriation by controlling shareholders will increase during a financial crisis; the agency problem between controlling and minority shareholders is particularly serious at such times" (Baeka, Kangb and Suh Park 2004). In this context it will be interesting to see how firms will be behaving in terms of corporate governance mechanisms and subsequent organizational financial performance. Korean financial crisis was a testing time for Korean industries and organizations with regards to the strength of the corporate governance mechanisms that they engaged.

A research by Baeka, Kangb and Suh Park (2004) examined the importance of corporate governance measures in determining firm value during a crisis like one Korea.
experienced in 1997. It has been evident in the research that firms with larger equity ownership by foreign investors and firms that have higher disclosure quality and alternative sources of external financing experience a smaller reduction in their share value. In contrast, firms where ownership is concentrated in owner-managers and/or affiliated firms displayed a larger drop in equity value. Firms in which the controlling shareholder's voting rights exceeded the cash flow rights and those that indebted more to the main banks also had significantly lower returns. We find similar effects for highly diversified firms, those with high leverage, and those that are small and risky. This means that during a crisis, differences in governance practice at the firm level play an important role in determining firm value (Baeka, Kangb and Suh Park 2004).

An unbalanced panel of 1721 firms from 1980 to 1995 was observed in a study that has a cumulative a total of 22,776 firm year observations by Nelson (2005). According to the study typical firms adopting governance provisions requiring shareholder endorsement outperform benchmark portfolios for 1, 2, 3 and 5 years prior to adoption. Whereas, typical firms adopting poison pills underperform benchmark portfolios for 1, 2, 3 and 5 years prior to adoption. Major factors that can influence the firm performance are levels of institutional ownership, levels of insider ownership and the number hostile bids. Shareholders can be mainly concerned with performance, and are more likely to vote to increase the power of the boards of directors of better performing firms, while the boards of poorly performing firms are much more likely to initiate governance changes, such as poison pills, that circumvent shareholder approval (Nelson 2005).
Using a corporate governance index that rates firms by incorporating six different corporate governance dimensions such as (1) board accountability, (2) financial disclosure and internal controls, (3) shareholder rights, (4) remuneration, (5) market for control, and (6) corporate behavior and by combining these categories into a single index, the researchers (Bauer, et al. 2008), analyze whether Japanese firms with many governance provisions have a better corporate performance than firms with few governance provisions. According to the study (Bauer, et al. 2008) of well-governed and poorly governed firms, the researchers find that well-governed firms considerably outperform poorly governed firms by up to 15% a year, even after correcting for market risk and size and book-to-market effect. The study also noted that the provisions that deal with financial disclosure and internal control, shareholder rights, and remuneration have a significant impact on stock performance whereas provisions that deal with board accountability, market for control and corporate behavior do not affect stock performance. These findings attribute to the belief that in corporate governance of a firm, all the corporate governance mechanisms are not equally important to affect the firm performance (Bauer, et al. 2008).

After the economic bubble period spanning from late 1980 to the first half of 1990, Japanese economy fell into deep recession called “lost decade”. In a Japanese corporate governance research (Sueyoshi, Goto and Omi 2010), it was found that firms try to change the corporate governance mechanisms in unusual situations like economic recessions. The same research investigated to find out whether the economic reforms on corporate governance amplified or decreased the operational performance of Japanese manufacturing industries. The study shows that the Anglo Saxon model of corporate governance may not be
suitable in Japanese manufacturing environment as Anglo Saxon style of reforms on corporate governance have reduced the ratio of shares held by stable shareholders in Japan where as in the United States several internal and external mechanisms can work as motivating factors for the managers to augment shareholder wealth (Kang and Shivdasani 1995, Sueyoshi, Goto and Omi 2010).

