

ปัจจัยที่กำหนดแนวปฏิบัติในการกำกับดูแลกิจการ:  
หลักฐานเชิงประจักษ์จากประเทศไทย



นางอรุณี ยศบุตร

ศูนย์วิทยพัทยากร  
จุฬาลงกรณ์มหาวิทยาลัย

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THE DETERMINANTS OF CORPORATE GOVERNANCE PRACTICES:  
EMPIRICAL EVIDENCE FROM THAILAND



Mrs. Arunee Yodbutr

ศูนย์วิทยพัทยากร  
จุฬาลงกรณ์มหาวิทยาลัย

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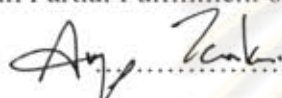
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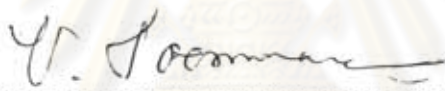
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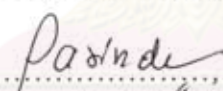
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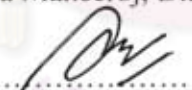
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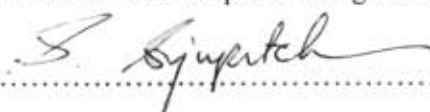
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(Associate Professor Supol Durongwatana, Ph.D.)

..... External Examiner  
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งานวิจัยนี้ได้ทำการศึกษาถึงผลกระทบของโครงสร้างผู้ถือหุ้น ลักษณะของบริษัท และผลประกอบการ  
ของบริษัทที่มีต่อแนวปฏิบัติในการกำกับดูแลกิจการของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย  
ในระหว่างปีพ.ศ. 2550 – 2551 โดยใช้การวิเคราะห์ความถดถอยเชิงพหุโครงสร้างผู้ถือหุ้นประกอบด้วย การ  
กระจุกตัวของการถือหุ้น การถือหุ้นของนักลงทุนสถาบัน การถือหุ้นของต่างชาติ การถือหุ้นของรัฐบาล การถือ  
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ของสินทรัพย์ไม่มีตัวตน และภาระหนี้สินของบริษัท สำหรับผลประกอบการของบริษัทนั้น การศึกษาในครั้งนี้ได้  
พิจารณาถึงทั้งผลประกอบการทางบัญชีและผลประกอบการทางตลาดหุ้น โดยใช้อัตราผลตอบแทนต่อสินทรัพย์  
สุทธิ (RONA) และค่า Tobin's Q เป็นตัวแทนผลประกอบการดังกล่าวตามลำดับ เมื่ออ้างถึงทฤษฎีตัวแทน  
(Agency Theory) ของ Jensen and Meckling (1976) การศึกษาครั้งนี้จึงได้ตั้งสมมติฐานไว้ว่าโครงสร้างผู้ถือหุ้นมี  
ผลกระทบต่อแนวปฏิบัติในการกำกับดูแลกิจการเช่นเดียวกันกับลักษณะของบริษัทนอกจากนี้การศึกษานี้ยัง  
ได้ตั้งสมมติฐานอีกว่าบริษัทที่มีผลประกอบการดีจะมีการกำกับดูแลกิจการที่เข้มแข็ง

สอดคล้องกับสมมติฐานดังกล่าวข้างต้น การศึกษาที่พบว่าบริษัทที่มีนักลงทุนสถาบัน รัฐบาล หรือ  
ครอบครัวถือหุ้นในสัดส่วนที่สูงจะมีแนวปฏิบัติการกำกับดูแลกิจการที่เข้มแข็ง โดยแนวปฏิบัติในการกำกับดูแล  
กิจการวัดโดยใช้ดัชนีการกำกับดูแลกิจการ แต่บริษัทที่มีการกระจุกตัวของการถือหุ้นจะมีแนวปฏิบัติในการกำกับ  
ดูแลกิจการที่อ่อนแอ สำหรับลักษณะของบริษัทนั้น บริษัทที่มีขนาดใหญ่จะมีแนวการปฏิบัติในการกำกับดูแล  
กิจการที่เข้มแข็ง ในขณะที่บริษัทที่มีภาระหนี้สินมากจะมีแนวปฏิบัติในการกำกับดูแลกิจการที่อ่อนแอ บริษัทที่มี  
ผลประกอบการทางตลาดหุ้นที่ดีก็จะมีแนวปฏิบัติในการกำกับดูแลกิจการที่เข้มแข็งเช่นกัน อย่างไรก็ตาม  
การศึกษานี้พบว่ามีความแปรอีกห้าตัวแปรที่ไม่มีความสัมพันธ์อย่างมีนัยสำคัญกับแนวปฏิบัติในการกำกับดูแล  
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ถือหุ้น ลักษณะของบริษัท และผลประกอบการของบริษัท เป็นปัจจัยที่กำหนดแนวปฏิบัติในการกำกับดูแลกิจการ  
ของบริษัทจดทะเบียนในประเทศไทย ถึงแม้ว่าตัวแปรที่ทำการศึกษาจะไม่มีความสัมพันธ์อย่างมีนัยสำคัญในทุก  
ตัวแปรก็ตาม

ภาควิชา การบัญชี

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ลายมือชื่อนิสิต.....

อรุณี ชบุตร

ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์หลัก.....

ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์ร่วม.....

## 4983356026: MAJOR ACCOUNTANCY

KEYWORDS: CORPORATE GOVERNANCE / OWNERSHIP STRUCTURE / FIRM CHARACTERISTICS / FIRM PERFORMANCE

ARUNEE YODBUTR : THE DETERMINANTS OF CORPORATE GOVERNANCE PRACTICES: EMPIRICAL EVIDENCE FROM THAILAND. THESIS ADVISOR : PARINDA MANEEROJ, D.B.A., THESIS CO-ADVISOR : AIM-ORN JAIKENGKIT, Ph.D., 139 pp.

This study investigates the effects of firms' ownership structure, firm characteristics, and firm performance on corporate governance practices of firms listed in The Stock Exchange of Thailand (SET) during 2007-2008 by using multiple regression analysis. Firm's ownership structure consists of ownership concentration, institutional ownership, foreign ownership, government ownership, family ownership, and political connection. Firm characteristics are firm size, growth, intangible assets, and leverage. For firm performance, this study considers both accounting performance and market performance based on return on net assets (RONA) and Tobin's Q as the proxies, respectively. According to agency theory (Jensen and Meckling, 1976), this study hypothesizes that firms' ownership structure has effects on corporate governance practices of the firm as well as the firm characteristics. In addition, this study also hypothesizes that firms with good performance will have strong corporate governance practices.

Consistent with the above hypotheses, this study finds that firms with high institutional ownership, government ownership, or family ownership have strong corporate governance practices, as measured by corporate governance index (CGI). But firms with high concentration ownership have weak corporate governance practices. For firm characteristics, large firms have strong corporate governance practices while high levered firms have weak practices. Firms with high market performance also have strong corporate governance practices. Nevertheless, this study finds that there are five variables that are not significant associated with corporate governance practices, which are foreign ownership, political connection, firm growth, firms intangible assets, and firm accounting performance. Overall, these results imply that ownership structure, firm characteristics, and firm performances are the determinants of corporate governance practices of Thai listed firms even if not all of the variables are significant.

จุฬาลงกรณ์มหาวิทยาลัย

Department: Accountancy.....

Field of Study: Accountancy.....

Academic Year: 2010.....

Student's Signature..... Aruneey Y......

Advisor's Signature..... Parinda.....

Co-Advisor's Signature..... Aim-Orn.....

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ศูนย์วิทยทรัพยากร  
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# CHAPTER I

## INTRODUCTION

### *1.1 INTRODUCTION*

After the collapse of prominent firms in the USA and UK such as Enron, Arthur Anderson, and Marconi, corporate governance has become increasingly important. Many organizations and researchers have been interested and concerned about corporate governance issues. Currently, research concerning corporate governance issues are conducted around the world.

A high percentage of studies about corporate governance rely on the consequences of corporate governance practices (Core, Holthausen, and Larcker, 1999; Larcker, Richardson, and Tuna, 2004; Anderson et al., 2004; DeFond et al., 2005; Gupta, 2005; Rubach and Picou, 2005; Ashbaugh-Skaife, 2006). And almost all of them find that corporate governance is helpful for firms (La Porta, Lopez-De-Silanes, and Shleifer, 1999; Mitton, 2001; Durnev and Kim., 2003; Klapper and Love, 2004; Rubach and Picou, 2005; Ashbaugh-Skaife et al., 2006; Black, Jang, and Kim, 2006; Rocca, 2007; Donker and Zair, 2008), but if this is so, why aren't firms implementing the best practice of corporate governance in order to receive the most benefit for their firms? Corporate governance practices vary even in the same country (Klapper and Love, 2004). Thus, the purpose of this study is to investigate the factors behind the decision of the firm about their corporate governance practices.

Unfortunately, the research about the antecedents or the determinants of corporate governance is rare, especially in Thailand. In Thailand, listed companies usually have concentrate ownership and many of them are family firms. This outstanding characteristic is different from developed capital market such as in Western markets. Furthermore, political connection factor is omitted from any prior research despite it is the importance in determining corporate governance practices. Therefore, this study aims to investigate the determinants of corporate governance practices in Thailand that includes family ownership and political connection as two factors among various other factors.

The agency theory (Jansen and Mecking, 1976) is used in this study as a theoretical framework. The two competing effects, the entrenchment effect and the alignment effect, are also tested in this study. The entrenchment effect argues that high managerial ownership increases the capacity of the managers to make decisions which do not maximize firm value but maximize their wealth. In contrast, the alignment effect is based on the notion that the interests of controlling shareholders and minority shareholders are more aligned because of the large blocks of stocks owned by controlling shareholders and their long-term presence. This study examines the effects of firms' ownership structure, firm characteristics, and firm performance on corporate governance practices of the firm. Ownership concentration, institutional ownership, foreign ownership, government ownership, family ownership and political connected ownership are used as proxies for ownership structure in this study. For firm characteristics, this study uses firm size, firm growth, firm's intangible assets, and firm leverage as the proxies. Finally, RONA and Tobin's Q are used as proxies

for firm performance. For corporate governance practices of the firm, this study uses corporate governance index (CGI) measured by the tool constructed by Connelly, Limpaphayom, and Nagarajan (2008) as the proxy.

According to agency theory, different ownership structures and firm characteristics have different agency problem and consequently have different needs to cope with it by using governance mechanism. Therefore, this study hypothesizes that ownership structure effects the corporate governance practices of the firm as well as the firm characteristics.

Furthermore, agency theory explains that agency problems provide cost such as monitoring cost, the bonding cost, and residual loss. And good corporate governance practices also provide costs. Firm performance is an important factor of the firm's source of funds that can be used in firm's activities. Therefore, this study hypothesizes that firms with good performance will have strong corporate governance practices.

This study uses the sample of all non-financial firms listed on the Stock Exchange of Thailand during 2007-2008. Financial firms and firms in non performing group are excluded because of the extra regulations and lack of available data, respectively. Data used in this study is gathered from the I-SIM CD-ROM, the SET market analysis and Reporting Tool ("SETSMART") on-line service and Datastream.

The data in this study are analyzed by multiple regression technique. Corporate governance index (CGI), the dependent variable, is measured by the tool constructed by Connelly et al. (2008), which developed 117 criteria from OECD 2004 and takes into account the subtleties of Thai laws and regulations.

This study finds that there is association between firm ownership structures and corporate governance practices. Firms with high institutional ownership, government ownership, and family ownership have high corporate governance index. While firms with high ownership concentration have low corporate governance index.

This study also finds that there is association between firm characteristics and corporate governance practices. The larger firms have high corporate governance index. But firms with high leverage have low corporate governance index.

For firm performance, this study finds the positive association between firm market performance and corporate governance but does not find any association between accounting performance and corporate governance practices.

## *1.2 MOTIVATION*

Prior research conducted on corporate governance has focused on the consequences of corporate governance such as the price reaction to corporate governance practice (Picou and Rubach, 2005), the effect of corporate governance on firm performance (Donker and Zair, 2008), the effect of corporate governance on firm value (Rocca, 2007), the effect of corporate governance on stock price (Mitton, 2001),

the effect of corporate governance of firm's credit rating (Ashbaugh-Skaife et al., 2006), and the effects of corporate governance in both operating performance and market valuation (Klapper and Love, 2004). However, there are few research concerning the antecedences or the determinants of corporate governance practices.

Many studies find the positive correlation between corporate governance and firm value (Mitton, 2002; Klapper and Love, 2004; Durner and Kim, 2005; Black et al., 2006). But if this is so, why aren't firms improving their corporate governance in order for their shareholder value to further increase? This is an unanswered question.

Besides, prior research is often interested in each component of corporate governance, especially on board structure and board characteristics (Eisenberg, Sundgren, and Wells, 1998; John and Senbet, 1998; Anderson et al., 2004; DeFond et al., 2005; Gupta, 2005) but there are limited amount of research that are interested in the overall corporate governance.

Researchers have begun to use corporate governance composite index to assess corporate governance practices of the firm (Gompers, Ishii, and Metrick, 2003; Drobetz, Schillhofer, and Zimmerman, 2003; Brown and Caylor, 2006). But their composite indices are not relevant for Thai firms because they are largely structured based on the extent of takeover defenses. Hostile takeovers are infrequent in Thailand.

Thailand is similar to other countries in emerging economies where ownership concentration is more pronounced. After the financial crisis in 1997, Thai firms have

more dispersed ownership but Thai firms still have concentrated ownership (78.93% after the crisis compared to 83.59% before the crisis) (Wiwattanakantang, 2000 and Khanthavit, Polsiri, and Wiwattanakantang, 2002). Furthermore, Thai and East Asian firms have a dominant owner who is a family member (Claessens, Djankov, and Xu, 2000; Lins, 2000) and these countries have weak investor protection legal system. The above information highlights the fact that Thailand has a different financial environment from that of Western developed countries.

In Thailand, there is no prior research about the factors or the determinants of corporate governance practices. Furthermore, there is limited research about the determinants of corporate governance in other countries especially in western economies, which are not concerned about family firms. This is probably due to the low amount of family firms in developed economies.

From the above mentioned, I am motivated to study about the determinants of corporate governance practices in Thailand, which will be the first study about the determinants of corporate governance practices in Thailand, while other studies focus on the consequences of them. This study is distinguished from others by using composite corporate governance index (CGI) that has been developed from OECD principles and the Code of Best Practices of Thailand (Connelly et al., 2008). Furthermore, this study includes family firm and political connected firm factors, which no prior research has included.



### *1.3 RESEARCH OBJECTIVE*

This study intends to investigate the effects of firm ownership structure, firm characteristics and firm performance on corporate governance practices of the firm in Thailand. The findings will provide greater knowledge and understanding of the effects of firm ownership structure, firm characteristics and firm performance on corporate governance practices of the Thai firm. To achieve this outcome this study has three objectives:

1. To understand the effects of ownership structures on corporate governance practices of the Thai listed firms.
2. To understand the effects of firm characteristics on corporate governance practices of the Thai listed firms.
3. To understand the effects of firm performance on corporate governance practices of the Thai listed firms.

### *1.4 CONTRIBUTIONS*

This study provides a better understanding of the ownership structure, characteristics, performance and corporate governance practices of Thai listed firms. This study also provides the effects of ownership structure, firm characteristics, and firm performance on corporate governance practices of Thai listed firms. Besides, it extends the related corporate governance literature by using firm-level data of listed companies in the Stock Exchange of Thailand during 2007-2008. The information from this study should be of interest to various parties such as academics, investors, financial practitioners, standard setters, regulators, and policy makers in the Thai capital market, because the relationship of ownership structure, firm characteristics,

and firm performance and corporate governance practices can explain the variation of governance practices among Thai listed firms. Specifically, Thai capital market regulators (The Stock Exchange of Thailand and Securities and Exchange Commission) can use the information from this study to issue additional regulations or give incentive to listed firms to perform better governance practice in order to improve protection of investors in the Thai capital market.

The findings of this study are important since no prior study about the determinants of corporate governance practices in Thailand have been researched. Moreover, using Thai dataset, this study distinguishes from others, especially in developed countries, because of the different market environment. However, Thai dataset is similar to other East Asian countries, whereas firms have high ownership concentration and low investor protection mechanism (Klapper and Love, 2004). Therefore, the findings of this study could be extended to other East Asian capital market literatures and can be compared to other studies in East Asian countries as well.

In addition, the effects of political connection on corporate governance practices is another contribution of this study since no prior study has included this factor, even in developed markets. Therefore, the findings of this study are of interest and useful to various parties as mentioned above.

### *1.5 STRUCTURE OF THE DISSERTATION*

The dissertation is divided into six chapters. Chapter I introduces the research and its objectives. Chapter II presents a literature review. Chapter III presents theory and hypotheses development. Chapter IV presents the research design, providing details about sample selection, data, and model specifications, and variable measurement. Chapter V presents empirical findings. Conclusions and limitations are presented in Chapter VI which is the last chapter.



## **CHAPTER II**

### **LITERATURE REVIEW**

#### *2.1 CORPORATE GOVERNANCE PRACTICES IN THAILAND*

Before the East Asian economic crisis in 1997, Thailand like many countries in Asia, pursued a growth strategy that was largely quantity-oriented. This strategy lacked core components which would ensure the long-term stability of the financial system. The result was vulnerability in the Thai financial system, as well as a bubble situation in the real-estate sector, causing a major financial and economic crisis in Thailand in 1997. The lack of good corporate governance prior to the crisis was a major factor in the economic collapse (Mitton, 2002; Klapper and Love, 2004). The crisis provoked demands from investors and from the International Monetary Fund (IMF), as the country's major creditor, for a proper corporate governance standard to ensure sustainable growth in the financial system.

The initial improvement of corporate governance in Thailand began in 1998. The Stock Exchange of Thailand (SET) began to require newly listed companies to set up an audit committee. These committees are to be made up of at least 3 independent members, at least one of whom must have expertise in accounting or finance. Already listed companies have to set up their committee since 1999.

In 2000, SET published the Guidelines for Good Corporate Governance which gave clear guidance on good governance for companies registered in the Stock Exchange of Thailand. SET asked all listed companies to adopt these principles with

the expectation that the market would reward companies that met more guidelines than companies met fewer or none. In August 2001, SET published a new version of the report on Good Corporate Governance, based on feedback from the first set of guidelines. This report is regarded as an important benchmark of good corporate governance within companies. The Thai government declared 2002 as the year of Good Corporate Governance, indicating interest and motivation by regulators in supporting good corporate governance practices.

In addition to issue the guidelines and regulations, SET introduced financial and non-financial incentives to reward listed companies for good corporate governance. These included cutting fees for well-governed firms that issue bonds or equity, providing fast-track service for standard and recurrent regulatory approvals, and publishing a list of well-governed companies. The office of Securities and Exchange Commission (SEC) placed high importance on both disciplinary and incentive measures for promoting good governance.

The SEC issued regulations to ensure that the rights and interests of shareholders would be protected. Listed companies are required to have a check and balance management structure in order to prevent conflict of interest and to act in the best interest of minority shareholders. Additionally, veto rights for minority shareholders on important issues were imposed. The SEC also implemented education and awareness programs for investors, listed companies, and others in the Thai capital market.

The SEC assigned the TRIS Corporation Limited (Formerly Thai Rating and Information Services Co., Ltd.) to rate governance practices of companies started in September 2002. Governance rating is an incentive measure which praises companies with good corporate governance and helps investors distinguish such companies from others. In addition, the SEC requires listed companies to disclose their corporate governance practices and explain any discrepancies in a 56-1 report and annual report of the companies by the end of 2002.

In 2006, the SET by the Corporate Governance Center issued The Principle of Good Corporate Governance for Listed Companies 2006 as an updated version of the 15 principles of Good Corporate Governance. Listed companies have been requested to start disclosing their implementation of the principles in their 2007. After that, in June 2009, SET and SEC revised the regulations and criteria about the listed company's audit committee to reduce the regulation redundancy, to comply with international governance standard, and to more practice obviously. New listed companies have been requested to comply with the revised regulation immediately if they issued the IPO after July 1, 2008. Already listed companies have to comply with the revised regulation by their annual general meeting (AGM) in year 2009 or 2010.

## *2.2 LITERATURE ABOUT CORPORATE GOVERNANCE IN EAST ASIA AND THAILAND*

Mitton (2002) study the impact of corporate governance on firm performance during the East Asian financial crisis of 398 firms from Indonesia, Korea, Malaysia, the Philippines, and Thailand using firm-level data. They find that the proxies for

higher disclosure quality are associated with significantly better stock price performance during the crisis period. For concentration ownership structure aspect, they find that higher ownership concentration is associated with significantly better stock price performance during the crisis, consistent with the view that large shareholders can prevent expropriation. Firms in which the largest shareholders' voting rights exceed their cash flow rights and firms with pyramidal ownership structures have significantly lower returns, although the significance disappears after controlling for other factors. In addition, this research examines the relationship between corporate diversification and firm performance and finds that corporate diversification is associated with significantly worse stock price performance during the crisis. These results support the viability of opting for better protection of minority shareholders. Whether through higher disclosure quality, improved transparency, a more focused corporate organization, or more favorable ownership structure, minority shareholders can be offered protection beyond their legal rights.

In addition, Marisetty and Vedpuriswar (2005) examine the difference of market reaction on announcements about important events between good corporate governance and bad corporate governance firms in India. This research uses event study to examine market reaction on 4 important events that are private or public-dividends, merger or takeovers, preferential allotment, and sales of assets. This paper uses Standard and Poor's (S&P) corporate transparency rating of Indian firms as the basis for identifying good and bad governance firms. They find that in India, the average mispricing is low for good governance firms compared to bad governance firms.

In Thailand, Jaikengkit (2004) examines the impacts of corporate governance on the probability of financial distress of Thai financial institutions during the East Asian financial crisis by focusing on concentrated ownership, board of director characteristics, and managerial ownership. From the data of Thai financial institutions during 1996-1998, she finds that the level of interest alignment between management and shareholders is positively related to the probability of financial distress. Therefore, managerial ownership in Thai financial industry is not a tool to ameliorate the agency problem but is a tool to worsen it. However, the independence of board of directors which is the governance mechanism may effectively monitor the managers and reduce the agency costs. She also finds that information about corporate governance enhance predictions of the probability of financial distress in Thai financial institutions when compared to the prediction without such independent variables in the model which means that besides the financial characteristics, corporate governance contains information relevant to corporate failure. The probability of Thai financial institution distress, financial characteristics, and corporate governance are associated. Therefore, an early warning system cannot be complete without incorporating the corporate governance characteristics.