The stable shareholding by cross-shareholding is one of traditional corporate governance systems. However, the stable shareholding becomes effective only when the ratio of shares held by stable shareholders is more than 61.21%. In addition to that the foreign investment can improve the corporate performance of Japanese manufacturing industries until the ratio of shares held by foreign shareholders attains 19.49%. This implies that a balance between foreign corporate governance ideas and Japanese traditional corporate governance systems can improve the corporate performance (Sueyoshi, Goto and Omi 2010). It has been seen that every geographical areas need to have unique set of corporate governance practices or mechanisms. A number of Japanese firms do have several corporate governance mechanisms and the number of corporate governance provisions can be varying from firm to firm.

The literature review indicates the necessity to investigate the relationship between corporate governance and firm performance based on the context in which the organization operates. It will be the right approach to compare the corporate governance ranking of the firm in developed in the country in which the firm operates and compare that with the financial performance of the firm in order to get a better understanding. This approach is much relevant while evaluating corporate governance as the impact of both internal and

CORPORATE GOVERNANCE AND PERFORMANCE: A STUDY OF CANADIAN COMPANIES -2009
external corporate governance mechanisms on the corporate performance are depending on the unique characteristics of the country in which the organization operates.

While examining the corporate governance and firm performance, it is necessary to take examine various corporate governance systems in place. Donker and Zahir (2008) identifies some of the major rating systems such as Institutional Share Holders Services corporate governance quotient, Standard & Poor corporate governance quotient, Governance metric international (GMI) index, The corporate library board effectiveness rating. However it is their contention that the corporate governance ranking system is not impartial and can be influenced by various factors such as country and legal aspects, revealed preferences versus stated preferences and the scaling each rating system uses can be totally different for company to company and country to country (Donker and Zahir 2008).

Section 7: Literature review summary

Based on the literature review, the summary of the hypothesis is given below

<table>
<thead>
<tr>
<th>Corporate Governance Variables</th>
<th>Financial Performance -ve/+ ve</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Board composition</td>
<td></td>
</tr>
<tr>
<td>• Insider/outsider ratio (board independence)</td>
<td>+ve</td>
</tr>
<tr>
<td>• Audit committee independence</td>
<td>+ve</td>
</tr>
<tr>
<td>• Compensation committee independence</td>
<td>+ve</td>
</tr>
<tr>
<td>2) Shareholding and compensation</td>
<td>+ve</td>
</tr>
<tr>
<td>• Directors shareholding pattern</td>
<td>-ve/+ve</td>
</tr>
</tbody>
</table>
• Directors shareholding trend  
   -ve/+ve

• CEO shareholding trend  
   -ve/+ve

3) Shareholder right issues  
   +ve

• Company allows shareholders to vote for directors  
   +ve

• Majority voting policy  
   +ve

• Shareholders say on compensation  
   +ve

4) Disclosure issues  
   -ve/+ve
Chapter III

Data base and methodology

This chapter reviews the database and methodology used in this study. This chapter is organized as follows. Section 1 discusses the database discussed in this study and section 2 presents the methodology used in this study.

Section 1: Database

The corporate governance index used in this study (for Canada) is the widely used index published by Globe and Mail. The companies included in this study will be drawn from list of Canadian companies listed in the Toronto stock exchange and those are ranked by Globe and mail corporate governance ranking. In 2009, 157 Canadian corporations were ranked by Globe and Mail based on their corporate governance performance score in a total marking scheme of 100. Out of 100 marks, Board Composition, had a weight of 31 per cent in the overall index. Shareholding and compensation had a slightly lower weight of 24 per cent. Similarly shareholder rights issues had 33 weight of 100 with 12 subcategories and finally disclosure issue had a weight of 12 per cent of 100 with 10 sub categories (See chart 3.1)
This study took one hundred and fifty two companies from the rank list to investigate the relationship between corporate governance and firm financial performance. Total assets, return on assets, return on equity and debt/asset ratio were obtained from Osiris database available through UNBC library website. The definition of variables and sources are given in Table 3.
Table 3.1 – Definition of Variables and Sources

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>Return on Assets(%)</td>
<td>OSIRIS database.</td>
</tr>
<tr>
<td>ROE</td>
<td>Return on Equity (%)</td>
<td>OSIRIS database.</td>
</tr>
<tr>
<td>TA</td>
<td>Total Assets (in million C$)</td>
<td>OSIRIS database.</td>
</tr>
<tr>
<td>D/E</td>
<td>Debt-Equity Ratio</td>
<td>OSIRIS database.</td>
</tr>
<tr>
<td>DumO</td>
<td>Overall corporate governance indicator</td>
<td>Derived from Globe and Mail data</td>
</tr>
<tr>
<td>Dum1</td>
<td>Board Composition</td>
<td>Derived from Globe and Mail data</td>
</tr>
<tr>
<td>Dum2</td>
<td>Share Holding and Composition</td>
<td>Derived from Globe and Mail data</td>
</tr>
<tr>
<td>Dum3</td>
<td>Share Holder rights</td>
<td>Derived from Globe and Mail data</td>
</tr>
<tr>
<td>Dum4</td>
<td>Disclosure Issues</td>
<td>Derived from Globe and Mail data</td>
</tr>
</tbody>
</table>

Methodology

This study uses a cross relation regression method (OLS) to examine the relationship between firm performance (ROA, ROE) and other determinants including corporate governance variables i.e.,

\[
Firm\ Performance = \alpha + \beta \cdot \text{Firm Corporate Governance Variable}_i + \gamma \cdot \text{Controls}_i + \epsilon_i \tag{3.1}
\]

Here the firm performance is measured by Return on Assets (ROA) and Return on Equity (ROE). Controls are observable firm characteristics that could influence the firm performance. We have taken total assets and debt-equity ratio as control variables. The aggregate corporate governance score (Di) of each Canadian company was constructed with a dummy variable(s) (D) using the following criteria.

\[
D=1 \text{ if } y_i > \frac{1}{\gamma}
\]
D=0 if \( y_i < \frac{-\bar{y}}{} \)

Where \( \bar{y} \) is the mean value of the corporate governance index.

The study uses the following functional form

\[
ROA = \alpha_0 + \alpha_1 \log(TA)_{it} + \alpha_2 (D/E)_{it} + \alpha_3 \text{ Firm Corporate Governance Dummy}_{it} + \varepsilon_{it} \tag{3.2}
\]

It is hypothesized that \( \alpha_1 > 0, \alpha_2 < 0, \alpha_3 > 0 \).

\[
ROE = \alpha_0 + \alpha_1 \log(TA)_{it} + \alpha_2 (D/E)_{it} + \alpha_3 \text{ Firm Corporate Governance Dummy}_{it} + \varepsilon_{it} \tag{3.3}
\]

It is hypothesized that \( \alpha_1 > 0, \alpha_2 < 0, \alpha_3 > 0 \).

We also used individual dummies for each component of corporate governance index of Globe and Mail as follows.

\[
ROA = \alpha_0 + \alpha_1 \log(TA)_{it} + \alpha_2 \text{ debt} + \alpha_3 \text{ dummy}_1 + \alpha_4 \text{ dummy}_2 + \alpha_5 \text{ dummy}_3 + \alpha_6 \text{ dummy}_4 + \varepsilon
\]

\[
ROE = \alpha_0 + \alpha_1 \log(TA)_{it} + \alpha_2 \text{ debt} + \alpha_3 \text{ dummy}_1 + \alpha_4 \text{ dummy}_2 + \alpha_5 \text{ dummy}_3 + \alpha_6 \text{ dummy}_4 + \varepsilon
\]
Chapter IV

Empirical Results

This chapter presents the results of the empirical investigation. This chapter is organized as follows. Section 1 presents basic statistics of the data used in the empirical investigation. Section 2 presents results of the empirical investigation. Section 3 summarizes the main conclusions.