Besides, Maneeroj (2006) investigates whether the board of directors characteristics affect earnings informativeness after reform of corporate governance system in Thai capital market. In her study, she uses cumulative abnormal weekly returns as a dependent variable and the independent variables consist of unexpected earnings, educational background of board and of audit committee, board size, CEO duality, independent directors, independent directors' directorship, independent



directors' tenure, and audit committee meeting. Using sample of Thai listed firms in the year 2000 and 2004, she finds that earnings in the year 2004 provide informativeness but those in the year 2000 do not. She also finds that educational background of board and of audit committee member, CEO duality, and independent directors' tenure affect earnings informativeness. Moreover, the effect of board characteristics on earnings informativeness is better in the year 2004 than 2000.

After that, Pornupatham (2008) studies the relationship between external and internal corporate governance mechanisms and earnings management of non-financial firms in Thailand from 1999-2004. In this study, he uses audit quality of external auditing measured by audit firm size and auditor tenure as the external corporate governance mechanisms and uses board structure and ownership concentration as the proxy for internal corporate governance. For earnings management, this study uses discretionary accounting accruals captured by the Jones and modified-Jones model. He finds that firms with Big 4 auditors reported lower discretionary accruals than those with non-Big 4 auditors. Within firms with non-Big 4 auditors, auditor tenure with audit clients can detect earnings management more effectively. For internal corporate governance, firms with larger board size report lower income-increasing discretionary accruals than those with smaller board size. Firms with high ownership concentration are more prone to report higher upward earnings management.

### *2.3 LITERATURE ABOUT THE DETERMINANTS OF CORPORATE GOVERNANCE*

Gillan, Hartzell, and Starks (2003) study which factors influence firm's choices of governance mechanisms. They examine both industry factors and firm factors that influence on it. In a sample of S&P Supercomposite 1,500 companies and other large, publicly traded corporations between 1997 and 2000, they find that in an industry level, the strength of corporate governance is systematically related to the industry's investment opportunities, product uniqueness, competitive environment, and leverage. These findings also provide support for the suggestion that governance structures are related to the relative costs and benefits of different governance mechanisms. In a firm-level analysis, they find that firm factors contribute little compared to industry in explaining their total governance index.

Additionally, Tuschke and Sanders (2003) examine the antecedents and consequences of the voluntary adoption of corporate governance reform in firms embedded in a relationship-based governance system with less protection of minority shareholders in Germany. They focus on only one key determinant of agency risk and the likelihood of governance reform that is firm ownership structure measured by ownership concentration. In a sample of 76 firms in the DAX100 during 1996-1999, they find after control for firm size, firm age, and firm performance, ownership concentration have a non-monotonic (inverse U shape) relationship with corporate governance reform. For consequences of corporate governance reform, they find that firms adopting corporate governance reform were more likely to achieve higher level of market performance than firms not adopting corporate governance reform.

Besides, Bushman et al. (2004) posit that limited corporate transparency increased demands on corporate governance systems to alleviate moral hazard problems resulting from a more severe information gap between managers and shareholders. They consider two factors that limit corporate transparency which are low earnings timeliness and firm complexity. On the basis of a cross-sectional of 784 firms in the Fortune 1000 during 1994-1997, they find substantial support for the predicted negative relation between strength of corporate governance systems and the timeliness of earnings, after controlling for other factors, including growth opportunities, return volatility, firm size, the number of years a firm is public, CEO tenure, whether the CEO or Chairman of the Board is the founder, past performance, and membership in the banking or utility industries. However, the results about the relationship between the strength of corporate governance system and firm diversification are mixed.

In addition to study within single countries, Klapper and Love (2004) explore the determinants of firm-level corporate governance in 14 emerging markets. This study focuses on the determinants of firm corporate governance in two areas which are investor protection legal and contracting environments that include, firm's composition of assets, firm growth, and being in major U.S. Exchange market or not. In a sample of 374 firms in 14 emerging market countries that include Brazil, Chile, Hong Kong, India, Indonesia, Malaysia, Pakistan, Philippines, Singapore, South Africa, South Korea, Taiwan, Thailand, and Turkey in 2000, they find that the overall firm-level governance is strongly positively related to country-level measures of investor protection that is average governance is higher with stronger legal protection.

In firm-level governance, they find that firm's past growth rates are positively associated with good governance, firms with higher proportions of fixed assets have lower governance, and firms that trade shares in the U.S. Exchange market have higher governance rating. In this study, they investigate further about the relationship between firm governance and firm performance, and find that better corporate governance is associated with higher firm performance both measured by return on assets and by Tobin's Q.

Not only in Western economies, but also in East Asian, Black et al. (2006) study about the factors that affect firm corporate governance practices in Korea. In this study, they concern about the determinants of corporate governance in three categories which are regulatory factors, industry factors, and firm factors and use KCGI (Korean Corporate Governance Index) as a proxy of firm corporate governance practices. Using a sample of 418 firms listed on the Korea Stock Exchange in 2001, they find that the regulatory factors are highly important. For firm factors, only firm size and firm risk are found important. The industry factors are also important.

Disclosure is one important dimension of corporate governance. Cheung et al. (2008) examine the degree of corporate disclosure and transparency of publicly listed companies in two emerging markets, Hong Kong and Thailand, and analyzed corporate disclosure practices as a function of specific firm characteristics. The determinants of disclosure and transparency in this study are classified into 2 groups which are firm financial characteristics and firm corporate governance characteristics. In a sample of 337 Thai firms and 168 Hong Kong firms listed on the stock exchanges

of the respective countries in 2002, they find that from the overall degrees of disclosure scores, it appears that the levels of corporate disclosures in Thailand are higher than in Hong Kong. The empirical shows that the financial characteristics of firms tend to exhibit a significant association with the degree of disclosure in Hong Kong but not in Thailand. On the other hand, corporate governance characteristics tend to exhibit strong associations with the degrees of disclosure among Thai firms. Specifically, Thai companies with high proportions of outside directors and large boards tend to have high degrees of disclosure. It is conjectured that in more developed markets, financial characteristics are more relevant to degrees of disclosure while in less developed markets, corporate governance characteristics are more relevant.

After that, Khanchel (2007) investigates the determinants of good governance in the U.S. firms. He uses a panel data set of 624 U.S. listed firms for the period running from 1994 to 2003 to develop his own governance score that can be categorized into 4 sub-indices which are board of director index, board committee index, audit committee index, and overall index. His empirical results show that there are positive and significant associations between each governance index (exception to board index) and firm size, investment opportunities, intangible assets, and insider ownership. Furthermore, institutional ownership and external financing needs are positively related to each governance index considered. Nevertheless, growth opportunities and performance have no any significant effect on governance quality.

Also in East Asian market, Ariff, Ibrahim, and Othman (2007) study the determinants of firm level corporate governance in Malaysia. The determinants that are being examined in this study, the characteristics of firms, are firm's profitability, leverage, growth, market valuation, size, age, ownership structure, and countries of operation. In this study, they analyze data by using logistic regression which define firm corporate governance practice (dependent variable) in binary scale, good or bad, corporate governance variable equal to 1 if the company is listed as top 50 percent in the corporate governance ranking, otherwise 0. In a sample of 95 companies in top 100 Malaysian listed companies in 2003, they find that only firm size has strong influence with corporate governance practices in a positive relation, but not so for other variables tested.

Moreover, Lee and Park (2008) investigate the determinants of the corporate governance of listed firms in the Korea Stock Exchange by focus on firm ownership structure. In this study, they use the public total corporate governance scores surveyed and prepared by the Korea Corporate Governance Service to be the dependent variable. Besides the total corporate governance scores, they also classify the corporate governance scores into 6 sub-indices which are shareholders rights, board structure, board composition, disclosure, audit system, and dividend policy and use them as the dependent variables too. In a sample of 217 nonfinancial firms listed on the Korea Stock Exchange during 2001-2003, they find that insider ownership (family ownership and/or affiliated ownership) is significantly negatively effect the corporate governance practices of Korean listed firms. On the other hand, foreign ownership has

a significantly positively affect while institutional ownership are shown to be passive on the corporate governance issues.

#### *2.4 LITERATURE ABOUT CORPORATE GOVERNANCE INDEX*

Recently, there are many corporate governance researchers use composite index (either or constructed by rating organizations or self-constructed) to assess corporate governance practices rather than single corporate governance mechanism. The reason is that corporate governance mechanisms may serve as complements or substitutes for one another. The examples of these researchers are:

Gompers et al. (2003) construct “Governance Index” to examine the relationship between shareholder rights and corporate performance using a sample of 1500 large firms during 1990s. They combined a large set of governance provisions into an index which proxies for the strength of shareholders rights. A set of governance provisions consists of 28 total provisions listed in the five categories which are Delay, Protection, Voting, Other, and State. The Delay group includes four provisions designed to slow down a hostile bidder. The Protection group contains six provisions designed to insure officers and directors against job-related liability or to compensate them following the termination. The Voting group contains six provisions, all related to shareholders’ right in elections or charter/bylaw amendments. The Other group includes the six remaining firm-level provisions. And the State group includes the six provisions of the state law. The Governance Index is just the sum of one point for the existence (or absence) of each provision that increase the strength of shareholders right. They find that firms with stronger shareholder

rights had higher firm value, higher profit, higher sales growth, lower capital expenditures, and made fewer corporate acquisitions.

Also in Germany, Drobetz et al. (2003) investigate whether differences in firm-specific corporate governance also help to explain expected returns in a cross-section of firms within a single jurisdiction using a sample of 253 firms in four principal market segments in Germany which are DAX30, MDAX, NEMAX50, and SMAX in 2002. They construct corporate governance rating (CGR) from 30 governance proxies in five categories that are corporate governance commitment, shareholders rights, transparency, management and supervisory board matters, and auditing. The CGR is the sum of the basis points per firm across all proxies, ranking from 0 to 30. The maximum score of 30 indicators an outstanding of firm-specific corporate governance. While an equal weighting scheme for these proxies make no attempt to accurately reflect the relative importance of the individual proxies, this approach has the advantage of being transparent and allow easy interpretations. A detailed questionnaire with all thirty governance proxies was sent out to all sample firms. The survey was supplemented by verification of the collected data on the basis of annual and quarterly reports, company charters, and web pages, where necessary. They find that there is a negative (positive) relationship between the CGR and dividend yields (price-earnings ratios) in cross-section of German firms. They also find that the relationship between average historical returns and the CGR is significantly positive, suggesting that higher CGR firms have performed better in the past.



As well as in Canadian market, Forestor and Huen (2004) investigate the relationship between measures of corporate governance and measures of stock returns of the 270 largest Canadian firms using corporate governance index (CGI). Rather than create their own index, they rely on a recently developed and independent Canadian governance index presented in a Globe and Mai, Report in Business article investigating Canadian corporate governance. Canadian governance index is constructed by sum of 100 governance criteria in four categories which are board composition (40 criteria), compensation (23 criteria), shareholder rights (22 criteria), and disclosure (15 criteria). The CGI is ranking from 0 to 100. The maximum score of 100 indicates an outstanding of firm-specific corporate governance. They find that the governance score is positively and significantly related to firm size that means larger firms tend to have stronger governance practice. Market reacts significantly to information released to governance score of firms. A value-weighted portfolio of 54 stocks rated in the top quintile based in the governance score outperforms other portfolios over a five-year period. After control for a variety of well-documented risk proxies, the top quintile portfolio outperforms the other four portfolios combined by an average of almost 9% per year.

Additional in United Kingdom, Lei and Teen (2005) study whether better corporate governance leads to higher valuation through lower expected rate of return or U.K. listed companies during 1999-2003. In this study, they use a scorecard developed by Standard and Poor's (S&P) to assess the corporate governance of U.K. listed companies. They argue that it provides a comprehensive measure of the extent to which a company has developed international best practices in corporate

governance, as disclosed in their corporate governance disclosures. S&P corporate governance scorecard is a methodology based on a synthesis of governance codes and guidelines of global best practices, as well as its own experience in reviewing individual companies. S&P corporate governance scorecard scores on the 119 questions which are grouped into five categories of corporate governance which are board matters, nomination matters, remuneration matters, audit matters, and communication. They gather data about corporate governance score by extracting from company annual report, they answered 119 questions on governance practice for each company each year during 1999-2003. It is able them to construct a time-varying corporate governance scorecard for their study. They find that there is relationship between corporate governance score and firm performance both in governance level and the change of governance. And the change of governance determines performance rather than the governance level. They also find that an investment strategy that buys firms with greatest improvement in government and sells firms with largest deterioration in governance yield 36.7% excess returns over the sample period.

In Asian market, Black et al. (2006) investigate whether the corporate governance practices of firms affect these firms' market value in Korea. To measure the firms' corporate governance practice, they construct a Korean Corporate Governance Index (KCGI) based primarily on a spring 2001 survey of corporate governance practices by the Korea Stock Exchange that sent the survey to all of listed companies, supplemented by hand collection of data for some governance elements. They extract 123 variables from the survey questions. They exclude questions that are subjective, lack clear relevance to corporate governance, ambiguous as to which

answer indicates better governance, had minimal variation between firms, overlap highly with another variable, or had few responses. This leaves them with 38 usable elements in 4 subindices that are 5 elements on shareholder rights, 4 elements on board structure, 26 elements on board procedures, and 3 elements on disclosure. They add an ownership parity as the fifth subindex, which measures the extent to which the largest shareholder controls more votes than the shareholder directly owns. Ownership parity is defined as  $1 - \text{ownership disparity}$ , with ownership disparity defined as  $(\text{ownership by all affiliated shareholders} - \text{direct ownership by the largest shareholder})$ . Therefore, ownership parity is a continuous 0-1 variable. They combine elements into subindices, and combined subindices into an overall index. To compute multi element subindices, they sum a firm's score of subindices, divided by the number of elements, and multiply this ratio by 20. For ownership parity subindex, they multiply ownership parity by 20. Therefore, each subindex has a value between 0 and 20, the overall KCGI has a value between 0 and 100 (the sum of subindices), better-governed firms have higher scores. Using Tobin's Q as a proxy for market value of firm, they find that a worst-to-best change in KCGI predicts a 0.47 increase in Tobin's Q. They also find that Korean firms with 50% outside directors have 0.13 higher predicted Tobin's Q, after controlling the rest of governance index. Nevertheless, they do not find strong evidence that better-governed firms are more profitable or pay higher dividends.

Additionally, Cheung et al. (2007) examine the relationship between corporate governance practices and firm valuation in Hong Kong by using the corporate governance index (CGI). They develop a survey composed of 86 questions based on

the Revised OECD Principles (OECD, 2004) and the Code of Best Practices of Hong Kong (HKEx, 1999a). The question classification scheme matches the five OECD Principles that are rights of shareholders, equitable treatment of shareholders, role of stakeholders, disclosure and transparency, and board responsibilities and composition. From the five OECD Principles, the questions are modified to be consistent with the Code of Best Practices (HKEx, 1999a) and make questionnaire more applicable to Hong Kong firms. They gather data from data sources include annual report, articles of association, memorandums of association, notices to call shareholders' meetings, annual general meeting minutes, company websites, analyst reports, and other available sources. After gathering data, they rate each company on the 86 survey questions. To construct a CGI, each question within a specific survey category is weighted as each category, 15% for rights of shareholders, 20% for equitable treatment of shareholders, 5% for role of stakeholders, 30% for disclosure and transparency and 30% for board responsibilities and composition. Questions under each category are equally weighted. They combine question scores within five category sub-indices, which are then combine into an overall score. A total CGI value, ranking from 0-100, is then calculated for each company. Using publicly available information from Hong Kong publicly traded companies in 2002, they find that listed Hong Kong firms exhibit a wide disparity in the quality of their corporate governance practices. A positive and statistically significant relation is found between the performance measures and the CGI, even after the inclusion of firm characteristics as control variables.

In Thailand, Denkirati (2003) investigates whether corporate governance benefits investors, in terms of stock returns, in the Stock Exchange of Thailand (SET). The criteria used to measure corporate governance in this study were taken in part from the published SET guidelines (the Report on Corporate Governance and the Thai Institute of Directors), but she takes only 22 criteria from the standards and guidelines. These questions are categorized into 5 groups which are the rights of shareholders (1 question), equitable treatment of shareholders (4 questions), the role of stakeholders in corporate governance (1 question), disclosure and transparency (9 questions), and board responsibilities (6 questions). 22 questions are asked with one point possible per question. Therefore, CGI has a value between 0 and 22, better-governed firms have higher scores. In a sample of 100 listed companies in SET in year 2001-2002, she finds that there is no relationship between the corporate governance index and stock returns when using data of the same period. This result is the same even with one-year lag in the corporate governance index. However, she finds that there is the relationship between changes in the corporate governance index and changes in stock returns during 2001-2002.

Furthermore, Connelly et al. (2008) examine the relationship among family control, corporate governance, and firm value for all industrial companies that were publicly traded on the Stock Exchange of Thailand (SET) in 2005. They construct their own corporate governance index (CGI) from 117 scorecard criteria developed from OECD corporate governance principles and adjusted to take into account the subtleties of Thai laws and regulations. The scorecard criteria span five sections which are the rights of shareholders (22 criteria, 25% of CGI), equitable treatment of

minority shareholders (13 criteria, 15% of CGI), role of stakeholders (9 criteria, 10% of CGI), disclosure and transparency (32 criteria, 25% of CGI), and board responsibilities (41 criteria, 25% of CGI). In each criteria, the measurement ranks the quality level, showing whether observed practices are missing (poor), match the level required by law (good), or reach the highest level of quality equivalent to international best practices (best). The CGI score, aggregated across the five-sections, is scaled to range from 0-100%. From the sample of 253 listed firms in SET in 2005, they find that high family control and family management are associated with lower Tobin's Q. Based on their CGI measure, they find that, consistent with the hypothesis that firms with significant family control and family management have lower Tobin's Q arising from weaker governance practice, high family control firms and family-managed firms also have significantly lower scores on the CGI than widely held non-family firms. They also find that the CGI is significantly associated with Tobin's Q only for firms with high family control, suggesting that the family firms in Thailand can improve their values by implementing better corporate governance practices.

## *2.5 LITERATURE ABOUT FAMILY OWNERSHIP*

Anderson and Reeb (2003) investigate the relationship between founding-family ownership and firm performance of large U.S. public firms. Using the sample of 2,713 firm-years of Standard & Poor's 500 firms during 1992-1999, they find that after controlling for industry and firm characteristics, the firms with continued founding family presence exhibit significantly better accounting and market performance than nonfamily firms. The relationship between founding family holdings and firm performance is nonmonotonic, performance first increases as

family ownership increases but then decreases with increasing family ownership. They also find that CEOs who are family members exhibit a positive relation to accounting profitability measures. However, market performance appears to be better only in the presence of founder CEOs and outside CEOs, but no effect on founder descendant CEOs.

In addition, Villalonga and Amit (2006) study whether and when family firms trade at a premium or discount relative to nonfamily firms, by distinguish among three fundamental elements in the definition of family firms which are family ownership, family control, and family management. In a sample of 2,808 firm-years from 508 firms listed on the Fortune 500 during 1994-2000, they find the different effects of family ownership, control, and management on firm value. Family ownership creates value for all of the firm's shareholders only when the founder is still active in the firm either as CEO or as Chairman with a hired CEO. When family firms are run by descendent-CEOs, minority shareholders in those firms are worse off than they would be in nonfamily firms. This result holds even when the founder is present in the firm as Chairman. Founders create the most value when no control enhancing mechanisms. Descendent-CEOs destroy value whether or not the family has established control-enhancing mechanism. They also find that the negative effect of descendent-CEOs is entirely attributable to second-generation family firms. The incremental contribution to Tobin's Q of third generation firms is positive and significant, which points to a nonmonotonic effect of generation on firm value.

Besides effects of family firm on firm performance, Wang (2006) investigates whether founding family ownership affects the quality of financial reporting, especially earnings, of large U.S. companies. In a sample of 3,552 firm-years of S&P 500 firms during 1994-2002, he finds that founding family ownership is associated with lower abnormal accruals, greater earnings informativeness, and less persistence of transitory loss components in earnings, after controlling for potential bias from time-series correlation, executive compensation, and nonfamily blockholder ownership. Furthermore, he finds that the relationship between family ownership and earnings quality is nonlinear.

Moreover, Ali, Chen, and Radhakrishnan (2007) examine how the differences in type I agency problems and type II agency problems across family and nonfamily firms influence corporate disclosures. Using the data of the Standard and Poor's 500 firms during 1998-2002, they find that compared to nonfamily firms, family firms exhibit less positive discretionary accruals, greater ability of earnings components to predict cash flows, and larger earning response coefficients. They also find that family firms are more likely to warn for a given magnitude of bad news than nonfamily firms. For voluntary disclosure of corporate governance practices, they find that family firms tend to disclose less information about their corporate governance practices in their proxy statements. They examine further whether better disclosure of financial performance benefits family firms and found that compared to nonfamily firms, family firms have larger analyst following, lower dispersion of analysts' forecast, smaller forecast errors, less volatile forecast revisions, and smaller bid-ask spreads. Their findings that family firms provide better financial disclosures is



consistent with these firms being subject to less managerial opportunism due to less severe agency problems. Specifically, the difference in agency costs across family and nonfamily firms due to type I agency problems dominate the difference in a agency costs across family and nonfamily due to type II agency problems.

## *2.6 LITERATURE ABOUT POLITICAL CONNECTION*

Faccio (2006) provides a comprehensive look at political connections around the world. She assembles a database that includes 20,202 publicly traded firms in 47 countries around the world. She identifies “the political connected company” as if at least one of its large shareholders or one of its top directors is a member of parliament, a minister, or is closely related to a politician or party. She finds that corporate political connections are widespread around the world especially among large firms but the connections are not necessarily numerous. She also finds that the connections are particularly common in countries that are perceived as being highly corrupt, in countries that impose restrictions on foreign investments by their citizens, and in more transparent systems. Connections are less common in the presence of more stringent regulation of political conflicts of interest. She studies further by performing an event study around the time of the announcements of directors or large shareholders entering politics, or of politicians joining boards, and she finds a significant increase in corporate value.

According to Faccio (2006), Cheney, Faccio, and Parsley (2007) study further how the quality of accounting information reported by publicly traded firms is affected by the existence of political connections. This study uses the definition and

measure of “the political connected company” from Faccio (2006) and uses the standard deviation of the firm’s discretionary accruals as a proxy of earnings quality. Using the data of 7,318 firms in 21 countries during 2001-2005, they find that the politically connected firms provide lower quality accounting earnings than do their non-connected peers. Moreover, they find that lower reported earnings quality is associated with higher cost of debt only for the non-politically connected firms in the sample. That is, companies that have political connections apparently face little negative consequences from their lower quality disclosures.

In Thailand, Charumilind, Kali, and Wiwattanakantang (2006) examine whether business connections are good predictor of preferential access to long-term credit using a detailed data set on Thai firms prior to the crisis period. They use a number of measures, such as affiliation to one of the 20, 30, or 60 largest Thai business group and board linkages between banks and firms as proxies for “connections”. In a sample of 270 Thai listed firms in 1996, they find that firms with connections to banks and politicians had greater access to long-term debt than firms without connections. Connected firms need less collateral, obtained more long-term loans, and prepared to use fewer short-term loans than those without connections.

Furthermore, Bunkanwanicha and Wiwattanakantang (2009) investigate the economic incentives enticing big business owners to seek election to top office, using Thailand as a research setting. They consider August 2001 as the starting point when the Thaksin’s administration attained effective political power in analyzing data. They define “tycoons running for public office” as the tycoons who ran for the positions of

the House of Representatives in the January 2001 general election. Their sample include the top 2,000 largest companies (both listed and non-listed) based on the total assets as of the end of year 2000. From data of the above sample, they find that big business owners whose main businesses are in regulated industries are more likely to run for public office. They also investigate for the results of business owners holding office and find that market valuation of their connected firms increased dramatically. Economic advantages were channeled to connected firms using a variety of mechanism include corporate tax reduction, new state contracts, and license fee cuts. In addition, entry restrictions were imposed to block new entrants which effectively enable connected firms to extend the market power. Overall, their findings highlight that besides lobbying public officials, big business owners can acquire state power by getting elected, and thereby directly implement public policies that help expand their business empires.



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## **CHAPTER III**

### **THEORY DEVELOPMENT AND HYPOTHESES**

The nature of a firm's ownership structure will affect the nature of the agency problems between managers and outside shareholders, and among shareholders. When ownership is diffused, as be typical for U.S and U.K. firms, agency problems will stem from the conflicts of interest between outside shareholders and managers who have an insignificant amount of equity in the firm (Jensen and Meckling, 1976). On the other hand, when ownership is concentrated to a degree that one owner has effective control of the firm, as is typically the case in East Asia and Thailand, the nature of agency problem shifts away from manager-shareholder conflicts (type I agency problem) to conflicts between the controlling owners and minority shareholders (type II agency problem) (Claessens and Fan, 2002) which are caused in two competing ways which are the entrenchment effect and the alignment effect.

#### *3.1 AGENCY THEORY*

Agency theory suggests that the firms can be viewed as a nexus of contracts between resource holders. Jensen and Meckling (1976) define the theory as agency relationship as a contract under which one or more persons (principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to that person. If both parties of the relationship are utility maximizers, there is good reason to believe that the agent will not always act in the best interests of the principal. The principal can limit divergences from his interest by establishing an appropriate incentive for the agent by

incurring monitoring costs designed to limit the aberrant activities of the agent. In addition, in some situations it will pay the agent to expand resources to guarantee that he will not take certain actions which would harm the principal or to ensure that the principal will be compensated if he does take such actions. However, it is generally impossible for the principal or the agent at zero cost to ensure that the agent will make optimal decisions from the principal's viewpoint. Therefore, Jensen and Meckling (1976) also defined agency costs as the sum of monitoring cost (by the principal), the bonding cost (by the agent) and residual loss.

Monitoring costs are expenditures paid by the principal to observe, measure, and control an agent's behavior. They may include the cost of auditing, writing contracts, and firing manager. Initially, these costs are paid by the principal, but Fama and Jensen (1983) argued that these costs will ultimately be borne by the agent as his or her compensation will be adjusted to cover these costs.

Given that the agent ultimately bears monitoring costs, he is likely to set up structures that will see him in the principal's best interests, or compensate him accordingly if he doesn't. The costs of establishing and adhering to these systems are known as bonding costs. Bonding costs are borne by the agent, but are not always financial. Bonding costs may include the cost of additional information disclosures to the principal, but the agent will obviously have the benefit of preparing this himself. The agent will stop incurring bonding costs when the marginal reduction in monitoring cost equals the marginal increase in bonding costs.

Despite monitoring cost and bonding cost, the interest of the agent and the principal is still unlikely to be fully aligned. Therefore, there are still agency losses arising from conflicts of interest. These are known as residual loss. Residual loss arise because the cost of fully enforcing principal-agent contracts would far outweigh the benefits derived from doing so. Since the agent actions are unobservable ex ante, to fully contract for every state of nature is impractical. The result of this is an optimal level of residual loss, which may represent a trade-off between overly constraining management and enforcing contractual mechanism designed to reduce agency problems.

The primary agency relationships in business are first, the relationship between shareholders, who act as the principal, and managers, who act as the agent. The second is the relationship between debtholders (creditors), who act as the principal, and the shareholders, who act as the agent.

Agency problems among shareholders (ownership) can be classified into two types of agency problem. First, type I agency problem, which is the problem or conflict between shareholders (the principal) and managers (the agent) that is typically known. This agency problem often occurs in dispersed ownership firms. Second, type II agency problem, which is the problem or conflict between majority and minority shareholders. This agency problem often occurs in concentrated ownership firms.

Agency problems can be classified into four major areas that are moral hazard, earnings retention, time horizon, and risk aversion (McColgan, 2001).

Moral hazard is a problem with the manager consumes his private benefits rather than investing. While the earnings retention occurs when manager's benefit increase with firm size, thus he will focus only on benefits from firm size and not benefits from returns. Time horizon occurs when managers are concerned only during the period of their current employment, so that may lead to manipulation of the accounting system in favor short-term projects over long-term project with higher net present value. And finally, risk aversion is a problem that manager will attempt to reduce their personal exposure to risk. He will encourage corporate diversification and prefer lower than optimum levels of company debts.

Information asymmetry is another problem of a principal-agent relationship. Information asymmetry arises from information differences and conflicting incentives between management and shareholders. If shareholders cannot distinguish between good and bad projects, manager of bad projects will try to claim that their projects are as valuable as the good ones. Ultimately, shareholders will undervalue some good projects and overvalue some bad projects (Healy and Palepu, 2001). Information asymmetry can decrease shareholder value.

Corporate governance mechanisms are designed to cope with agency problems and asymmetry of information. Hart (1995) indicated that corporate governance mechanisms are necessary if agency problems exist and contracts are incomplete.

According to agency theory, ownership structure has an effect on agency problem that is different ownership structure has a different agency problem both in type and degree of the problems. Therefore, agency theory predicts that different ownership structure requires different corporate governance practices to cope with different agency problems. In addition, both agency problems and corporate governance provide costs. Thus, agency theory also predicts that firm characteristics and firm performance have the effect on firm corporate governance practices.

### *3.2 ENTRENCHMENT EFFECT*

Fan and wong (2002) comment that when ownership is concentrate to a level at which an owner obtains effective control of the firm, the nature of the agency problem shifts from conflict between shareholders and managers (type I agency problem) to conflict between majority shareholders or controlling shareholders and minority shareholders (type II agency problem). Gaining more control of the firm enables the controlling shareholders not just to determine how to run the firm, but also how to share profits among shareholders. Although minority shareholders are entitled to the cash flow rights corresponding to their ownership, but they faced the uncertainty that an entrenched controlling shareholders may opportunistically deprive them of their rights. The entrenchment effect created by the controlling shareholders is similar to the managerial entrenchment problem affirmed by Morck, Shleifer, and Vishney (1988) that a high managerial ownership increases the capacity of the managers to make decision which do not maximize the value of the firm but improve their own wealth and their job security. Therefore, the entrenchment effect demonstrates that concentrated ownership can lead to poor firm performance.



There are many literatures show the entrenchment effect of concentrated ownership include Fama and Jensen (1983), Demsetz (1983), Morck et al. (1988), and Shleifer and Vishny (1997) which argue that concentrated ownership creates incentives for controlling shareholders to expropriate wealth from other shareholders. DeAngelo and DeAngelo (2000) mention that controlling shareholders extract their private rents through special dividends. Fama and Jensen (1985) document that ownership structure has an effect on investment decision. Diversified shareholding is presumed to evaluate investments using market value rules that maximize the value of the firm's residual cash flows. However, concentrated shareholding may derive greater benefits from pursuing objective such as firm growth, technological innovation, or firm survival than from enhancing shareholder value.

Thus, the entrenchment effect predicts that concentrated ownership firm has less strong corporate governance practices in order to maximize private benefits of controlling shareholders.

### *3.3 ALIGNMENT EFFECT*

In contrast of entrenchment effect, the alignment effect is based on the notion that the interests of controlling shareholders and minority shareholders interests are better aligned because of the large blocks of stock owned by controlling shareholders and their long-term presence. A higher ownership stake gives a controlling shareholder stronger voting and cash flow rights in the firm. Once the controlling shareholder obtains effective control of the firm, any increase in voting rights does not further entrench the controlling owner, but his higher cash flow rights in the firm

mean that it will cost more to divert the firm's cash flows for private gain. The high ownership concentration can also serve as a credible commitment that the controlling shareholder is willing to build a reputation for not expropriating minority shareholders (Gomes, 2000). The commitment is credible because minority shareholders know that if the controlling shareholder unexpectedly extracts high levels of private benefits when he still holds a substantial amount of shares, they will discount the stock price accordingly, the majority shareholder's share value will be reduced. In equilibrium, the majority shareholder will hold a large ownership stake and the stock price of the company will be higher. Thus, ownership concentration has an incentive alignment effect; increasing an owner's share ownership beyond the minimum level needed for effective control improves the alignment of interests between the controlling shareholder and the minority shareholders and reduces the effects of entrenchment.

There are many literatures show the alignment effect of concentrated ownership including Demsetz and Lehn (1985) note that combining ownership and control can be advantageous, as large shareholders can act to mitigate managerial expropriation. For instance, the controlling shareholder's presence, large undiversified equity position, and control of management and director posts place them in an extraordinary position to influence and monitor the firm. Beyond monitoring and control advantages, James (1999) posits that families, one of the main controlling shareholders, have longer investment horizons, leading to greater investment efficiency. Stein (1988, 1989) shows the presence of shareholders with relatively long investment horizons can mitigate the incentives for myopic investment decision by managers. Anderson et al. (2003) suggest that one consequence of families

maintaining a long-term presence is that firm will enjoy a lower cost of debt. In addition, Anderson et al. (2003) find the evidence that family firms have better performance both measured by accounting performance and market performance.

Thus, the alignment effect predicts that concentrated ownership firm has strong corporate governance practices in order to maximize reputation of the firm and maximize the firm value.

### *3.4 HYPOTHESES*

#### *3.4.1 Ownership structure and corporate governance practices*

According to agency theory, different ownership structure has different agency problems both in type and level and also needs different corporate governance mechanism to cope with. Therefore, this study hypothesizes that firm's ownership structure has effects on corporate governance practices of the firm.

$H_1$  : Ownership structure has the association with the level of corporate governance practices.

From the literature review, this study considers ownership structure in six perspectives which are ownership concentration, institutional ownership, foreign ownership, government ownership, family ownership, and being politically connected firm.

### *3.4.1.1 Ownership concentration and corporate governance practices*

According to alignment effect, when shareholdings are concentrated, it is relatively easier for individual shareholders to overcome information asymmetry and thus, coordinate action and demand information from the management (Hill and Snell, 1989). This is supported by Durnev and Kim (2005) who find that a controlling shareholder with a larger stake has less incentive to extract private benefit from the firm, and could be more willing to improve governance, which bonds the promise not to steal and can lower the firm's cost of capital. This could produce a positive correlation between concentrated ownership and corporate governance. And this effect is also found in Russian non-listed firms (Guriev et al., 2003), in corporate governance reform in Germany (Tuschke and Sanders, 2003), and even in Korean firm data set (Lee and Park, 2008).

Conversely, Cho and Kim (2003) find that the ownership rate of large shareholders is negatively associated with the adoption of corporate governance mechanism because large shareholders actually participate in the management as owner-manager and their participation becomes an obstacle to the CEO's effort to improve governance mechanism. And Zheka (2006) finds that ownership concentration has a negative and highly significant effect on governance practice in Ukraine.

Li and Cui (2003) find significant positive relationship between ownership concentration and profitability as proxy for agency cost, but the same relationship is not found when asset utilization is used as proxy for agency cost. This leaves a

question mark on whether ownership concentration is able to reduce agency cost and in the same time improve the corporate governance of firms or not. Further, Black et al. (2006) find that the percentage share ownership of largest shareholders has no significant association with corporate governance index.

As above information, it shows that the relationship between ownership concentration and corporate governance is mixed. However, this study hypothesizes that firm with concentrated ownership will has less strong corporate governance practice in order to maximize their private controlling owners benefits by expropriating wealth from minority shareholders.

H<sub>1.1</sub> : there is a negative association between ownership concentration and the level of corporate governance practices.

#### *3.4.1.2 Institutional ownership and corporate governance practices*

The role that the institutional ownership has an affect on the corporate governance system of a company is controversial question. Some studies show that the institutional owner must interfere in the corporate governance system of a firm due to their incentives to protect their investment and thus reduce agency problems by closely monitoring the actions of management. The results of these studies show that if the corporate governance system in the firm succeeds, then the institutional owner must play an active role in the entire process. For example, Shleifer and Vishny (1986) observe that institutional owners by virtue of their large shareholdings would have greater incentives to monitor corporate performance since they derive greater

benefit from monitoring. Cremers and Nair (2005) argue that some institutional investors such as pension funds might have more incentives to monitor than others and act as more aggressive shareholder activists. Sharma (2004) find that as the percentage of institutional ownership increases, the likelihood of fraud decreases due to their strongly monitoring.

Nevertheless, other studies find that institutional ownership need not play a role in the corporate governance system of the firm. For example, Wharton et al. (1991) argue that institutional owner need not take active interest in the corporate governance of the firm because the institutional investors have their primary fiduciary responsibility for their own investors and beneficiaries, which can lead to a conflict of interest with their acting as owners. For instance, Monks (1995) argue that absence of appropriate incentives and free rider problems hinder institutional activism efforts. Gillan et al. (2003) also find that the association between institutional ownership and their corporate governance index is not statistically significant. So do Lee and Park (2008) in Korea dataset.

Overall, it is ambiguous from the current literature how the institutional ownership affects the strength of monitoring. However, this study hypothesizes that the nature of institutional owners can be important in determining their willingness to monitor because the institutional owners have incentives to protect their investment and thus reduce agency problems. Therefore, institutional ownership demands firm to have strong corporate governance practices.

H<sub>1.2</sub> : there is a positive association between institutional ownership and the level of corporate governance practices.

#### *3.4.1.3 Foreign ownership and corporate governance practices*

Corporate governance is accepted from developed economies as the mechanism to mitigate agency problems and information asymmetry (Hart, 1995) and good corporate governance has the positive impact on firm performance (Morck et al., 1988; Byrd and Hickman, 1992; Brickley et al., 1994; Yermack, 1996; Core et al., 1999; Klein, 2002; and Gomper et al., 2003). In addition, firms in developed economy countries perform better governance than firms in developing economy countries (LaPorta et al., 1999). Therefore, foreign investors, especially from the developed economies, bring better standard of corporate governance from their countries on average to force their invested Thai firms to comply with it. Furthermore, there is the evidence in Ukraine listed firms (the transitory country) that foreign ownership appears to be positive and highly significant determinants of Ukraine Corporate Governance Index (Zheka, 2006). There is the same effect in Asia, Lee and Park (2008) also find that foreign ownership is positively and significantly correlated with shareholder rights and board structures which are the sub-indices of corporate governance index.

Therefore, this study hypothesizes that foreign ownership has a positive association with corporate governance practices.

H<sub>1.3</sub> : there is a positive association between foreign ownership and the level of corporate governance practices.

#### *3.4.1.4 Government ownership and corporate governance practices*

Generally, government enterprises tend to emphasize political objectives rather than economic efficiency and have failed to confront the emerging competition from non-state enterprises (Naughton, 1995). Shleifer and Vishny (1994) argue that the efficiency of government-owned firms is due to the imposition of objectives other than profit maximization. In China, Wang et al. (2008) find that compared with non-state-owned firms, Chinese state-owned enterprises are more likely to hire small auditors. Also in Ukraine, Zheka (2006) find that state ownership has detrimental effects on shareholder rights and firm information disclosures. Following this argument, government-controlled firms are less efficient and not good corporate governance practice. However, Lin et al. (1998) and Broadman (1999) argue that in the absence of any shareholder control, managerial autonomy expands and it is impossible to oversee managerial activities. In this circumstance, active government intervention may be necessary.

In Thailand, public firms with government ownership always come from the transition from state-owned enterprises which the main objective is not profit maximization but social services. Therefore, these firms focus on firms' reputation rather than cost or profit. In addition, if government has any regulation, these firms have to comply with it to promote the campaign or regulation of government.



Therefore, this study hypothesizes that government ownership has a positive association with corporate governance practices

H<sub>1.4</sub> : there is a positive association between government ownership and the level of corporate governance practices.

#### *3.4.1.5 Family firms and corporate governance practices*

The corporate governance literature suggests that other mechanisms can be used to alleviate managerial opportunism. Fama and Jensen (1983) suggest that family relationships between managers and owners should reduce agency costs because of the multidimensional, long-term nature of those relationships which also improves monitoring of managers' decision. DeAngelo and DeAngelo (1985) also suggest that family involvement serves to monitor and discipline managers. Kang (1998) find that family firm members are active monitors of their managers. He suggests that the information flow between managers and family members acts as a control mechanism, where managers make decisions with the understanding that they have to eventually justify them to family owners in face-to-face conversations. Mishra, Randoy, and Jenssen (2001) find that outside director presentation does not improve corporate governance in family controlled firms. Family firm's value can create a commitment to long-term value creation. Once the commitment is in place, the need for outside board monitoring is diminished and the inside directors who know the company and the marketplace may be more valuable to family firms. Schulze et al. (2001) suggest that since family controlled firms provide both owners as well as managers of the firm, agency theory have assumed that they less susceptible to agency

costs that arise in a principal-agent relationship. In addition, Ali et al. (2007) find that compared to non-family firms, family firms report better quality earnings, are more likely to warn for a given magnitude of bad news, but make fewer disclosures about their corporate governance practices.

From the above literature, they show that family firms need not to have good corporate governance because their agency cost is quite low and they have sufficient other control mechanisms. Therefore, this study hypothesizes that family firms have a less strong corporate governance practices compared to non-family firms.

H<sub>1.5</sub> : there is a negative association between family firms and the level of corporate governance practices.

#### *3.4.1.6 Political connection and corporate governance practices*

Corporate political connections are relatively widespread around the world. Faccio (2006) finds a significant increase in corporate value at the time of the announcements of directors or large shareholders entering politics or of politicians joining boards. It means that political connected firms, on average, gain from political ties. Chaney et al. (2007) study further about the quality of accounting information in politically connected firms and find that the quality of earnings reported by politically connected firms is significantly poorer than non-connected firms. In addition, among connected firms, those that have stronger political ties have the poorer accruals quality. In Thailand, there are evidences that big business owners are more likely to

run for public office to expand their business empires (Bunkanwanicha and Wiwattanakantang, 2009).

From the above literature, they show that politically connected firms will have worse corporate governance practices in order to maximize their profit. Additionally, with their political ties, they can lobby public officials and directly implement public policies to help their firms without concerning their corporate governance practices (Bunkanwanicha and Wiwattanakantang, 2009). Therefore, this study hypothesizes that politically connected firms have a less strong corporate governance practices compared to non-politically connected firms.

H<sub>1,6</sub> : there is an association between politically connected firms and the level of corporate governance practices.

#### *3.4.2 Firm characteristics and corporate governance practices*

Agency theory also explains that agency problems in each firm are vary by firm characteristics and environments and also require different governance mechanism. Therefore, this study hypothesizes that firm's characteristics has effects on corporate governance practices of the firm.

H<sub>2</sub> : Firm characteristics have the association with the level of corporate governance practices.

The interested firm characteristics in this study are firm size, firm growth, firm's intangible assets, and firm leverage.

#### *3.4.2.1 Firm size and corporate governance practices*

From the theoretical view point, the effect of firm size on firm corporate governance practices is ambiguous (Klapper and Love, 2004). On one hand, large firms may have more severe problems, because it is harder to monitor firms. Therefore, large firms may voluntarily choose stricter governance practices to avoid high agency cost. Moreover, corporate governance practices have costs and consume corporate resources. Large firms usually considered to be more competitive and have more financial and human resources. Thus, the firm size influence firm corporate governance practices as larger firms have better corporate governance practices. There are many studies support the positive relationship between firm size and firm's level of corporate governance practices (Laing and Weir, 1999; Guillen, 2000; Cho and Kim, 2003; Drobetz et al., 2003; Guriev et al., 2004; Beiner et al., 2006; Durnev and Kim, 2005; Zheka, 2006; Khanchel, 2007; Ariff et al., 2007; Lee and Park, 2008).

On the other hand, small firms may have better growth opportunities, greater need for external finance and better corporate governance mechanisms. There are also studies showing the negative relationship between firm size and corporate governance such as Fama and French (1992), Gompers et al. (2003), Tuschke and Sanders (2003), Gillan et al. (2003), and Brown and Caylor (2006).

As above information, it shows that the relationship between firm size and corporate governance is mixed. However, this study hypothesizes that larger firms will have strong corporate governance practices due to their more severe agency problems and more resources to use in corporate governance practices.

H<sub>2.1</sub> : there is a positive association between firm size and the level of corporate governance practices.

#### *3.4.2.2 Firm growth and corporate governance practices*

Theoretically, firms with good growth opportunities will need to raise external financing in order to expand and therefore find it optimal to improve their corporate governance practices (La Porta et al., 1999; Himmelberg et al., 2002). The underlying notion is that better governance and better minority shareholder protection will likely lead to lower cost of capital. Klapper and Love (2004) include sales growth in the analysis and conclude that past growth rates are positively associated with good governance, the results are also found in Gompers et al. (2003) and Black et al. (2006).

Therefore, this study hypothesizes that firm growth has a positive association with corporate governance practices.

H<sub>2.2</sub> : there is a positive association between firm growth and the level of corporate governance practices.

#### *3.4.2.3 Firm's intangible assets and corporate governance practices*

According to Himmelberg et al. (1999), the composition of the assets of a firm will also affect its contracting environment because it is easier to monitor and harder to steal fixed assets than soft capital. Therefore, firm operating with higher proportion of intangible assets may find it optimal to adopt stricter governance mechanism to signal to investors that they intend to prevent the future misuse of these assets. Klapper and Love (2004), and Khanchel (2007) also find positive relationship between firm's proportion of intangible assets and corporate governance.

Thus, this study hypothesizes that firm's intangible assets have a positive association with corporate governance practices.

H<sub>2.3</sub> : there is a positive association between firm's intangible assets and the level of corporate governance practices.

#### *3.4.2.4 Firm leverage and corporate governance practices*

Two arguments can be put forward to support the assumption that there is a positive association between firm's leverage and its corporate governance. First, highly leveraged firms enhance their corporate governance to gain greater reputation. For example, Chung (2000) state that highly leveraged companies would go for corporate governance reform in order to reduce debt ratio, to enhance the competitiveness of the firm or to show their restructuring efforts to shareholders and stakeholders. Second, Cho and Kim (2003) suggest that highly leveraged firms could be pressured by their borrower to enhance its corporate governance. Gillan et al.

(2003), Brown and Caylor (2004), Black et al. (2006), and Lee and Park (2008) also find positive association between leverage and corporate governance.