Section 4.1

Summary Statistics and Some Stylized Facts

The average asset size of the firms in the study is $29,140 million. However, the median size is only $3330 million which indicates that there is considerable variation in the firm size among 152 Canadian companies used in the study (Table 4.1). The lowest size of firm in the study is $71 million while the largest firm has a total asset size of $654,989 million. In general, total asset size variable is positively skewed (skewness = 5).

The average return on assets (ROA) is 2.16 per cent with median value substantially higher at 2.99. The lowest ROA was -47.15 while firm with the highest ROA was 26.08. Unlike total assets, ROA is negatively skewed (-2.35 per cent). Similarly, return on equity (ROE) also showed wide variation. The average ROE was 0.04 per cent with median value

CORPORATE GOVERNANCE AND PERFORMANCE: A STUDY OF CANADIAN COMPANIES -2009
well above it (0.08) indicating that the data series was negatively skewed (-3.78). The lowest and the highest ROE were -1.42 per cent and 0.37 per cent respectively.

**Table 4.1: Basic Descriptive Statistics**

<table>
<thead>
<tr>
<th>Basic Statistics</th>
<th>Total Assets</th>
<th>Overall Corporate Governance Dummy</th>
<th>Dum 1</th>
<th>Dum 2</th>
<th>Dum 3</th>
<th>Dum 4</th>
<th>Debt/Equity Ratio</th>
<th>ROA</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>29140</td>
<td>0.49</td>
<td>0.57</td>
<td>0.57</td>
<td>0.53</td>
<td>0.53</td>
<td>64</td>
<td>2.16</td>
<td>0.04</td>
</tr>
<tr>
<td>Median</td>
<td>3330</td>
<td>0.04</td>
<td>1.00</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
<td>38</td>
<td>2.99</td>
<td>0.08</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>92714</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>0.50</td>
<td>82</td>
<td>8.11</td>
<td>0.21</td>
</tr>
<tr>
<td>Skewness</td>
<td>4.91</td>
<td>0.02</td>
<td>-1.94</td>
<td>-1.94</td>
<td>-2.01</td>
<td>-2.02</td>
<td>2</td>
<td>-2.35</td>
<td>-3.78</td>
</tr>
<tr>
<td>Range</td>
<td>654918</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>495</td>
<td>73.2</td>
<td>1.79</td>
</tr>
<tr>
<td>Minimum</td>
<td>71</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-47.1</td>
<td>-1.42</td>
</tr>
<tr>
<td>Maximum</td>
<td>654989</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>495</td>
<td>26.08</td>
<td>0.37</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>152</td>
<td>152</td>
<td>152</td>
<td>152</td>
<td>152</td>
<td>152</td>
<td>152</td>
<td>152</td>
<td>152</td>
</tr>
</tbody>
</table>

The debt-equity ratio which indicates the magnitude of leverage of firms in the study also showed wide variation. The average debt-equity ratio was 64 per cent with the lowest value being zero (with no debt) and the highest value was 495 per cent. Out of 152 corporations 75 corporations were above the overall corporate governance mean value and were given a dummy variable of 1 and the rest 77 were given zero.
Section 4.2: Cross-Sectional Results

Table 4.2 summarizes the results of the cross-section regression results based on ordinary least squares for equations 3.2 and 3.3 (given below).

\[
ROA = \alpha_0 + \alpha_1 \text{log(TA)}_{it} + \alpha_2 (D/E)_{it} + \alpha_3 \text{Firm Corporate Governance Dummy}_{it} + \varepsilon_{it}
\]

\[
ROE = \alpha_0 + \alpha_1 \text{log(TA)}_{it} + \alpha_2 (D/E)_{it} + \alpha_3 \text{Firm Corporate Governance Dummy}_{it} + \varepsilon_{it}
\]

Table 4.2: Determinants of Firm Performance in Canada - 2009 (ROA and ROE)

<table>
<thead>
<tr>
<th>Eq.</th>
<th>Dep. variable</th>
<th>Constant</th>
<th>\text{Diagnostics}</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>\text{Log(TA)}</td>
</tr>
<tr>
<td>3.2</td>
<td>ROA</td>
<td>-1.35</td>
<td>0.37</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-0.38)</td>
<td>(0.82)</td>
</tr>
<tr>
<td>3.3</td>
<td>ROE</td>
<td>-0.26</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-2.9)**</td>
<td>(3.17)**</td>
</tr>
</tbody>
</table>

Note: 1. Figures in brackets are 't'-values.