However, there are studies that document negative association between leverage and firms corporate governance level. Friedman et al. (2003) and Gillan et al. (2003) find that debt ratio is negatively associated with corporate governance in U.S. market. Lee and Park (2008) find that in Asian market (Korea) the debt ratio is also negatively associated with corporate governance score. In Faccio et al. (2001), higher expropriation can be associated with poor corporate governance. The study finds higher levels of debts among Asian corporations that are more vulnerable to expropriation. Therefore, higher level of debts is associated with lower corporate governance.

From the above literatures, they show that the relationship between firm leverage and corporate governance is mixed. However, this study hypothesizes that high levered firms will have strong corporate governance practices in order to gain their reputations and lower their costs of debts.

H<sub>2.4</sub> : there is a positive association between firm leverage and the level of corporate governance practices.

### *3.4.3 Firm performance and corporate governance practices*

Firm performance is important source of funds in the company. Good corporate governance practices have costs to perform. Therefore, firm performance is

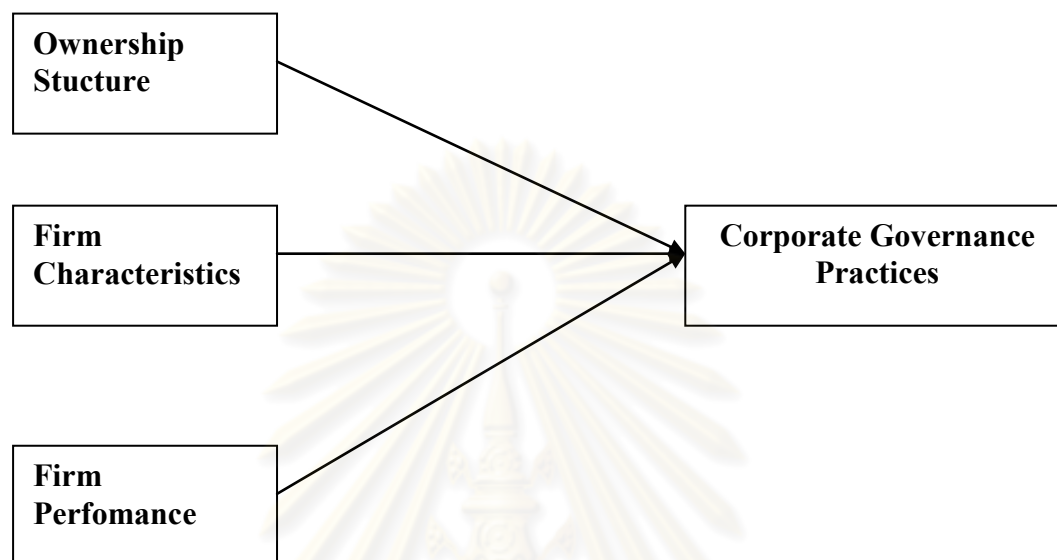
the one of important factors that effects corporate governance practices of the firm. The association between firm performance and quality of corporate governance show mixed results and cannot predict much on the direction. Jensen and Mecking (1976) have proven that better-governed firms might have more efficient operation, resulting in a higher expected future cash flow stream. Brown and Caylor (2004) find that all measures of return and all measures of profitability are significantly and positively correlated with the quality of corporate governance. Klapper and Love (2003) find evidence that firms with better governance have higher operating performance. Contrast results are seen in Gompers et al. (2003), Beiner et al. (2004), and Bauer et al. (2004). According to Cho and Kim (2003), firm would enhance their corporate governance when firm performance is poor because changes in corporate governance structure are expected to bring out positive result on their performance.

Although the negative relationship between firm performance and corporate governance has been shown, this study hypothesizes that firms with good performance will have strong corporate governance practices because of their available sources of funds that are required in performing good corporate governance.

H<sub>3</sub> : there is a positive association between firm performance and the level of corporate governance practices.



### 3.5 CONCEPTUAL FRAMEWORK



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## **CHAPTER IV**

### **RESEARCH DESIGN**

#### *4.1 SAMPLE*

The sample used in this study consists of all non-financial Thai listed firms during 2007-2008. The reason of using 2007-2008 dataset is that these years are the latest years. The data used in this study is gathered from the I-SIM CD-ROM and the SET market analysis and Reporting Tool (“SETSMART”) on-line services and Datastream. Financial firms are excluded due to the difference and more restricted regulations (Pathan, Skully, and Mickramanayake, 2008). Listed firms in non performing group are also excluded because of their unavailable data.

#### *4.2 ACCOUNTING AND OWNERSHIP DATA*

The data for accounting and equity ownership, members of the board of directors, and number of shares outstanding are obtained from the companies’ annual report submitted annually to the Stock Exchange of Thailand. The company’s annual report provides detailed ownership data that includes the top 10 shareholders in the company. It also provides a list of a firm’s affiliated companies and the shareholdings. The ownership information of non-listed companies are obtained from The Business on Line (BOL) database provides.

This study treats all family members as well as those of companies ultimately owned by these members as a single shareholder to account for the fact that is a common practice in Thailand that a business is closely tied to an extensive family.

Therefore, a shareholder includes individuals with the same surname as well as individuals that are linked to the family by marriage. Surname can be used to trace family relationships since family names in Thailand are unique and only family members of that family will use the surname.

This study gathers accounting data from consolidated financial statements. The reason that using consolidated financial statements instead of separate financial statements is that consolidated financial statements represent the results of overall activities of firms, which include firm and their subsidiaries, not only the activities of one single firm as shown in separate financial statements.

#### *4.3 PROXIES FOR OWNERSHIP STRUCTURE*

This study categorizes ownership structure into six issues including ownership concentration, institutional ownership, foreign ownership, government ownership, family ownership, and being politically connected firm.

##### *4.3.1 MEASURE OF OWNERSHIP CONCENTRATION*

There are two popular measures of ownership concentration. First, ownership concentration is measured by the percentage of shares held by blockholders owning 5% or more of the firm's shares. Many research employing this measure are Tuschke and Sanders (2003), Cho and Kim (2003), Joh (2003), Bushman et al. (2004), and Baek, Kang, and Park (2004).

Second, ownership concentration is measured by the percentage ownership of top large shareholders which has different definition in each research. Black et al. (2006) use the percentage ownership of the largest shareholder. Wiwattanakantang (1999) uses the percentage of shares held by the largest shareholder, the three largest shareholders, and the five largest shareholders. Demsetz and Lehn (1985) and Cheung et al. (2007) use percentage of shares held by the five largest shareholders.

This study uses the percentage of shares held by shareholders who owning 5% or more of the firm's shares as a measure of ownership concentration in order to consistent with SEC criteria and prior studies.

#### *4.3.2 MEASURE OF INSTITUTIONAL OWNERSHIP*

This study uses percentage of firm's shares held by institutional investors as a measure of institutional ownership as same as many research use such as Wiwattanakantang (2000), Gillan et al. (2003), Bushman et al. (2004), Sharma (2004), Baek et al. (2004), Khanchel (2007), and Lee and Park (2008). The reason of using percentage of firm's shares held by institutional investors as a measure of institutional ownership in stead of using dummy variable indicating if the firm has a controlling shareholder who is an institutional investor is to reduce the non-normality problems of the data.

#### *4.3.3 MEASURE OF FOREIGN OWNERSHIP*

There are many research use percentage of firm's shares held by foreign investors as a measure of foreign ownership include, Gillan et al. (2003), Baek et al.

(2004), Zheka (2006), and Lee and Park (2008). However, Wiwattakantang (2000, 2001) use dummy variable, indicating if the firm has a controlling shareholder who is a foreign investor.

As same as the measure of institutional ownership, this study uses percentage of firm's shares held by foreign investors as a measure of foreign ownership in order to mitigate the non-normality problems of the data. Foreign investors in this study are defined as investors who has a different nationality from Thai, either individual or as a group.

#### *4.3.4 MEASURE OF GOVERNMENT OWNERSHIP*

In stead of using dummy variable indicating the firm has a controlling shareholder who is the government of state agent or not like many research papers such as Wiwattanakantang (1999, 2000, 2001), Claessens et al. (2000), and Zheka (2006), this study uses percentage of firm's shares held by government or state agent. The reason is also to reduce the non-normality problems of the data.

#### *4.3.5 MEASURE OF FAMILY OWNERSHIP*

There are many research defines family ownership firm as the firm has a controlling shareholders who is a single shareholder or member of his or her family by either blood or marriage, either individually or as a group. These studies include Wiwattanakantang (1999, 2000, 2001), Claessens et al. (2000), Khanthavit et al. (2002), and Chen and Lee (2008).

However, because of data non-normality problems, this study does not use dummy variable as prior studies. But this study uses percentage of firm's shares held by a single shareholder or member of his or her family by either blood or marriage, either individually or as a group.

#### *4.3.6 MEASURE OF POLITICALLY CONNECTED FIRM*

According to Bunkanwanicha and Wiwattanakantang (2009) together with Faccio (2006) and Kuntisook (2008), this study measures “politically connected firm” as a firm that one of the firm's family members is a member of parliament or a minister or the head of state during the study period.

This study uses dummy variable, indicating if the firm has a political connection.

#### *4.4 PROXIES FOR FIRM CHARACTERISTICS*

This study concerns firm characteristics that would effects the firm corporate governance practices in 4 characteristics which are firm size, firm growth, firm's intangible assets, and firm leverage.

##### *4.4.1 MEASURE OF FIRM SIZE*

There are many measures of firm size including natural logarithm of firm's total assets (Sharma, 2004; Larcker et al., 2004; Black et al., 2006; Zheka, 2006; Khanchel, 2007; Connelly et al., 2008; Lee and Park, 2008), natural logarithm of

firm's sales (Chu and Kim, 2003; Klapper and Love, 2004; Lei and Teen, 2005; Ariff et al., 2007), market capitalization of firms (Gompers et al., 2003; Denkirati, 2003).

This study uses natural logarithm of firm's total assets as a measure of firm size because firm's total assets are the total resources of firm that can be used in all activities for running business. Therefore, firm's total assets express the total wealth of the firms at the point of time better than other measures. Besides that, taking natural logarithm to firm's total assets is to reduce the heteroskedasticity problems of the data.

#### *4.4.2 MEASURE OF FIRM GROWTH*

Most of studies use sales growth as a measure of firm growth (Gompers et al., 2003; Klapper and Love, 2004; Bushman et al., 2004; Black et al., 2006; Lee and Park, 2008). Consistent with prior studies, firm growth is measured as the sales growth of the firm.

#### *4.4.3 MEASURE OF FIRM'S INTANGIBLE ASSETS*

In this study, firm's proportion of intangible assets is measured as the ratio of total intangible assets to total assets, consistent with prior studies (Himmelberg, Hubbard, and Pelia, 1999; Klapper and Love, 2004; Khanchel, 2007). Consistent with TAS No.51, intangible asset in this study is defined as an identifiable nonmonetary assets without physical substance that is a) separable, ie, is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, asset or liability; or, b) arises from

contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations. An intangible asset is a resource that is controlled by the enterprise as a result of past events (for example, purchase or self-creation) and from which future economic benefits (inflows of cash or other assets) are expected.

#### *4.4.4 MEASURE OF FIRM LEVERAGE*

There are two popular measures of firm leverage. First, firm leverage is measured as the ratio of total debts to total assets of the firm (Wiwattanakantang, 2001; Gillan et al., 2003; Sharma, 2004; Ariff et al., 2007). Second, firm leverage is measured as the ratio of total debts to total equities of the firm (Cho and Kim, 2003; Lee and Park, 2008).

This study uses the ratio of total debts to total assets of the firm as a measure of firm leverage instead of using the ratio of total debts to total equities. The reason behind using this measure is to mitigate the heteroskedasticity problem of the data because firm's total assets are greater than firm's total equities.

#### *4.5 PROXIES FOR FIRM PERFORMANCE*

This study uses both accounting performance and market performance to test the effects of firm performance on the firm corporate governance practices. For accounting performance, there are two popular proxies of accounting performance that are return on asset (ROA) and return on equity (ROE) (Eisenbutg et al., 1998; Wiwattanakantang, 2001; Tuschke and Sanders, 2003; Klapper and Love, 2004).



Nevertheless, this study uses return on net asset (RONA) as the proxy for accounting performance instead of using return on asset (ROA) or return on equity (ROE) because RONA expresses more precisely about the operating performance of the firm (Shapiro et al., 2003). RONA is calculated from net operating profit after tax divided by the net assets (fixed assets plus net working capital). These items used in RONA calculation come from firm operating activities only, not includes firm financing and investing activities. On the other hand, ROA or ROE is calculated from net income divided by total assets or total equities, respectively, which includes items from financing and investing activities. The items concerning financing and investing activities are shown in firm leverage. For market performance, consistent with prior study (Morck et al., 1988; Yermack, 1996; Wiwattanakantang, 2001; Denkirati, 2003; Gompers et al., 2003; Klapper and Love, 2004; Larcker et al., 2004; Black et al., 2006), this study uses Tobin's Q as a proxy for it.

#### *4.5.1 MEASURE OF FIRM'S RETURN ON NET ASSET*

In this study, firm's return on net asset (RONA) is measured by the ratio of firm's net operating profit after taxes (NOPAT) to net assets (fixed assets plus net working capital) (Bragg, 2007; Walsh, 2009).

#### *4.5.2 MEASURE OF FIRM'S TOBIN'S Q*

Firm's Tobin's Q, a proxy for firm market performance, is calculated as the sum of fiscal year-end market value of equity and long-term debts divided by total assets (Morck et al., 1988; Yermack, 1996; Wiwattanakantang, 2001; Denkirati, 2003; Gompers et al., 2003; Klapper and Love, 2004; Larcker et al., 2004; Black et al.,

2006). Using the same measure as prior studies measure makes this study is comparable to prior studies.

Independent variables of the model specification are as follows:

<b>Variable</b>	<b>Definition</b>	<b>Prior study</b>	<b>Expected sign</b>	<b>Hypotheses</b>	<b>Data</b>
CONCENT	Percentage of shares held by shareholders who owning 5% or more of firm's shares.	Tuschke and Sanders (2003), Cho and Kim (2003), Joh (2003), Bushman et al. (2004), and Firth et al. (2008)	-	H1.1	Annual report
INSTI	Percentage of firm's shares held by institutional investors.	Wiwattanakantang (2000), Gillan et al. (2003), Bushman et al. (2004), Sharma (2004), Baek et al. (2004), Khancheek (2007), Lee and Park (2008), and Firth et al. (2008)	+	H1.2	Annual report
FOREIGN	Percentage of firm's shares held by foreign investors.	Gillan et al. (2003), Baek et al. (2004), Zheka (2006), Lee and Park (2006), and Firth et al. (2008)	+	H1.3	Annual report

Variable	Definition	Prior study	Expected sign	Hypotheses	Data
GOVN	Percentage of firm's shares held by government or state agent.		+	H1.4	Annual report
FAMILY	Percentage of firm's shares held by a single shareholder or member of his or her family by either blood or marriage, either individually or as a group.		-	H1.5	Annual report
CONNECTED (dummy)	Dummy variable equal to one if at least one of the firm's family members is a member of parliament or a minister or the head of state, zero is otherwise.	Bunkanwanicha and Wiwattanakantang (2009), Faccio(2006), and Kuntisook (2008)	-	H1.6	Annual report

Variable	Definition	Prior study	Expected sign	Hypotheses	Data
SIZE	The natural logarithm of firm's total assets.	Joe(2003), Sharma (2004), Black et al.(2006), Khanchel (2007), Firth et al. (2008), and Lee and Park(2008).	+	H2.1	Data stream
GROWTH	Firm's sales growth.	Gompers et al.(2003), Klapper and Love (2004), Bushman et al.(2004), Black et al.,(2006), and Lee and Park(2008).	+	H2.2	Data stream
IA	The ratio of firm's total intangible assets to total assets.	Himmelberg et al.(1999), Klapper and Love(2004), and Khanchel (2007).	+	H2.3	Data stream
LEV	The ratio of firm's total debts to total assets.	Wiwattanakantang (2001), Gillan et al.(2003), Sharma(2004), and Ariff et al. (2007).	+	H2.4	Data stream
RONA	The ratio of firm's net operating profit after taxes to net assets.	Bragg (2007) and Walsh (2009)	+	H3	Data stream

Variable	Definition	Prior study	Expected sign	Hypotheses	Data
Q	the sum of fiscal year-end market value of equity and long-term debts divided by total assets	Morck et al.(1988), Yermack(1996), Wiwattanakantang (2001), Denkirati(2003), Gompers et al.(2003), Klapper and Love(2004), Larcker et al.(2004), and Black et al. (2006)	+	H3	Data stream

#### *4.6 PROXY FOR CORPORATE GOVERNANCE PRACTICES*

This study uses the corporate governance composite index as a proxy for the corporate governance practices of the firm.

##### *4.6.1 MEASURE OF CORPORATE GOVERNANCE INDEX*

This study uses the corporate governance rating criteria constructed by Connelly et al. (2008) to rate corporate governance practices of the firm. This study uses Connelly et al. (2008) criteria, rather than the existing criteria (e.g., Gompers et al., 2003, Bebchuk et al., 2005, and Brown and Caylor, 2006) because these measures of governance may not be especially germane to Thai market. This is because those other indices are built primarily from provisions relating to takeover defenses and other shareholder rights. Hostile takeovers are rare in Thai markets largely because of concentrated ownership and unique institutional settings.

This corporate governance index is calculated from a total 117 separate criteria to quantify the overall of corporate governance practices. The criteria are developed from the OECD's (Organization of Economic Cooperation and Development) five Corporate Governance Principles (OECD 2004) and then adjusted to take into account the subtleties of Thai laws and regulations. The scorecard criteria span five sections of the OECD corporate governance principles: the rights of shareholders (25%), equitable treatment of shareholders (15%), role of stakeholders (10%), disclosure and transparency (25%), and board responsibilities (25%).

To evaluate firm's corporate governance practice, the data used in the evaluation process are drawn from a wide variety of publicly information sources such as annual reports, Securities and Exchange Commission and Stock Exchange of Thailand filings, minutes from annual shareholders' meeting, articles of association, company by-laws, and company websites. Specifically, only publicly available official documents serve as source documents since this information would be readily available to outside investors.

With assessment procedure, firms that omit or do not comply with a specific scoring criterion receive a "poor" score. Meeting the legal compliance standard earns a firm a score of "fair", while firms that exceed the regulatory requirements and/or meet international standards receive the highest score. Once the assessment is complete, the CGI score, aggregated across the five sub-sections, is scaled to range from zero to 100 percent. The details of criteria are shown in appendix.

#### 4.7 CONTROL VARIABLE

Consistent with previous studies (Cho and Kim, 2003; Gillan et al., 2003; Klapper and Love, 2004; Zheka, 2006), a dummy variable reflecting industry codes (based on SET categorization) is also added to account for its potential effects on corporate governance practices of the firm.

Industry control variable,  $\beta_j \sum_j IND_{it-1}$ , is the dummy variable which equals to 1(0) if firm  $i$  is (is not) in industry  $j$  in year  $t-1$ , based on SET categorization (Ashbaugh et al., 2003; Phillips et al., 2003; Oh et al., 2006). SET categorizes listed firms into 8 services industries compose of agro and food industry, consumer products, financials services, industrials services, property and construction, resources energy and utilities, and technology. However, this study excludes financials services industry from the sample. Therefore, industries in this study remain 7 industries.

#### 4.8 DATA ANALYSIS METHODOLOGY

This study uses multiple regression technique in analyzing data.

##### Model specification

$$\begin{aligned} \Delta CGI_i = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + B_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + B_{10} \Delta LEV_i \\ & + \beta_{11} \Delta RONA_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (1)$$

$$\begin{aligned} \Delta CGI_i = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + B_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + B_{10} \Delta LEV_i \\ & + \beta_{11} \Delta Q_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (2)$$

Where  $\Delta\text{CGI}$ , dependent variable, is the change in corporate government index of firm  $i$  between year 2007 and 2008 that measured by using Connelly (2008) rating criteria. All independent variables, except controlled variables, are the changes of variables of firm  $i$  between 2006 and 2007.

The model specification (2) differs from model specification (1) that model (1) is tested for the effect of firm's operating performance, while model (2) is tested for the effect of firm's market performance. Therefore, in model (1), RONA is used as a proxy for firm performance, and  $Q$  is used in model (2), while other variables remain the same. The reason behind separating tests of two variables because it helps to mitigate the multicollinearity problem.

This study analyzes data by using changed form of the variables between year 2007 and 2008 instead of using level form of year 2007 and 2008. The reason is to avoid repeated measures problem.

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## CHAPTER V

### RESULTS

#### *5.1 DESCRIPTIVE STATISTICS*

Table 1 presents a summary of the method of obtaining the final sample firms. Of the 477 firms listed in The Stock Exchange of Thailand (SET) during 2007-2008, this study eliminates 63 firms based on being financial services and being in the insurance sectors. The elimination is due to the difference in these sectors financial requirements, accounting rules, and other regulations differences (Pathan et al., 2008). Moreover, they are more heavily regulated by Bank of Thailand and Department of Insurance. Another 24 firms are eliminated in the rehabilitation companies sector because there is a lack of available data. Additionally, 40 firms are eliminated because the data are not available or are incomplete in the data sources. In addition, 31 firms are also eliminated due to their outlier data in order to have more valid study results. These eliminations leave a final sample of 319 firms.

Table 2 presents the descriptive statistics on the dependent and independent variables used in this study. Table 2 reports the descriptive statistics on  $\Delta$ CGI (change in corporate governance index),  $\Delta$ CONCENT (change in percentage of firm's shares held by shareholders who own 5% or more of firm's shares),  $\Delta$ INSTI (change in percentage of firm's shares held by institutional investors),  $\Delta$ FOREIGN (change in percentage of firm's shares held by foreign investors),  $\Delta$ GOVN (change in percentage of firm's shares held by government or state agents),  $\Delta$ FAMILY (change in percentage of firm's shares held by a single shareholder or members of his or her

family by either blood or marriage, either individually or as a group),  $\Delta$ CONNECTED (indicator variable with the value of “-1” if firm has political connections in 2006 but doesn’t have in 2007, “0” if firm doesn’t have change in political connections, or “+1” if firm doesn’t have political connections in 2006 but does have in 2007),  $\Delta$ SIZE (natural logarithm of change in firm’s total assets),  $\Delta$ GROWTH (change in firm’s revenue growth),  $\Delta$ IA (change in firm’s intangible assets ratio),  $\Delta$ LEV (change in firm’s leverage ratio),  $\Delta$ RONA (change in firm’s return on net assets ratio),  $\Delta$ Q (change in firm’s Tobin’s Q), AGRO (indicator variable with the value of “1” if firm is in agro and food industry, “0” otherwise), CONSUMER (indicator variable with the value of “1” if firm is in consumer product industry, “0” otherwise), INDUSTRIAL (indicator variable with the value of “1” if firm is in industrial service industry, “0” otherwise), PROPERTY (indicator variable with the value of “1” if firm is in property and construction industry, “0” otherwise), RESOURCE (indicator variable with the value of “1” if firm is in resource energy and utilities industry, “0” otherwise), SERVICE (indicator variable with the value of “1” if firm is in service industry, “0” otherwise).

The mean change in corporate governance index ( $\Delta$ CGI) between 2007 and 2008 is approximately 0.80%, which indicates that Thai listed firms have slightly stronger corporate governance practices. With ownership structure composition variables, the ownership concentration decreases approximately 1.38% on average, which indicates that ownership concentration in Thailand is more dispersed in 2007 compare to 2006. The average change in percentage of firm’s shares held by institutional investors, foreign investors, and government are 0.04%, 0.36%, and

-0.01%, respectively. The percentage of family shareholders in Thai listed firms decreases approximately by 1.55% on average from 2006 to 2007.

Furthermore, table 2 shows that the natural log of total assets for the companies in this study increases by 15.08 (฿1,021,426) on average, which indicates that Thai listed firms have a bigger size. But, sale growth of these firms decreases by 6.85% on average. Their intangible assets ratio and leverage ratio are slightly decreased by 0.001 and 0.02, respectively. For firm performance, the average of firm accounting performance, which measured by return on net assets (RONA) is decreased by 0.03. But, firm market performance, Tobin's Q, is increased approximately 0.06 on average.

Panel B of Table 1 shows 35 firms (11.0%) lost their political connections in 2007 compared to 2006. The political connections of 275 firms (86.2%) are unchanged. Other 9 firms (2.8%) have political connections in 2007 while in 2006 these firms do not have political connections.

Panel C of Table 1 shows that the sample of this study composes of 32 firms (10%) in agro and food industry, 29 firms (9.1%) in consumer product industry, 55 firms (17.2%) in industrial service industry, 79 firms (24.8%) in property and construction industry, 21 firms (6.6%) in resource energy and utilities industry, 68 firms (21.3%) in service industry, and 35 firms (11%) in technology industry.

Table 3 reports the correlation matrix for the variables. The upper right-hand portion of the tables presents Pearson product moment correlation, while the lower left hand portion presents the Spearman rank-order correlation. To facilitate discussion, this study focuses on the Pearson correlations: the Spearman rank-order correlations are generally consistent with the Pearson correlation.  $\Delta$ CONCENT exhibits a significantly positive correlation with  $\Delta$ FOREIGN,  $\Delta$ GOVN,  $\Delta$ FAMILY,  $\Delta$ CONNECTED, and  $\Delta$ Q and negative correlation with  $\Delta$ SIZE.  $\Delta$ INSTI is positively correlated with  $\Delta$ FOREIGN and  $\Delta$ SIZE and negatively correlated with  $\Delta$ FAMILY and  $\Delta$ LEV.  $\Delta$ FOREIGN has a significantly negative correlation with  $\Delta$ FAMILY.  $\Delta$ FAMILY has a positively correlated with  $\Delta$ Q.  $\Delta$ GROWTH has a significantly positive correlation with  $\Delta$ LEV. However, a variance inflation factor (VIF) is tested to detect multicollinearity (results are not reported). As a rule of thumb, a VIF greater than ten suggests that the regressor variables are highly correlated (Myers, 1990 and Montgomery et al., 2001). This study finds that the VIFs of the regressor variables in the model specification do not exceed the cut-off point (ten), suggesting that multicollinearity among the regressor variables is not strong in this dataset.

This study also tests other linear regression assumptions and shows that all data sets do not violate the linear regression assumptions. Darbin-Watson coefficient values of model 1 and model 2 are 1.962 and 1.966, respectively, which are between 1.5 and 2.5. Run tests also confirm that an autocorrelation problem does not exist. White's tests are also investigated to ensure that there are no heteroskedasticity problems. Based on the Central Limit Theorem, the distribution of residuals in large sample size is normal. A general rule accepts a sample size of 30 or more as large

(Dielman, 2005). The sample size of this study is 689, which is far larger than 30, so the assumption of normal distribution of residuals is justified.

## *5.2 THE EFFECTS OF OWNERSHIP STRUCTURES, FIRM CHARACTERISTICS, AND FIRM ACCOUNTING PERFORMANCE ON FIRM'S CORPORATE GOVERNANCE PRACTICES*

The first part of this study focuses on the effects of ownership structures, firm characteristics, and firm accounting performance on corporate governance practices of firms. Firms' ownership structures are composed of ownership concentration, institutional ownership, foreign ownership, government ownership, family ownership, and political connection. Firm characteristics are firm size, firm growth, firm's intangible assets, and firm leverage. For firm performance, this part focuses only on firm accounting performance.

Column Model 1 in table 4 reports the results from cross-sectional regression of change in corporate governance index on change in firm ownership structures, firm characteristics, and firm accounting performance. The results show that the overall model is significant (F-value = 6.159,  $p < .000$ ). The model's explanatory power is moderate, as reflected by the adjusted  $R^2$  of .299

With respect to firm ownership structures, the coefficients of  $\Delta$ CONCENT are significantly negative at the 5% level. These results indicate that firms with higher concentrated ownership have lower corporate governance index ( $\Delta$ CGI). Hypothesis 1.1 is supported. The coefficients of  $\Delta$  INSTI are positively significant at 5% level.

The results indicate that firms with higher institutional owners have higher corporate governance index ( $\Delta$ CGI). Hypothesis 1.2 is also supported. The coefficients of  $\Delta$ GOVN are positively significant at 1% level. The results indicate that firms with higher government owners have higher corporate governance index ( $\Delta$ CGI) which is consistent with hypothesis 1.4. The coefficients of  $\Delta$ FAMILY are positively significant at 1% level. The results indicate that firms with higher family ownership have higher corporate governance index ( $\Delta$ CGI). The results are inconsistent with hypothesis 1.5. The positive relationship between family ownership and CGI illustrates that families are more concerned with their sustainable growth and firm value in the long term. Therefore, they try to do their best in corporate governance practices to create higher firm value. This situation is consistent with the alignment effect in the agency theory (Jensen and Meckling, 1976). However, The coefficients of other two ownership structures,  $\Delta$ FOREIGN and  $\Delta$ CONNECTED, are not significant. These findings indicate that foreign ownership and political connections are not associated with corporate governance practices. For foreign ownership, it can be explained that foreign investors in Thailand come from both Western countries and Asian countries. Western countries have higher corporate governance index (CGI) while Asian countries have lower CGI than Thailand (Klapper and Love, 2004). Thus, it may be reasoned that foreign ownership is not associated with CGI. For political connection,  $\Delta$ CONNECTED, the coefficients are not significant. The results indicate that firms with political connections have similar CGI with non-political connected firms. Therefore, hypothesis 1.6 is not supported. There are two possible explanations about the insignificant coefficients of  $\Delta$ CONNECTED. The first one is that currently, there are more restricted regulations from many regulators and penalties are enforced.

The second is that companies' committees are educated from various courses offered by Thai Institute of Directors (IOD). The two phenomenons influence the politically connected firms to perform decision making carefully. They cannot use their political ties easily to lobby public officials to help their firms without concern to corporate governance practices. Therefore, corporate governance practices of politically connected firms are not weaker than the non-politically connected firms.

Overall, column Model 1 table 4 shows that all forms of ownership structures variables are associated with the level of corporate governance practices except foreign ownership and political connection. Therefore, hypothesis 1 is supported.

With respect to firm characteristics, the coefficients of  $\Delta$ SIZE are significantly positive at the 1% level. These results indicate that larger firms have higher corporate governance index ( $\Delta$ CGI). Hypothesis 2.1 is supported. The coefficients of LEV are also significant at 1% level but negatively. These results indicate that firms with higher leverage have lower corporate governance index ( $\Delta$ CGI). The results are inconsistent with hypothesis 2.4. However, there are studies that document negative associations between leverage and corporate governance practices (Faccio, 2001, Friedman et al., 2003, Gillan et al., 2003, and Lee and Park, 2008). This phenomenon can be argued that higher leverages are more vulnerable to expropriation, so higher expropriation can be associated with poor corporate governance. Even if creditors will take some actions to force firms to have stronger corporate governance practices, firm management may reluctant to do their better corporate governance practices because better corporate governance practices may obstruct them to expropriate wealth from

firm easily. Nevertheless, the coefficients of  $\Delta$ GROWTH and  $\Delta$ IA are not significant. The results indicate that firm growth and firm intangible assets are not associated with corporate governance practices. Firms with higher growth have similar corporate governance index (CGI) with lower growth firms. Hypothesis 2.2 is not supported. The reasons behind the insignificant of the coefficients of GROWTH may be that GROWTH used in this study is sales growth, which cannot ensure that high sales growth means high profit growth. Firms with high growth may have loss due to the increased expenses. This could influence the amount of money used in their own corporate governance practices. In addition, growth may be seasonal. It is not ensured that this type of growth is sustainable or not. Therefore, firms may not consider growth in making decision about their corporate governance practices. The coefficients of IA are not significant. Firms with higher proportion of intangible assets have similar corporate governance index (CGI) with lower proportion of intangible assets firms. Hypothesis 2.3 is also not supported. The reasons may be that this study includes industries as controlled variables. Proportion of intangible assets is one of characteristic of each industry. Therefore, the effects of intangible assets are reflected in industry variables.

Overall, column Model 1 table 4 also shows that all of the firm characteristics variables are associated with the level of corporate governance practices except firm growth and firm intangible assets. Therefore, hypothesis 2 is supported.

For firm accounting performance, the coefficients of  $\Delta$ RONA are not significant. The results indicate that whether firms with higher or lower RONA have



similar change in corporate governance index ( $\Delta$ CGI). Firm accounting performance is not significant associated with corporate governance practices. Therefore, hypothesis 3 is not supported in model 1. The reason is that firms may consider accounting performance (RONA) just as the numbers calculated from accounting procedures, which using accrual basis. Good accounting performance does not confirm that firms have available cash for doing their better corporate governance practices. Therefore, accounting performance (RONA) is not associated with corporate governance index.

### *5.3 THE EFFECTS OF OWNERSHIP STRUCTURES, FIRM CHARACTERISTICS, AND FIRM MARKET PERFORMANCE ON CORPORATE GOVERNANCE PRACTICES*

The second part of this study focuses on the effects of ownership structures, firm characteristics, and firm market performance on corporate governance practices of firms.

Column Model 2 in table 4 reports the results from cross-sectional regression of change in corporate governance index on change in firm ownership structures, firm characteristics, and firm market performance. The results show that the overall model is significant (F-value = 6.191,  $p < .000$ ). The model's explanatory power is moderate but higher than model 1, as reflected by the adjusted  $R^2$  of .311

With respect to firm ownership structures, consistent with results of model 1, the coefficients of  $\Delta$ CONCENT are significantly negative at the 5% level. The

coefficients of  $\Delta\text{GOVN}$ ,  $\Delta\text{FAMILY}$  and  $\Delta\text{INSTI}$  are positively significant at 1% and 5% level, respectively. The coefficients of  $\Delta\text{FOREIGN}$  and  $\Delta\text{CONNECTED}$  are not significant. Therefore, hypotheses 1.1, 1.2, and 1.4 are also supported in model 2. The results of model 2 confirm that all ownership structures variables are associated with the level of corporate governance practices except foreign ownership and political connection. Therefore, hypothesis 1 is also supported in model 2.

With respect to firm characteristics, also consistent with model 1, the coefficients of  $\Delta\text{SIZE}$  are significantly positive at the 1% level. The coefficients of  $\Delta\text{LEV}$  are also negatively significant at 1% level, which is inconsistent with hypothesis 2.4. The explanations for the inconsistency are explained in section 5.2. And the coefficients of  $\Delta\text{GROWTH}$  and  $\Delta\text{IA}$  are still not significant in model 2. Hypotheses 2.1 is also supported in model 2. These results indicate that all of the firm characteristics variables are associated with the level of corporate governance practices except firm growth and firm intangible assets. Therefore, hypothesis 2 is also supported in model 2.

For firm market performance, the coefficients of  $\Delta\text{Q}$  are positively significant. These results indicate firms with higher Tobin's Q (measure for firm market performances) have higher corporate governance index ( $\Delta\text{CGI}$ ). The results indicate that firm market performance is positively associated with corporate governance practices. Therefore, hypothesis 3 is supported in model 2. Comparing to the accounting performance, the market performance is associated with corporate governance practices but the accounting performance is not. The reason is that market

performance (Tobin's Q) reflects firm's cash flow and other information that affect firms value while accounting performance (RONA) is just the numbers calculated from accounting procedures. Firm with high market performance have more cash flow, which is the one of important resources that can be used for their better corporate governance.

#### *5.4 THE EFFECTS OF OWNERSHIP STRUCTURES, FIRM CHARACTERISTICS, AND FIRM PERFORMANCE ON CORPORATE GOVERNANCE SUB-INDEX*

In this part of this study, the corporate governance index is decomposed into 5 sub-indices followed by the OECD corporate governance principles: the rights of shareholders sub-index (25%), equitable treatments of shareholders sub-index (15%), role of stakeholders sub-index (10%), disclosure and transparency sub-index (25%), and board responsibilities sub-index (25%).

##### *5.4.1 DESCRIPTIVE STATISTICS*

Table 5 presents the descriptive statistics on change in 5 corporate governance sub-indices used in the third part of this study. Table 5 reports that the average of change in the rights of shareholders sub-index, equitable treatments of shareholders sub-index, role of stakeholders sub-index, disclosure and transparency sub-index, and board responsibilities sub-index are 0.18%, 0.03%, 0.18%, 0.35%, and 0.42%, respectively. These results indicate that corporate governance practices are stronger in all sub-indices.

*5.4.2 THE EFFECTS OF OWNERSHIP STRUCTURES, FIRM CHARACTERISTICS, AND FIRM PERFORMANCE ON THE RIGHTS OF SHAREHOLDERS SUB-INDEX*

Table 6 reports the results from cross-sectional regression of change in the rights of shareholders sub-index on change in ownership structures, firm characteristics, and firm performance from models 1 and 2. Only one difference between model 1 and model 2 is the proxies for firm performance. Model 1 uses accounting performance while model 2 uses market performance.

The results in table 6 show that the overall model is significant in both models (F-value = 3.671,  $p < .000$  for model 1 and F-value = 3.897,  $p < .000$  for model 2). The models' explanatory power are low, as reflected by the adjusted  $R^2$  of .130 and 0.138 for model 1 and model 2, respectively.

As the results shown in table 6, consistent with table 4, the coefficients of  $\Delta\text{CONCENT}$  are negatively significant while the coefficients of  $\Delta\text{GONV}$  and  $\Delta\text{FAMILY}$  are positively significant. Therefore, hypothesis 1.1 and hypothesis 1.4 is confirmed. The reasons that the coefficients of  $\Delta\text{FAMILY}$  contradict to the predicted signs are explained in section 5.2. The coefficients of  $\Delta\text{INS}$ ,  $\Delta\text{FOREIGN}$ , and  $\Delta\text{CONNECTED}$  are not significant in both models.

For firm characteristics, consistent with table 4, the coefficients of  $\Delta\text{SIZE}$  are positively significant and the coefficients of  $\Delta\text{LEV}$  are negatively significant. The coefficients of  $\Delta\text{GROWTH}$  and  $\Delta\text{IA}$  are not significant.

With respect to firm performance, consistent with table 4, the coefficients of  $\Delta Q$  are positively significant but the coefficients of  $\Delta RONA$  are not. The results indicate that the firm market performance has a positive association with the rights of shareholders sub-index of the firm but not for firm accounting performance.

#### *5.4.3 THE EFFECTS OF OWNERSHIP STRUCTURES, FIRM CHARACTERISTICS, AND FIRM PERFORMANCE ON EQUITABLE TREATMENTS OF SHAREHOLDERS SUB-INDEX*

The results in table 7 show that the overall model is significant in both models (F-value = 3.792,  $p < .000$  for model 1 and F-value = 3.898,  $p < .000$  for model 2). The models' explanatory power are low, as reflected by the adjusted  $R^2$  of .167 and 0.179 for model 1 and model 2, respectively.

As the results shown in table 7, consistent with table 4 and 6, the coefficients of  $\Delta CONCENT$  are also negatively significant. So, the hypothesis 1.1 is supported. The coefficients of  $\Delta GONV$  and  $\Delta FAMILY$  are positively significant. Therefore, hypothesis 1.4 is confirmed. In addition, the coefficients of  $\Delta FOREIGN$  that are not significant in table 4 and table 6 become significant in table 7 but only at 10% level, which indicate that firms with higher foreign ownership have more equitable treatments of shareholders. The coefficients of  $\Delta INS$  and  $\Delta CONNECTED$  are not significant in this table.

For firm characteristics, consistent with table 4, the coefficients of  $\Delta$ SIZE are positively significant while the other coefficients of firm characteristics are not significant.

With respect to firm performance, consistent with table 4, the coefficients of  $\Delta$ Q are positively significant but the coefficients of  $\Delta$ RONA are not. The results indicate that the firm market performance has positive association with equitable treatments of shareholders sub-index of the firm but not for firm accounting performance.

#### *5.4.4 THE EFFECTS OF OWNERSHIP STRUCTURES, FIRM CHARACTERISTICS, AND FIRM PERFORMANCE ON ROLE OF STAKEHOLDERS SUB-INDEX*

The results in table 8 show that the overall model is significant in both models (F-value = 3.625,  $p < .000$  for model 1 and F-value = 3.817,  $p < .000$  for model 2). The models' explanatory power are low, as reflected by the adjusted  $R^2$  of .169 and .173 for model 1 and model 2, respectively.

As the results shown in table 8, the coefficients of  $\Delta$ CONCENT are negatively significant. The coefficients of  $\Delta$ INS,  $\Delta$ FOREIGN,  $\Delta$ GONV and  $\Delta$ FAMILY are positively significant. Therefore, hypothesis 1.1, hypothesis 1.2, hypothesis 1.3, and hypothesis 1.4 are confirmed. The coefficients of  $\Delta$ CONNECTED are still not significant.

For firm characteristics, consistent with table 4, 6, and 7, the coefficients of  $\Delta$ SIZE are positively significant and the coefficients of  $\Delta$ LEV are negatively significant. Therefore, hypothesis 2.1 is confirmed. The explanations of the contrary signs of  $\Delta$ LEV coefficients are explained in section 5.2. The coefficients of  $\Delta$ GROWTH and  $\Delta$ IA are not significant.

With respect to firm performance, consistent with table 4, 6, and 7, the coefficients of  $\Delta$ Q are positively significant but the coefficients of  $\Delta$ RONA are not. These results indicate that the firm market performance has a positive association with the role of stakeholders sub-index of the firm but not for firm accounting performance.

#### *5.4.5 THE EFFECTS OF OWNERSHIP STRUCTURES, FIRM CHARACTERISTICS, AND FIRM PERFORMANCE ON DISCLOSURES AND TRANSPARENCY SUB-INDEX*

The results in table 9 show that the overall model is significant in both models (F-value = 2.795,  $p < .000$  for model 1 and F-value = 2.826,  $p < .000$  for model 2). The models' explanatory power are low, as reflected by the adjusted  $R^2$  of .143 for model 1 and .144 for model 2.

As the results shown in table 9, consistent with table 4, 6, 7 and 8, the coefficients of  $\Delta$ CONCENT are negatively significant which indicate that hypothesis 1.1 is confirmed. In addition, the coefficients of  $\Delta$ GONV and  $\Delta$ FAMILY are

positively significant. Therefore, hypothesis 1.4 is also confirmed. The coefficients of other firm ownership structures are not significant.

For firm characteristics, consistent with table 4, 6, 7, and 8, the coefficients of  $\Delta$ SIZE are positively significant. Therefore, hypothesis 2.1 is confirmed. The coefficients of other firm characteristics variables are not significant.

With respect to firm performance, consistent with table 4, 6, 7, and 8, the coefficients of  $\Delta$ Q are positively significant but the coefficients of  $\Delta$ RONA are not. These results indicate that the firm market performance has a positive association with disclosures and transparency sub-index of the firm but not for firm accounting performance.

#### *5.4.6 THE EFFECTS OF OWNERSHIP STRUCTURES, FIRM CHARACTERISTICS, AND FIRM PERFORMANCE ON BOARD RESPONSIBILITIES SUB-INDEX*

The results in table 10 show that the overall model is significant in both models (F-value = 4.149,  $p < .000$  for model 1 and F-value = 4.156,  $p < .000$  for model 2). The models' explanatory power are moderate, as reflected by the adjusted  $R^2$  of .210 for model 1 and .219 for model 2.

As the results shown in table 10, consistent with table 4, 6, 7, 8, and 9, the coefficients of  $\Delta$ CONCENT are negatively significant, which confirm that hypothesis 1.1 is supported. The coefficients of  $\Delta$ GONV and  $\Delta$ FAMILY are positively significant. Therefore, hypothesis 1.4 is confirmed. Additionally, the coefficients of



$\Delta$ INSTI and  $\Delta$ FOREIGN are positively significant in table 10, which is consistent with table 4 and 8. The results indicate that hypothesis 1.2 and hypothesis 1.3 are supported. Nevertheless, the coefficients of  $\Delta$ CONNECTED are not significant.

For firm characteristics, consistent with table 4, 6, 7, 8, and 9 the coefficients of  $\Delta$ SIZE are positively significant and the coefficients of  $\Delta$ LEV are negatively significant. Therefore, hypothesis 2.1 is confirmed. The explanations of the contrary signs of  $\Delta$ LEV coefficients are explained in section 5.2. The coefficients of  $\Delta$ GROWTH and  $\Delta$ IA are still not significant.

With respect to firm performance, consistent with table 4, 6, 7, 8, and 9, the coefficients of  $\Delta$ Q are positively significant but the coefficients of  $\Delta$ RONA are not. These results indicate that the firm market performance has a positive association with board responsibilities sub-index of the firm but not for firm accounting performance.

## **CHAPTER VI**

### **CONCLUSIONS AND LIMITATIONS**

#### *6.1 CONCLUSIONS*

This study investigates the association between firm ownership structures, firm characteristics, and firm performances and firm's corporate governance practices of Thai listed firms during 2007-2008. Table 4 presents the summary results of hypotheses testing, the results show that higher ownership concentration is associated with less corporate governance index. Such results are consistent with entrenchment effect that greater ownership's motivation to expropriate wealth from minority shareholders by having less corporate governance index. In contrast, this study finds that higher family ownership is associated with higher corporate governance index, which is consistent with alignment effect informing that the interests of family shareholders and non-family shareholders are better aligned because of the large blocks of stock owned by family shareholders and their long-term presence. Furthermore, the results show that higher institutional or government shareholding is associated with high corporate governance index. The results indicate that corporate governance acts as a monitoring tool. Institutional and government owners have incentives to protect their investment. Therefore, they need additional corporate governance practices.