2. ***, **, * indicates statistical significance at 1%, 5% and 10% respectively.

The ROA equation (equation 3.2) shows that corporate governance variable has a positive impact on firm performance. Moreover, the corporate governance dummy variable is statistically significant at 5 per cent. Total assets variable is also positively related to firm’s performance (ROA) but is not statistically significant. Debt-Equity ratio has a negative impact on firm’s performance and is statistically significant. The overall explanatory power
of the equation is relatively modest ($R^2 = 0.06$) but is considered reasonable given the nature of the cross-section data.

The ROE equation (equation 3.3) is better than ROA equation as all the independent variables (total assets, D/E ratio and corporate governance) variable is statistically significant and has the expected (hypothesized) signs. In this equation also, the corporate governance variable has a positive impact on firm’s performance (ROE). The overall fit of the equation is also relatively high ($R^2 = 0.13$). The equation is also devoid of auto-correlation problems as evidenced from durbin-watson statistic of close to 2.

We consider that the relationship of firm performance in terms of ROE and corporate governance has much stronger relationship than ROA as ROE is influenced by the market forces. Most often ROA is calculated using historical value of assets and in may not be representing the true nature of the assets of the company.

Table 4.2 reports the empirical results where disaggregated corporate governance variable for each attribute (dummy 1 to dummy4) was used in the estimation. The results are generally unsatisfactory as most of control variables (total assets and debt-equity ratio) and disaggregated dummy variables were not statistically significant. Among the corporate governance variables only shareholder rights variable was statistically significant.
Table 4.3: Determinants of Firm Performance in Canada—Dependent Variables ROA & ROE - 2009

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.93</td>
<td>-0.27</td>
</tr>
<tr>
<td></td>
<td>(-0.26)</td>
<td>(-2.99)***</td>
</tr>
<tr>
<td>Log (Total Assets)</td>
<td>0.18</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>(0.37)</td>
<td>(3.04)***</td>
</tr>
<tr>
<td>Debt-Equity Ratio</td>
<td>-0.01</td>
<td>-0.1</td>
</tr>
<tr>
<td></td>
<td>(-1.89)*</td>
<td>(-2.63)***</td>
</tr>
<tr>
<td>Corp. Gov. Dummy1</td>
<td>2.58</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>(1.79)*</td>
<td>(1.40)</td>
</tr>
<tr>
<td>Corp Gov Dummy2</td>
<td>1.45</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>(0.90)</td>
<td>(-0.01)</td>
</tr>
<tr>
<td>Corp Gov Dummy3</td>
<td>3.10</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>(2.06)**</td>
<td>(1.78)*</td>
</tr>
<tr>
<td>Corp Gov Dummy4</td>
<td>-2.59</td>
<td>-0.06</td>
</tr>
<tr>
<td></td>
<td>(-1.66)*</td>
<td>(-1.50)</td>
</tr>
</tbody>
</table>

| Number of Observations   | 152          | 152          |

**Diagnostics**

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>R Square</td>
<td>0.10</td>
<td>0.15</td>
</tr>
<tr>
<td>Durbin-Watson Statistic</td>
<td>2.1</td>
<td>1.9</td>
</tr>
<tr>
<td>F- Value</td>
<td>2.73</td>
<td>4.26</td>
</tr>
</tbody>
</table>

**Note:** 1. Figures in brackets are ‘t’-values.

2. ***,**,* indicates statistical significance at 1%, 5% and 10% respectively.
Section 4.3