Table 4 also shows the associations between firm characteristics and corporate governance index. The results show that larger firm size is associated with high corporate governance index. The results indicate that larger firms have more severe

agency problems and have more resources to use in corporate governance practices. Nevertheless, higher leverage is associated with less corporate governance index, which is contrary to the proposed hypothesis. The finding is consistent with many prior studies, which found a negative association between leverage and corporate governance (Faccio, 2001, Friedman et al., 2003, Gillan et al., 2003, and Lee and Park, 2008). This phenomenon can be argued that higher leverages are more vulnerable to expropriation, so higher expropriation can be associated with poor corporate governance. Even if creditors will take some actions to force firms to have stronger corporate governance practices, firm management may reluctant to do their better corporate governance practices because better corporate governance practices may obstruct them to expropriate wealth from firm easily.

For firm performances, table 4 shows that better market performances (measured by Tobin's Q) is associated with higher corporate governance index. Such results are consistent with the concept that firms with good performance have good corporate governance practices because they have more available sources of funds that are required in performing good corporate governance.

Overall, the results of this study show that ownership structures, firm characteristics, and firm market performances are associated with corporate governance index. Therefore, these results imply that ownership structures, firm characteristics, and firm performances are the determinants of corporate governance practices of Thai listed firms even if not all of the variables are significant.

## 6.2 CONTRIBUTIONS

This study is the first study that concerns family ownership and political connections as the determinants of corporate governance practices. No study concerns these two factors before even in developed markets. The findings of this study indicate that family ownership is positively associated with corporate governance practices. This finding is interesting and could be extended to other studies in corporate governance literatures.

The results of this study are meaningful to various parties such as academics, investors, financial practitioners, standard setters, regulators, and policy makers. The results indicate the effects of ownership structures, firm characteristics, and firm performances on corporate governance practices of Thai listed firms. Therefore, the above parties, academics and financial practitioners, can better understand the ownership structures, firms characteristics, firms performance, and corporate governance practices of Thai listed firms and their associations. They can use the findings of this study to extend their corporate governance literatures especially East Asian capital market literatures because Thai dataset is similar to other East Asian countries where as firms have high ownership concentration and low investor protection mechanism. Besides, the findings of this study could be compared to other studies in East Asian countries as well. Investors may use the results of this study to forecast firm corporate governance practices by knowing firm ownership structures, firm characteristics, or firm performances. Therefore, investors may make better decision concerning their investment. Thai market regulator (SET and SEC), may use the results of this study to make decisions about issuing additional regulations or

giving incentives to encourage Thai listed firms to perform better corporate governance practices in order to improve the protection of investors in the Thai capital market. For example, the results of this study show that the government firms have better corporate governance than non-government firms. Or, the large firms have better corporate governance practices than small firms. Market regulators should focus on non-government or small firm to give them incentive to encourage them to improve their corporate governance practices.

### *6.3 LIMITATIONS*

This study is limited to using the family information provided in the firm annual reports. This study cannot trace family ownership with different surnames or nominees because it is ambiguous and difficult to identify family relationships in Thailand. For political connection, this study is only able to focus political connected on firms where at least one large shareholder has connection with a member of parliament, a minister, or head of state (including a relative, spouse, a child, a sibling, or a parent). Additionally, this study might not be able to trace the relationship beyond the surname and the family information provided in the firm's annual report. Besides, this study uses dummy variable to measure being a political connected firm. This study will be improved if it is able to use interval scale to measure political connections. Unfortunately, the interval scale cannot be used due to the limited amount of data available for this study. Finally, this study uses sales growth as a proxy for firm growth. There are some other proxies for firm growth such as growth of numbers of employees (Hall, 1987; Konings, 1997; Saeed, 2009; Rahaman, 2011), growth on firm size that measured by total assets (Huynh and Petrunia, 2010;

McPherson and Rous, 2010), or growth in firm capital expenditures (Lang, Ofec, and Stulz, 1996; O'Brien and Parthiban, 2009). Using different proxies for firm growth may have different research results.

#### *6.4 FUTURE RESEARCH*

This study focuses only on the determinants of corporate governance practices. Further investigation is necessary on the consequences of corporate governance practices. In addition, this study excludes firms in the financial sector due to the sector difference in their operating nature and higher restrictions in their regulations. A further study on the determinants of corporate governance practices of financial firms would complement the findings of this research. Finally, this study uses only a dataset from Thailand; an extended study using datasets from other emerging markets would create a sound comparative analysis.

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# Appendices

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## Appendix A

### Criteria in Corporate Governance Index Rating (Connelly et al., 2008)

#### Criteria

#### Scoring

#### References

#### I. Rights of Shareholders

Total of 22 items;  
maximum score = 42  
(25 percent of CGI)

A.	Shareholder Rights Defined	Total of 4 items	Bushman, Piotroski, and Smith, 2004, La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1998, Mallin 2001, Murphy 1999
	1. Offer other ownership rights beyond voting	Score 2 if equitable share of profits and dividends and equitable treatment for share repurchases, 1 if only one right is offered, 0 if neither.	
	2. Shareholders approve the remuneration annually	Score 2 if approved, 0 if not	
	3. Presentation of board remuneration to the shareholders	Score 2 if compensation details are provided for every director; 0 if only total / summation provided	
	4. Shareholders can elect board members individually	Score 2 if yes, 0 if not	
B.	Shareholder Rights Disclosed	Total of 8 items	Bhagat and Brickley 1984, Carcello and Neal 2000, Easterbrook 1984, Fama and Jensen 1983, Gillian and Starks 2000, Gordon and Pound 1993, Jensen 1986, Jensen and Meckling 1976, Karpoff, Malatesta, and Walkling 1996, Klein 2002, Krishnan 2005, Raghunandan and Rama 2003, Rozeff 1982
	1. Quality of Notice to call Shareholders' Meeting(s)		
	a) Appointment of directors	Score 2 if names and backgrounds are provided, 1 if only one item is provided, 0 if both items are missing	
	b) Appointment of auditors	Score 2 if name(s), profile, and fees are provided, 1 if 2 items are provided, 0 if one item or none provided	
	c) Dividend policy amount and explanation for payment	Score 2 if both items are provided, 1 if only one item is provided, 0 if both items missing	
	d) Objective and reason for each item on the shareholders' meeting agenda	Score 2 if included, 0 if omitted	
	e) Director's comments and opinion for each agenda item	Score 2 if included, 0 if omitted	

<b>Criteria</b>	<b>Scoring</b>	<b>References</b>
	2. Quality of Minutes of Shareholders' Meeting(s)	
	a) Voting method and vote counting system declared before the AGM begins	Score 2 if declared, 0 if not
	b) AGM minutes show an opportunity for shareholders to ask questions/ raise issues during the past year, along with a record of questions and answers	Score 2 if both items are included, 1 if time for questions is allotted but answers /issues not recorded, 0 if both items are missing
	c) Minutes show voting results for each agenda item, including both "for" and "against" vote tallies	Score 2 if both items included, 1 if only one item is shown, 0 if missing
C.	Shareholder Participation in AGM	Total of 7 items
	1. Names of attending board members recorded in the AGM minutes	Score 2 if recorded, 0 if not
	2. Attendance by Chairman of the Board	Score 2 if Chairman attended the last two AGMs; 1 if attended only one meeting; 0 if not attending either
	3. Attendance by CEO / Managing Director / President (top executive officer) attended the last two AGMs	Score 2 if Chairman attended the last two AGMs; 1 if attended only one meeting; 0 if not attending either
	4. Attendance by Chairman of the Audit Committee	Score 2 if Chairman attended the last two AGMs; 1 if attended only one meeting; 0 if not attending either
	5. Attendance by Chairman of the Compensation / Remuneration Committee	Score 2 if Chairman attended the last two AGMs; 1 if attended only one meeting; 0 if not attending either
	6. Attendance by Chairman of the Nomination Committee	Score 2 if Chairman attended the last two AGMs; 1 if attended only one meeting; 0 if not attending either
	7. Additional AGM/EGM agenda item(s) included in the meeting but omitted from the meeting notice	Score penalty of 0 if no items included; -1 (penalty) if included
		Ferris, Jagannathan, and Pritchard 2003, Fich and Shivdasani 2005, Gillian and Starks 2000, Karpoff, Malatesta, and Walkling 1996

<b>Criteria</b>	<b>Scoring</b>	<b>References</b>
D. Takeover rules and anti-takeover defenses	Total of 3 items	Bhagat and Brickley 1984, Claessens, Djankov, Fan, and Lang 2002,
1. Cross shareholding apparent	Score 2 if no apparent cross-holding, 1 if cross-holdings are likely; 0 if obvious evidence of cross-holding	Claessens, Djankov, and Lang 2000,
2. Pyramid holding apparent	Score 2 if no evidence of pyramidal structure; 1 if pyramid shareholding is likely; 0 if obvious evidence of pyramiding	Jensen and Meckling 1976, La Porta, Lopez-de-Silanes, and Shleifer 1999,
3. Board members holdings	Score 2 if directors in total hold more than 25 percent of the outstanding shares; McConnell and Servaes 0 if not	1990, Morck, Shleifer, and Vishny 1988, Shleifer and Vishny 1986



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## II. Treatment of shareholders

Total of 13 items;  
maximum score = 24  
(15 percent of CGI)

A.	Voting rights for shares	Total of 3 items	Bhagat and Brickley 1984, Givoly and Palmon 1985, Grossman and Hart 1988, La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1997 and 1998
	1. Voting rights for shares	Score 2 if only one class of share with one-share, one-vote; 1 if more than one class of shares has higher, but not excessive, voting rights; 0 if voting rights are excessive, e.g. 50 percent or more voting rights per 10percent of capital	
	2. Minority shareholders can influence board composition	Score 2 if mechanism is offered; 0 if none	
	3. Cumulative voting used to elect of board members	Score 2 if offered (bonus); 0 if not	
B.	Shareholder conflict	Total of 6 items	Cheung, Rao, and Stouraitis 2006, Friedman, Johnson, and Mitton 2003, Johnson, La Porta, Lopez-de-Silanes and Shleifer 2000, La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1997 and 1998
	1. System established to prevent the use of material inside information and informed all employees, management, and board members	Score 2 if system is established; 0 if not	
	2. Insider trading cases involving company directors and/or management in the past two years	Score 2 if no instance; 0 if one or more instances	
	3. Rationale / explanation offered for related-party transactions affecting the corporation before conducting related-party transactions that require shareholders' approval	Score 2 if no related-party transactions were observed or if company provides full disclosure (name, relationship, policy, value of transaction, and board opinion); 1 if some but not all information is provided; 0 if no rationale provided for transaction(s)	
	4. Non-compliance case regarding related-party transactions in the past two years	Score 2 if no non-compliance cases; 1 if company received a disclosure waiver from the exchange and/or regulator; 0 if non-compliance cases exist	
	5. Level of business interconnections	Score 2 for lowest level of interconnections; 1 for moderate level; 0 for highest level of interconnections	
	6. Related-party transactions to non-subsidiary companies	Score 0 if no transactions that could be considered as financial assistance to non-subsidiary companies; -1 (penalty) if transaction(s) exists	

<b>Criteria</b>	<b>Scoring</b>	<b>References</b>
C.	Proxy Voting	Total of 3 items
	1. Proxy voting facilitated	Score 2 if proxy voting forms are sent to shareholders along with the AGM notice; 0 if not
	2. Shareholders know the documents required to give proxy	Score 2 if the AGM notice specifies the documents required; 0 if not
	3. Notarization requirement for proxy appointment	Score 2 if appointments are not required to be notarized; 0 if notarization is needed
D.	AGM Procedures	Total of 1 item
	1. Advance notice of the AGM	Score 2 if shareholders receive notice 30 days or more before the meeting; 1 if 21-30 days" notice is given; 0 if less than 21 days

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**Criteria****III. Role of stakeholders****Scoring****References**

Total of 9 items;  
maximum score = 14  
(10 percent of CGI )

A.	Safety and welfare policy/benefits of employees	Score 0.67 if explicitly mentioned with comprehensive coverage; 0.33 if only superficial coverage given, 0 if not mentioned	Berman, Wicks, Kotha, and Jones 1999, Connelly and Limpaphayom 2004, La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1997 and 1998
B.	Provident fund / retirement fund provided for its employees	Score 0.67 if provided; 0.33 if not	
C.	Professional development training programs for employees	Score 0.67 if explicitly mentioned with comprehensive coverage; 0.33 if only superficial coverage given; 0 if not mentioned	
D.	Role of customers	Score 2 if explicitly mentioned with comprehensive coverage; 1 if only superficial coverage given; 0 if not mentioned	
E.	Environmental issues	Score 2 if explicitly mentioned, with standards and explanation (e.g. ISO 14000); 1 if disclosure only to the extent required by law; 0 if not mentioned	
F.	Role of suppliers/business partners	Score 2 if explicitly mentioned with comprehensive coverage; 1 if only superficial coverage given; 0 if not mentioned	
G.	Obligations to shareholders	Score 2 if explicitly mentioned with comprehensive coverage; 1 if only superficial coverage given; 0 if not mentioned	
H.	Broader obligations to society and / or the community	Score 2 if explicitly mentioned with comprehensive coverage; 1 if only superficial coverage given; 0 if not mentioned	
I.	Obligations to creditors	Score 2 if explicitly mentioned with comprehensive coverage, 1 if only superficial coverage given, 0 if not mentioned	

**Criteria****Scoring****References****IV. Disclosure and transparency**

Total of 32 items;  
maximum score = 40  
(25 percent of CGI )

A.	Disclosure of material information Transparency of the ownership structure	Total of 4 items	Bushman, Piotroski, and Smith 2004, Claessens, Djankov, Fan, and Lang 2002, Himmelberg, Hubbard, and Palia 1999, La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1998, La Porta, Lopez-de-Silanes, and Shleifer 1999, Mallette and Fowler 1992
	1. Breakdown of shareholding structure	Score 2 if provided; 0 if not	
	2. Beneficial ownership	Score 2 if easily identified; 1 if shares held by nominees or holding companies total less than 15percent; 0 if shares held by nominees or holding companies total more than 15 percent	
	3. Directors' shareholdings	Score 2 if disclosed; 0 if not	
	4. Management shareholdings	Score 2 if disclosed; 0 if not	
B.	Quality of the Annual Report. Does the report include:	Total of 8 items	Boyd 1994, Bushman, Piotroski, and Smith 2004, Ferris, Jagannathan, and Pritchard 2003, Fich and Shivdasani 2005, Meek, Roberts, and Gray 1995, Ryan and Wiggins 2004, Singhvi and Desai 1971,
	1. Financial performance	Score 2 if clear, comprehensive, and informative; 1 if superficial; 0 if not available	
	2. Business operations and competitive position	Score 2 if clear, comprehensive, and informative; 1 if superficial; 0 if not available	
	3. Operating risks	Score 2 if clear, comprehensive, and informative; 1 if superficial; 0 if not available	
	4. Board member background	Score 2 if full coverage with detailed background; 1 if limited to a few items; 0 if not available	
	5. Identification of Independent Directors	Score 2 if identified; 0 if not available	
	6. Basis of board remuneration	Score 2 if detailed compensation provided for each director; 1 if superficial or compensation shown in aggregate; 0 if not available	
	7. Disclosure of individual directors'	Score 2 if detailed compensation provided for each director; 1 if superficial or compensation shown in aggregate; 0 if not available	
	8. Board meeting attendance of individual	Score 2 if detailed attendance record provided for each director; 1 if meeting attendance is listed without breakdown by director; 0 if not available	

<u>Criteria</u>	<u>Scoring</u>	<u>References</u>
C.	External disclosure	Total of 20 items
	1. Public communications of related-party transactions	Score 2 if no related-party transactions were observed or if company provides full disclosure (name, relationship, policy, value of transaction, and board opinion); 1 if some but not all information is provided; 0 if no information provided
	2. Specific policy requiring directors to report their transactions of company shares	Score 2 if a specific policy exists; 0 if policy does not exist or disclosure is only required of managers
	3. Annual audit performed using independent and reputable auditors	Score 2 if reputable, recognized auditors are used; 1 if auditor is not approved by the exchange; 0 if auditor is not disclosed or affiliated with the company
	4. Accounting qualifications in the audited financial statements (other than the qualification on Uncertainty of Situation)	Score 2 if an unqualified opinion; 1 if an unqualified opinion with special mention items; 0 if a qualified opinion
		Ashbaugh, Johnstone, and Warfield 1999, Bushman, Piotroski, and Smith 2004, Cheung, Rau, and Stouraitis 2006, Fan and Wong 2005, Farragher, Kleiman, and Bazaz 1994, Gregory, Matatko, Tonks, and Purkis 1994, Hillier and Marshall 2002, Johnson, LaPorta, Lopez-de-Silanes, and Shleifer 2000, Lang and Lundholm 1993 and 1996, La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1997 and 1998

<b>Criteria</b>	<b>Scoring</b>	<b>References</b>
D.	Are multiple channels used to provide access to information?	
	1. Annual report	Score 0.5 if used; 0 if not
	2. Company website	Score 0.5 if used; 0 if not
	3. Analyst briefing(s)	Score 0.5 if used; 0 if not
	4. Press conference(s) / press briefing(s)	Score 0.5 if used; 0 if not
	5. Timely disclosure of financial reports during the past 3 years	Score 2 if meeting deadlines every time, 1 if two or few delays, 0 if more than two delays
	6. Contents of the company website with up-to-date information:	
	a) Business operations	Score 0.22 if used; 0 if not
	b) Financial statements	Score 0.22 if used; 0 if not
	c) Press releases	Score 0.22 if used; 0 if not
	d) Shareholding structure	Score 0.22 if used; 0 if not
	e) Organization structure	Score 0.22 if used; 0 if not
	f) Corporate group structure, if applicable	Score 0.22 if used; 0 if not
	g) Downloadable annual report	Score 0.22 if used; 0 if not
	h) Notice to call shareholders' meeting	Score 0.22 if used; 0 if not
	i) Dual-language website	Score 0.22 if used; 0 if not
E.	Contact details provided for a specific Investor Relations person or unit	Score 2 if provided; 0 if not
F.	Regulatory sanctions required revision of financial statements	Score 0 if no sanctions made or revisions required during the past year; -1 (penalty) if company was sanctioned

**Criteria****V. Board Responsibilities****Scoring****References**

Total items = 41;  
maximum score = 50  
(25 percent of CGI )

A.	Index of board monitoring / control efforts	Total items = 21	Adams 1994, Boyd 1994, Carcello, Hermanson, and Neal 2002, Daily, Johnson, Ellstrand, and Dalton 1998, Ferris, Jagannathan, and Pritchard 2003, Fich and Shivdasani 2005, Ingley and van der Walt 2002, La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1997 and 1998, Raghunandan and Rama 2003, Scarbrough, Rama, and Raghunandan 1998, Turpin and DeZoort 1998, Vafeas, 1999; Weller 1988
	1. Written corporate governance rules describing	Score 2 if rules are board approved and disclosed; 1 if rules exist but have not value system and board responsibilities been approved; 0 if no rules	
	2. Board of Directors provides a code of ethics or statement of business conduct for all directors and employees; Board ensures all are aware of and understand the code	Score 2 if code exists and is effectively communicated; 1 if code exists; 0 if no code exists	
	3. Corporate vision / mission	Score 2 if present; 0 if not	
	4. Incidences of regulatory of non-compliance during the past year	Score 2 of no cases of non-compliance with exchange or regulatory rules; 1 if one case; 0 if two or more cases or one serious offense case	
	5. Internal audit function	Score 2 if a separate unit in the company, 1 if internal audit function was outsourced; 0 if no internal audit function exists	
	6. Line of reporting for internal audit function	Score 2 if reporting to the Board Audit Committee; 0 if reporting to operating management only	
	7. Quality of the Audit Committee Report in the Annual Report, containing the following key items:		
	a) Attendance	Score 0.286 if available; 0 if not	
	b) Internal control	Score 0.286 if available; 0 if not	
	c) Management control	Score 0.286 if available; 0 if not	
	d) Proposed auditors	Score 0.286 if available; 0 if not	
	e) Financial report review	Score 0.286 if available; 0 if not	
	f) Legal compliance	Score 0.286 if available; 0 if not	
	g) Overall concluding opinion	Score 0.286 if available; 0 if not	
	8. Orientation for new directors	Score 2 if provided, with evidence of implementation; 0 if not or no evidence provided	
	9. Board member training	Score 2 if directors have participated in professional/accredited directors' training; 0 if not	

Criteria	Scoring	References
10. Board meeting frequency	Score 2 if the board met more than four times in 2005 and more than two times in 2004; 1 if the board met four times in 2005 and two times in 2004; 0 if the board met less than four times in 2005 and once in 2004.	
11. Attendance of board members	Score 2 if greater than 80 percent average attendance during the past 12 months; 1 if 70-80 percent average attendance; 0 if below 70 percent.	
12. Risk management policy	Score 2 if provided; 0 if not	
13. Clear distinction between the roles, duties, and responsibilities of the board and management	Score 2 if both board and management roles are delineated; 0 if not	
14. Annual board self-assessment	Score 2 if conducted and documented; 0 if not or undocumented	
15. Annual performance assessment of CEO/MD/President	Score 2 if conducted and documented; 1 if not or undocumented	
B.	Assessment of conflicts of interest	Coles and Hesterly 2000
1. Chairman independence	Total items = 1 Score 2 if the chairman is an independent director; 0 if not	
C.	Assessment of use of independent board committees with independent members	Bostock 1995, Brick, Palmon and Wald 2006, Carcello, Hermanson, and Neal 2002, Carcello and Neal 2000, Daily, Johnson, Ellstrand, and Dalton 1998; Klein 1998 and 2002, Krishnan 2005
1. Presence of an Audit Committee, including the following items:	Total items = 15 Score 2 if present; 0 if missing	
a) Charter/Role and responsibilities	Score 0.5 if present; 0 if missing	
b) Profile /Qualifications	Score 0.5 if present; 0 if missing	
c) Independence	Score 0.5 if present; 0 if missing	
d) Performance / Meeting Attendance record	Score 0.5 if present; 0 if missing	

<b>Criteria</b>	<b>Scoring</b>	<b>References</b>
2. Presence of a Compensation / Remuneration Committee, including the following items:	Score 2 if present; 0 if missing	
a) Charter/Role and responsibilities	Score 0.5 if present; 0 if missing	
b) Committee composition	Score 0.5 if composed of a majority of independent directors; 0 if not.	
c) Committee chairman independence	Score 0.5 if an independent director; 0 if not.	
d) Performance / Meeting Attendance record	Score 0.5 if present; 0 if missing	
3. Presence of a Nomination Committee, including the following items:	Score 2 if present; 0 if missing	
a) Charter/Role and responsibilities	Score 0.5 if present; 0 if missing	
b) Committee composition	Score 0.5 if composed of a majority of independent directors; 0 if not.	
c) Committee chairman independence	Score 0.5 if an independent director; 0 if not.	
d) Performance / Meeting Attendance	Score 0.5 if present; 0 if missing	
D. Definition of board independence	Total items = 1	Beasley 1996, Mallette and Fowler 1992
1. „Director independence“ defined in public	Score 2 if defined; 0 if not	
E. Assessment of communication	Total items = 1	Beasley 1996
1. Separate Board of Director's report issued, describing the board's responsibilities in reviewing the firm's financial statements	Score 2 if the report is issued; 0 if not	
F. Management incentive scheme	Total items = 1	Core and Guay 2001, DeFusco, Johnson, and Zorn 1990, Yermack 1995
1. Incentive for top management through option scheme	Score 2 if exercise period over is over three years and exercise price(s) are above the market value at the time of the award; 0 if not or no option scheme	
G. Regulatory compliance	Total items = 1	La Porta, Lopez-de-Silanes, Shleifer, and Vishny 1997, 1988
1. Non-compliance cases	0 if no cases were serious offence during the past year; -1 (penalty) if otherwise	

## Appendix B

### Variable Definitions

Descriptions of all the variables used in the analysis:

Variable	Description
1 <i>CGI</i>	Corporate government index.
2 <i>CONCENT</i>	Percentage of firm's shares held by shareholders who owning 5% or more of firm's share.
3 <i>INSTI</i>	Percentage of firms' shares held by institutional investors.
4 <i>FOREIGN</i>	Percentage of firms' shares held by foreign investors.
5 <i>GOVN</i>	Percentage of firms' shares held by government or state agents.
6 <i>FAMILY</i>	Percentage of firms' shares held by a single shareholder of members his or her family by either blood or marriage, either individually or as a group.
7 <i>CONNECTED (Dummy)</i>	Indicator variable with the value of "1" if at least one of the firm's family members is a member of parliament or minister or the head of state and "0" otherwise.
8 <i>SIZE</i>	Natural logarithm of firm's total assets.
9 <i>GROWTH</i>	Firm's revenue growth $((\text{revenue}_t - \text{revenue}_{t-1})/\text{revenue}_{t-1})$ .
10 <i>IA</i>	Firm's total intangible assets divided by total assets.
11 <i>LEV</i>	Firm's total liabilities divided by total assets.
12 <i>RONA</i>	Firm's net operating profits after taxes divided by total assets.
13 <i>Q</i>	Firm's sum of fiscal year-end market value of equity and long-term debts divided by total assets.
14 <i>AGRO (Dummy)</i>	Indicator variable with the value of "1" if firm is in agro and food industry, "0" otherwise.
15 <i>CONSUMER (Dummy)</i>	Indicator variable with the value of "1" if firm is in consumer product industry, "0" otherwise.