Conclusions

The present study examined the relationship between firm performance and corporate governance indicators of 152 Canadian firms for 2009. The data set of Canadian companies displayed wide variations. The average asset size of the firms in the study is $29,140 million. The lowest size of firm in the study is $71 million while the largest firm has a total asset size of $654,989 million. The average return on assets (ROA) is 2.16 per cent with median value substantially higher at 2.99. The lowest ROA was -47.15 while firm with the highest ROA was 26.08. Similarly, return on equity (ROE) also showed wide variation. The average ROE was 0.04 per cent with median value well above it (0.08) indicating that the data series was negatively skewed (-3.78). The lowest and the highest ROE were -1.42 per cent and 0.37 per cent respectively. The debt-equity ratio which indicates the magnitude of leverage of firms in the study also showed wide variation. The average debt-equity ratio was 64 per cent with the lowest value being zero (with no debt) and the highest value was 495 per cent.

The empirical results based on regression (ordinary least squares) showed that overall corporate governance variables have a positive impact on firm’s performance in Canada. These results are invariant to the choice of firm performance indicator (like ROA and ROE). These results are broadly in conformity with earlier studies (although there were mixed results in earlier empirical investigation). Given the fact that these results are based on data set of 152 Canadian companies for 2009 only, there is need for more empirical verification. But that is beyond the scope of the present study due to constraint of resources and time.
Chapter 5

Concluding Observations

The issue of corporate governance of firms is in the forefront of debate recently following episodes of WorldCom, Enron, Parmalat, Lehman Brothers, Nortel (in Canada) has brought into the forefront of the debate the role corporate governance in firm's performance.

Studies on the relationship between corporate governance and the performance of firms to date suggest a positive association between corporate governance and various measures of performance of companies. Unlike the widely dispersed ownership in countries like United States and United Kingdom, the ownership of companies in Canada is concentrated - a controlling shareholder (usually a wealthy family) owns majority of the equity and ownership of firms. In Canada studies on the relationship between corporate governance and various performance indicators of firms are mixed. The present study examines using some of the recent data (of 152 firms in 2009), the relationship between corporate governance and firm performance in Canada.

The data set of Canadian companies displayed wide variations. The average asset size of the firms in the study is $29,140 million. The lowest size of firm in the study is $71 million while the largest firm has a total asset size of $654, 989 million. The average return
on assets (ROA) is 2.16 per cent with median value substantially higher at 2.99. The lowest ROA was -47.15 while firm with the highest ROA was 26.08. Similarly, return on equity (ROE) also showed wide variation. The average ROE was 0.04 per cent with median value well above it (0.08) indicating that the data series was negatively skewed (-3.78). The lowest and the highest ROE were -1.42 per cent and 0.37 per cent respectively. The debt-equity ratio which indicates the magnitude of leverage of firms in the study also showed wide variation. The average debt-equity ratio was 64 per cent with the lowest value being zero (with no debt) and the highest value was 495 per cent.

The empirical results based on regression (ordinary least squares) showed that an overall corporate governance variable has a positive impact on firm’s performance in Canada. These results are invariant to the choice of firm performance indicators (like ROA and ROE). These results are broadly in conformity with earlier studies (although there were mixed results in earlier empirical investigation). These results are also interesting given the fact that Canadian ownership structure is more concentrated. Most of the Canadian companies are listed also in US markets and that provides impetus for corporate governance practices to be implemented in Canada as well. Given these facts, the empirical results are not surprising. Apart from these facts, these results are based on data set of 152 Canadian companies for 2009 only, there is need for more empirical verification and calibration. But that is beyond the scope of the present study due to constraint of resources and time.
Bibliography


Arrow KJ. *The economics of agency*. See Pratt & Zeckhauser 1985, pp. 37–51


Heracleous, Loizos. "What is the Impact of Corporate Governance on Organisational Performance?" *CORPORATE GOVERNANCE* 9, no. 3 (July 2001): 165-173.


Unite, Angelo A, Michael J Sullivan, Brookman Jeffrey, Mary Anne Majadillas, and Angelo