**Appendix B (Continued)**

<b>Variable</b>	<b>Description</b>
16 <i>INDUSTRIAL (Dummy)</i>	indicator variable with the value of “1” if firm is in industrial services industry, “0” otherwise.
17 <i>PROPERTY (Dummy)</i>	indicator variable with the value of “1” if firm is in property and construction industry, “0” otherwise.
18 <i>RESOURCE (Dummy)</i>	indicator variable with the value of “1” if firm is in resource, energy and utilities industry, “0” otherwise.
19 <i>SERVICE (Dummy)</i>	indicator variable with the value of “1” if firm is in services industry, “0” otherwise.

  
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# Tables

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**Table 1**  
*Sample Description*

<b>Sample Selection of Listed Firms in The Stock Exchange of Thailand During 2007-2008</b>	<i>N</i>	<i>%</i>
Number of firms listed in the Stock Exchange of Thailand during 2007-2008	477	
Financial Service and Insurance firms	<u>(63)</u>	
	414	100.0
Rehabilitation firms	(24)	(5.8)
Data are not available (including incomplete data)	(40)	(9.7)
Outliner data	<u>(31)</u>	<u>(7.5)</u>
Final Sample	<u>319</u>	<u>77.0</u>

  
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**Table 2**  
*Descriptive statistics (n = 319)*

<b>Panel A: Continuous variables</b>						
Variables	Minimum		Maximum		Mean	Standard Deviation
ΔCGI	-11.44		16.46		0.7995	4.07
ΔCONCENT	-51.22		39.30		-1.3829	10.40
ΔINSTI	-27.24		26.44		0.0433	5.22
ΔFOREIGN	-77.67		73.61		0.3608	10.07
ΔGOVN	-4.95		2.07		-0.0139	0.45
ΔFAMILY	-70.36		42.93		-1.5524	10.46
ΔSIZE	-3.13		2.27		0.0212	0.39
ΔGROWTH	-257.34		360.43		-6.8520	45.13
ΔIA	-0.1300		0.0800		-0.001473	0.015
ΔLEV	-4.40		0.9700		-0.0215	.2697
ΔRONA	-76.49		68.79		-0.0302	5.82
ΔQ	-3.35		14.91		0.0589	0.93
<b>Panel B: Nominal variables</b>						
Variable	-1	%	0	%	+1	%
ΔCONNECTED	35	11.0	275	86.2	9	2.8
<b>Panel C: Dichotomous variables</b>						
Variables	Yes	%	No	%		
AGRO	32	10.0	287	90.0		
CONSUMER	29	9.1	290	90.9		
INDUSTRIAL	55	17.2	264	82.8		
PROPERTY	79	24.8	240	75.2		
RESOURCE	21	6.6	298	93.4		
SERVICE	68	21.3	251	78.7		
ΔCGI	=	change in corporate government index between 2007 and 2008;				
ΔCONCENT	=	change in percentage of firm's shares held by shareholders who owning 5% or more of firm's share between 2006 and 2007;				
ΔINSTI	=	change in percentage of firms' shares held by institutional investors between 2006 and 2007;				
ΔFOREIGN	=	change in percentage of firms' shares held by foreign investors between 2006 and 2007;				
ΔGOVN	=	change in percentage of firms' shares held by government or state agents between 2006 and 2007;				
ΔFAMILY	=	change in percentage of firms' shares held by a single shareholder of members his or her family by either blood or marriage, either individually or as a group between 2006 and 2007;				
ΔCONNECTED	=	indicator variable with the value of "-1" if firm has political connections in 2006 but doesn't have in 2007, "0" if firm doesn't have change in political connections, or "+1" if firm doesn't have political connections in 2006 but does have in 2007;				

**Table 2 (Continued)**

$\Delta$ SIZE	=	natural logarithm of change in firm's total assets between 2006 and 2007;
$\Delta$ GROWTH	=	change in firm's revenue growth ((revenue <sub>t</sub> – revenue <sub>t-1</sub> )/revenue <sub>t-1</sub> ) between 2006 and 2007;
$\Delta$ IA	=	change in firm's intangible assets ratio (total intangible assets divided by total assets) between 2006 and 2007;
$\Delta$ LEV	=	change in firm's leverage ratio (total liabilities divided by total assets) between 2006 and 2007;
$\Delta$ RONA	=	change in firm's return on net assets ratio (net operating profits after taxes divided by total assets) between 2006 and 2007;
$\Delta$ Q	=	change in firm's Tobin's Q (sum of fiscal year-end market value of equity and long-term debts divided by total assets) between 2006 and 2007;
AGRO	=	indicator variable with the value of "1" if firm is in agro and food industry "0" otherwise
CONSUMER	=	indicator variable with the value of "1" if firm is in consumer product industry "0" otherwise
INDUSTRIAL	=	indicator variable with the value of "1" if firm is in industrial services industry "0" otherwise
PROPERTY	=	indicator variable with the value of "1" if firm is in property and construction industry "0" otherwise
RESOURCE	=	indicator variable with the value of "1" if firm is in resource, energy and utilities industry "0" otherwise
SERVICE	=	indicator variable with the value of "1" if firm is in services industry "0" otherwise

Table 3  
Correlation Pearson (top)/Spearman (bottom)

	ΔCGI	ΔCONCENT	ΔINSTI	ΔFOREIGN	ΔGOVN	ΔFAMILY	ΔCONNECTED	ΔSIZE	ΔGROWTH	ΔIA	ΔLEV	ΔRONA	ΔQ	AGRO	CONSUMER	INDUSTRIAL	PROPERTY	RESOURCE	SERVICE
ΔCGI		-.112(*)	-.150(**)	0.021	.539(**)	.241(**)	0.080	-.150(**)	0.000	-0.088	-.198(**)	0.064	.276(**)	-0.046	-0.096	0.008	0.100	0.010	-0.050
ΔCONCENT	-.123(*)		0.077	.215(**)	.115(*)	.452(**)	.113(*)	-.110(*)	-0.005	-0.075	-0.108	-0.004	.226(*)	0.029	0.003	-0.021	-0.020	-0.070	-0.018
ΔINSTI	.164(**)	.166(**)		.311(**)	0.054	-.321(**)	0.026	.145(**)	-0.055	-0.035	-.331(**)	-0.015	0.056	0.022	-0.015	0.017	0.017	0.072	-0.035
ΔFOREIGN	0.014	.160(**)	.372(**)		-0.018	-.414(**)	-0.065	0.098	-0.093	-0.039	0.034	-0.029	-0.058	0.030	-0.036	-0.076	0.030	0.060	0.008
ΔGOVN	.611(**)	0.059	-0.025	-0.106		0.068	-0.036	-0.017	-0.005	-0.002	-0.026	-0.016	0.027	0.057	0.010	-0.076	0.107	-0.048	-0.057
ΔFAMILY	.204(**)	.387(**)	-0.073	-0.068	-0.011		-0.084	-0.109	0.031	-0.037	0.007	0.010	.133(*)	-0.001	0.069	0.038	0.005	-0.085	-0.100
ΔCONNECTED	0.087	-0.043	-0.003	0.004	-0.027	-0.041		0.057	-0.056	-0.065	-0.032	-0.007	0.048	-0.040	-.170(**)	0.103	0.069	0.060	-0.094
ΔSIZE	.179(**)	-0.073	0.007	-0.083	0.034	-.150(**)	.121(*)		0.082	-0.085	-0.082	0.086	-0.065	0.049	-0.071	0.054	0.070	0.020	-.152(**)
ΔGROWTH	0.003	-0.002	0.016	-0.066	-0.010	-0.073	-0.037	.182(**)		0.032	.115(*)	-0.040	-0.002	0.013	0.002	0.081	-0.061	-0.065	0.085
ΔIA	-0.052	-.122(*)	-0.061	-0.074	-0.025	-0.040	-0.045	-.120(*)	-0.013		-0.019	0.106	-0.061	0.011	-0.053	0.032	0.049	0.001	0.005
ΔLEV	-.189(**)	-0.071	-.149(**)	-0.009	0.015	-0.081	-0.053	.315(**)	.190(**)	-0.048		-0.047	-0.041	0.039	0.019	0.011	-0.076	-0.032	0.038
ΔRONA	0.032	0.042	-.111(*)	-0.060	-0.033	.113(*)	0.052	0.109	-.274(**)	-0.001	-0.069		0.013	-0.002	0.001	0.006	-0.096	0.001	0.003
ΔQ	.305(**)	0.071	0.062	0.040	0.069	-0.005	0.072	-0.061	0.044	-0.092	-0.085	0.100		-0.015	-0.014	-0.053	-0.022	0.025	0.052
AGRO	-0.050	-0.004	0.005	0.078	0.032	-0.016	-0.039	0.032	0.050	0.015	0.094	-0.066	0.002		-0.106	-.152(**)	-.192(**)	-0.089	-.174(**)
CONSUMER	-0.105	0.028	0.044	0.003	-0.008	0.019	-.171(**)	-0.102	-0.019	-0.039	-0.102	-0.026	0.018	-0.106		-.144(**)	-.181(**)	-0.084	-.165(**)
INDUSTRIAL	0.024	-0.015	0.034	-0.077	-0.042	0.050	0.106	0.063	.130(*)	0.040	-0.020	0.010	-0.102	-.152(**)	-.144(**)		-.262(**)	-.121(**)	-.238(**)
PROPERTY	0.065	-0.040	-0.015	0.014	0.095	-0.014	0.069	0.048	-0.010	0.055	0.037	-0.072	0.008	-.192(**)	-.181(**)	-.262(**)		-.152(**)	-.299(**)
RESOURCE	0.024	-0.028	0.071	0.089	0.036	-0.054	0.060	0.052	-.188(*)	-0.054	-0.803	0.051	.118(*)	-0.089	-0.084	-.121(*)	-.152(**)		-.138(**)
SERVICE	-0.021	-0.014	-0.048	-0.035	-0.068	-0.084	-0.098	-0.099	-0.026	0.000	0.067	0.061	-0.091	-.174(**)	-.165(**)	-.238(**)	-.299(**)	-.138(**)	

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

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

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**Table 3 (continued)**

ΔCGI	=	change in corporate government index between 2007 and 2008;
ΔCONCENT	=	change in percentage of firm's shares held by shareholders who owning 5% or more of firm's share between 2006 and 2007;
ΔINSTI	=	change in percentage of firms' shares held by institutional investors between 2006 and 2007;
ΔFOREIGN	=	change in percentage of firms' shares held by foreign investors between 2006 and 2007;
ΔGOVN	=	change in percentage of firms' shares held by government or state agents between 2006 and 2007;
ΔFAMILY	=	change in percentage of firms' shares held by a single shareholder of members his or her family by either blood or marriage, either individually or as a group between 2006 and 2007;
ΔCONNECTED	=	indicator variable with the value of "-1" if firm has political connections in 2006 but doesn't have in 2007, "0" if firm doesn't have change in political connections, or "+1" if firm doesn't have political connections in 2006 but does have in 2007;
ΔSIZE	=	natural logarithm of change in firm's total assets between 2006 and 2007;
ΔGROWTH	=	change in firm's revenue growth $((\text{revenue}_t - \text{revenue}_{t-1})/\text{revenue}_{t-1})$ between 2006 and 2007;
ΔIA	=	change in firm's intangible assets ratio (total intangible assets divided by total assets) between 2006 and 2007;
ΔLEV	=	change in firm's leverage ratio (total liabilities divided by total assets) between 2006 and 2007;
ΔRONA	=	change in firm's return on net assets ratio (net operating profits after taxes divided by total assets) between 2006 and 2007;
ΔQ	=	change in firm's Tobin's Q (sum of fiscal year-end market value of equity and long-term debts divided by total assets) between 2006 and 2007;
AGRO	=	indicator variable with the value of "1" if firm is in agro and food industry "0" otherwise
CONSUMER	=	indicator variable with the value of "1" if firm is in consumer product industry "0" otherwise
INDUSTRIAL	=	indicator variable with the value of "1" if firm is in industrial services industry "0" otherwise
PROPERTY	=	indicator variable with the value of "1" if firm is in property and construction industry "0" otherwise
RESOURCE	=	indicator variable with the value of "1" if firm is in resource, energy and utilities industry "0" otherwise
SERVICE	=	indicator variable with the value of "1" if firm is in services industry "0" otherwise

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**Table 4**  
*Cross-sectional Regression of Change in Corporate Governance Index  
on Change in Ownership Structures, Firm Characteristics, and Firm Performance*

Variables	Expected Sign	Model 1		Model 2	
		Coefficients (β)	t-statistic	Coefficients (β)	t-statistic
Intercept	None	0.985	1.435	1.054	1.539
Ownership structure variables					
ΔCONCENT	-	-0.063	-2.001**	-0.062	-1.998**
ΔINSTI	+	0.092	2.150**	0.073	2.057**
ΔFOREIGN	+	0.032	1.097	0.032	1.106
ΔGOVN	+	0.431	3.046***	0.430	2.753***
ΔFAMILY	-	0.159	2.675***	0.159	2.650***
ΔCONNECTED	-	0.725	1.136	0.704	1.098
Firm characteristics variables					
ΔSIZE	+	1.545	2.897***	1.622	3.234***
ΔGROWTH	+	0.003	0.508	0.002	0.454
ΔIA	+	-20.835	-1.445	-18.614	-1.298
ΔLEV	+	-2.791	-3.092***	-2.839	-3.143***
Firm performance variables					
ΔRONA	+	0.043	1.090		
ΔQ	+			1.685	3.694***
Control variables					
AGRO	None	-0.683	-0.696	-0.763	-0.780
CONSUMER	None	-1.234	-1.213	-1.301	-1.279
INDUSTRIAL	None	-0.134	-0.154	-0.202	-0.232
PROPERTY	None	0.428	0.521	-0.300	0.368
RESOURCE	None	0.045	0.040	-0.052	-0.047
SERVICE	None	-0.164	-0.194	-0.245	-0.289
F-value		6.159		6.191	
Sig.F		0.000		0.000	
R <sup>2</sup>		0.430		0.435	
Adjusted R <sup>2</sup>		0.299		0.311	

\*/\*\*/\*\* indicates significance at the 10%, 5%, and 1% respectively.

The regressions being estimated are

$$\begin{aligned} \Delta CGI_i = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + \beta_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + \beta_{10} \Delta LEV_i \\ & + \beta_{11} \Delta RONA_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (1)$$

$$\begin{aligned} \Delta CGI_i = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + \beta_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + \beta_{10} \Delta LEV_i \\ & + \beta_{11} \Delta Q_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (2)$$



**Table 4 (continued)**

$\Delta$ CGI	=	change in corporate government index between 2007 and 2008;
$\Delta$ CONCENT	=	change in percentage of firm's shares held by shareholders who owning 5% or more of firm's share between 2006 and 2007;
$\Delta$ INSTI	=	change in percentage of firms' shares held by institutional investors between 2006 and 2007;
$\Delta$ FOREIGN	=	change in percentage of firms' shares held by foreign investors between 2006 and 2007;
$\Delta$ GOVN	=	change in percentage of firms' shares held by government or state agents between 2006 and 2007;
$\Delta$ FAMILY	=	change in percentage of firms' shares held by a single shareholder of members his or her family by either blood or marriage, either individually or as a group between 2006 and 2007;
$\Delta$ CONNECTED	=	indicator variable with the value of "-1" if firm has political connections in 2006 but doesn't have in 2007, "0" if firm doesn't have change in political connections, or "+1" if firm doesn't have political connections in 2006 but does have in 2007;
$\Delta$ SIZE	=	natural logarithm of change in firm's total assets between 2006 and 2007;
$\Delta$ GROWTH	=	change in firm's revenue growth $((\text{revenue}_t - \text{revenue}_{t-1})/\text{revenue}_{t-1})$ between 2006 and 2007;
$\Delta$ IA	=	change in firm's intangible assets ratio (total intangible assets divided by total assets) between 2006 and 2007;
$\Delta$ LEV	=	change in firm's leverage ratio (total liabilities divided by total assets) between 2006 and 2007;
$\Delta$ RONA	=	change in firm's return on net assets ratio (net operating profits after taxes divided by total assets) between 2006 and 2007;
$\Delta$ Q	=	change in firm's Tobin's Q (sum of fiscal year-end market value of equity and long-term debts divided by total assets) between 2006 and 2007;
AGRO	=	indicator variable with the value of "1" if firm is in agro and Food industry "0"otherwise
CONSUMER	=	indicator variable with the value of "1" if firm is in consumer product industry "0"otherwise
INDUSTRIAL	=	indicator variable with the value of "1" if firm is in industrial services industry "0"otherwise
PROPERTY	=	indicator variable with the value of "1" if firm is in property and construction industry "0"otherwise
RESOURCE	=	indicator variable with the value of "1" if firm is in resource, energy and utilities industry "0"otherwise
SERVICE	=	indicator variable with the value of "1" if firm is in services industry "0"otherwise

**Table 5**  
*Change in Five Corporate Governance Sub-Indices*  
*Descriptive statistics (n = 319)*

Variables	Minimum	Maximum	Mean	Standard Deviation
$\Delta\text{CGI}_1$	-8.33	7.14	0.1775	1.55
$\Delta\text{CGI}_2$	-3.13	3.75	0.0255	1.09
$\Delta\text{CGI}_3$	-3.80	4.06	0.1774	1.06
$\Delta\text{CGI}_4$	-6.11	7.01	0.3531	1.95
$\Delta\text{CGI}_5$	-9.79	6.64	0.4218	1.91

- $\Delta\text{CGI}_1$  = change in the rights of shareholders sub-index between 2007 and 2008;
- $\Delta\text{CGI}_2$  = change in equitable treatments of shareholders sub-index between 2007 and 2008;
- $\Delta\text{CGI}_3$  = change in role of stakeholders sub-index between 2007 and 2008;
- $\Delta\text{CGI}_4$  = change in disclosure and transparency sub-index between 2007 and 2008;
- $\Delta\text{CGI}_5$  = change in board responsibilities sub-index between 2007 and 2008.

**Table 6**  
*Cross-sectional Regression of Change in The Rights of Shareholders Sub-index on Change in Ownership Structures, Firm Characteristics, and Firm Performance*

Variables	Expected Sign	Model 1		Model 2	
		Coefficients (β)	t-statistic	Coefficients (β)	t-statistic
Intercept	None	0.265	0.994	0.295	1.108
<b>Ownership structure variables</b>					
CONCENT	-	-0.011	-1.999**	-0.011	-1.974**
INSTI	+	0.029	1.489	0.028	1.443
FOREIGN	+	0.002	0.158	0.002	0.166
GOVN	+	0.250	1.988**	0.240	1.986**
FAMILY	-	0.025	2.065**	0.025	2.056**
CONNECTED	-	0.351	1.142	0.327	1.115
<b>Firm characteristics variables</b>					
SIZE	+	0.312	2.521**	0.340	2.714***
GROWTH	+	0.001	0.545	0.001	0.490
IA	+	-2.585	-0.460	-1.771	-0.318
LEV	+	-0.816	-2.470**	-0.833	-2.518**
<b>Firm performance variables</b>					
RONA	+	0.017	1.096		
Q	+			0.560	2.775***
<b>Control variables</b>					
AGRO	None	-0.119	-0.313	-0.152	-0.401
CONSUMER	None	-0.182	-0.460	-0.209	-0.529
INDUSTRIAL	None	-0.249	-0.735	-0.280	-0.825
PROPERTY	None	0.040	0.124	0.011	0.036
RESOURCE	None	0.165	0.383	0.130	0.302
SERVICE	None	0.183	0.554	0.154	0.465
F-value			3.671		3.897
Sig.F			0.000		0.000
R <sup>2</sup>			0.261		0.268
Adjusted R <sup>2</sup>			0.130		0.138

\*/\*\*/\*\* indicates significance at the 10%, 5%, and 1% respectively.

The regressions being estimated are

$$\begin{aligned} \Delta CGI_{-1i} = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + \beta_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + \beta_{10} \Delta LEV_i \\ & + \beta_{11} \Delta RONA_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (1)$$

$$\begin{aligned} \Delta CGI_{-1i} = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + \beta_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + \beta_{10} \Delta LEV_i \\ & + \beta_{11} \Delta Q_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (2)$$

**Table 6 (continued)**

$\Delta$ CGI_1	=	change in the rights of shareholders sub-index between 2007 and 2008;
$\Delta$ CONCENT	=	change in percentage of firm's shares held by shareholders who owning 5% or more of firm's share between 2006 and 2007;
$\Delta$ INSTI	=	change in percentage of firms' shares held by institutional investors between 2006 and 2007;
$\Delta$ FOREIGN	=	change in percentage of firms' shares held by foreign investors between 2006 and 2007;
$\Delta$ GOVN	=	change in percentage of firms' shares held by government or state agents between 2006 and 2007;
$\Delta$ FAMILY	=	change in percentage of firms' shares held by a single shareholder of members his or her family by either blood or marriage, either individually or as a group between 2006 and 2007;
$\Delta$ CONNECTED	=	indicator variable with the value of "-1" if firm has political connections in 2006 but doesn't have in 2007, "0" if firm doesn't have change in political connections, or "+1" if firm doesn't have political connections in 2006 but does have in 2007;
$\Delta$ SIZE	=	natural logarithm of change in firm's total assets between 2006 and 2007;
$\Delta$ GROWTH	=	change in firm's revenue growth $((\text{revenue}_t - \text{revenue}_{t-1})/\text{revenue}_{t-1})$ between 2006 and 2007;
$\Delta$ IA	=	change in firm's intangible assets ratio (total intangible assets divided by total assets) between 2006 and 2007;
$\Delta$ LEV	=	change in firm's leverage ratio (total liabilities divided by total assets) between 2006 and 2007;
$\Delta$ RONA	=	change in firm's return on net assets ratio (net operating profits after taxes divided by total assets) between 2006 and 2007;
$\Delta$ Q	=	change in firm's Tobin's Q (sum of fiscal year-end market value of equity and long-term debts divided by total assets) between 2006 and 2007;
AGRO	=	indicator variable with the value of "1" if firm is in agro and Food industry "0"otherwise
CONSUMER	=	indicator variable with the value of "1" if firm is in consumer product industry "0"otherwise
INDUSTRIAL	=	indicator variable with the value of "1" if firm is in industrial services industry "0"otherwise
PROPERTY	=	indicator variable with the value of "1" if firm is in property and construction industry "0"otherwise
RESOURCE	=	indicator variable with the value of "1" if firm is in resource, energy and utilities industry "0"otherwise
SERVICE	=	indicator variable with the value of "1" if firm is in services industry "0"otherwise

**Table 7**  
*Cross-sectional Regression of  
 Change in Equitable Treatments of Shareholders Sub-index  
 on Change in Ownership Structures, Firm Characteristics, and Firm Performance*

Variables	Expected Sign	Model 1		Model 2	
		Coefficients (β)	t-statistic	Coefficients (β)	t-statistic
Intercept	None	0.143	0.777	0.181	0.985
<b>Ownership structure variables</b>					
CONCENT	-	-0.015	-3.586**	-0.015	-3.656***
INSTI	+	-0.007	-0.505	-0.008	-0.559
FOREIGN	+	-0.014	-1.776*	-0.014	-1.788*
GOVN	+	0.250	3.836***	0.230	3.593***
FAMILY	-	0.013	3.403***	0.012	3.168***
CONNECTED	-	-0.047	-0.276	-0.050	-0.292
<b>Firm characteristics variables</b>					
SIZE	+	0.688	4.319***	0.651	4.096***
GROWTH	+	0.002	1.297	0.002	1.192
IA	+	-2.242	-0.581	-1.249	-0.324
LEV	+	-0.256	-1.058	-0.277	-1.139
<b>Firm performance variables</b>					
RONA	+	0.021	1.992		
Q	+			0.021	1.992**
<b>Control variables</b>					
AGRO	None	-0.446	-1.702*	-0.488	-1.856*
CONSUMER	None	-0.237	-0.872	-0.272	-0.995
INDUSTRIAL	None	-0.098	-0.422	-0.138	-0.590
PROPERTY	None	0.069	0.313	0.002	0.020
RESOURCE	None	0.093	0.312	0.050	0.168
SERVICE	None	-0.182	-0.802	-0.218	-0.967
F-value			3.792		3.989
Sig.F			0.000		0.000
R <sup>2</sup>			0.328		0.345
Adjusted R <sup>2</sup>			0.167		0.179

\*/\*\*/\*\* indicates significance at the 10%, 5%, and 1% respectively.

The regressions being estimated are

$$\begin{aligned} \Delta \text{CGI\_2}_i = & \beta_0 + \beta_1 \Delta \text{CONCENT}_i + \beta_2 \Delta \text{INSTI}_i + \beta_3 \Delta \text{FOREIGN}_i \\ & + \beta_4 \Delta \text{GOVN}_i + \beta_5 \Delta \text{FAMILY}_i + \beta_6 \Delta \text{CONNECTED}_i \\ & + \beta_7 \Delta \text{SIZE}_i + \beta_8 \Delta \text{GROWTH}_i + \beta_9 \Delta \text{IA}_i + \beta_{10} \Delta \text{LEV}_i \\ & + \beta_{11} \Delta \text{RONA}_i + \beta_j \sum_j \text{IND}_i + \varepsilon_i \end{aligned} \quad (1)$$

$$\begin{aligned} \Delta \text{CGI\_2}_i = & \beta_0 + \beta_1 \Delta \text{CONCENT}_i + \beta_2 \Delta \text{INSTI}_i + \beta_3 \Delta \text{FOREIGN}_i \\ & + \beta_4 \Delta \text{GOVN}_i + \beta_5 \Delta \text{FAMILY}_i + \beta_6 \Delta \text{CONNECTED}_i \\ & + \beta_7 \Delta \text{SIZE}_i + \beta_8 \Delta \text{GROWTH}_i + \beta_9 \Delta \text{IA}_i + \beta_{10} \Delta \text{LEV}_i \\ & + \beta_{11} \Delta \text{Q}_i + \beta_j \sum_j \text{IND}_i + \varepsilon_i \end{aligned} \quad (2)$$

**Table 7 (continued)**

$\Delta$ CGI_2	=	change in equitable treatments of shareholders sub-index between 2007 and 2008;
$\Delta$ CONCENT	=	change in percentage of firm's shares held by shareholders who owning 5% or more of firm's share between 2006 and 2007;
$\Delta$ INSTI	=	change in percentage of firms' shares held by institutional investors between 2006 and 2007;
$\Delta$ FOREIGN	=	change in percentage of firms' shares held by foreign investors between 2006 and 2007;
$\Delta$ GOVN	=	change in percentage of firms' shares held by government or state agents between 2006 and 2007;
$\Delta$ FAMILY	=	change in percentage of firms' shares held by a single shareholder of members his or her family by either blood or marriage, either individually or as a group between 2006 and 2007;
$\Delta$ CONNECTED	=	indicator variable with the value of "-1" if firm has political connections in 2006 but doesn't have in 2007, "0" if firm doesn't have change in political connections, or "+1" if firm doesn't have political connections in 2006 but does have in 2007;
$\Delta$ SIZE	=	natural logarithm of change in firm's total assets between 2006 and 2007;
$\Delta$ GROWTH	=	change in firm's revenue growth $((\text{revenue}_t - \text{revenue}_{t-1})/\text{revenue}_{t-1})$ between 2006 and 2007;
$\Delta$ IA	=	change in firm's intangible assets ratio (total intangible assets divided by total assets) between 2006 and 2007;
$\Delta$ LEV	=	change in firm's leverage ratio (total liabilities divided by total assets) between 2006 and 2007;
$\Delta$ RONA	=	change in firm's return on net assets ratio (net operating profits after taxes divided by total assets) between 2006 and 2007;
$\Delta$ Q	=	change in firm's Tobin's Q (sum of fiscal year-end market value of equity and long-term debts divided by total assets) between 2006 and 2007;
AGRO	=	indicator variable with the value of "1" if firm is in agro and Food industry "0"otherwise
CONSUMER	=	indicator variable with the value of "1" if firm is in consumer product industry "0"otherwise
INDUSTRIAL	=	indicator variable with the value of "1" if firm is in industrial services industry "0"otherwise
PROPERTY	=	indicator variable with the value of "1" if firm is in property and construction industry "0"otherwise
RESOURCE	=	indicator variable with the value of "1" if firm is in resource, energy and utilities industry "0"otherwise
SERVICE	=	indicator variable with the value of "1" if firm is in services industry "0"otherwise

**Table 8**  
*Cross-sectional Regression of Change in Role of Stakeholders Sub-index  
on Change in Ownership Structures, Firm Characteristics, and Firm Performance*

Variables	Expected Sign	Model 1		Model 2	
		Coefficients (β)	t-statistic	Coefficients (β)	t-statistic
Intercept	None	0.227	1.277	0.201	1.144
<b>Ownership structure variables</b>					
CONCENT	-	-0.016	-2.148**	-0.018	-2.384**
INSTI	+	0.030	2.325**	0.029	2.235**
FOREIGN	+	0.016	2.107**	0.014	1.928*
GOVN	+	0.222	3.172***	0.221	3.162***
FAMILY	-	0.110	2.246**	0.111	2.254**
CONNECTED	-	0.186	1.535	0.201	1.627
<b>Firm characteristics variables</b>					
SIZE	+	0.275	1.994**	0.280	2.041**
GROWTH	+	0.001	0.479	0.001	0.444
IA	+	-5.758	-0.865	-5.632	-0.857
LEV	+	-0.577	-2.476**	-0.578	-2.488**
<b>Firm performance variables</b>					
RONA	+	0.007	0.703		
Q	+			0.188	2.367**
<b>Control variables</b>					
AGRO	None	-0.002	-0.009	-0.023	-0.090
CONSUMER	None	-0.278	-1.059	-0.295	-1.128
INDUSTRIAL	None	0.131	0.580	0.103	0.460
PROPERTY	None	0.104	0.491	0.078	0.374
RESOURCE	None	-0.086	-0.301	-0.090	-0.314
SERVICE	None	0.143	0.652	0.139	0.635
F-value			3.625		3.817
Sig.F			0.000		0.000
R <sup>2</sup>			0.359		0.365
Adjusted R <sup>2</sup>			0.169		0.173

\*/\*\*/\*\* indicates significance at the 10%, 5%, and 1% respectively.

The regressions being estimated are

$$\begin{aligned} \Delta CGI_{-3i} = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + \beta_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + \beta_{10} \Delta LEV_i \\ & + \beta_{11} \Delta RONA_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (1)$$

$$\begin{aligned} \Delta CGI_{-3i} = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + \beta_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + \beta_{10} \Delta LEV_i \\ & + \beta_{11} \Delta Q_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (2)$$

**Table 8** (continued)

$\Delta$ CGI_3	=	change in role of stakeholders sub-index between 2007 and 2008;
$\Delta$ CONCENT	=	change in percentage of firm's shares held by shareholders who owning 5% or more of firm's share between 2006 and 2007;
$\Delta$ INSTI	=	change in percentage of firms' shares held by institutional investors between 2006 and 2007;
$\Delta$ FOREIGN	=	change in percentage of firms' shares held by foreign investors between 2006 and 2007;
$\Delta$ GOVN	=	change in percentage of firms' shares held by government or state agents between 2006 and 2007;
$\Delta$ FAMILY	=	change in percentage of firms' shares held by a single shareholder of members his or her family by either blood or marriage, either individually or as a group between 2006 and 2007;
$\Delta$ CONNECTED	=	indicator variable with the value of "-1" if firm has political connections in 2006 but doesn't have in 2007, "0" if firm doesn't have change in political connections, or "+1" if firm doesn't have political connections in 2006 but does have in 2007;
$\Delta$ SIZE	=	natural logarithm of change in firm's total assets between 2006 and 2007;
$\Delta$ GROWTH	=	change in firm's revenue growth $((\text{revenue}_t - \text{revenue}_{t-1})/\text{revenue}_{t-1})$ between 2006 and 2007;
$\Delta$ IA	=	change in firm's intangible assets ratio (total intangible assets divided by total assets) between 2006 and 2007;
$\Delta$ LEV	=	change in firm's leverage ratio (total liabilities divided by total assets) between 2006 and 2007;
$\Delta$ RONA	=	change in firm's return on net assets ratio (net operating profits after taxes divided by total assets) between 2006 and 2007;
$\Delta$ Q	=	change in firm's Tobin's Q (sum of fiscal year-end market value of equity and long-term debts divided by total assets) between 2006 and 2007;
AGRO	=	indicator variable with the value of "1" if firm is in agro and Food industry "0" otherwise
CONSUMER	=	indicator variable with the value of "1" if firm is in consumer product industry "0" otherwise
INDUSTRIAL	=	indicator variable with the value of "1" if firm is in industrial services industry "0" otherwise
PROPERTY	=	indicator variable with the value of "1" if firm is in property and construction industry "0" otherwise
RESOURCE	=	indicator variable with the value of "1" if firm is in resource, energy and utilities industry "0" otherwise
SERVICE	=	indicator variable with the value of "1" if firm is in services industry "0" otherwise



**Table 9**  
*Cross-sectional Regression of Change in Disclosures and Transparency Sub-index on Change in Ownership Structures, Firm Characteristics, and Firm Performance*

Variables	Expected Sign	Model 1		Model 2	
		Coefficients (β)	t-statistic	Coefficients (β)	t-statistic
Intercept	None	0.511	1.490	0.474	1.391
<b>Ownership structure variables</b>					
CONCENT	-	-0.019	-2.671***	-0.021	-2.704***
INSTI	+	-0.011	-0.427	-0.012	-0.484
FOREIGN	+	0.001	0.098	0.003	0.215
GOVN	+	0.543	2.389**	0.545	2.397**
FAMILY	-	0.215	1.972**	0.215	1.977**
CONNECTED	-	-0.381	-1.195	-0.401	-1.255
<b>Firm characteristics variables</b>					
SIZE	+	0.444	3.486***	0.434	3.455***
GROWTH	+	0.000	0.147	0.000	0.177
IA	+	1.089	0.151	0.833	0.117
LEV	+	-0.398	-1.884	-0.395	-0.878
<b>Firm performance variables</b>					
RONA	+	-0.011	-0.575		
Q	+			0.554	2.919***
<b>Control variables</b>					
AGRO	None	-0.354	-0.722	-0.323	-0.662
CONSUMER	None	-0.484	-0.952	-0.458	-0.904
INDUSTRIAL	None	-0.052	-0.120	-0.012	-0.029
PROPERTY	None	0.032	0.079	0.072	0.178
RESOURCE	None	-0.445	-0.803	-0.437	-0.791
SERVICE	None	-0.344	-0.809	-0.334	-0.791
F-value			2.795		2.826
Sig.F			0.000		0.000
R <sup>2</sup>			0.280		0.285
Adjusted R <sup>2</sup>			0.143		0.144

\*/\*\*/\*\* indicates significance at the 10%, 5%, and 1% respectively.

The regressions being estimated are

$$\begin{aligned} \Delta CGI_{-4i} = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + \beta_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + \beta_{10} \Delta LEV_i \\ & + \beta_{11} \Delta RONA_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (1)$$

$$\begin{aligned} \Delta CGI_{-4i} = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + \beta_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + \beta_{10} \Delta LEV_i \\ & + \beta_{11} \Delta Q_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (2)$$

**Table 9** (continued)

$\Delta$ CGI_4	=	change in disclosures and transparency sub-index between 2007 and 2008;
$\Delta$ CONCENT	=	change in percentage of firm's shares held by shareholders who owning 5% or more of firm's share between 2006 and 2007;
$\Delta$ INSTI	=	change in percentage of firms' shares held by institutional investors between 2006 and 2007;
$\Delta$ FOREIGN	=	change in percentage of firms' shares held by foreign investors between 2006 and 2007;
$\Delta$ GOVN	=	change in percentage of firms' shares held by government or state agents between 2006 and 2007;
$\Delta$ FAMILY	=	change in percentage of firms' shares held by a single shareholder of members his or her family by either blood or marriage, either individually or as a group between 2006 and 2007;
$\Delta$ CONNECTED	=	indicator variable with the value of "-1" if firm has political connections in 2006 but doesn't have in 2007, "0" if firm doesn't have change in political connections, or "+1" if firm doesn't have political connections in 2006 but does have in 2007;
$\Delta$ SIZE	=	natural logarithm of change in firm's total assets between 2006 and 2007;
$\Delta$ GROWTH	=	change in firm's revenue growth $((\text{revenue}_t - \text{revenue}_{t-1})/\text{revenue}_{t-1})$ between 2006 and 2007;
$\Delta$ IA	=	change in firm's intangible assets ratio (total intangible assets divided by total assets) between 2006 and 2007;
$\Delta$ LEV	=	change in firm's leverage ratio (total liabilities divided by total assets) between 2006 and 2007;
$\Delta$ RONA	=	change in firm's return on net assets ratio (net operating profits after taxes divided by total assets) between 2006 and 2007;
$\Delta$ Q	=	change in firm's Tobin's Q (sum of fiscal year-end market value of equity and long-term debts divided by total assets) between 2006 and 2007;
AGRO	=	indicator variable with the value of "1" if firm is in agro and Food industry "0"otherwise
CONSUMER	=	indicator variable with the value of "1" if firm is in consumer product industry "0"otherwise
INDUSTRIAL	=	indicator variable with the value of "1" if firm is in industrial services industry "0"otherwise
PROPERTY	=	indicator variable with the value of "1" if firm is in property and construction industry "0"otherwise
RESOURCE	=	indicator variable with the value of "1" if firm is in resource, energy and utilities industry "0"otherwise
SERVICE	=	indicator variable with the value of "1" if firm is in services industry "0"otherwise

**Table 10**  
*Cross-sectional Regression of Change in Board Responsibilities Sub-index  
on Change in Ownership Structures, Firm Characteristics, and Firm Performance*

Variables	Expected Sign	Model 1		Model 2	
		Coefficients (β)	t-statistic	Coefficients (β)	t-statistic
Intercept	None	0.296	0.961	0.307	1.002
<b>Ownership structure variables</b>					
CONCENT	-	-0.015	-1.999**	-0.014	-1.963**
INSTI	+	0.050	2.441**	0.049	2.393**
FOREIGN	+	0.030	2.315**	-0.030	2.336**
GOVN	+	0.351	2.134**	0.351	2.134**
FAMILY	-	0.028	1.982**	0.028	1.980**
CONNECTED	-	0.337	1.179	0.328	1.143
<b>Firm characteristics variables</b>					
SIZE	+	1.501	5.642***	1.520	5.741***
GROWTH	+	-0.001	-0.555	-0.001	-0.582
IA	+	-7.840	-1.213	-7.292	-1.136
LEV	+	-1.045	-2.583***	-1.057	-2.616***
<b>Firm performance variables</b>					
RONA	+	0.009	0.531		
Q	+			0.648	2.431**
<b>Control variables</b>					
AGRO	None	0.237	0.539	0.221	0.504
CONSUMER	None	-0.055	-0.122	-0.068	-0.150
INDUSTRIAL	None	0.133	0.341	0.122	0.314
PROPERTY	None	0.182	0.494	0.156	0.426
RESOURCE	None	0.317	0.637	0.292	0.589
SERVICE	None	0.033	0.087	0.013	0.035
F-value			4.149		4.156
Sig.F			0.000		0.000
R <sup>2</sup>			0.436		0.454
Adjusted R <sup>2</sup>			0.210		0.219

\*/\*\*/\*\* indicates significance at the 10%, 5%, and 1% respectively.

The regressions being estimated are

$$\begin{aligned} \Delta CGI\_5_i = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + \beta_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + \beta_{10} \Delta LEV_i \\ & + \beta_{11} \Delta RONA_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (1)$$

$$\begin{aligned} \Delta CGI\_5_i = & \beta_0 + \beta_1 \Delta CONCENT_i + \beta_2 \Delta INSTI_i + \beta_3 \Delta FOREIGN_i \\ & + \beta_4 \Delta GOVN_i + \beta_5 \Delta FAMILY_i + \beta_6 \Delta CONNECTED_i \\ & + \beta_7 \Delta SIZE_i + \beta_8 \Delta GROWTH_i + \beta_9 \Delta IA_i + \beta_{10} \Delta LEV_i \\ & + \beta_{11} \Delta Q_i + \beta_j \sum_j IND_i + \varepsilon_i \end{aligned} \quad (2)$$

**Table 10 (continued)**

$\Delta$ CGI_5	=	change in board responsibilities sub-index between 2007 and 2008;
$\Delta$ CONCENT	=	change in percentage of firm's shares held by shareholders who owning 5% or more of firm's share between 2006 and 2007;
$\Delta$ INSTI	=	change in percentage of firms' shares held by institutional investors between 2006 and 2007;
$\Delta$ FOREIGN	=	change in percentage of firms' shares held by foreign investors between 2006 and 2007;
$\Delta$ GOVN	=	change in percentage of firms' shares held by government or state agents between 2006 and 2007;
$\Delta$ FAMILY	=	change in percentage of firms' shares held by a single shareholder of members his or her family by either blood or marriage, either individually or as a group between 2006 and 2007;
$\Delta$ CONNECTED	=	indicator variable with the value of "-1" if firm has political connections in 2006 but doesn't have in 2007, "0" if firm doesn't have change in political connections, or "+1" if firm doesn't have political connections in 2006 but does have in 2007;
$\Delta$ SIZE	=	natural logarithm of change in firm's total assets between 2006 and 2007;
$\Delta$ GROWTH	=	change in firm's revenue growth $((\text{revenue}_t - \text{revenue}_{t-1})/\text{revenue}_{t-1})$ between 2006 and 2007;
$\Delta$ IA	=	change in firm's intangible assets ratio (total intangible assets divided by total assets) between 2006 and 2007;
$\Delta$ LEV	=	change in firm's leverage ratio (total liabilities divided by total assets) between 2006 and 2007;
$\Delta$ RONA	=	change in firm's return on net assets ratio (net operating profits after taxes divided by total assets) between 2006 and 2007;
$\Delta$ Q	=	change in firm's Tobin's Q (sum of fiscal year-end market value of equity and long-term debts divided by total assets) between 2006 and 2007;
AGRO	=	indicator variable with the value of "1" if firm is in agro and Food industry "0"otherwise
CONSUMER	=	indicator variable with the value of "1" if firm is in consumer product industry "0"otherwise
INDUSTRIAL	=	indicator variable with the value of "1" if firm is in industrial services industry "0"otherwise
PROPERTY	=	indicator variable with the value of "1" if firm is in property and construction industry "0"otherwise
RESOURCE	=	indicator variable with the value of "1" if firm is in resource, energy and utilities industry "0"otherwise
SERVICE	=	indicator variable with the value of "1" if firm is in services industry "0"otherwise

## BIOGRAPHY

Arunee Yodbutr received her bachelor's degree in business administration majoring in accounting from Assumption University, Thailand, in 1993. She received her master's degree in business administration from Chiang Mai University in 1999 and received another master's degree in accounting from Chiang Mai University in 2005.

She had 10 years experience with Maejo University, Thailand, in academic profession as a lecturer.

Currently, she is a candidate for the Doctor of Philosophy degree from Chulalongkorn University with a major in Accounting.



ศูนย์วิทยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย