

**CORPORATE GOVERNANCE  
AND MANAGEMENT MISCONDUCT  
IN THAILAND**

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**B.A. (Accounting), M.Acc. (Accounting)**

**Doctor of Philosophy**

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## STATEMENT OF ORIGINALITY

The thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to the final version of my thesis being made available worldwide when deposited in the University's Digital Repository\*\*, subject to the provisions of the Copyright Act 1968.

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**ACKNOWLEDGEMENT OF AUTHORSHIP/COLLABORATION**

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## **SYNOPSIS**

The primary objective of this thesis is to provide additional empirical evidence on the effectiveness of corporate governance in limiting agency conflict, with a specific focus on those corporate governance mechanisms associated with mitigating management misconduct. The focus of this study is a sample of companies listed on the Stock Exchange of Thailand (SET) that have experienced incidences of management misconduct such as management perpetrated fraud, insider trading and financial disclosure manipulation.

As an emerging economy, Thailand represents an ideal environment to empirically test whether corporate governance recommendations developed for Western economies are relevant for developing economies such as those of South East Asia. This study finds no evidence supporting the effectiveness of major internationally recommended corporate governance mechanisms such as board independence, audit committee effectiveness and separation of the role of CEO and board Chair in limiting management misconduct.

However, this study does find a significant positive relationship between the proportion of independent directors with greater levels of experience and knowledge, the presence of institutional ownership and concentrated controlling ownership and a reduction in the likelihood of a firm experiencing management misconduct. In addition to its contribution to the corporate governance literature, this study provides the regulators and company stakeholders with evidence to call for improvements in corporate governance practices designed to limit management misconduct in Thailand. These findings also suggest that regulators must consider external and internal factors inherent in emerging economies before adopting Western corporate governance practices.

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

The high media profile given to the recent series of scandals and corporate failures in prominent firms such as Enron, Worldcom, Satyam, Pamarlat and Lehman Brothers highlight that management misconduct remains a critical problem for organizations. The incidence of management misconduct also appears to be internationally widespread. For example, in recent interviews of more than 1,700 respondents in 43 countries, 39% of respondents reported that “bribery or corrupt practices occur frequently in their countries. The situation is significantly worse in rapid-growth markets” (Ernst & Young, 2012, p. 2). Management misconduct also has significant economic impacts. For example, an Association of Certified Fraud Examinators (ACFE) 2012 survey found fraud diverted approximately 5% of corporate income each year, amounting to approximately \$3.5 trillion worldwide in 2011. The survey also revealed that losses were higher when perpetrators held more senior positions in their firms and that nearly half of affected organisations failed to recover their losses.

When misconduct scandals are revealed, stakeholders and the general public raise similar concerns: Why did corporate regulation and internal controls not prevent the misconduct? Can firm’s financial disclosures be trusted? Why were auditors or regulators unable to prevent or limit the misconduct? A lack of public confidence in the adequacy of firm corporate governance is to the detriment of the efficiency of the entire market. Nor are the impacts of corporate scandals localised. For example, as a result of globalisation and the liberalisation of financial markets, corporate crises in Russia, Asia

and Brazil have had international ramifications. Thailand is no exception, experiencing large frauds that have a detrimental impact on confidence in the Thai market. For example, in 2007 - 2008 the chairman and managing director of S.E.C. Auto Sales and Services were convicted by the Securities and Exchange Commission of Thailand (SEC) of falsifying documents regarding non-existent assets accounting for 597.9 million Baht (20 million US dollars). Such crises have also been the catalyst for calls for improved corporate governance in developing economics, including those of South East Asia (Becht, Bolton, & Röell, 2005; Claessens, 2003; Claessens & Yurtoglu, 2012).

Rezaee is among many theorists that see corporate governance reform as integral in averting future scandals and necessary to: “protect investors’ interests, ensure the integrity, quality, transparency, and reliability of financial reports, monitor the adequacy and effectiveness of internal control structures, and ensure the quality of audit functions” (2005, p. 289). Regulators also rely heavily on corporate governance reform, with many adopting or strengthening their corporate governance recommendations in response to public concern. Examples include the U.S. congress sanctioned Sarbanes-Oxley Act and recommendations by stock markets such as the New York Stock Exchange (NYSE), NASDAQ, Australian Securities Exchange (ASX) and the London Stock Market. Similarly, in Thailand the financial crisis of 1997 saw poor corporate governance once again targeted as a major contributor (Limpaphayom & Connelly, 2004). To reform and strengthen corporate governance of Thai firms, Thailand designated the year 2002 as ‘The Year of Good Corporate Governance’, adopting the Principles of Corporate Governance of the Organisation for Economic Co-operation and Development (OECD) as a benchmark.

## **1.2 Background to the Research**

In the corporate governance literature, there is a lack of consensus regarding a common, all encompassing definition of corporate governance. However, a common focus of most definitions are the mechanisms and activities that are necessary to govern corporations effectively (Brown, Beekes, & Verhoeven, 2011) with definitions varying according to the point of view of the theorists. Some theorists view corporate governance broadly as a normative framework. For example, Cadbury sees corporate governance as: “concerned with holding the balance between economic and social goals and between individual and communal goals. The governance framework is there to encourage the efficient use of resources and equally to require accountability for the stewardship of those resources to align as nearly as possible the interests of individuals, of corporations, and of society” (2004, p. vii).

The OECD defines corporate governance as “a set of relationships between a company’s management, its board, its shareholders and other stakeholders” (2004, p. 11). The Stock Exchange of Thailand (SET) recommendations define corporate governance similarly as “a set of structures and processes of the relationship between a company’s board of directors, its management and its shareholders to boost the company’s competitiveness, its growth and long-term shareholder value by taking into account the interest of other company stakeholders” (2006, para. 1). Shleifer and Vishny define a more focused relationship in the finance literature: “the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment” (1997, p. 737). Common to all definitions is a focus on the relationship between the key players in companies: shareholders, the board of directors and management.

Despite the lack of a unifying definition of corporate governance, many corporate governance models recommended by regulators share a common focus on solving agency conflict (Brown, et al., 2011). Agency conflict arises due to separation of ownership and control in modern corporations. As principals (owners) must appoint agents (managers) to control their diverse ownerships, agency costs arise when managers are motivated to pursue their own interests to the detriment of those of owners (Fama & Jensen, 1983). As firms face increasing agency costs, they need to implement stronger corporate governance to reduce conflicts between owners and managers (Dey, 2008). With its focus on explaining conflict of interests, agency theory has become the dominant concept in the corporate governance literature and the development of corporate governance models such as the OECD model (McCarthy & Puffer, 2008; Shleifer & Vishny, 1997).

Given that management misconduct represents the extreme of agency conflict and that corporate governance is designed to limit such conflicts, it is little wonder that a large body of empirical evidence (Abbott, Parker, & Peters, 2004; Agrawal & Chadha, 2005; Beasley, 1996; Farber, 2005; Peasnell, Pope, & Young, 2001; Sharma, 2004; Smaili & Labelle, 2009; Uzun, Szewczyk, & Varma, 2004) shows a negative relationship between the incidence of management misconduct such as fraud and the effectiveness of firm corporate governance mechanisms. These studies have also shown certain corporate governance mechanisms as critical in reducing the likelihood of misconduct, with such mechanisms universally included in corporate governance best practice recommendations. Foremost among these is independence of the board of directors, which is seen as a key element in limiting management misconduct by enhancing monitoring of management (Amoah & Tang, 2010; Beasley, 1996; Farber, 2005;

Persons, 2006; Seamer, 2008; Sharma, 2004; Smaili & Labelle, 2009; Ueng, Koehn, & Chang, 2009; Uzun, et al., 2004). Another important mechanism is the audit committee that is charged with the oversight of the financial reporting process and system of internal control. Certain characteristics of effective audit committees, such as independence, members with financial or accounting expertise and committee diligence are commonly identified in studies as effective in mitigating management misconduct (Abbott, et al., 2004; Agrawal & Chadha, 2005; Crutchley, Jensen, & Marshall, 2007; Dechow, Sloan, & Sweeney, 1996; Mustafa & Meier, 2006; Persons, 2005; Uzun, et al., 2004). Corporate governance best practice also recommends separating the role of CEO and board chair to ensure the board is be more independent and effective in monitoring management (Chapple, Ferguson, & Kang, 2009; Cheng, Gao, Lawrence, & Smith, 2011; Dunn, 2004; Farber, 2005; Persons, 2005, 2006; Sharma, 2004; Smaili & Labelle, 2009). Empirical studies have also shown other corporate governance mechanisms such as firm ownership structure (Cheung, Rau, & Stouraitis, 2006; Coffee, 2005; Hashim & Devi, 2008; Magnanelli, 2011; Wang, 2006), the existence of shareholder blockholders (Clifford, 2003; Dechow, et al., 1996; Edmans, 2009), and the appointment of quality auditors (Fan & Wong, 2005; Farber, 2005; Han, Kang, & Yoo, 2012; Lennox & Pittman, 2010) are effective in reducing the likelihood of management misconduct.

While a large body of empirical evidence supports the importance of such corporate governance mechanisms, it arises mainly from studies conducted with a focus on Western developed economies. As a result, models such as that proposed by the OECD, are developed and based on evidence pertaining to the application of agency theory to Anglo-Saxon environments (Chen, Li, & Shapiro, 2011). Corporate environments in developing economies, such as South East Asia, differ from those of Western

economies in several aspects. Firstly, compared to Western firms, it is more common for Asian firms to have high levels of control by majority shareholders who are often founding families. It is also common for these majority shareholders to adopt management roles or appoint family to the executive (Chtourou, Bédard, & Courteau, 2001; Vafeas, 1999). Such a concentration of ownership impacts on “the nature of the agency problems between managers and outside shareholders, and among shareholders” (Claessens, 2003, p. 12). In the Asian context therefore a major focus of corporate governance is to prevent a conflict of interests between major shareholders and minorities rather than between owners and managers (Vafeas, 1999). A second major difference between Asian and Western corporate environments is the role that institutional investors play. In Asia, institutional investor represents a very small portion of shareholders and may not have sufficient power to push for corporate governance reform in stock markets (Vafeas, 1999). Further, doing business in Asia often depends heavily on group affiliations or connections which may require a different set of governance mechanisms than those of Western firms where corporate governance best practice was developed and is promoted (Claessens, 2003; Claessens & Yurtoglu, 2012). A further difference is the legal and enforcement environment in Asia, which is considerably weaker than in the West. This affects not only the promotion of good corporate governance but also the level of influence of minority shareholders and other stakeholders (Cheung & Chan, 2004).

In recent times, theorists have begun to question whether corporate governance best practices prescribed for Western economies are relevant to developing economies such as those found in South East Asia (Kiatapiwat, 2010; Sauerwald & Peng, 2012; Vafeas, 1999). For example, most Western corporate governance models recommend increasing

the proportion of independent directors on the board to improve the effectiveness of monitoring and control (Beasley, 1996; Fama & Jensen, 1983; Persons, 2005). However, many Asian studies fail to show that independent directors provide corporate governance benefits. In fact, increased levels of independent directors have been found to lead to lower firm performance in Malaysia (Hashim & Devi, 2008) while larger proportions of inside directors are linked to increasing firm value in Thailand (Yamneesri & Lodh, 2004). Agency theory and corporate governance best practice also recommend separating the role of CEO and board Chair to ensure boards can monitor management more effectively (Chapple, et al., 2009; Cheng, et al., 2011; Dunn, 2004; Farber, 2005; Persons, 2005, 2006; Sharma, 2004; Smaili & Labelle, 2009). Again, the evidence from Asia suggests no association between CEO/Chair separation and a reduction in the likelihood of fraud or misconduct (Chen, Firth, Gao, & Rui, 2006; Huang & Liang, 2008; Wang, Chuang, & Lee, 2010). This evidence raises concerns that simply adopting Western corporate governance practices, which were designed for different institutional settings, may not result in the desired outcomes (Sauerwald & Peng, 2012). As the effectiveness of corporate governance varies across economies, depending on both inside and outside influences on corporate control, the “Western approach, considered to be the best international practice, is not guaranteed in the Asian context” (Gibson, 2003, p. 281).

As previously discussed, despite the literature recognizing that corporate governance is key in limiting agency conflicts in Western countries (Rezaee, 2005), there remains a paucity of empirical evidence regarding the effectiveness of corporate governance mechanisms on the likelihood of management misconduct in the Asian context. The aim of this thesis is to examine whether Western corporate governance mechanisms are

effective in limiting opportunities for management misconduct in Asian countries, using Thailand as a focus.

Thailand is a suitable environment for such a study for several reasons. Firstly, the country has recently adopted corporate governance reform, with the current national corporate governance code closely following the OECD Corporate Governance Principles (Park & Shin, 2004). Secondly, although there is some evidence of an improvement in Thai corporate governance, management misconduct and fraud remain a critical issue for Thailand. PricewaterhouseCoopers (2012) reports that over one-third of all Thai companies surveyed experienced fraud in 2011, a much higher proportion than the worldwide average and that of the Asia/Pacific region. The proportion of Thai fraud perpetrators that held management positions in their firms was also higher than comparative proportions both globally and throughout the Asia/Pacific. The report also expressed concern over the lower proportion of successful civil actions and average law enforcement outcomes compared to both globally and in the Asia/Pacific region. Finally, the Thai corporate environment is typical of that found in developing economies, particularly those in South East Asia, with major shareholders exercising near-absolute control of most listed firms (Park & Shin, 2004). The Thai setting therefore provides an ideal focus to test whether the OECD corporate governance model, grounded on agency theory and developed for Western economic conditions, cultures, and legal systems, is capable of effectively functioning in developing economies.

### **1.3 Thesis Objective and Contribution to the Literature**

#### **1.3.1 Research Objectives and Research Questions**

The primary objective of this thesis is to provide empirical evidence on the effectiveness of corporate governance in limiting agency conflict. In particular, this study contributes to the corporate governance literature with an empirical analysis of the appropriateness of Western based corporate governance best practices in limiting management misconduct in developing economies such as Thailand. In addressing this research question, this thesis will focus on several corporate governance mechanisms that have been shown to be effective in mitigating management misconduct.

In particular, this thesis will address the following research questions, each framed around a specific corporate governance mechanism:

1. Are firms with more independent boards less likely to experience management misconduct than firms with less independent boards?
2. Are firms with smaller boards less likely to experience management misconduct than firms with larger boards?
3. Are firms with more effective audit committees less likely to experience management misconduct than firms with less effective audit committees?
4. Are firms with boards free from CEO domination less likely to experience management misconduct than firms with boards dominated by the CEO?
5. What role does differing types of owners play in limiting management misconduct?
6. Are firms free from controlling shareholder influence less likely to experience management misconduct than firms under controlling shareholder influence?

### **1.3.2 Motivation for the Research**

As previously discussed, this thesis focuses on the effectiveness of corporate governance in limiting the agency conflicts that manifest in incidences of management misconduct. However, its main contribution to the corporate governance literature is its analysis of the adequacy of internationally recommended corporate governance mechanisms in reducing the likelihood of a company experiencing management misconduct in emerging economies. This thesis attempts to address several limitations in the literature concerning research into the relationship between corporate governance and management misconduct. Firstly, while the literature holds that strong corporate governance reduces the likelihood of firms experiencing management misconduct, the assumption is derived almost exclusively from studies focusing on Western economies such as the US, the UK, Canada and Australia (Carcello, Hermanson, & Zhongxia, 2011). While scarce, the limited empirical evidence regarding the effectiveness of corporate governance mechanisms in the Asian context appears to contradict the findings of Western studies. While board independence has been shown to be effective in limiting management misconduct in the US (Amoah & Tang, 2010; Beasley, 1996; Farber, 2005; Persons, 2006; Ueng, et al., 2009; Uzun, et al., 2004), Australia (Seamer, 2008; Sharma, 2004) and Canada (Smaili & Labelle, 2009), no such evidence has been found in China (Firth, Rui, & Wu, 2011; Huang & Liang, 2008), Taiwan (Wang, et al., 2010) or Malaysia (Hasnan, Rahman, & Mahenthiran, 2009). This study attempts to address the paucity of evidence regarding whether corporate governance mechanisms adopted for the Western countries are valid in the Asian context.

The second contribution of this study to the literature lies in its focus on a broad range of management misconduct behaviour. Previous studies tend to limit their focus to only

one type of misconduct, such as fraud. This study extends to a much wider range of management misconduct including such acts as embezzlement, the making of false or misleading statements, fraudulent financial reporting, manipulation of stock prices, insider trading and failure to disclose management trading in company shares.

Many previous studies have been criticised for focusing only on a limited subset of governance characteristics (Carcello, et al., 2011). This study examines an extensive set of corporate governance variables incorporating both internal and external factors. Variables examined in this study such as outside director tenure, outside director experience, CEO tenure, the impact of different types of ownership and the role of non-controlling blockholders are often ignored in previous studies.

Another important contribution of this study is its focus on concentrated ownership. Such a phenomenon is common in emerging countries (Claessens & Fan, 2002; Suehiro & Wailerdasak, 2004), however corporate governance theorists remain divided regarding the impact that large-block shareholders have on the incidence of management misconduct. Some theorists argue that the existence of a controlling shareholder creates an entrenched management with resulting agency costs (Chau & Leung, 2006; Claessens & Fan, 2002; Morck & Yeung, 2003) and allows appropriation of wealth from minority shareholders by the controlling shareholder (Bae, Baek, Kang, & Liu, 2012; Chang, 2003; Cheung, et al., 2006). Alternatively, other theorists argue that dominant shareholders have strong incentives to monitor managers due to the fact that a large proportion of their wealth is tied to firm value (Hashim & Devi, 2008; Lee, 2006; Wang, 2006; Young, Peng, Ahlstrom, Bruton, & Jiang, 2008). Opportunities for management misconduct are therefore limited. This study attempts to address the

paucity of evidence regarding the impact of dominant ownership on management misconduct in Asian countries, particularly in the Thai context.

#### **1.4 Thesis Outline**

The thesis is structured as follows: Chapter 2 reviews the corporate governance literature relevant to this thesis. Chapter 3 discusses the process of hypothesis development, while Chapter 4 outlines the research methodology applied in empirical testing. Chapter 5 reports the results from the empirical analysis and Chapter 6 concludes the thesis with a discussion of the key findings and their implications and suggests areas of further research.

## **CHAPTER 2**

### **REVIEW OF THE CORPORATE GOVERNANCE LITERATURE**

#### **2.1 Introduction**

This chapter reviews the corporate governance literature with a particular emphasis on management misconduct. Section 2.2 outlines the following alternative theories that underpin the corporate governance literature: agency theory, stewardship theory, stakeholder theory, resource dependence theory, managerial hegemony theory and institutional theory. Section 2.3 discusses corporate governance in the international context, while section 2.4 focuses on corporate governance in the South East Asian context, and more specifically in Thailand. Section 2.5 reviews the literature relating to the effectiveness of specific corporate governance mechanisms and the conclusion is provided in section 2.6.

#### **2.2 Theories of Corporate Governance**

This section outlines the main theories that theorists have developed in an attempt to explain and understand the complexity of corporate governance.

##### **2.2.1 Agency Theory**

Agency theory was proposed by early theorists such as Jensen and Meckling (1976) to explain the relationship in firms where one group (owner/principals) engage another group (manager/agents) to act on their behalf. As owners in modern firms are diversified and individually hold only a fraction of the firm's entire wealth, they lack sufficient incentive to devote considerable time or effort to manage the firm. Therefore,

they appoint managers who hold specialized knowledge to manage the firm on their behalf (Fama & Jensen, 1983). Agency theory predicts that although managers are contracted to maximize firm value for shareholders, they may also have conflicting motivations to further their own interests (Donaldson & Davis, 1991). Shareholders bear these agency costs when “the desires or goals of the principals and the agents conflict, and it is difficult or expensive for the principal to prove what the agent is actually doing” (Eisenhardt, 1989, p. 58).

Limiting agency costs requires establishing appropriate management incentives, and designing appropriate corporate governance structures (Jensen & Meckling, 1976). The objective of incentive schemes is to align the interests of agents to those of principals. By tying executive compensation to firm value through incentives such as stock or option grants, management are motivated to behave in ways that benefit stockholders (Davis, Schoorman, & Donaldson, 1997). However, the literature recognises that such incentive schemes can also increase the incentives for management to engage in fraud or earnings manipulation (Denis, Hanouna, & Sarin, 2006; Grant, Markarian, & Parbonetti, 2009). To control these agency costs shareholders need to put in place certain corporate governance mechanisms. Section 2.5 outlines the literature regarding the effectiveness of various corporate governance mechanisms in the composition of the board directors, separation of the roles of board chair and CEO, and board sub-committees such as the audit committee.

Agency theory is often criticised on the basis that it focuses only on one side of the executive decision making process (Davis, et al., 1997). Cohen, Krishnamoorthy, and Wright (2008) also argue that it is often difficult to separate management from firm

governance as recommended by agency theory, as management often have significant influence on governance processes such as appointing board and committee members and are capable of overriding internal control systems. As organizational behaviour is complex, many theorists argue it cannot be explained by one single economic theory (Albrecht, Albrecht, & Albrecht, 2004).

### **2.2.2 Stewardship Theory**

Stewardship theory, as proposed by theorists such as Donaldson and Davis (1991), has its roots in psychology and sociology. While agency theory views management as solely motivated to maximize their own interest, stewardship theory argues management are motivated to promote the best interest of the owners rather than seeking personal incentive or benefits (Choo & Tan, 2007). Stewardship theory regards managers as stewards motivated to act in the best interests of their principals (the shareholders) (Davis, et al., 1997). Unlike agency theory, stewardship theory prescribes that the CEO and the board chair should be held by the same person so that the power and authority can be concentrated to avoid ambiguous direction. Under stewardship theory, the board is not a controlling body, but rather a sounding board and source of resources for the CEO to further shareholders interests (Albrecht, et al., 2004).

While agency theory is a dominant perspective in corporate governance, Davis, et al. (1997) argue that sufficient empirical evidence exists to suggest that stewardship theory is an alternative way to explain the relationships between agents and principals. For example, Muth and Donaldson (1998) find that in terms of performance, non-independent boards with network connections outperform independent boards with less

network connections. Davis, et al. (1997) also argue that corporate governance mechanisms need to be designed to reconcile agency costs and stewardship benefits.

### **2.2.3 Stakeholder Theory**

A stakeholder approach to governance was developed from the work of Mitroff, Mason, and Emshoff (Freeman & McVea, 2001). Stakeholder theory first emerged in the strategic management literature and has found acceptance in both organizational theory and business ethics (Ge & Whitmore, 2010). Freeman, Harrison, Wicks, Parmar, and De Colle (2010) argue that stakeholder theory was developed to describe the rapid change, not only in modern business environments, but also in the ethics of capitalism and managerial mindset. The core concept of stakeholder theory is to view the role of managers as that of balancing the best interests of all stakeholders, not just shareholders. Managers are motivated to maximise value for all stakeholders including employees, customers, suppliers and the broader community, without resorting to trade-offs between parties (Freeman, et al., 2010). Management focus is on maximizing value for all related parties, not only on profit maximization. Freeman, et al. (2010) argue this requires multiple managerial objectives to balance the interests of different parties.

Although the literature contains varying definitions of stakeholders, a majority of scholars adopt the following definition developed by Freeman and McVea: “any group or individual who is affected by or can affect the achievement of an organization’s objective” (2001, p. 2). Freeman, et al. (2010) classify stakeholders into two groups. The first group, called primary or definitional stakeholders, are those parties that are essential for the immediate success of the business. This group includes financiers, customers, suppliers, employees and the broader communities. The other group of

stakeholders are termed secondary or instrumental and include individuals or groups that, while not being crucial to the firm, can affect or be affected by the business's activities. This broader group of stakeholders includes government, competitors, consumer advocate groups, special interest groups and the media.

Freeman, et al. (2010) argue that as the business matures through different stages, some stakeholders may become more significant than others. Freeman, et al. (2010) also note that stakeholders differ across businesses depending on the business model adopted by a firm. Donaldson and Preston (1995) further classify stakeholder theory into three aspects: descriptive, instrumental, and normative. The descriptive approach is used to explain or describe characteristics and behaviours of corporations. The instrumental approach is focused on identifying the connections between stakeholders, management and organizational performance. The normative approach interprets the corporation function in terms of moral principles.

While agency theory appears to be implicitly endorsed by regulators as the fundamental driver for corporate governance, Freeman and Reed (1983) recommend a shift in focus from the traditional 'stockholder' approach to that of 'stakeholders' and argue that stakeholder theory is a more practical context for development and analysis of modern corporations. Unlike agency theory, the governance structures recommended by the stakeholder theory are designed to encourage cooperation, coordination and conflict resolution in order to balance all stakeholder interests (Ayuso & Argandona, 2007; Freeman, et al., 2010). Rather than an agency theory emphasis on board independence, stakeholder theorists such as Ayuso and Argandona (2007) argue it is more important that the board contain directors who are knowledgeable of the interests of all

stakeholders. Letza, Sun, and Kirkbride (2004) also argue that the current Anglo-American model of corporate governance, based on the agency theory, fails to encourage stakeholder involvement with the company. Mintz (2004, 2005) also suggests that adopting a stakeholder theory approach may improve corporate governance systems. Mintz (2004, 2005) also highlights the effectiveness of other models such as that adopted in Germany where representatives of other groups, such as employees, are appointed to the board to monitor management. Stakeholder theory has also been incorporated in several alternative theories such as the market-based approach of Friedman, the strategic management approach of Porter, and the transactions cost theory of Williamson (Freeman, et al., 2010).

#### **2.2.4 Resource Dependence Theory**

Resource dependence theory (RDT) was developed in the strategic management literature and has a broad acceptance in many fields such as management, sociology, education and healthcare (Gerald & Cobb, 2010). RDT proposes that “the organization will tend to be influenced more the greater the dependence on the external organization, or alternatively, the more important the external organization is to the functioning and survival of the organization” (Pfeffer & Salancik, 1978, pp. 59-60). According to RDT, the role of the board of directors is to manage environmental uncertainty by providing essential resources (Pfeffer & Salancik, 1978). Boyd (1990) and Hillman, Cannella, and Paetzold (2000) provide empirical evidence which shows that when firms face a significant change in external environment, they respond to this environmental uncertainty by changing board composition. Boyd (1990) also reports that when firms

are under conditions of resource scarcity or competitive uncertainty, they tend to have smaller boards with greater numbers of interlocking directors.<sup>1</sup>

While agency theory views the board of directors as acting as fiduciaries for shareholders to monitor management, RDT theory views the board as a strategic partnership which helps management to set effective policies and manage or access scarce resources (Cohen, et al., 2008; Hillman, et al., 2000). Rather than act as monitors, directors serve to connect the firm with external environments and bring resources to the firm such as information, skills, access to key constituents and legitimacy rather than act as monitors (Gerald & Cobb, 2010; Hillman, et al., 2000; Pfeffer & Salancik, 1978).

In the corporate governance literature, RDT is recognized as an alternative theory that explains differences in firms' governance mechanisms such as board size, board composition and board interlock (Hillman, Withers, & Collins, 2009). Cowen and Marcel (2011) also argue that traditional agency theory fails to explain why some directors respond differently to directors' reputation concerns than others.

### **2.2.5 Managerial Hegemony Theory**

While agency theory holds that board independence is crucial in monitoring management, managerial hegemony theory argues that in reality boards are a passive body (i.e. a rubber stamp), with limited ability to monitor management (Hendry & Kiel, 2004). This is because management has the power to dominate the board in strategic

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<sup>1</sup> Interlocking directors are those directors who also sit on the board of a different firm.

decision makings (Lorsch & MacIver, 1989; Mace, 1971) including selection of the board's members or setting executive management compensation (Hung, 1998).

Managerial hegemony theorists argue that since most directors are appointed by management, and their tenure and accrual benefits depend on managerial discretion, it is not possible for them to exercise independent monitoring of management (Hung, 1998; Kosnik, 1987). Further, as boards rely on information provided by management (Clarke, 2004) and external directors lack adequate knowledge of the firm's business, they are constrained when making decisions (Hung, 1998). Managerial hegemony theory views the board as an instrument designed to satisfy regulatory requirements that cannot be expected to effectively monitor management since its members can never be truly independent (Cohen, et al., 2008; Kosnik, 1987). Cohen, et al. argue that: "even independent members of a fully compliant audit committee will be under the influence of management and likely to ask very easy and unobtrusive questions of management" (2008, p. 186).

However, managerial hegemony theory has been criticized on the basis that supporting empirical evidence is limited (Kosnik, 1987). Some theorists further argue that increased concentration of ownership and the incidence of interlocking directors gives the boards in modern firms power to check and constrain dominant management (Clarke, 2004).

### **2.2.6 Institutional Theory**

While agency theory has dominated corporate governance practices around the world, some theorists argue that traditional economic theory may not fully explain the influence institutional structure has on corporate governance (Aguilera & Jackson, 2003; Sauerwald & Peng, 2012). For example, concentrated family ownership has been associated with higher firm values in underdeveloped countries yet this is not so in developed countries (Jiang & Peng, 2011). Institutional theory attempts to define the relationships between the corporation and its constituents in terms of its authority and control structures (Fiss, 2008). North describes institutions as “the humanly devised constraints that structure human interaction” (1994, p. 360) and include formal constraints, informal constraints and regulatory enforcement activities which together form an incentive structure for societies. Institutional theory focuses on power and control which are embedded in institutional variances such as family business control, cultural narratives, moral orders and legal frameworks (Fiss, 2008; Liu, Yang, & Zhang, 2012).

Institutional theorists often categorize institutions into two groups, with formal and informal characteristics (North, 1994). However, the corporate governance literature is criticised for focusing on formal characteristics such as legal enforcement as the formal institutional factor to protecting shareholders (Sauerwald & Peng, 2012). According to institutional theorists, a country’s legal environment determines the effectiveness of its corporate governance. La Porta, Lopez-de-Silanes, and Shleifer (1999) and La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2000) also show that legal traditions (common law and civil law) are linked to the level of investor protection, while Peng and Jiang

(2010) report that with a high incidence of family controlled businesses, legal and regulatory institutions are pivotal in protecting shareholders in Asia.

Institutional theory also recognises informal constraints such as norms of behaviour, conventions or self-imposed codes of conduct which shape the ‘rules of the game’ (North, 1994). Sauerwald and Peng (2012) argue that informal notions such as culture and trust are most relevant to explain agency conflicts in emerging economies since formal institutional protection of shareholder rights is weak. However, as the informal perspective is difficult to describe and measure, it is often overlooked by theorists (Sauerwald & Peng, 2012).

North (1994) argues that an institutional approach contributes to an understanding of the economic past in several ways. Firstly, it helps to explain why patterns of economic performance differ among countries and firms. Secondly, an institutional approach helps to explain path dependence (the powerful influence of the past on the present and future). Finally, it allows an understanding of the complex interplay between institutions, technology and demography. For example, Liu, et al.’s 2012 study of Asian family controlled businesses found that weak institutional environments encourage firms to develop and rely on internal control mechanisms such as family ownership for survival, while a strong institutional environment tends to reduce internal control mechanisms since they have relatively easy access to institutional resources. Using business groups in Taiwan, Chung and Luo (2008) found institutional logic<sup>2</sup> has more influence in business than agency costs and results in less expropriation of value from minority shareholders by the family group. As institutions create different sets of

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<sup>2</sup> Institutional logic is the belief systems that shape the cognition and behaviour of actors.

incentives and resources for monitoring, it results in different performances in different environments (Filatotchev, Jackson, & Nakajima, 2012; North, 1994).

## **2.3 Corporate Governance in the International Context**

### **2.3.1 International Corporate Governance**

The importance of corporate governance is universally accepted by regulators. For example, the Australian Securities Exchange (ASX) implemented its corporate governance recommendations, ‘Principles of Good Corporate Governance and Best Practice’, in 2003.<sup>3</sup> The Cadbury Code was introduced in the UK in 1992 while in the US the Securities Exchange Commission (SEC) introduced a requirement for majority independent boards in 2003. The Stock Exchange of Thailand (SET) introduced its corporate governance recommendations ‘The 15 Principles’ in 2002 which were subsequently updated in 2006.

The corporate governance literature often classifies corporate governance mechanisms into two broad groups: internal mechanisms and external mechanisms (Brown, et al., 2011; Gillan, 2006). Internal mechanisms result from the implicit decisions and actions of the board or shareholders (Brown, et al., 2011). These include the constitution of the board of directors and its sub-committees, internal control systems and the delegation of responsibilities between the board and management. External mechanisms are derived

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<sup>3</sup> The ASX updated its corporate governance recommendations in 2010 (Corporate Governance Principles and Recommendations). The UK updated the Cadbury Code (to The UK Corporate Governance Code) in 2012, while the New York Stock Exchange also amended its corporate governance code (Report of the New York Stock Exchange Commission on Corporate Governance) in 2010.

from outside parties (Brown, et al., 2011) such as external auditors, blockholders, institutional investors and regulators who are motivated to monitor the firm. The interactions between external and internal corporate governance mechanisms ultimately determine the effectiveness of corporate governance and, as such, will vary across firms and nations. Zattoni and Cuomo (2008) argue that as a result there is no single appropriate international model for corporate governance, since any model must reflect differences in cultures, corporate ownership structures, financing options, and legal origins.

In their report on international governance systems to the OECD, Nestor and Thompson (1999) categorize corporate control models into two broad groups. The first group, ‘outsider’ or ‘market-based’ models, are typical of models found in developed Western economies such as the United States and the United Kingdom. These environments are characterized by dispersed equity ownership with large institutional holdings, an emphasis on shareholder interests, strong laws protecting minority investors, strong requirements for disclosure, and firms with low debt to equity ratios (Nestor & Thompson, 1999). As investors are diversified, their major objective is to ensure management maximize shareholder returns. This separation of ownership and management relies on traditional, agency theory based corporate governance mechanisms to solve the resulting agency problems.

An alternative system of corporate governance often found in developing nations is the ‘insider’ model. The defining characteristics of this system are concentrated equity ownership, close relationships between ownership and management, high levels of involvement by financial institutions, high firm debt to equity ratios, and regulatory

environments characterized by weak protection for minority investors. Under this system, reliance is placed on major shareholders directly controlling management. The nature of these controlling groups varies across countries. For example, government shareholdings are important in China (Estrin & Prevezer, 2011) while in Thailand family groups are the most influential stakeholders in firms (Suehiro & Wailerssak, 2004).

Despite the fact that many corporate governance models recommended by regulators are based on agency theory as it applies to Anglo-Saxon corporate governance systems (McCarthy & Puffer, 2008; Shleifer & Vishny, 1997), many developing countries, including Thailand, have adopted the OECD model as best practice. Many scholars question whether any one generic best corporate governance practice recommendation can be applied to all nations. For example, Chuanrommanee and Swierczek (2007) analyse corporate governance in three Asian countries (Thailand, Malaysia and Singapore) and report that although corporate governance recommendations in all three countries are consistent with international best practice, in reality corporate practices differ widely in these environments and Western practices may not always be successfully adopted in the Asian context.

### **2.3.2 Major International Corporate Governance Recommendations**

The following section outlines generally accepted recommendations on corporate governance mechanism characteristics as adopted by organisations such as the New York Stock Exchange (NYSE) and the ASX. Common to these recommendations are on mechanisms: the board of directors, audit committees and the role of a CEO.

### ***The Board of Directors (BOD or board)***

The board of directors is the group responsible for the oversight of firm performance and monitoring management (Carcello, 2009). Members of the board usually consist of two groups: independent directors and non-independent directors. Many regulators such as NYSE and ASX require the majority of board members to be independent directors. For example, the NYSE gives specific rules for determining director independence. They require that an independent director or their relative is not:

1. an employee of the firm or has not been within the last three years;
2. in receipt of more than \$US 120,000 compensation from the company in the previous year, except in the form of director and committee fees;
3. the company's CEO or has been in the past three years;
4. an executive of a company which has transactions with the company representing more than 2% of revenues or over \$1 million in the last three years; or
5. a member of the company's audit firm used over the last three years.

### ***Audit Committee***

The audit committee is a subset of the board appointed to assist both the internal and external auditors to oversee the internal control system and financial reporting process (Abbott, et al., 2004). NYSE and ASX<sup>4</sup> require a listed company to constitute an audit committee that contains at least three members, all of whom must be independent. In addition, they prescribe that at least one of the audit committee members must have appropriate accounting or financial management knowledge.

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<sup>4</sup> The top 300 companies in Australia are required to have an audit committee and before May 2004 it was the top 500 companies.

### ***Duality CEO***

Many best practice recommendations such as NYSE and ASX recommend that the chairperson and the CEO should not be the same person and the chairperson should be an independent director. It is considered that separating the roles of CEO and chairperson will strengthen the independence of the board by increasing accountability and creating an appropriate balance of power between the board and management (OECD, 2004).

## **2.4 Corporate Governance in Thailand**

The ‘Tom Yam Kung’ crisis in 1997 led to the belief that poor corporate governance was a major contributor to corporate failure and scandal in Thailand (Jelatianranat, 2000; Limpaphayom & Connelly, 2004; Persons, 2006). It was also the catalyst for Thai authorities to introduce several measures to improve corporate governance in Thai listed firms. Since 1999, the Stock Exchange of Thailand (SET) has required listed companies to have an audit committee, and the Bankruptcy Act was amended to strengthen creditor rights. In an auspicious start for the stricter regime, the Thai government declared 2002 as ‘the Year of Good Corporate Governance’ and established the National Corporate Governance Committee (the NCGC), chaired by the Prime Minister.

After introducing the corporate governance code in 2002, SET revised ‘The Principles of Good Corporate Governance for Listed Companies’ in 2006 to align them with OECD recommended best practices. These recommendations require that listed firms should comply with the principles of corporate governance, or where they do not, they should disclose why they have chosen not to comply (known as the comply or explain

system). In 2008, SET again updated the recommendations regarding the roles and qualifications of independent directors and audit committee composition.

The main recommendations by SET regarding establishing corporate governance mechanisms are as follows:

1. The board of directors should consist of at least one-third independent directors with not less than three independent members. Independent directors (and their related parties) should not hold more than one percent of the entity's stock. Independent directors should also not derive financial benefit nor have managerial interests in related companies either currently or during the previous two years.
2. The role of chairperson should be separate from the CEO and be held by an independent director.
3. The board should constitute an audit committee with at least three independent directors, at least one of whom has accounting or financial expertise. In addition, audit committee members are prohibited from being executive directors in companies in the same group.
4. All listed companies should also establish remuneration and nomination committees.

Since related party transactions are a major channel through which controlling shareholders potentially expropriate wealth from minority shareholders (Peng, Wei, & Yang, 2011; Persons, 2006), the SET have also increased the requirement for listed companies to disclosure transactions with related parties such as management, major shareholders, controlling persons and subsidiaries. These related party transactions must

also have approval by shareholders. The SET also requires directors, management and related persons to mandatorily report their interests in the firm to allow stakeholders to evaluate transactions that may lead to a conflict of interests or misappropriation. Securities and Exchange Commission Thailand (SEC)<sup>5</sup> also has the power to intervene where it determines inappropriate disclosures of related party transactions have occurred. For example, the SEC can require the company to make further disclosures or void the transactions and will often issue a public announcement to alert shareholders and other stakeholders of inappropriate or poorly disclosed transactions.<sup>6</sup>

Another important move to strengthen corporate governance in Thailand was the introduction of the Securities and Exchange Act (SEA) B.E.2551 in 2008. This law was designed to improve Thai corporate governance in several ways. For example, to protect the interests of minority shareholders, SEA reduced the threshold of voting shares required to request the board of directors to address proposals at a shareholders' general meeting from 20% to 5%. SEA also detailed a clearer scope of duties and liabilities for directors and management of listed companies and formalised protection for whistleblowers who provided information to the SEC.

Although Thailand has made a significant commitment to improving corporate governance in both public and private sectors, there remain those that are critical of the

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<sup>5</sup> The SEC is an independent state agency with responsibility for supervision and development of the capital market in Thailand under the direction and guidance of the SEC board. The SEC was established in 1992 and founded under the promulgation of the Securities and Exchange Act B.E. 2535.

<sup>6</sup> In 2011, the SEC issued 11 rectification orders relating to 17,614 million Baht and publicly disclosed two inappropriate transactions worth 1,746 million Baht (The Securities and Exchange Commission, 2012).

approach of adopting Western models. For example, Dhnadirek and Tang (2003) and Kanchanapoomi (2005) argue Western corporate governance models ignore the impact of high family ownership concentration, which is common in the Thai setting. The World Bank (2005) reported that in 2004 approximately 66% of the market capitalization of the Thailand Stock Exchange was controlled by only 26 families. With highly concentrated ownership, boards tend to be less independent as directors are elected by the controlling shareholders (Cheung & Chan, 2004), and minority shareholders are more susceptible to exploitation by controlling shareholders (Peng, et al., 2011; Persons, 2006). Suehiro and Wailerdsak (2004) also find that even after the Asian financial crisis of 1997, more than 40% of listed companies in Thailand were still controlled by family groups and there existed little separation between ownership and control.

Another factor impacting on Thai corporate governance is the country's weak legal system, especially as it relates to enforcement (eStandardsForum, 2009; Kanchanapoomi, 2005). There have been only three successful convictions for securities law violations out of more than 25 alleged cases since 1992 (Kouwenberg, 2010). A further issue is that SEC does not have enforcement power to prosecute in its own right. Prosecution for securities violation can only be conducted by police officers and public prosecutors. Thai police have been criticized for their lack of resources and knowledge of the operation of capital markets, with several cases being dismissed by the Supreme Court due to insufficient evidence (Kanchanapoomi, 2005).

Another issue affecting corporate governance is that Thailand has a relatively high incidence of companies controlled by owners who are also politicians. This brings into

question director integrity and unbiased enforcement by government regulators (Persons, 2006). Bunkanwanicha and Wiwattanakantang (2009) report that in firms heavily dependent on government contracts, politicians connected to the enterprise can use their power to implement regulations to favour their firms.

## **2.5 Literature Review of Corporate Governance Mechanisms**

This section outlines the corporate governance literature regarding the effectiveness of the following corporate governance mechanisms and influences:

1. The board of director composition and director attributes;
2. Board sub-committees such as the audit, remuneration and nomination committees;
3. Chief executive officer (CEO) dominance of the firm;
4. Corporate ownership structure;
5. Family dominance of the firm; and
6. Audit quality.

### **2.5.1 Board of Director Composition and Director Attributes**

#### ***2.5.1.1 Independence of the Board of Directors***

The board of directors is recognized as the group responsible for oversight of a firms' performance and monitoring management (Carcello, 2009). The board does not engage in managing day-to-day affairs of the company, but rather sets company strategy, makes strategic decisions and monitors management to ensure a maximum return for shareholders. Therefore, it is imperative that the board needs to be independent from management so that it can ensure checks and balances are in place to provide

shareholders with confidence in the company (The Securities and Exchange Commission, 2007).

A corporate board generally is composed of two groups of directors, executive directors and non-executive directors. Executive directors are directors who are directly involved in the management of the firm while non-executive directors have no direct management function. Executive directors are necessary since they provide a source of expertise and valuable information about the firm to the board (Baysinger & Butler, 1985). Non-executive directors are further classified as either independent directors (outside directors)<sup>7</sup> or non-independent directors (inside directors). Generally, an independent director should be free from any association with the firm or major shareholders that could impact on their ability to independently monitor management. The classification of a director as independent differs from country to country depending on the definition adopted by each country's regulator. For example, in Thailand, the SEC (2010) defines an independent director as a director who holds (with or without associates) less than one percent of the company's (and any associated company's) stock. Further, during the last two years, they will not have derived any benefit from or hold any managerial positions in the company or its associates. In other countries, such as Australia, the definition of an independent director is more restrictive. The ASX defines an independent director as "a non-executive director who is not a member of management and who is free of any business or other relationship that could materially interfere with or could reasonably be perceived to materially interfere with

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<sup>7</sup> Some theorists also classify outside directors into two groups: independent directors and 'grey directors'. 'Grey directors' refers to outside directors who have some non-board affiliation with the firm and may not be truly independent.

the independent exercise of their judgment” (ASX Corporate Governance Council, 2010, p. 16). Independent directors also should not have derived any benefit from or hold any managerial positions in the company or its associates during the last three years.

The corporate governance literature holds that the level of board independence is critical in determining its effectiveness in management oversight. Fama (1980), and Fama and Jensen (1983) argue for a positive association between the proportions of independent directors sitting on the board and management control and monitoring. Since outside directors need to build their reputation as experts and the value of their human capital depends on their performance, they have greater incentives to fulfil their oversight roles diligently and not collude with management to misappropriate firms’ assets (Fama & Jensen, 1983). Collier (1993) further argues that as there is information asymmetry between outside and inside directors, outside directors are also motivated to monitor management to reduce their exposure to legal liability.

### ***Empirical Studies of Board Effective in Developed Countries***

Evidence from a large number of studies of firms in Western economies supports the contention that independence of the board is pivotal in ensuring management act in shareholder interests. Dahya and McConnell’s (2005) investigation of 533 CEO appointments in the UK found that the more independent the board, the more likely it is to appoint an outside CEO, a move that investors view positively, as evidenced by increased stock returns. Beasley and Petroni (2001) also find that when boards are more independent, they will hire higher-quality auditors to audit their firms, leading to superior financial reports. Weisbach (1988) and Renneboog (2000) both find that levels

of board independence is positively related to the likelihood of management departure from firms with poor performance.

The empirical evidence also suggests that board independence results in the introduction of better internal control mechanisms. Goh (2009) reports that, compared to firms with less independent boards, firms with more independent boards are more likely to address material weaknesses in internal control in a more timely manner. Ahmed and Duellman (2007) also find that accounting conservatism increases as the proportion of outside directors appointed to the board increases. The appointment of independent directors has also been shown to reduce the likelihood of disadvantageous related-party transactions (Dahya, Dimitrov, & McConnell, 2009) by limiting opportunities for collusion and wealth transfer that exist when management dominates the board (Fama, 1980). Anderson, Mansi, and Reeb (2004) also report that independence of the board is associated with lower costs of debt financing. They suggest that active monitoring of the financial accounting process by independent directors is important to creditors. Setia-Atmaja, Haman, and Tanewski (2011) also find that director independence is effective in reducing earnings management in family controlled firms.

A significant body of empirical evidence also shows that board independence is associated with mitigating management misconduct. Dechow, et al. (1996) find that boards of fraud firms are significantly less independent than boards of non-fraud firms. Beasley (1996), Beasley, Carcello, Hermanson, and Neal (2010) and Farber (2005) also all report that fraud firms have fewer independent directors on their boards than non-fraud firms,. Zhao and Chen (2008) also find a negative relationship between fraud firms and board independence.

Persons (2006) investigated non-financial reporting fraud and found the likelihood of non-financial reporting fraud was lower when the company had a large proportion of independent directors on the boards. Uzun, et al. (2004) focused on four fraud types (stakeholder fraud, government fraud, financial reporting fraud, and regulatory violation) in their investigation of the association between fraud and board composition. They find that the likelihood of all types of fraud decreases when the proportion of independent directors on the boards increases. Donelson, McInnis, and Mergenthaler (2012) find that as a result of the Sarbanes Oxley Act of 2002 increasing overall board independence, the rate of financial accounting fraud in the US has fallen. Amoah and Tang (2010) also report that increasing the independence of the board reduces the likelihood of restatement-induced shareholder litigation. While most studies focus on fraud in the US, similar evidence has been found in other western studies. For example, Sharma's (2004) investigation of fraud in Australia finds a positive link between board independence, institutional ownership and a reduction in the likelihood of fraud. Seamer (2008) also finds that management perpetrated fraud in Australia decreases when the proportion of independent directors on the boards increases. Smaili and Labelle (2009) report that accounting irregularities are more likely to occur in Canadian firms with fewer independent directors when compared to firms with higher levels of independent directors. Kryzanowski and Zhang (2013) also find that the likelihood of financial disclosure restatement by Canadian firms decreases as the proportion of unrelated directors on the board increases.

While a significant body of evidence supports the contention that independent boards are effective in reducing management misconduct, evidence regarding their impact on overall firm value is less clear. Studies by Bhagat and Black (2000), Hermalin and

Weisbach (1991), Klein (1998) and Rosentein and Wyatt (1990) all report inconsistent findings regarding an association between board independence and overall firm performance. While Cotter and Silvester (2003) find no evidence in Australia of an association between board independence and firm value, Christensen, Kent, and Stewart (2010) actually report a negative relationship between the value of Australian firms and board independence. Notably, this finding is consistent with Stewardship Theory. Duchin, Matsusaka, and Ozbas (2010) hold that increasing independence of boards can result in either positive or negative increases in firm value depending on the cost of acquiring information. When costs of acquiring information is low, increasing independence of the boards increases firm value. When costs of acquiring information is high, increasing independent board independence lowers firm value.

### ***Empirical Studies of Board Effectiveness in Developing Countries***

Whereas the empirical evidence from studies of board effectiveness in developed nations is largely consistent,<sup>8</sup> results of research on the relationship between board independence and positive firm outcomes in developing countries, such as those in Asia, are mixed. For example, Chen, et al. (2006) study the relationship between board independence, ownership structure and boardroom characteristics on the incidence of fraud in China. Their study of 169 firms alleging fraud shows more independent boards are associated with a lower incidence of fraud. However, similar studies in China (Huang & Liang, 2008), Taiwan (Wang, et al., 2010) and Malaysia (Hasnan, et al., 2009; Nelson, 2012) find no association between fraud and the level of board independence. Studies in Hong Kong show a positive link between board independence

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<sup>8</sup> Agrawal and Chadha (2005) and Persons (2005) do not find any association between board independence and fraud incidence.

and the quality of financial reports (Chen & Jaggi, 2000) and a reduction in earnings management (Jaggi, Leung, & Gul, 2009). This is consistent with western evidence. However, both studies highlight that the influence of independent directors on both disclosure and earnings management is less evident in family-controlled firms. This suggests that types of firm ownership may impact on the monitoring processes of independent directors. Similar inconsistencies are found in Malaysian studies. For example, while Rahman and Ali (2006) find independence of the boards has no relationship with earnings management, Ahmad and Mansor (2009) report that the existence of non-executive directors is important in preventing management from indulging in income smoothing activities.

In relation to the effect board independence has on firm value in the context of developing economies, most studies of Asian firms fail to find any relationship. Nowland's (2008) study of 221 companies from seven East Asian nations (Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan and Thailand) reports that despite corporate governance mechanisms having a role in improving operating performance, independence of the board was actually associated with lower firm value. Ararat, Orbay, and Yurtoglu's (2010) study of Turkish firms found a similar negative relationship between firm performance and board independence. In Thailand, Yammeesri and Herath (2010) also conclude that there is no evidence to support a positive relationship between firm value and the independence of the board. Adopting a stewardship perspective, they conclude that as many Thai firms are family held businesses, boards will seek to maximise firm value regardless of their level of independence. However, Polsiri and Sookhanaphibarn's (2009) investigation of the association between corporate governance and the likelihood of Thai firms experiencing corporate distress finds that

higher levels of controlling shareholders and non-independent directors reduces the likelihood of corporate financial distress. Pathan, Skully, and Wickramanayake (2007) find that independent directors are effective in monitoring, which ultimately leads to better firm performance by Thai banks. Chen, et al. (2011) also finds independence of the board is not related to firm performance in their Chinese study and suggests that adopting the OECD prescribed corporate governance practices may not necessarily improve firm values in a Chinese setting. A recent study by Van Essen, Van Oosterhout, and Carney (2012) also posits that boards are not as crucial an internal governance mechanism in Asian firms, compared to Western firms, and conclude that there is no relationship between firm performance and board independence. They also argue that as concentrated shareholding is more common in Asia, boards can rely on blockholders to actively monitor management.

Several theorists argue that, in developing economies, ‘independent’ boards cannot be expected to monitor management as truly independent directors rarely exist (Lin, 2013). Since many firms in developing countries have concentrated ownership, controlling owners are usually directly involved in management (Bennedsen, 2002) and tend to dominate board proceedings including the outside-director selection process (Rahman & Ali, 2006). Another significant argument is that, in developing economies, independent directors are often appointed to the board only to comply with the regulations and have inadequate knowledge of the firm or the time to devote to monitoring management (Yamneesri & Herath, 2010). Chen, et al., (2011) argue that adopting OECD corporate governance best practices in emerging economies is not relevant as OECD best practice is not designed specifically to solve the conflict between controlling shareholders and minority shareholders.

### **2.5.1.2 Board Sizes**

As previously outlined, the board of directors is of vital importance to the firm as they have responsibility for setting the firm's objectives, monitoring and controlling its management, and making key decisions (Fama & Jensen, 1983). A substantial amount of literature is devoted to the issue of the appropriate size for a board. Jensen (1993) proposes that there is a negative relationship between board size and effectiveness, because of coordination and process problems in larger boards. Moreover, compared to smaller boards, larger boards may be faced with 'free-riding'<sup>9</sup> director problems and can be easily dominated by the CEO (Hermalin & Weisbach, 2003). Several studies provide evidence that smaller boards are more effective than larger boards, as evidenced by increased firm value (Pathan, et al., 2007; Yermack, 1996). Alternatively, other theorists argue that as larger boards provide better resources and a larger pool of skills for monitoring, they are more effective than smaller boards (Anderson, et al., 2004; Christensen, et al., 2010; Williams, Fadil, & Armstrong, 2005). Heaney (2007) argues that the optimum size of the board is still unclear and one size does not fit all firm characteristics and situations.

The empirical evidence in relation to the impact of board size on the likelihood of management misconduct is inconclusive (He, Labelle, Piot, & Thornton, 2009). For example, compared to smaller boards, larger boards have been shown to be associated with management perpetrated fraud in the US (Beasley, 1996) and China (Jia, Ding, Li, & Wu, 2009) and earnings management in Malaysia (Rahman & Ali, 2006). However, contrary to these findings, many studies do not find a relationship between board size

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<sup>9</sup> A free-riding director is a director who sits on the board but contributes little effort to monitoring the firm.

and the likelihood of fraud. For example, Dechow, et al. (1996) report that the average size of fraud firm boards is not significantly different than those of non-fraud firms. Both Seamer (2008) and Sharma (2004) also conclude that board size is not related to the likelihood of fraud in Australia. Chen, et al.'s (2006) study of Chinese firms also finds no association between fraud and board size.

### ***2.5.1.3 Tenure of Outside Directors***

As previously outlined, outside directors play an important role in monitoring management, the financial reporting process (Brown, et al., 2011) and in helping to protect shareholders' interests (Brickley, Coles, & Terry, 1994). The literature regarding the effect that length of tenure of outside directors has on their efficiency holds that when directors have worked in firms for long periods they develop an important depth of knowledge about the firm and its business environment, resulting in greater commitment and competence (Vafeas, 2003). Buchanan (1974) also argues that a longer tenure of directorship results in greater commitment to the firm and willingness to achieve the firm's objectives. Several studies provide empirical evidence in support of a positive relationship between director tenure and monitoring ability. Kosnik (1987) report that the likelihood of misconduct is less in firms with outside directors with longer tenure. Beasley (1996) and Persons (2005) report similar results, asserting that as senior directors are less sensitive to group pressures to conform, outside directors with longer tenure are more likely to challenge management. Similarly, Chtourou, et al. (2001) , Hashim and Devi (2008) and Liu and Sun (2010) all find that longer board service results in better knowledge, experience and oversight of management, and hence reduced incidence of earnings mismanagement. However, Park and Shin (2004) do not find a connection between outside tenure and earnings management in Canada.

Other theorists argue that lengthy years of board services can create entrenchment and weaken the effectiveness of outside director monitoring. For example, Vafeas (2003) provides evidence of a relationship between lengthy tenure of outside directors and a closer relationship with management, which is presumably detrimental to executive monitoring. Anderson, et al. (2004) also report that long periods of service on the board may impair the overall independence of the board, allowing management to exert undue influence.

#### ***2.5.1.4 Outside Director Board Experience***

Fama (1980) and Fama and Jensen (1983) posit that the competitive market for board placements encourages outside directors to develop their reputations as monitors of management. Therefore, the number of board appointments held by an outside director can be viewed as a proxy for director quality (Vafeas, 1999). Keys and Li (2005) also argue that appointing directors with multiple directorships to a board helps in transferring experience and knowledge from other firms. Ferris, Jagannathan, and Pritchard (2003) also provide empirical evidence of a positive relationship between directors holding multiple directorships and firm performance. However, they find no evidence of an association between directors with multiple directorships and the likelihood of securities fraud litigation. Two Indian studies (Chakravarty, Marisetty, & Veeraraghavan, 2009; Sarkar & Sarkar, 2009) show that outside directors with multiple directorships are more likely to have a positive effect on the value of firms as they have greater experience, knowledge and networks. A recent study in Hong Kong by Lei and Deng (2012) also shows a positive association between independent director board experience and firm value. They conclude that as the market views these directors as superior monitors it places a higher value on the firm.

While these studies support the importance of reputational capital, several scholars (Beasley, 1996; Fich & Shivdasani, 2006; Matoussi & Jardak, 2012) argue that multiple directorships of outside directors may, in fact, impair their effectiveness by limiting their ability to fulfil their oversight responsibilities in each firm. Empirical support is offered by Fich and Shivdasani (2006) who report a link between ‘busy’<sup>10</sup> outside directors and weak corporate governance, leading to poor firm performance. Hunton and Rose (2008) further argue that busy directors tend to be more concerned with their reputations rather than the interests of shareholders in particular firms. They find that busy directors are less willing to restate financial statements to avoid adverse effects on their reputations. Ahn, Jiraporn, and Kim (2010) also argue that busy directors have limited attention capacities and time constraints, and find the resulting decline in effectiveness of managerial oversight results in lower acquisition returns. Beasley (1996) also reports that the number of other directorships held by outside directors is positively associated with the incidence of fraud.

### **2.5.2 The Effectiveness of the Audit Committee**

The audit committee is a sub-committee of the board of directors which is universally recognized as an important mechanism in corporate governance. Agency theory holds that the board’s oversight function is enhanced when the board delegates some of its tasks to a separate committee. Cohen, Krishnamoorthy, and Wright (2004) classify the audit committee’s role into three broad areas: financial reporting oversight, internal control and risk management, and auditor interaction. In Thailand, the SET extends the audit committee’s role from overseeing financial reporting, internal control and external

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<sup>10</sup> Fich and Shivdasani (2006) define ‘busy’ outside directors as directors who also serve as directors on several other boards.

auditor relations to reviewing related party transactions and legal compliance (SET, 2008). Bédard and Gendron (2010), in their review of audit committees from 1994 to 2008, find that audit committees improve firms' effectiveness in four broad areas: financial reporting quality, external auditing functioning, internal control and investors' perceptions of the firm.

Since audit committees are responsible for the oversight of the financial reporting process and internal controls, it is reasonable to expect that the audit committee should mitigate the risk of fraud. However, studies of fraud in companies with audit committees have produced mixed results. While Dechow, et al. (1996) and Uzun, et al. (2004) report a positive relationship between the presence of an audit committee and a reduction in fraud, Beasley (1996) finds no association between audit committee existence and fraud. A recent study by Kiatapiwat (2010) in Thailand also reports no relationship between the presence of an audit committee in firms with controlling shareholders, and earnings quality.

Over the last two decades, several fraud scandals have focussed on the audit committee's role in monitoring the reporting process. Several audit committee attributes such as composition, authority, resources and diligence have been identified as being important to their effectiveness (DeZoort, Hermanson, Archambeault, & Reed, 2002). Regulators such as the NYSE, ASX and SET require the audit committee to comprised of at least three independent directors, one of whom must have accounting or financial management experience and qualifications. The literature also highlights three main characteristics influencing the effectiveness of the audit committee: independence, expertise and diligence.

### ***2.5.2.1 Independence of Audit Committee***

As the primary role of an audit committee is to monitor the financial reporting process and the internal control system implemented by management, independence from management is considered crucial in strengthening the audit committee's monitoring role. Abbott, et al. (2004) argue that as independent members are free from management influence, they are more likely to ask questions of management. Further, as they need to maintain and build their reputations, they have incentives to be more diligent monitors of management. Abbott, Park, and Parker (2000) also state that potential legal liability is an additional motivation for independent audit committee members to fulfil their fiduciary tasks.

Empirical studies show a positive correlation between audit committee independence and the quality of financial reporting. DeZoort and Salterio (2001) find that audit committees with more independent and financially knowledgeable members are more likely to support the auditor in an accounting dispute with management, even if inside directors on the board support management's position. Collier and Gregory (1999) also find that annual audit committee activities (number and length of meeting) are lower in firms with less independent audit committees in the UK, compared to firms with more independent audit committees. Carcello and Neal (2003) examine the relationship between the proportion of affiliated directors on the audit committee and the optimism of firms' going-concern disclosures. They find that independent audit committees increase the quality of financial reporting by disclosing more information, particularly in firms experiencing financial distress. Persons (2009) also finds that firms with more independent audit committees are more likely to voluntarily publish ethics reports than those with less independent audit committees. Cotter and Silvester (2003) also report

that audit committee independence can reduce monitoring by debt holders when leverage is low, and a fully independent audit committee can lower the cost of debt financing (Anderson, et al., 2004). Hoitash and Hoitash (2009) also suggest that increasing audit committee independence leads to an improvement in the independence of the auditor and audit quality generally.

A considerable body of literature shows a positive association between audit committee independence and a reduced likelihood of management misconduct. Abbott, et al. (2004) studied 88 firms where the SEC required a restatement of their financial reports and found that the occurrence of restatement was less likely if the audit committee was independent. Beasley, et al. (2010) also found fraud firms were less likely to have an audit committee than no-fraud firms. Further studies by Bédard, Chtourou, and Courteau (2004) and Davidson, Goodwin-Stewart, and Kent (2005) and Klein (2002) all show that earnings management is minimized when an audit committee is more independent. Persons (2005) shows that the likelihood of fraud is reduced when audit committees are comprised solely of independent directors. Beasley, Carcello, Hermanson, and Lapides (2000) also find a similar negative relationship between independent audit committees and fraud in the US technology, health care, and financial services industries. Mustafa and Meier (2006) provide evidence that an independent audit committee is also effective in monitoring asset misappropriation. They find that the incidence of misappropriation of assets is minimized when the audit committee is independent. There are some studies that precluding conflicting finding. For example, Abdullah, Yusof, and Nor (2010) find that financial restatement is more likely to occur in firms with more audit committee independence in Malaysia. Owens-Jackson, Robinson, and Shelton (2009) argue that audit committee independence may not totally

eliminate fraudulent financial reporting when managerial ownership is low. Further, offering short-term option grants for an audit committee may reduce its oversight quality (Archambeault, Dezoort, & Hermanson, 2008).

While the empirical evidence highlights the importance of an independent audit committee, some researchers question whether the committee should be comprised entirely of independent directors. For example, although Bédard, et al. (2004) and Klein (2002) find the proportion of outside directors on the audit committee is associated with reducing abnormal accruals, they do not find any difference between firms with wholly independent audit committees and those with a majority independent audit committee. In the Australian setting, Davidson, et al. (2005) report that while audit committees with a majority of independent members are effective in limiting earnings management, no such effect is observed in relation to wholly independent committees. Conversely, Persons' (2005) study shows that fraud likelihood is lower when the audit committee is comprised only of independent directors. Bronson, Carcello, Hollingsworth, and Neal (2009) find that the effectiveness of monitoring is maximized only when the audit committee is completely independent. Despite inconclusive evidence regarding whether entirely independent audit committees are more effective in monitoring than majority independent committees, most corporate governance best practices (including SET's) advocate that all audit committee members should be independent directors.

### **2.5.2.2 Audit Committee Expertise**

Another characteristic of audit committees which can increase the effectiveness of their financial reporting monitoring is the financial knowledge of audit committee members. It is presumed that audit committees will be more effective in monitoring the financial reporting process and internal control systems if its members have accounting/finance knowledge which enables them to detect any irregularities in financial reporting (Persons, 2005) and prevent possible reporting failures, litigation and investigation from policy makers (Krishnan & Lee, 2009). Similarly, regulations such as the Sabanes-Oxley Act and the Thai Stock Exchange rules require members of audit committees to be financially literate with at least one member being a financial expert.<sup>11</sup>

The empirical evidence shows that audit committees with financial expertise are more effective than audit committees with no financial expertise. Pomeroy (2010) uses experimental methods to examine the effect of accounting experience on the ability of 77 business professionals to make appropriate accounting decisions. His study finds that audit committees with greater levels of accounting experience make more appropriate accounting decisions compared to audit committees with lower levels of accounting experience. Bédard, et al. (2004) also find that the presence of at least one member with financial expertise on the committee is more likely to reduce aggressive earnings management. Using meta analysis, Lin and Hwang (2010) also report a negative relationship between audit committee expertise and earnings management. However, Persons (2009) does not find any association between financial expertise of the audit committee and earlier voluntary ethics disclosure.

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<sup>11</sup> SET outlines that audit committee members can gain financial knowledge through education and experience, for example, experience as a certified public accountant, auditor or controller.

In addition to increasing the quality of financial reports, prior studies suggest that audit committee expertise may mitigate the risk of management misconduct and fraud. This is not surprising given the literature recognizes that internal controls are the best proactive mechanism to prevent fraud (Rezaee, 2005) and several studies (Krishnan, 2005; Zhang, Zhou, & Zhou, 2007) show internal control systems are superior when overseen by an audit committee with financial expertise. DeZoort and Salterio (2001) also argue that an audit committee with financial knowledge not only improves internal control but also allows members to understand and judge audit issues and risks when they review financial reports. Empirical evidence is provided by Abbott, et al. (2004) who find that financial restatement is negatively associated with an audit committee if the committee has at least one member with financial expertise. Farber's (2005) investigation of the association between the quality of governance mechanisms and the credibility of the financial reporting system also finds that fraud firms have fewer financial experts on the audit committee than non-fraud firms. Agrawal and Chadha (2005) also report that restated earnings are lower in firms with an audit committee with greater levels of expertise in accounting. A recent study in Canada also finds a restatement is less likely for firms with an audit committee which has at least one director with financial expertise (Kryzanowski & Zhang, 2013). Mustafa and Youssef (2010) also find that having an audit committee with financial knowledge can decrease the occurrence of misappropriation of assets in publicly held companies. Persons (2005), however, does not find any association between financial expertise and a reduction in the incidence of fraud. Cohen, Hoitash, Krishnamoorthy, and Wright (2011) argue that audit committees with financial expertise alone do not reduce restatements, however, the combination of financial expertise and industry specialization of audit committees helps to mitigate restatements.

### **2.5.2.3 Audit Committee Diligence**

DeZoort, et al. (2002) highlight that the diligence of the audit committee is another important factor determining its effectiveness. They define ‘diligence’ as “the willingness of committee members to work together as needed, to prepare, ask questions, and pursue answers when dealing with management, external auditors, internal auditors, and other relevant constituents” (DeZoort, et al., 2002, p. 45). As diligence is difficult to measure, several studies have used the number of audit committee meetings as a proxy for diligence (DeZoort, et al., 2002). Corporate governance best practice recommendations, including the SET’s, recommend that audit committees should hold at least four meetings a year. The more frequent the meetings, the more time the audit committee can devote to the monitoring and effective control of the financial reporting process (Karamanou & Vafeas, 2005). Consistent with this view, Lin and Hwang (2010) use meta-analysis of 48 previous studies and find a negative relationship between the number of audit committee meetings and the incidence of earnings management. Chtourou, et al. (2001) also suggest that independent audit committees that have meetings more than twice a year are more effective in reducing earnings management compared to those that meeting no more than twice a year. Anderson, et al. (2004) also report a positive link between the numbers of meetings and lower debt costs. Anderson, et al. (2004) show that active monitoring in the accounting process by the audit committee is important to creditors. Frequency of audit committee meetings has also been shown to be associated with the hiring of a better quality auditor (Hoitash & Hoitash, 2009). Using the number of audit committee meetings as a proxy for active monitoring, Ndofor, Wesley, and Priem (2013) find that the likelihood of financial reporting fraud by top managers decreases as the number of audit committee meetings increase.

Despite these findings, other studies have failed to find a link between frequency of audit committee meetings and improved monitoring. For example, Bédard, et al. (2004) find no association between the level of audit committee activity (meetings) and the incidence of earnings management. Rahman and Ali's (2006) study in Malaysia also fails to find any association between audit committee meetings and earning management. While in a study conducted in Thailand, Thoopsamut and Jaikengkit (2009) also fail to find a relationship between earnings management and audit committee meeting frequency.

In terms of fraud prevention, Beasley, et al. (2000) report that in US technology and health-care industries, audit committees in fraud firms meet less often than those in non-fraud firms. Farber (2005) also reports similar results. He finds that before the incidence of fraud, fraud firms have fewer audit committee meetings than non-fraud firms, but the trend reverses in post-fraud years. Owens-Jackson, et al. (2009) likewise find a negative relationship between the number of audit committee meetings and the likelihood of fraud. Abbott, et al. (2004) also use the frequency of audit committee meetings as a proxy of audit committee diligence and find a negative association between frequency and an occurrence of financial restatement. They argue that frequent meetings with internal auditors help to direct the appropriate level of internal audit resources to dealing with the accounting or auditing issues, while frequent meetings with external auditors facilitates the direction of additional external audit resources resulting in better quality financial reports.

Other studies, however, do not find a link between the frequency of audit committee meetings and increased monitoring. For example, Persons (2005) and Uzun, et al.

(2004) find no association between audit committee meetings and fraud. Mustafa and Meier (2006) also report that frequency of meetings is not associated with the incidence of misappropriation of assets.

### **2.5.3 Remuneration Committees and Nomination Committees**

As previously discussed, to enhance the effectiveness of the board's ability to oversee management, the board often delegates part of its decision making process to board sub-committees. Two additional committees, the remuneration committee and nomination committee, are widely recognised as an important part of a firm's governance environment (Carson, 2002; Jensen, Murphy, & Wruck, 2004).

Regulators also view the remuneration and nomination committees as important. For example, SET (2008) prescribes that both committees should be comprised of at least three members, a majority of whom should be independent directors. The guidelines also recommend that the chairman of the committee should also be an independent director and the committee should not contain any executive directors. To further ensure the committee's independence, the chairman of the board should not sit on either of the remuneration or nomination committees.

Remuneration committees, sometimes referred to as compensation committees, are a subgroup of the main board with responsibility for determination of executive management pay and benefits. Conyon and Simon posit that remuneration committees are important as in their absence "there exists an opportunity for senior executives to award themselves pay raises that are not congruent with shareholder interests" (1998, p. 148). Remuneration committees, therefore, are crucial in reducing agency conflict

between shareholders and management by ensuring appropriate levels of management compensation (Klein, 1998).

However, the empirical evidence supporting the importance of the role of remuneration committees in corporate governance is limited and mixed (Carson, 2002). For example, while Vafeas (2000) finds that independent committee members are crucial in determining appropriate executive pay, Main and Johnston (1993) and Thompson (2005) report remuneration committees have little impact on the compensation structure in the UK. In fact, Main and Johnston (1993) find compensation levels in firms with remuneration committees are actually higher than those in firms with no remuneration committees. Sakawa, Moriyama, and Watanabel (2012) also report that remuneration committees facilitate short-term incentives in Japan at the expense of long-term incentives. Another recent study by Gregory-Smith (2012) reveals that increasing the role of independent non-executive directors in the pay-setting process does not reduce CEO pay. Conyon and Simon (1998) also argue that CEO compensation may be driven by the market which may not be consistent with the committees' terms of reference and that executive directors may collude with non-executive directors to increase overall director compensation.

The role of a nomination committee is "to consider and recommend to the board the process and criteria for the nomination of directors and select and recommend qualified candidates for directorship" (SET, 2008, p. 2). Carson (2002) argues that the nomination committee has two important roles in corporate governance: establishing the essential skill set required of new directors and reviewing the performance of the board.

The literature posits that the CEO can influence the boards' decisions, including those relating to director selection (Hermalin & Weisbach, 2003; Mace, 1971). Therefore, the nomination committee can be expected to act as an institutional mechanism to improve the director appointment process (Kaczmarek, Kimino, & Pye, 2012) resulting in a strengthening of board independence and a reduction of the influence of the CEO (Kaczmarek, et al., 2012; Ruigrok, Peck, Tacheva, Greve, & Hu, 2006). Vafeas (1999) and Shivdasani and Yermack (1999) also posit that nominating committees reduce the influence of the CEO and management on the board. They provide evidence that firms without nominating committees appoint fewer independent directors than firms with nominating committees. Eminent and Guedri (2010) also argue that the labour market also views the presence and independence of the nominating committee as an important gauge of a director's reputation, and therefore rewards those directors with subsequent appointments.

## **2.5.4 CEO Dominance of the Board**

### ***2.5.4.1 Duality of the Roles of Board Chairman and CEO***

Many corporate governance best practices recommendations hold that separation of the roles of CEO and Chair strengthens the independence of the board by increasing accountability and creating an appropriate balance of power between board members and management (OECD, 2004). As the CEO is recognised as having the most influence over the board's corporate strategic decision making (Lorsch & MacIver, 1989; Mace, 1971), Hermalin and Weisbach (2003) argue that a dominant CEO prefers a less independent board in order to control its processes. Carcello, Neal, Palmrose, and Scholz (2011) provide evidence consistent with this in their finding that when the CEO is involved in the director selection process, the effectiveness of management

monitoring is impaired, thereby neutralizing the ability of an independent audit committee with financial expertise to reduce the likelihood of restatement.

Numerous studies provide empirical evidence supporting the benefits of separating the roles of CEO and chairperson, particularly in reducing the incidence of management misconduct. Dechow, et al. (1996) find that firms manipulating earnings are more likely to have the chairperson also serving as the CEO. Zhao and Chen (2008) also report the likelihood of fraud increases in firms with CEO/Chair duality. Persons (2005) examines the relationship between the likelihood of financial statement fraud and corporate governance in the US, and reports that the likelihood of fraud is lower when the CEO is also not chairman of the board. Chapple, et al. (2009) find the concentration of power in a dual CEO/Chair increases the opportunities for asset misappropriation. Sharma (2004) examines the relationship between board characteristics and the incidence of fraud in Australia and also finds a positive association between CEO/Chair duality and the likelihood of fraud. Smaili and Labelle (2009) also find that accounting irregularities increase when the chairperson also holds the CEO position.

The empirical evidence also suggests that a dual CEO/Chair can affect the quality of reporting and overall firm value. Nowland (2008) finds that in East Asian companies, firm performance is more likely to increase when the positions of the Chair and the CEO are separated. Webb (2004) examines board structures of socially responsible firms and finds that these firms are more likely to separate the position of CEO from Chair compared to firms not exhibiting social responsible characteristics. In the Malaysian context, Hashim and Devi (2008) find that separation of the CEO and chair roles increases the quality of earnings reporting. In China, Xiao and Yuan (2007) also

show that CEO/Chair duality deteriorates the effectiveness of management oversight by lowering corporate voluntary disclosure

However, not all theorists view CEO/Chair duality negatively. Stewardship theory posits that duality of the CEO/Chair improves the effectiveness of monitoring since the empowering structure is unambiguous and provides executives with clear goals (Donaldson & Davis, 1991). Stewardship theory assumes that as there is no inner motivational conflicts among executives, CEO/Chair duality aligns the interest of executives and principals (Davis, et al., 1997). Several studies provide evidence to support the stewardship theory view. For example, in Australia, Donaldson and Davis (1991) find firms with CEO/Chair duality outperform firms with non-CEO/Chair duality in terms of return to shareholders. Peng, Shujun, and Xinchun (2007) also find that in the Chinese context, firm performance increases when the CEO also serves as the Chair. The authors argue that CEO/Chair duality is more advantageous in situations such as resource scarcity and environmental dynamism. Van Essen, et al. (2012) also find that in Asia, CEO/Chair duality leads to more investment in R & D which may in turn have a positive association with firm performance. They argue that since Asian firms are often dominated by controlling shareholders, CEO/Chair duality strengthens management power and legitimate risk taking. In Thailand, Rachapradit, Tang, and Khang (2012) argue that the CEO is more accountable for firm performance when they also hold the position of Chair.

Braun and Sharma (2007) also argue that the influence of separation of the roles of CEO and Chair on firm value depends on a firm's ownership structure. Their study of the association between firm performance and CEO/Chair duality in US family controlled

public firms finds that CEO/Chair separation increases firm value only when family ownership is low. Lam and Lee (2008) also find that CEO/Chair duality improves accounting performance in non-family firms, but not for family-controlled firms in Hong Kong. They argue that in non-family firms, the CEO is often an outside professional director who has important skills and knowledge of their industry. As the CEO of a family firm often comes from the controlling family, this can lead to entrenchment problems, expropriation, and compromised accounting performance. Ramdani and Witteloostuijn (2010) examine the relationship between firm value and CEO/Chair duality in four Asian countries (Indonesia, Malaysia, South Korea and Thailand) and find that separating the CEO and Chair roles is effective in an average-performing firm, but is not as effective in either low or high performing firms.

In relation to fraud, however, studies by Beasley (1996) and Crutchley, et al. (2007) conclude that the likelihood of fraud is not associated with CEO/Chair duality. Uzun, et al. (2004) also find that the influence of the CEO on the board does not detract from its effectiveness in monitoring for fraud. Chen, et al.'s (2006) study of the relationship between ownership structure, corporate governance and fraud in Chinese firms also does not find an association between CEO/Chair duality and fraud. Firth, Fung, and Rui (2007) also conclude that duality of Chair and CEO roles has no significant impact on the informativeness of earnings.

#### **2.5.4.2 CEO Tenure**

As previously outlined, the CEO is the most important position in a firm, having overall responsibility for all operations and goal setting for the firm. The literature regarding whether the length of CEO tenure improves or compromises operation of the firm is

mixed. For example, Zhang (2010) argues that at the beginning of their career, a CEO with short tenure is more likely to be aggressive when reporting earnings compared to a CEO with longer tenure. As the ability of a new CEO is unknown to the market, the CEO is motivated to prove their competence through achieving short-term company goals. Persons (2006) finds evidence supporting this reputational effect and reports that the likelihood of non-financial reporting fraud is lower in firms which have CEOs with longer tenure than CEOs with shorter tenure.

Alternatively, the literature also recognizes that a long tenure CEO may lead to weaker corporate governance and more ineffective internal controls, increasing the likelihood of fraud. Hermalin and Weisbach (2003) argue that a long serving CEO has relatively more power over the board than a new CEO which may reduce the board's effectiveness in monitoring and fraud prevention. Alexander and Cohen (1999) also find that CEO tenure increases the likelihood of entrenchment which drives an increase in the likelihood of corporate crimes. Cheng, et al. (2011) also provide evidence that financial restatements are more likely to occur in firms with a dominant CEO (measured in terms of CEO duality and long tenure).

Walters, Kroll, and Wright (2007) show evidence that the performance of firms is negatively associated with CEO tenure, particularly when levels of CEO tenure rise to substantial levels. This is supported by Hambrick and Fukutomi (1991) who argue that the accumulated power accruing to a long serving CEO can be expected to lead to deterioration in performance. Dezso (2006) also finds that an entrenched CEO leads to poorer performance. Zhang (2010) also argue that a long-tenured CEO is more likely to present more aggressive earnings management in the final years of tenure as they are

not as concerned about their reputation. Similarly, Zhang, Bartol, Smith, Pfarrer, and Khanin (2008) also find that longer-tenured CEOs with more out of the money options<sup>12</sup> are more likely to manipulate a firm's earnings at the end of their careers as they have little time left to secure the benefits from these options. A study in Taiwan (Tsai, Hung, Kuo, & Kuo, 2006) shows that this entrenchment problem is applicable only to non-family controlled firms. They find that as the family in family controlled firms has the power to replace the CEO, CEO tenure has less effect.

However, several studies in the US fail to find an association between CEO tenure and fraud or financial irregularities. For example, Agrawal and Chadha (2005) find that the likelihood of earning restatement is not associated with CEO tenure. Beasley (1996) and Saksena (2003) also conclude that CEO tenure is not related to the incidence of fraud. Burns and Kedia (2006) also find no significant difference in the length of service for a CEO in firms with accounting restatement compared to no-restatement firms. Uzun, et al. (2004) also find that the likelihood of fraud is not related to the tenure of CEO.

### **2.5.5 Ownerships and Corporate Governance**

This section outlines the literature regarding the effects of different types of ownership structures that can impact on the operation of corporate governance mechanisms. These include substantial ownership of the firm's shares by management, foreign shareholders and institutional investors.

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<sup>12</sup> Out of the money options are the options where the grant price is higher than the current market value. These options are issued with the assumption that the valuation will be positive in the future.

#### ***2.5.5.1 Management Ownership***

Agency theory posits that management will seek to maximize their own benefits at the expense of shareholders. Fama and Jensen (1983) propose that managerial ownership of the firm's shares can reduce agency problems by aligning the interest of managers with those of shareholders. As managerial ownership increases, managers have more incentives to maximise firm value (Jensen & Meckling, 1976). Management would also be less likely to intentionally manipulate earnings or be involved in fraudulent activities as their personal wealth is bound to general firm well-being (Pergola & Joseph, 2011). Warfield, Wild, and Wild (1995) provide evidence by showing a positive association between levels of management ownership and earnings informativeness and accounting choices. Alexander and Cohen (1999) also find that corporate crime occurs less frequently in firms where management hold a larger ownership stake. Kryzanowski and Zhang (2013) find that management ownership reduces agency conflicts resulting in lowering the likelihood of financial restatement in Canada. Chen and Yur-Austin (2007) argue that the effectiveness of monitoring depends on types of firm ownership and the nature of agency conflicts. For example, they suggest that management ownership is more effective in improving firm asset efficiency while outside blockholders are more important in mitigating managerial extravagance.

Some scholars argue that the effectiveness of alignment depends on the actual level of concentrated management ownership. Leung and Horwitz's (2004) study of Hong Kong firms finds that as managerial ownership rises from 1% to 25%, voluntary segment disclosure increases. They argue that at this level of ownership, management have an incentive to maximize firm value. However, as the level of managerial ownership exceeds 25%, voluntary disclosure levels decline suggesting that there is an

entrenchment problem at higher levels of ownership, which potentially perverts disclosure behaviours. Skousen and Wright (2008) report that in the US, increasing management ownership reduces the likelihood of fraud, but only as long as each manager does not hold a substantial amount of the firm's stocks. Paradoxically, when management holds a large portion of the firm's shares, the likelihood of fraud increases. Pergola and Joseph (2011) argue management ownership can create an entrenchment problem. This then leads to poor monitoring particularly when management hold sufficient equity to deliver them power to overcome corporate governance and internal controls, thereby allowing managers to act in their own interest. Karamanou and Vafeas (2005) also find evidence of an entrenchment problem when insider ownership increases, resulting in less precise forecast disclosures.

Pergola and Joseph (2011) also find that when management holds between 30% and 50% of a firm's equity, the resulting entrenchment reduces the quality of earnings disclosures. In Australia, Cotter and Silvester (2003) also report that management ownership is negatively related to board independence, suggesting that high management ownership reduces the independence of the board, and thereby detracts from effective monitoring. In relation to corporate fraud, Sen (2007) shows that increasing managerial ownership does not necessarily diminish the likelihood of fraud. Cheng and Warfield (2005) argue that while management ownership may reduce agency conflicts, equity incentives given to management may increase the likelihood of earnings manipulation. Their study provides evidence that managers with high equity incentives are motivated to meet analysts' forecasts and tend to sell their equity after earnings management has occurred.

Given that ownership in Asian firms is usually not as separate from control as in Western firms, several studies show that concentrated management ownership increases the likelihood of expropriation from other shareholders (Lemmon & Lins, 2003; Oh, et al., 2011; Wiwattanakantang, 2001). In Thailand, Wiwattanakantang (2001) argues that expropriation is likely to arise when controlling shareholders are also involved in management of the firm. Her study shows that when management holds between 25 and 50% of the firm's equity, entrenchment problem occur which lower firm value. Dunn (2004) also argues that as management ownership concentrates power in the hand of management, they can exercise control over the board leading to decisions which may harm the firm, including issuing fraudulent financial statements. Owens-Jackson, et al. (2009) also find that firms with shareholders appointed to management positions are more likely to commit financial fraud. However, several studies find no association between managerial ownership and fraud, accounting irregularities or earning management (Abbott, et al., 2004; Beasley, 1996; Crutchley, et al., 2007; Erickson, Hanlon, & Maydew, 2006; Hashim & Devi, 2008; Sharma, 2004; Smaili & Labelle, 2009).

#### ***2.5.5.2 Foreign Ownership***

The literature asserts that foreign investors benefit emerging economies in several ways. Their presence helps promote the development of emerging markets by increasing the value of local companies and improving the inflow of foreign exchange (Mangena & Tauringana, 2007). The evidence also suggests that foreign investors are more likely to avoid investing in countries with poor corporate governance and inadequate transparency (Leuz, Lins, & Warnock, 2009; Mangena & Tauringana, 2007; Mishra & Ratti, 2011). For example, Mangena and Tauringana's (2007) study of Zimbabwe finds

that having foreign ownership is seen as a sign a firm has good corporate governance; this further reduces foreign investors' risks and increases the reliability of firm disclosures. Khanna and Palepu (1999) argue that foreign ownership also provides increased monitoring which they indicate increases firm values in India. Huizinga and Denis (2003) also posit that firms with foreign ownership are able to function well in weak institutional environments as they tend to adopt the higher-quality institutional standards from their investors' home countries. This, therefore, leads to lower costs of capital and enhanced reputation. Oh, et al. (2011) provide evidence that foreign investors improved socially responsible business practices in Korea by encouraging adoption of Corporate Social Responsibility (CSR) standards similar to those in their home country. Claessens and Djankov (1999) report that foreign investment improves firm value in the Czech Republic, where ownership is often concentrated. Wiwattanakantang (2001) also reports that firms with foreign ownership outperform firms without foreign ownership in Thailand. Firms with foreign ownership have also been shown to voluntarily disclose more information to investors than firms without foreign ownership (Xiao & Yuan, 2007). Chin, Chen, and Hsieh (2009) also find that in Taiwan, the presence of foreign ownership from countries with strong investor protection regulations reduces earnings management. Similarly, Chung, Ho, and Kim (2004) find that foreign ownership provides effective monitoring that also deters discretionary accruals by firms in Japan. However, Chen, et al. (2006) argue that foreign ownership has a little impact on the likelihood of fraud in China.

However, in relation to Thailand, Ananchotikul (2006) reports that concentrated holdings by foreign investors has little impact on the firm's corporate governance. She argues that foreign investors actually prefer to invest in firms with weak internal

controls as it provides greater opportunity for them to expropriate from minority shareholders. However, she finds a minority investment by a foreign institutional investor does lead to improvements in corporate governance. Ananchotikul (2006) also finds that the origin of foreign investors determines their impact on corporate governance. For example, corporate governance is poorer in firms with major foreign owners who themselves come from a country with relatively weak governance practices.

#### ***2.5.5.3 Institutional Ownership***

The literature recognizes that institutional ownership<sup>13</sup> is effective in mitigating agency conflicts since such investors have greater incentives to monitor management compared to smaller shareholders (Gillan & Starks, 2003). The literature also shows that the size of institutional investment affects their monitoring role (Johnson, Schnatterly, Johnson, & Chiu, 2010) as a large shareholding creates a greater incentive to actively oversee the firm (Burns, Kedia, & Lipson, 2010; Shleifer & Vishny, 1986). Institutional owners are also under pressure from their investors to maximize returns which motivates them to closely monitor the management of the firms in their portfolio (Johnson, et al., 2010). Kane and Velury (2004) provide empirical evidence that institutional owners are active in monitoring firms. They report a positive relationship between institutional owner holdings and the appointment of higher quality audit firms.

Chung, Firth, and Kim (2002) and Cornett, Marcus, and Tehranian (2008) find that large holdings by institutional investors are associated with limiting the opportunity of

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<sup>13</sup> Institutional investors comprise banks, superannuation and insurance firms as well as financial investment organizations.

managers to manipulate earnings. They argue this is because institutional investors have the motivation, resources and power to monitor management and influence them to focus on long-term performance. Hashim and Devi's (2008) study in Malaysia also finds the likelihood of earnings management is lower in firms with institutional holdings when compared to firms without institutional holdings. Ajinkya, Bhojraj, and Sengupta (2005) also report that firms with high institutional ownership are more likely than firms without high institutional investment to issue accurate management forecasts. Koh's (2003) Australian study finds that small holdings by institutional investors creates an incentive for management to manipulate earnings, but earnings management is mitigated by higher institutional ownership levels.

The literature also recognizes that investment time-frame is another factor affecting the quality of oversight by institutional investors (Johnson, et al., 2010). Short-term institutional investors are recognized as less effective monitors than long-term institutional investors, since their primary goal is to maximize short term returns (Neubaum & Zahra, 2006). Recognizing corporate social performance (CSP) as indicative of creating and sustaining a long-term competitive advantage, Neubaum and Zahra (2006) find that a long-term institutional ownership is positively associated with CSP.

Despite studies showing that institutional investors are effective in monitoring management, the evidence of their impact on the incidence of management misconduct is mixed. A number of US studies such as Beasley (1996), Farber (2005) and Uzun, et al. (2004) fail to find any association between institutional ownership and the likelihood of fraud. Burns, et al. (2010) also argue that the likelihood of misconduct is determined

by the type and level of institutional investment. Firms with transient institutional ownership or institutional ownership that is not active in monitoring, increases the probability of fraud. This is because these investors' decisions are based solely on a firm's performance, which may motivate managers to artificially inflate firm performance and adopt more aggressive accounting practices. However, they do report that institutional investors that are active in monitoring firms do constrain misreporting. In the Australian context, Sharma (2004) finds that greater levels of institutional ownership decreases the likelihood of fraud. She argues that compared to the US and the UK, financial institutions in Australia hold higher stakes in listed firms and are therefore, more motivated to monitor fraud. In Asia, Purfield, Oura, Kramer, and Jobst (2008) highlight that in countries such as China, Indonesia, the Philippines, India and Thailand, institutional investor assets account for less than 15% of GDP, compared to 160% of GDP in the US. They argue this suggests the roles played by institutional investors in Asia and the US may be very different. However, a recent study in China (Wu, Johan, & Rui, 2012) finds that institutional investor ownership is effective in mitigating an incidence of fraud.

The literature also recognizes that banks are a particular type of institutional investor that plays an important role in monitoring firms. In emerging countries, in particular, banks not only act as investors but also have a monitoring role as a finance provider. Being both shareholder and creditor, banks can access more information about firms than other institutions, which gives them comparative information and monitoring advantage (Gillan & Starks, 2003; Millar, Eldomiaty, Choi, & Hilton, 2005). Li (1994) finds that banks have an incentive to closely monitor management which can reduce agency costs not only between shareholders and management but also between

shareholders and debt-holders. Claessens, Djankov, and Pohl (1997) provide empirical evidence that in the Czech Republic, indirect bank ownership improves corporate governance and enhances firm values. In France, Zhao and Millet-Reyes (2007) argue that bank ownership is positively related with higher debt levels. Under debt pressure, managers are more likely to engage in income smoothing to satisfy creditors. In the Thai context, Dhnadirek and Tang (2003) report no relationship between bank ownership and firm performance.

## **2.5.6 Family Dominance of the Firm and Corporate Governance**

### ***2.5.6.1 Family Ownership and Control***

Unlike the US, the UK and Australia, where firms are characterized by widely diffuse shareholdings, firms with a high ownership concentration resting with the founding family are common in Europe and Asia (Claessens & Fan, 2002; Suehiro & Wailardsak, 2004). The literature posits several reasons for the dominance of family ownership in developing economies. Young, et al. (2008) argue that in emerging economies, family ownership enables corporate information to be shielded from outsiders. In the early stages of business development, owners may be unwilling to share information with professional managers or outsider investors due to trust issues. Another explanation for concentrated family ownership is the weak enforcement of property rights (Claessens & Fan, 2002; La Porta, et al., 2000). As legal enforcement in emerging economies cannot guarantee founder managed firm rights (Young, et al., 2008), concentrated ownership allows founders the power to impose and negotiate contracts with others (Claessens & Fan, 2002). La Porta, et al. (1999) and Muth and Donaldson (1998) also argue that strong legal protection rights for minority shareholders is a prerequisite for the presence of widely held companies. Guedhami and Pittman (2006) provide evidence that

ownership concentration is lower in countries with strong securities laws, especially those relating to civil prosecution and criminal litigation against auditors. Another reason for maintaining family control of the firm is to keep potential managerial opportunism in check (Young, et al., 2008). In emerging economies, as both internal and external governance mechanisms are often not effective (Young, et al., 2008), internal markets are preferred to allocate resources and wealth (Bhaumik & Gregoriou, 2010; Claessens & Fan, 2002). As boards of directors cannot rely on institutional support in monitoring and controlling the firm, dominant ownership acts as a monitoring substitute.

Steier (2009) argues that concentrated family ownership is prominent in Asia due to weakness in Asian markets, a high degree of informality and poor protection law for the minorities. In Thailand, Suehiro and Wailardsak (2004) find that even after the Asian financial crisis of 1997, family firms remained the predominant corporate structure. The authors set out three main reasons for the continuing dominance of Thailand family-run firms. Firstly, owner families can recruit professional managers from family members as they tend to be well educated, having often studied abroad. Secondly, there are less restrictive rules preventing family firms dominating minorities. Thirdly, Thai family groups have the ability to quickly adapt to changes in the economy and government policy without losing control. This is a result of entrenched corporate structures and relations with government officials

The literature recognizes that founding families can retain control over their firms in a number of ways. Firstly, the voting rights can be separated from cash flow rights by issuing dual class shares (Bhaumik & Gregoriou, 2010). Another common technique is

through a ‘pyramid’ ownership approach (Bhaumik & Gregoriou, 2010; La Porta, et al., 1999; Morck & Yeung, 2003, 2004). In order to control firms, family members will sit on the top of a ‘pyramid’, and control affiliated companies through a chain of subsidiaries. For example, Muth and Donaldson (1998) state that, by using a pyramid structure, the Ifi family control 20 percent of the voting rights in the Fiat company while holding only 15.47% of the capital. This pyramidal ownership approach is common in several countries, especially in East Asia and Europe (Claessens, Djankov, & Lang, 2000; Muth & Donaldson, 1998). Another way for families to control companies is through cross-shareholding (Bhaumik & Gregoriou, 2010; Muth & Donaldson, 1998; Suehiro & Wailerssak, 2004). Cross-shareholding occurs when a shareholder of one firm holds shares in other firms in order to reinforce their control over the company. Although this method is less transparent, as it requires collusion among shareholders, it is commonly used in Asia (Bhaumik & Gregoriou, 2010). In the Thai context, fewer families manage their ownership structures using pyramids and cross-share-holdings, with most controlling family shareholders holding large amounts of capital directly in the firm (Wiwattanakantang, 2001).

As previously outlined, agency problems occur when owners (principals) and managers (agents) interests are not aligned (Jensen & Meckling, 1976). However, this source of agency conflict (principal-agent) is more likely in developed countries such as the US and the UK, which are categorized by dispersed ownerships. In developing economies, characterized by more concentrated ownership, fewer conflicts between principals and agents arise as ownership and control are combined (Ali, Chen, & Radhakrishnan, 2007; Young, et al., 2008). However, this type of concentrated ownership can create its own conflicts between majority owners and minorities shareholders (also known as the

Principal-Principal model) (Coffee, 2005; Morck & Yeung, 2003; Young, et al., 2008). In family firms, as owners are closely related to managers either through family association or as representatives of controlling shareholders (Young, et al., 2008), managers may not act in the best interests of other minority shareholders (Morck & Yeung, 2003). As these conflicts differ from traditional agency conflicts, a number of scholars assert that governance mechanisms designed to control principal-agent conflict may not be relevant for solving principal-principal conflicts that are common to Asia (Carney, Gedajlovic, & Yang, 2009; Chen, et al., 2011; Claessens & Fan, 2002; Gibson, 2003; Morck & Yeung, 2003; Tsamenyi & Uddin, 2008; Van Essen, et al., 2012; Wang, et al., 2010; Young, et al., 2008).

However, it is expected that family controlled firms may reduce agency conflicts since the family's welfare is tied to firm value. It has strong incentives to monitor any professional managers appointed (Hashim & Devi, 2008; Lee, 2006; Wang, 2006; Young, et al., 2008). Liu, et al. (2012) hypothesise that family owned firms in underdeveloped institutional environments will outperform non-family owned firms, as family control provides better internal control mechanisms and better access to resources. As regulatory asset protection is poor, concentrated ownership gives power and control to monitor and reduce uncertainty. In addition, underdeveloped economies also have limited formal channels to access resources such as labour markets or banks, and therefore, firms are more likely to rely on their own networks and family connections to access resources.

Numerous studies provide evidence supporting the benefits of concentrated family ownership for firms. For example, Lee (2006) shows that in family firms, when

founding family members are involve in management, firm performance increases. Villalonga and Amit (2006) argue, however, that family firms improve their performance only when founding family members serve as CEO or as Chair. Anderson and Reeb (2003) also find that family holding improves firm performance, especially when the CEO is a family member. In Thailand, Yammeesri and Lodh (2004) find that family ownership creates incentives to better monitor the firm resulting in enhanced performance. Dahya, Dimitrov, and McConnell's 2009 study of 799 firms across 22 countries suggests that increasing the independence of the boards benefits firm value even when those companies are controlled by dominant shareholders. They also report that the benefits are greater in countries which have limited minority shareholder rights.

The literature also posits that as concentrated family ownership provides enhanced monitoring which should result in lower incidences of earnings management and fraud. Wang (2006) and Jiraporn and DaDalt (2009) provide empirical evidence that family firms are less likely than non-family firms to manage earnings. Hashim and Devi (2008) also report a positive association between family ownership and earnings quality in Malaysia. They argue that family members reduce agency costs through their greater knowledge of the firm and have greater incentives to monitor. Hasnan, et al. (2009) also find that Malaysian firms with high concentrated family ownership are less likely to experience accounting fraud than Malaysian firms with a lower family ownership. Khalil, Cohen, and Trompeter (2011) also report that family ownership reduces the likelihood of auditor resignations, especially in family firms with a founder CEO. This suggests that family owners are less likely to engage in misconduct or the excessive consumption of private benefits. Peng and Jiang (2010) examine the impact of concentrated family ownership and control on firm values in seven Asian countries.

They report that the effects of family ownership on firm performance vary with the level of shareholder protection in each country. In countries with more developed legal and regulatory institutions, firms receive more of the benefits of family ownership as these countries have fewer opportunities to allow expropriation.

However, many scholars argue concentrated ownership can lead to a number of corporate governance failures. Chau and Leung (2006), Claessens and Fan (2002) and Morck and Yeung (2003) argue that as family managers often have higher ownership of the firm, they are less influenced by corporate governance mechanisms and less likely to be subject to discipline. Claessens, Djankov, Fan, and Lang (2002) examine 1,301 publicly traded corporations in eight East Asian countries and find that the entrenchment effects of family ownerships occurs when owners control rights exceed their cash-flow right, thus reducing firm value.

Several studies show that concentrated family ownership can also moderate the effectiveness of monitoring. Gibson's (2003) study of eight emerging markets finds CEOs in poor performing firms with concentrated shareholders are less likely to be replaced than CEOs in poor performing firms with diffuse ownership. Importantly in the Thai context, Rachapradit, et al. (2012) report that the likelihood of CEO turnover is lower in firms with family control and a family related CEO. Chen and Jaggi (2000) also report that the effectiveness of board monitoring on disclosure of comprehensive financial information is reduced in family controlled firms in Hong Kong. Similar studies by Jaggi, et al. (2009), focusing on Hong Kong, and Haw, Ho, and Li (2011), focusing on eight East Asia countries, also document that family ownership reduces the effectiveness of monitoring in limiting earnings management. Fan and Wong (2002)

examine seven countries in East Asia and also find evidence of a negative relationship between family ownership concentration and the quality of earnings informativeness provided to external investors. They argue that controlling owners have both the power and incentive to manipulate earnings and will seek to report uninformative earnings information designed to keep proprietary information from competitors. Morck and Yeung (2003) also argue that the typical pyramidal structure used by family owners to gain control of affiliated companies means that when there is any loss from the lower level subsidiary, the controlling shareholders do not bear the full economic effects. This removes incentives for controlling shareholders to ensure the activities do not harm the firm (Morck & Yeung, 2004).

Another technique available to family controlled firms to facilitate wealth misappropriation is known as ‘tunnelling’ (Cheung, et al., 2006; Claessens & Fan, 2002; Morck & Yeung, 2003). Bhaumik and Gregoriou (2010) outline that ‘tunnelling’ refers to several forms of expropriation, including misappropriation of cash flows, assets and shares that occurs when the family’s control voting rights exceed their cash flow rights. For example, a family controlled firm may overpay for goods purchased from other family companies to ‘tunnel’ cash or issue new stock to family members at prices below the market value to ‘tunnel’ equity. Chang (2003) provides empirical evidence that in Korea, controlling shareholders use inside information and affiliated transactions to transfer benefits from the firm to their family group. Cheung, et al. (2006) also show that in Hong Kong, the likelihood of expropriation through connected transactions is more likely for firms with concentrated family ownership. Jian and Wong (2010) also find evidence of Chinese firms using artificial sale transactions to controlling family shareholders, to prop up earnings.

Peng, et al. (2011) argue, however, that in China, the likelihood of tunnelling depends on the firm's financial conditions. Controlling shareholders tend to use connected transactions to expropriate benefits from other shareholders when the firm is in sound financial condition, but are more likely to support the firm when it is in poor financial conditions. However, a recent study by Bae, et al. (2012) shows that controlling shareholders will expropriate from minority shareholders during a crisis period. Lemmon and Lins (2003) also find that in times of crisis, firms that are controlled through family pyramid ownership structures underperform relative to firms that are not controlled through family pyramid ownership structures. However, they find no difference in performance between family firms and non-family firms during the pre-crisis period. They contend this is evidence that when firms face financial difficulties, controlling family managers are more likely to engage in conduct contrary to the interests of minority shareholders. Consistent with this view, Polsiri (2004) also finds that in the Thai context, firms with concentrated family ownerships are associated with the exploitation of private benefits during a period of financial crisis.

#### ***2.5.6.2 Block Holding Shareholders***

Jensen (1993) and Shleifer and Vishny (1986) posit that having large block holding<sup>14</sup> shareholders can increase firm value and improve corporate government. They argue that blockholders have strong incentives to monitor management since more of their wealth is tied to the value of the firm and blockholders often appoint a representative to the board in order to protect their interests (Bennedsen, 2002). Edmans (2009) further argues that even when blockholders are not directly involved in management, they are

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<sup>14</sup> Empirical studies commonly define a 'blockholder' as a shareholder holding 5% or more of the entity's equity (Abbott, et al., 2004; Beasley, 1996; Farber, 2005).

still motivated to oversee management in order to make appropriate decisions, regarding selling or buying stocks. This encourages management to focus on long-term growth rather than short-term profit. Several prior studies show that blockholders are effective in monitoring a firm's management. For example, in Australia, Setia-Atmaja (2009) finds that blockholders can proxy for independent directors in terms of governance which leads to increased firm value. Xiao and Yuan (2007) also find a positive relationship between the presence of blockholders and improved accounting disclosures in China.

In terms of fraud prevention, while some studies such as Beasley (1996) and Persons (2006) do not find a relationship between blockholders and fraud, others such as Dechow, et al. (1996), Farber (2005), and Abbott, et al. (2004) report that fraud firms are less likely to have block shareholders than no fraud-firms. Chen and Yur-Austin (2007) argue that the effectiveness of blockholders depends on the types of conflict and the types of block ownership. They report that outside blockholders are important in mitigating managerial extravagance, however, when managers are themselves blockholders in their firms, they are only effective in improving firm asset efficiency.

In relation to a firm dominated by particular ownership groups, the existence of a second blockholder can have significant effects on corporate governance. Isakov and Weisskopf (2009) find that in family dominated firms, the existence of a second blockholder not only reduces agency problems between management and shareholders, but also limits conflict between majority and minority shareholders. They also assert that a second blockholder balances family shareholders' power and prevents the extraction of private benefits. Maury and Pajuste's (2005) study of Finnish listed

companies finds that the existence of a second shareholder can have both negative and positive effects on the firm, depending on the size of the holding and type of blockholder. For example, where a second blockholder holds substantial voting rights, they gain power and incentive to monitor the actions of other larger shareholders. However, the authors note that when the second blockholder represents a second family group, there is a possibility of a coalition being formed which is to the potential detriment of others. Faccio, Lang, and Young (2001) study dividend payments to examine expropriation in family controlled firms in both Europe and Asia. Their study finds that a presence of multiple blockholders, limits expropriation in European firms, but is associated with collusion in Asian firms. However, a recent study by Jiang and Peng (2011) of 877 listed corporations from seven Asian countries shows that the existence of multiple blockholders limits a controlling family's ability to establish structures designed to expropriate.

### **2.5.6.3 *Family CEO***

A CEO appointed from the controlling family has more power to override decisions of the board and can dominate the director selection process (Westhead & Howorth, 2006). This power gives the family appointed CEO more opportunity to extract private benefits and misappropriate wealth from minority shareholders (Lin & Hu, 2007). Prencipe and Bar-Yosef (2011) provide evidence that appointing a CEO from the controlling family reduces board independence and its effectiveness in mitigating earnings management in Italy. Rachapradit, et al. (2012) report, that in Thailand, approximately 60% of family controlled listed firms are controlled by a family CEO. Their study shows that when the CEO is part of the controlling family, they are less likely to be replaced due to poor performance. Chen, Chen, and Cheng (2008) examine voluntary disclosure practices

and find that a firm with a CEO from a controlling family is less likely to disclose good news forecasts than a firm with an independent CEO. Webb (2004) investigates the differences in board structure between socially responsible firms and non-socially responsible firms and finds that firms with a CEO from a controlling family are less likely to be socially responsible. Agrawal and Chadha (2005) also find that the probability of restatement increases when the CEO is appointed from the controlling family.

However, others contend that appointing a family CEO aligns the interest of management with those of shareholders thereby reducing agency conflict (Young, et al., 2008). Lin and Hu (2007) suggest that hiring a CEO from a controlling family leads to better performance in firms with a high potential for management expropriation and low requirements for managerial skill. Anderson and Reeb (2003) also report that S&P 500 firms with a CEO who is a controlling family member outperform those with outside CEOs. Wang (2006) also studies S&P 500 companies and found that a family CEO is associated with higher earnings quality. In Italy, Minichilli, Corbetta, and MacMillan (2010) argue that family CEOs exert strong leadership and reduce agency costs. Mishra, Randøy, and Jenssen (2001) also provide evidence that in Norway, appointing a founding family CEO reduces agency conflicts.

Jiang and Peng (2011) contend that the level of benefits from appointing a family CEO depend on the legal and regularity institutions in the environments in which they operate. They examine eight Asian countries and find that a family CEO increases firm value in countries with less developed legal and regularity institutions and in inefficient markets where resources are difficult to access through formal channels. They believe

that having a family CEO may offer the firm competitive advantages in gaining resources through their private networks. They also find that a family CEO is associated with declining firm performance in countries with more developed regulatory institutions. They posit that since agency conflicts between owners and managers are protected by external governance mechanisms, appointing a family CEO may be less valuable in countries with more developed regulatory institutions.

#### ***2.5.6.4 Family Management***

In family controlled firms, it is common for family members to sit on the board to represent and promote family interests (Anderson & Reeb, 2004; Bennedsen, 2002). Ali, et al. (2007) report that 99% of family controlled firms have family members on the board of directors or have a family member appointed as chairperson. The more family members on the board, the more the family gains power and have the ability to dominate board proceedings to ensure the firm pursues family interests (Anderson & Reeb, 2004).

However, there are two competing views regarding the potential effect of the presence of family members on the board. Agency theory argues that board independence increases the effectiveness of monitoring management (Fama, 1980; Fama & Jensen, 1983), therefore the more family members on the board, the less independent it becomes, thus hindering its ability to monitor. Alternatively, stewardship theory argues that appointing family members to the board increases the board's motives to monitor, as the family's welfare is closely tied to firm performance (Lee, 2006). Kellermanns, Eddleston, Sarathy, and Murphy (2012) provide evidence that family managers appointed from the controlling family do improve firm performance. They assert that

managers appointed from a controlling family carry a sense of responsibility and commitment to the firm. Jiraporn and DaDalt (2009) also argue that as family appointed managers focus on long-term interests, they are not pressured to manipulate earnings for short-term return. Similarly, Hashim and Devi (2008) report that the proportion of family members on the board is positively related to earning quality in Malaysia. Chen, et al. (2008) also contend that family owners have access to better information and a greater incentive to monitor management. Lee (2004) also finds family management performs an effective role in monitoring the firm, and therefore may mitigate the likelihood of fraud. His study also shows that family managers have a positive influence on the firm's operations, especially in achieving cost effectiveness and superior return on investments.

The literature also recognizes that appointing family managers can create entrenchment problems (Morck & Yeung, 2004) since family management will act in the family's interests at the expense of other shareholders (Ali, et al., 2007; Anderson & Reeb, 2004; Lee, 2006). Westhead and Howorth (2006) also claim that family controlled firms appoint family members to managerial positions to maintain control, with little regard to their professional suitability. Boards may also be increased in size solely to employ family members who lack the necessary skills, creating a free-riding problem (Westhead & Howorth, 2006). Oswald, Muse, and Rutherford (2009) provide empirical evidence that firms with family members appointed to the management team experience lower financial performance than firms without family members on the management team. However, Minichilli, et al. (2010) show that the relationship between family management and firm performance is curvilinear. They find that firm performance is maximised when the board is comprised of either all family members or all non-family

members, and declines as representation of either faction increases. The authors contend that a board comprised entirely of family members increases firm value by bonding family wealth with firm performance while a fully non-family board has the power to act in the best interest of all shareholders. Peng and Jiang (2010); Young, et al. (2008) and Young, et al. (2008) also argue that greater family representation on the board allows the controlling family more opportunities to expropriate firm resources. Nikomborirak (2001) reports that in Thai companies, as related party transactions require approval from the board of directors, a board dominated by family members may result in approval of transactions in the interests of the controlling family, but detrimental to other owners. Family directors have also been shown to reduce the monitoring effectiveness of other independent directors. For example, Jaggi, et al. (2009) find that in Hong Kong, independent corporate boards are effective in monitoring earnings management but only when a member of the controlling family does not sit on the board.

### **2.5.7 Audit Quality**

The appointment of an external auditor is an important corporate governance mechanism for enhancing the reliability of financial information and internal control systems. Mansi, Maxwell, and Miller (2004) believe that external auditors have two roles which add value to capital markets: an information role and an insurance role. As agency theory suggests, separating management from ownership increases information asymmetry between the preparer of financial statements (management) and their users (owners/investors). Independent auditors add value by verifying that financial statements reflect the economic condition of the entity. In addition to their information role, the auditor also has as an important insurance role, as securities legislation allows

investors to potentially claim damages from auditors who have acted negligently. The Center for Audit Quality's 2008 Report reveals that litigation and practice protection are one of the major costs for auditing firms and that the trend of litigation against auditors is increasing in both occurrence and quantum.

DeAngelo (1981) theorizes that the quality of audit services is determined by two components: the ability to uncover misstatements and the willingness to report such findings. The literature highlights a link between good corporate governance and audit quality and holds that a quality auditor improves monitoring in firms. Carcello, et al. (2011) argue that an effective audit is a complement to good governance rather than a substitution for it. Beasley and Petroni (2001) provide evidence that firms with more independent boards are more likely to hire higher-quality auditors, which leads to better quality financial reports. Beasley, Clune, and Hermanson (2005) also report that firms which implement an Enterprise Risk Management<sup>15</sup> (ERM) system are more likely to have a high-quality audit than firms not implementing ERM. Lin and Liu (2009) also find that in China, firms with better corporate governance are more likely to appoint high-quality auditors. Niskanen, Karjalainen, and Niskanen (2010) offer evidence that the 'Big 4'<sup>16</sup> auditors serve important functions as control mechanisms in Finland. They find that firms with less concentrated family ownership are more likely to employ 'Big 4' audit firms compared to concentrated family ownership firms.

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<sup>15</sup> COSO (2004) defines Enterprise Risk Management as "a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives" (p.2).

<sup>16</sup> 'Big 4' are the four largest international accounting firms: PricewaterhouseCoopers (PWC), Deloitte Touche Tohmatsu (DTT), Ernst & Young (E&Y) and KPMG.

The literature posits that large audit firms provide higher audit quality than small audit firms (DeAngelo, 1981; Lennox, 1999). DeAngelo (1981) argues this is due to greater reputational concerns. When auditors fail in their duties, they may experience loss of clients and a reduction in audit fees. As large audit firms will suffer potentially larger losses more than small audit firms, they are highly motivated to provide quality audits to protect their reputation. Another reason is that as large audit firms have greater wealth and resources, they are more likely to be sued than small audit firms. The greater potential for litigation is a significant motivation for large audit firms to provide a high quality of services (Dye, 1993; Lennox, 1999). Large audit firms can also maintain provide greater audit quality than small audit firms through their access to greater levels of competence and independence (Francis, Maydew, & Sparks, 1999; Han, et al., 2012; Khurana & Raman, 2004). Large audit firms have more resources to invest in training programs due to their large portfolio of clients and strong financial status. They can also adopt a strong negotiating stance with clients.

Using auditor size (Big 4) as a surrogate for audit quality, several studies find a positive link between audit quality and governance outcomes. Mitton (2002) offers evidence that in South East Asia markets assume firms appointing a top-tier auditor will provide better quality disclosures. Kim and Song (2011) also find that appointing a high quality auditor leads to better monitoring and mitigates information asymmetry in debt contracting. Gul, Kim and Qiu's 2010 study in China also reports that a quality auditor improves creditability for the market, lowering stock price synchronicity.

Fan and Wong (2005) contend that appointing a top-tier auditor has a particularly important role in corporate governance in East Asia. They find that firms with high

agency conflicts are more likely to appoint quality auditors (Big 4) to enhance market confidence. The literature also recognizes that the larger audit firms are more effective in monitoring audit clients than smaller audit firms. Han, et al. (2012) provide evidence that this improved monitoring leads to better quality financial reports. Their examination of firms across 20 countries show that those with top-tier auditors have more transparent disclosures than firms audited by non top-tier auditors. Lennox (1999) also finds that firms appointing top-tier auditors report more accurate financial statements than those appointing non-top-tier auditors. He argues that in addition to their desire to protect their reputation, top-tier auditors have more experienced and knowledgeable staff. In relation to earnings management, Francis, et al. (1999) report that as top-tier auditors are more competent and independent, they are more effective than non-top-tier auditors in constraining earnings management. Khurana and Raman (2004) also report that top-tier auditors experience less litigation than non-top-tier auditors in the US.

It is expected that the superior quality audit services provided by top-tier auditors should limit fraud and management misconduct. Several empirical studies offer evidence confirming the effectiveness of the top-tier auditors. Jones (2004) reports that Big 4 audit firms are more likely to prevent fraud than non-Big 4 audit firms. Farber (2005) also finds that fraud firms are less likely to hire a top-tier auditor than non-fraud firms. Lennox and Pittman's (2010) study also shows that Big 4 auditors are less likely than non-Big 4 firms to be associated with the likelihood of accounting fraud. Peasnell, Pope and Young's 2001 UK study finds that Big 4 auditors are superior to non-Big 4 in mitigating fraud. A recent study by Kryzanowski and Zhang (2013) also concludes that the incidence of restatement is lower in firms with top-tier auditors. However, other

studies in Australia (Seamer, 2008) and Hong Kong (Philip, 2011) do not find any association between audit quality and fraud.

Francis and Wang (2008) and Haw, et al. (2011) argue that the effectiveness of top-tier audit firms depends on the investor protection available in markets where the firm operates. They report that top-tier audit firms have incentives to provide quality audit services that effectively mitigate earnings management, but only in countries with strong investor protection. They find no differences in the effectiveness of top-tier audit firms and non-top-tier audit firms in countries with weak investor protection. Hossain, Lim, and Tan (2010) similarly report that in emerging countries, the benefits of hiring a top-tier auditor is greater in countries with stronger legal environments since both firms and auditors face more severe consequences for failures. Michas (2011) investigates 15 emerging economies and finds that firms in countries with more developed audit professions are more likely to hire the top-tier auditors, while there is no difference in countries with less developed audit professions. This suggests that audit quality is influenced by the legal institutions.

### **2.5.8 Fraud, Management Misconduct and Corporate Governance**

As previously outlined in this chapter, a large body of empirical evidence supports the contention that firms with strong corporate governance are less likely to experience fraud than firms with poor corporate governance. Abbott, et al. (2004), Agrawal and Chadha (2005), Beasley (1996), Farber (2005), Peasnell, et al. (2001), Sharma (2004), Smaili and Labelle (2009) and Uzun, et al. (2004) all show a positive link between enhanced monitoring of management and a reduction in the likelihood of a firm experiencing fraud or management misconduct. The literature also recognises that when

firms experience fraud, corporate governance is an important mechanism to restore confidence back to the market. Farber (2005) offers empirical evidence that investors reward firms that have corporate governance improvements after experiencing fraud by bidding up the stock price of that firm.

Several corporate mechanisms are identified as effective in limiting the likelihood of management misconduct and fraud. However, the effectiveness of corporate governance varies across economies depending on both inside and outside influences on corporate control in each country. The following sections outline the empirical evidence regarding the effectiveness of corporate governance in mitigating management misconduct in both developing countries and developed countries.

### ***Board Independence and Management Misconduct***

The empirical evidence regarding the association between corporate governance and fraud is heavily dominated by studies focusing on developed countries, especially the US. A common methodology of these studies is to identify differences in corporate governance mechanisms between a sample of fraud firms and a matched control group of non-fraud firms. Overwhelmingly, these results suggest that the independence of the board is a key factor in limiting management misconduct (Amoah & Tang, 2010; Beasley, 1996; Farber, 2005; Persons, 2006; Seamer, 2008; Sharma, 2004; Smaili & Labelle, 2009; Ueng, et al., 2009; Uzun, et al., 2004). Regulators in developed countries such as the US, the UK and Australia also recognize the importance of board independence with many recommending the board contain at least one-half independent directors.

However, the existence of an independent board appears less effective in limiting management misconduct in the Asian setting. For example, in China, while Chen, et al. (2006) find increasing the proportion of independent directors reduces the likelihood of fraud, studies by Firth, et al. (2011) and Huang and Liang (2008) report no association between the likelihood of fraud and board independence. Wang, et al. (2010) also find that introducing independent directors to Taiwanese boards results in no significant difference in the likelihood of fraud. In Malaysia, Hasnan, et al. (2009) and Hashim and Devi (2008) also find no association between board independence and the incidence of fraud and earnings management. They argue that in South East Asian countries, ‘independent’ directors may not be truly independent from management and are appointed solely to fulfil regulatory requirements. Van Essen, et al. (2012) also contend that in an Asian context, as most boards are dominated by controlling owners, independent directors play less of a monitoring role and are appointed mainly to facilitate resources acquisitions.

Prior empirical studies in developed countries also highlight that tenure of independent directors impacts on their monitoring ability. The longer an independent director serves on the board, the more knowledge and experience they gain and the greater the reputational stake they risk (Beasley, 1996; Liu & Sun, 2010; Persons, 2005). Similar evidence is provided in an Asian context by Hashim and Devi (2008) who show a positive association between the tenure of independent directors and a reduction in earnings management in Malaysian firms. Another characteristic affecting an independent director’s monitoring ability is the number of additional directorships they hold. Hasnan, et al. (2009) report that Malaysian firms with greater levels of directors having multiple directorships are more likely to experience fraudulent financial

reporting than firms with lower levels of directors having multiple directorships. Other researchers have argued that multiple directorships can distract outside directors from their monitoring responsibilities (Beasley, 1996) and tend to focus them more on their self-interest rather than shareholder interests (Hunton & Rose, 2008).

### ***Audit Committee Effectiveness and Management Misconduct***

Empirical studies in developed countries highlight that an independent audit committee with members who possess financial knowledge, diligence, and have longer tenure are important in monitoring management and reducing the likelihood of management misconduct. This is achieved particularly through the audit committee's primary responsibilities in overseeing the internal controls and financial reporting processes (Abbott, et al., 2004; Agrawal & Chadha, 2005; Crutchley, et al., 2007; Dechow, et al., 1996; Mustafa & Meier, 2006; Persons, 2005; Uzun, et al., 2004). In the Asian context, Firth, Rui and Wu's (2011) study in China confirms that audit committee members' financial knowledge does have an effect on monitoring. They find the probability of restatement increases when fewer audit committee members have financial knowledge. However, other evidence suggests Asian audit committees may not necessarily be relied on to effectively monitor management. In Malaysia, Rahman and Ali (2006) find audit committees are not effective in limiting earnings management due to management dominance over board and committee procedures. Yunus (2011) also concludes that in Malaysia, audit committees do not affect the quality of the financial statements as controlling shareholders appear to be more influential than the audit committee.

### ***CEO/Chair Duality and Management Misconduct***

As previously discussed, agency theory and corporate governance best practice guidelines recommend that by separating the role of CEO and board chair, boards are naturally more independent (Ramdani & Witteloostuijn, 2010). By becoming more effective in monitoring management (Braun & Sharma, 2007) the incidence of management misconduct should be reduced (Chapple, et al., 2009; Cheng, et al., 2011; Dunn, 2004; Farber, 2005; Persons, 2005, 2006; Sharma, 2004; Smaili & Labelle, 2009). However, the evidence from Asia appears to indicate that preventing CEO/Chair duality is not necessarily effective in reducing the likelihood of fraud. For example, Chen, et al. (2006) find separating the position of CEO and Chair of the Board does not deter fraud in China. However, they do find that a chairman with shorter tenure is more likely to be associated with fraud, because presumably they have less experience and competence. Huang and Liang (2008) also report no relationship between CEO/Chair duality and the incidence of fraud. They note that as Chinese firms are dominated by state ownership and both Chair and CEO are usually appointed by government, there is less incentive for them to commit fraud through manipulating financial reports, since their remuneration is not based on firm performance. The evidence from Taiwan also is not consistent with evidence from Western countries. Wang, et al. (2010) claim that the likelihood of fraud is less in firms with a dual CEO/Chair since they have greater motivation compared to separate CEOs and board chairs.

### ***Ownerships and Management Misconduct***

Coffee (2005) contends that different ownership systems are susceptible to different types of fraud. Dispersed ownership systems, common in developed economies, are more susceptible to earnings management while concentrated ownership systems, which

are common in South East Asia, tend to be more open to management misappropriation. Concentrated ownership is often linked to family-controlled firms which is the predominate form of business entity adopted throughout East Asia (Isakov & Weisskopf, 2009). Magnanelli's 2011 investigation of corporate fraud finds that although corporate governance may mitigate the likelihood of fraud, ownership structure is a significant factor with concentrated ownership firms more likely to experience fraud than dispersed ownership firms.

In China, Cheung, et al. (2006) find that firms with more concentrated ownership are more likely to face expropriation of wealth from minority shareholders through related party transactions. Chang, et al., (2010) report that in Taiwanese firms with high family ownership are less likely to change their top management and auditor when they are forced to restate their financial statements, compared to firms with low family ownership. However, two studies in Malaysia find that family ownership is effective in monitoring firms since they have the incentives to pass on their business to the next family generation (Wang, 2006). Hasnan, et al. (2009) report that firms with greater family concentrated ownership are less likely to experience fraudulent financial reporting than firms with lower family concentration. Hashim and Devi (2008) also find that when family owners hold greater expertise in the firm's operations, there tends to be a lower incidence of earnings management.

As previously outlined, it is common for Asian firms to hire management from members of the controlling family (Oh, et al., 2011). For example, Wiwattanakantang (2001) reports that in Thailand, more than 80% of family-control-firms hire family members as management. Although some studies of developed economies (Alexander

& Cohen, 1999; Dunn, 2004; Owens-Jackson, et al., 2009; Skousen & Wright, 2008) report a significant association between management ownership and the incidence of fraud, Hashim and Devi (2008) find no relationship between managerial ownership and earnings management in Malaysia.

Other corporate governance mechanisms also have been highlighted as effective in minimizing the incidence of management misconduct. Jiang and Peng (2011) argue that ownership by legal institution and multiple blockholders may help to restrict the likelihood of expropriation. Huang and Liang's 2008 study of fraud in China finds that the probability of fraud is lower in state owned and 'legal person'<sup>17</sup> companies. The authors argue that the strict control exerted by the government helps to reduce management perpetrated fraud, while private institutional holders have strong incentives to prevent management misconduct. However, Chen, et al., (2006) find types of owners are less relevant in determining the likelihood of fraud in China. In Malaysia, Hashim and Devi (2008) find a positive relationship between institutional ownership and a reduction in earnings management and argue this is because institutional investors have greater incentives to monitor management (Ajinkya, et al., 2005; Chung, et al., 2002; Cornett, et al., 2008).

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<sup>17</sup> A 'legal person' company is a corporate entity that is able to take legal action separately from its principals. In China, 'legal person' companies include joint stock companies owned by other institutions with a 'legal person' status. The transfer or trading of shares in 'legal person' companies is restricted by the Chinese government.

## 2.6 Summary

A review of corporate governance literature provides clear evidence that strong corporate governance is effective in limiting agency conflicts including management misconduct. A large body of empirical evidence supports the contention that the likelihood of management misconduct decreases in firms with more independent boards, longer tenure of outside directors, more effective audit committees and smaller boards. The evidence also shows a positive relationship between the likelihood of firms experiencing management misconduct and CEO dominance of the board through duality of the roles of board chairman and CEO and long CEO tenure.

It has been shown that ownership structure impacts the effectiveness of corporate governance mechanisms in mitigating management misconduct, particularly in Asia, where firms are often controlled by dominant family shareholders. However, the empirical evidence arising from studies of the effectiveness of corporate governance in Asia highlights that internationally recommended corporate governance recommendations may not necessarily be as relevant. For example, although Chen, et al. (2006) find independent directors are effective in reducing fraud in China, other studies from China (Firth, et al., 2011; Huang & Liang, 2008), Taiwan (Wang, et al., 2010) and Malaysia (Hashim & Devi, 2008; Hasnan, et al., 2009) find no association between director independence and the incidence of fraud or earnings management.

While the empirical evidence reinforces the importance of corporate governance mechanisms such as audit committee effectiveness and separation of the role of CEO and the board chair in limiting management misconduct in developed economies, there is paucity of evidence regarding their impact in developing economies. This study

attempts to add to the corporate governance literature by providing empirical evidence on the effectiveness of corporate governance in limiting management misconduct in the Asian setting.

## **CHAPTER 3**

### **HYPOTHESIS DEVELOPMENT**

#### **3.1 Introduction**

Following on from the extensive review of the literature conducted in Chapter 2, this chapter outlines the main research questions to be addressed in this thesis and formulates the research hypotheses.

#### **3.2 Board Independence Hypothesis**

##### **3.2.1 Board Independence**

The first research question addressed in this thesis is whether greater levels of independent directors on the board are associated with lower levels of management misconduct in the Thai setting. Since non-independent directors tend to be dominated by management (Kesner & Dalton, 1986), increasing the proportion of independent directors on the board improves the effectiveness of management oversight (Fama, 1980; Fama & Jensen, 1983). The literature holds that increased monitoring should mitigate management misconduct and fraud.

There exists a strong body of empirical evidence supporting this contention. Several studies (Bédard, et al., 2004; Klein, 2002; Lin & Hwang, 2010; Liu & Sun, 2010) find that the incidence of earnings management declines as the board becomes more independent. A number of studies from developed countries such as the US (Beasley, 1996; Dechow, et al., 1996; Farber, 2005; Persons, 2006; Uzun, et al., 2004), the UK (Peasnell, et al., 2001), Canada (Smaili & Labelle, 2009) and Australia (Seamer, 2008; Sharma, 2004) all report a significant positive relationship between the level of

independent directors on the board and the mitigation of instances of fraud or financial restatements. Amoah and Tang (2010) also find that restatement-induced class action lawsuits are lower in firms with a higher proportion of independent directors on the board compared to firms with a lower proportion of independent directors on the boards. However, two studies in the US (Agrawal & Chadha, 2005; Persons, 2005) do not report any association between board independence and fraud.

While strong empirical evidence is provided by studies in the Western setting, studies based in developing countries show contradictory results. In fact only one study (Chen, et al., 2006) finds evidence supporting the effectiveness of board independence to mitigate fraud in China. Other studies based in Taiwan (Wang, et al., 2010), China (Huang & Liang, 2008) and Tunisia (Matoussi & Gharbi, 2011) find no relationship between board independence and a reduction in the incidence of fraud.

An important research focus of this thesis is to determine whether corporate governance best practices developed in Western countries are effective in the Asian context. In relation to the effectiveness of board independence in the prevention of management misconduct, the following hypothesis will be tested:

H1a: Firms with more independent boards are less likely to experience management misconduct than firms with less independent boards.

### **3.2.2 Independent Director Tenure**

Vafeas (2003) argues that outside directors who serve on the board for a long period of time may have less incentive to monitor management due to their close relationship with them. Anderson, et al. (2004) also propose that directors are more likely to be dominated by the management, the longer they serve on the board. Alternatively, other researchers argue that a longer tenure provides outside directors with greater experience, commitment and competence (Buchanan, 1974; Kosnik, 1987; Quinones, Ford, & Teachout, 1995) and, therefore, better monitoring of management. Chtourou, et al. (2001), Hashim and Devi (2008) and Liu and Sun (2010) provide supporting evidence that earnings management is significantly lower in firms with directors with long tenure compared to firms with a higher proportion of newly appointed directors. Beasley (1996) and Persons (2005) also argue that the seniority of outside directors increases their ability to scrutinize management since they are less sensitive to group pressure to conform. They also find that firms with outside directors with long tenure are less likely to commit fraud when compared to firms with newly appointed outside directors.

Based on Beasley (1996) and Persons' (2005) findings, this thesis proposes that firms experiencing managerial misconduct are more likely to have a higher proportion of outside directors with shorter tenure than firms not experiencing management misconduct. Therefore, the following hypotheses will be tested:

H1b: Firms with a higher proportion of outside directors, with longer tenure, are less likely to experience management misconduct than firms with a lower proportion of outside directors with longer tenure.

### 3.2.3 Independent Director Experience

Fama (1980) and Fama and Jensen (1983) argue that since outside directors need to rely on their reputation, competitive markets will motivate them to maintain a high degree of management oversight. The number of outside directorships held by any one director may be viewed as a proxy for reputation (Vafeas, 1999). Outside directors who are appointed to serve on multiple boards may also transfer knowledge and experience between firms, improving the overall quality of management monitoring (Keys & Li, 2005). Chakravarty, et al. (2009) and Sarkar and Sarkar (2009) also posit that outside directors with multiple directorships are more effective in monitoring firms than other less experienced directors because of superior experience, knowledge and networks. However, other theorists argue that directors with multiple directorships may be less effective in monitoring management as they have limited time to focus on each firm (Beasley, 1996; Fich & Shivdasani, 2006; Matoussi & Jardak, 2012). Hunton and Rose (2008) also contend that outside directors who serve on several boards may be more concerned about their own interests rather than those of shareholders. Significantly, Beasley (1996) provides empirical evidence that the number of outside directorships held by directors is positively related to the likelihood of fraud. In accordance with Beasley's (1996) findings, this thesis examines the following hypothesis:

H1c: Firms with lower proportions of directors with multiple directorships are less likely to experience management misconduct than firms with higher proportions of directors with multiple directorships.

### 3.3 Board Size Hypothesis

The literature regarding the association between board size and board effectiveness is inconclusive (He, et al., 2009; Heaney, 2007). While some theorists argue that a large board offers superior monitoring since it has more resources and skills (Anderson, et al., 2004; Christensen, et al., 2010; Williams, et al., 2005), others such as Jensen (1993) argue a large board is less effective in monitoring management due to coordination and process problems. Furthermore, a large board is more susceptible to domination by management and may experience more ‘free-riding’<sup>18</sup> director issues (Hermalin & Weisbach, 2003). Beasley (1996) provides empirical evidence that companies with larger boards are more likely to be associated with accounting fraud than companies with smaller boards. In the Asian context, Jia, et al. (2009) report that in China, firms with larger boards are more likely to experience regulator enforcement action compared to firms with smaller boards, while Rahman and Ali (2006) find larger boards are more likely to engage in earnings management than smaller boards in Malaysia.

However, many studies fail to find any association between board size and management misconduct (Chen, et al., 2006; Dechow, et al., 1996; Farber, 2005; Sharma, 2004; Uzun, et al., 2004). Given that the literature is inconclusive, this study aims to add to the debate by examining the relationship between board size and the likelihood of management misconduct. Based on Beasley’s (1996) findings, this study expects that firms with smaller boards are less likely to experience management misconduct than firms with larger boards. Therefore, the following hypothesis is examined:

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<sup>18</sup> Hermalin and Weisbach (2003) explain director ‘free-riding’ as an agency problem occurring when boards are too big and less involved in the management process. Consequently individual directors do not effectively contribute to the board process.

H2: Firms with smaller boards are less likely to experience management misconduct than firms with larger boards.

### **3.4 Audit Committee Effectiveness Hypothesis**

#### **3.4.1 Independence of Audit Committee**

Having an audit committee separate from management strengthens the monitoring of management, particularly in ensuring validity of the firm's internal control and reporting processes (Abbott, et al., 2004). Structuring an audit committee to comprise only outside directors is regarded as optimal as their reputation concerns motivate them to maintain a high level of oversight (Fama, 1980; Fama & Jensen, 1983). DeZoort and Salterio (2001) also find that audit committees with more independent and knowledgeable members tend to support the auditor rather than management when facing accounting issues.

A number of studies find that the more independent an audit committee is, the better the quality of its firm's financial reports (Carcello & Neal, 2003; Persons, 2009) and the less likely it is to participate in earnings management (Bédard, et al., 2004; Klein, 2002; Lin & Hwang, 2010; Liu & Sun, 2010). Several studies (Abbott, et al., 2004; Agrawal & Chadha, 2005; Crutchley, et al., 2007; Mustafa & Meier, 2006; Persons, 2005) provide empirical evidence that more independent audit committees are less likely to be associated with fraud or restatements than less independent audit committees. Beasley's, et al. 2000 study of three US industries (technology, health care and financial services) also shows fraud firms have audit committees that are less independent than non-fraud firms.

While strong evidence exists of a link between audit committee independence and the likelihood of fraud in a Western context, there is little evidence from developing countries. Therefore, this thesis aims to add to the literature by investigating whether audit committee best practice guidelines developed in Western countries are effective in the Asian context. In relation to the effects of audit committee independence on limiting management misconduct, the following hypothesis is tested:

H3a: Firms with a higher proportion of independent audit committee members are less likely to experience management misconduct than firms with a lower proportion of independent audit committee members.

### **3.4.2 Audit Committee Expertise**

As a key responsibility of the audit committee is to oversee the financial reporting process and system of internal control, it is important that members of the committee have finance or accounting expertise. This is essential if the committee is to detect irregularities in financial reports and other potential management misconduct (Persons, 2005). Pomeroy (2010) provides empirical evidence that audit committees with members with high levels of accounting experience perform better than audit committees with members with low levels of accounting experience when investigating accounting issues. Krishnan (2005) and Zhang, et al. (2007), also find that higher levels of financial/accounting expertise help audit committees to monitor internal controls more effectively. Of particular significance to this research are the findings of several studies (Abbott, et al., 2004; Agrawal & Chadha, 2005; Farber, 2005; Mustafa & Youssef, 2010) that firms with audit committees with limited financial/accounting

knowledge are more likely to experience fraud than firms with audit committees with greater finance expertise.

Again, the empirical findings are dominated by research conducted in developed countries. In contrast, little research has been performed in developing countries. Therefore, this study aims to address the paucity of evidence regarding whether audit committees with substantial accounting/financial expertise are effective in the Asian context. The following hypothesis is tested:

H3b: Firms with a higher proportion of independent audit committee members with accounting or financial expertise are less likely to experience management misconduct than firms with a lower proportion of independent audit committee members with accounting or financial expertise.

### **3.5 CEO Dominance Hypothesis**

#### **3.5.1 CEO/Chair Duality**

Agency theory suggests separation of executive management from the board to ensure the board can maintain the necessary independence to oversee management behaviour and performance (Fama, 1980; Fama & Jensen, 1983). An important mechanism to ensure board monitoring effectiveness is to separate the functions of board Chair and the CEO (Jensen, 1993). Several studies (Beasley, et al., 2000; Chapple, et al., 2009; Dechow, et al., 1996; Persons, 2005; Sharma, 2004; Smaili & Labelle, 2009) offer empirical support, showing a firm with a separate CEO and board Chair is less likely to experience accounting irregularities or fraud compared to a firm with a dual CEO/Chair.

However, Beasley (1996), Chen, et al. (2006), Crutchley, et al. (2007) and Uzun, et al. (2004) do not find the relationship between the likelihood of fraud and the CEO/Chair duality.

Again, the evidence is dominated by studies from developed countries, with only Chen, et al.'s 2006 study conducted in China as an exception. This thesis aims to add to the current debate relating to the impact of CEO/Chair duality on management misconduct in the Asian context. The thesis investigates the following hypothesis;

H4a: Firms with a CEO who is not the board Chair are less likely to experience management misconduct than firms where the CEO is the board Chair.

### **3.5.2 CEO Tenure**

Long tenure for a CEO can be viewed as a proxy for quality since it reflects the market's perception of the CEO's ability (Persons, 2005). As a long tenure CEO has a well-established reputation to protect, the CEO may also be less motivated to engage in management misconduct. Empirical evidence is provided by Persons (2006) who reports that the likelihood of non-financial fraud is less likely in firms with a long tenure CEO when compared to firms with a short tenure CEO. An alternative argument however is that as CEO tenure increases, so does the likelihood of their entrenchment. Hermalin and Weisbach (2003) argue that CEOs who serve for longer periods have more power than recently appointed CEOs. This power may allow the CEO to dominate the board and override internal controls designed to limit management misconduct. Cheng, et al. (2011) provide empirical evidence that accounting restatements are more

likely to occur when firms are controlled by CEOs with strong power (measured as long tenure and chair duality). Alexander and Cohen (1999) also finds evidence of a relationship between entrenchment of long tenure CEOs and the incidence of corporate crime.

However, not all studies find a relationship between CEO tenure and the likelihood of management misconduct. For example, Agrawal and Chadha (2005), Beasley (1996), Burns and Kedia (2006), Crutchley, et al. (2007), Saksena (2003), and Uzun, et al. (2004) do not find any association between CEO tenure and the incidence of fraud or financial restatements.

As the evidence regarding the effect that CEO power has on the incidence of fraud is inconclusive, this study aims to add to the literature by examining the impact of CEO tenure on management misconduct. Therefore, the following hypothesis is tested:

H4b: Firms with a CEO of shorter tenure are less likely to experience management misconduct than firms with a CEO of longer tenure.

### **3.6 Ownership Hypothesis**

#### **3.6.1 Management Ownership**

Jensen and Meckling (1976) posit that management ownership of the firm's shares motivates managers to align their interests with shareholders. Managers would also be less motivated to be involved in misconduct that diminishes the overall wealth and performance of the firm (Pergola & Joseph, 2011). Alexander and Cohen (1999) offer empirical evidence that firms where managers hold more of the firm's shares are less

likely to experience fraud compared to firms where managers hold less of the firm's shares.

However, an alternative argument is that when management holds a substantial amount of the firm's equity, it creates entrenchment problems, thereby allowing managers to gain power and act in their own interests without fear of sanction or removal (Pergola & Joseph, 2011). Dunn (2004) also argues that management ownership delivers them an excess of power, leading to control of both the executive and the board. Several empirical studies show that managerial share ownership results in lower quality financial reports (Karamanou & Vafeas, 2005; Leung & Horwitz, 2004; Oh, et al., 2011; Pergola & Joseph, 2011) and an increase in the likelihood of earnings management (Cheng & Warfield, 2005). Skousen and Wright (2008) also find that the likelihood of fraud increases when a large portion of the firm's stocks are held by management, while Owens-Jackson, et al. (2009) report that the likelihood of fraud increases when the controlling shareholders are involved in management of the firm. However, several empirical studies do not find any association between management ownership and fraud or accounting irregularities (Abbott, et al., 2004; Beasley, 1996; Crutchley, et al., 2007; Erickson, et al., 2006; Sharma, 2004; Smaili & Labelle, 2009)

Although the evidence is mixed, Lemmon and Lins (2003) and Wiwattanakantang (2001) assert that in East Asian countries, including Thailand, it is common for ownership and control to be combined in the hand of a few controlling shareholders, thereby increasing the opportunity of expropriation from minority shareholders. Therefore, it is expected that concentrated ownership, common with Thai management,

may provide greater opportunities for them to engage in misconduct. The following hypothesis is examined:

H5a: Firms with a lower proportion of their shares held by management are less likely to experience management misconduct than firms with a higher proportion of their shares held by management.

### **3.6.2 Controlling Shareholder Ownership**

In East Asia, over two-third of firms are controlled by family shareholders (Claessens, et al., 2000). Some theorists argue that family ownership aligns the interests of the owners and management as it is common for family shareholders to appoint family members to the executive (Ali, et al., 2007; Young, et al., 2008). Several empirical studies also provide evidence that dominant family shareholders have strong incentives to monitor managers since a large proportion of their wealth is tied to firm value (Hashim & Devi, 2008; Lee, 2006; Wang, 2006; Young, et al., 2008). Liu, et al., (2012) also show that concentrated family ownership results in better internal control systems compared to non-family controlled ownership. A number of studies also show that concentrated family ownership increases the effectiveness of management monitoring, resulting in a lower incidence of earnings management (Ali, et al., 2007; Hashim & Devi, 2008; Jiraporn & DaDalt, 2009) and increased firm performance (Filatotchev, Zhang, & Piesse, 2011; Lee, 2006; Mishra, et al., 2001; Yammesri & Lodh, 2004).

An alternative theoretical argument is that the existence of controlling shareholders creates an entrenched management with resulting agency costs (Chau & Leung, 2006; Claessens & Fan, 2002; Morck & Yeung, 2003). Some studies show that in companies

with family concentrated ownership, CEOs are less likely to be replaced when their performance is poor (Gibson, 2003; Rachapradit, et al., 2012). Concentrated ownership has also been linked to poorer quality financial reporting and disclosures (Chen & Jaggi, 2000; Fan & Wong, 2002) and increasing earnings management (Haw, et al., 2011; Jaggi, et al., 2009; Prencipe & Bar-Yosef, 2011). An additional problem caused by concentrated family ownership is known as ‘tunnelling’<sup>19</sup> (Cheung, et al., 2006; Claessens & Fan, 2002; Morck & Yeung, 2003). A number of studies (Bae, et al., 2012; Chang, 2003; Cheung, et al., 2006) also report that controlling shareholders are motivated to expropriate from minority shareholders. Haw, et al. (2011) and Peng and Jiang (2010) argue that firms in countries with strong legal systems have less issues with controlling family shareholder and management expropriation. Given Thailand is classified as having relatively weak legal protections, high levels of family ownership may increase the likelihood of management misconduct.

The thesis examines the effect of dominant ownership on management misconduct. Therefore, the following hypothesis is tested:

H5b: Firms with a lower proportion of controlling shareholder ownership are less likely to experience management misconduct than firms with a higher proportion of controlling shareholder ownership.

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<sup>19</sup> ‘Tunnelling’ is an agency problem where a controlling shareholder attempts to misappropriate a firm’s wealth at minority shareholders’ expense.

### 3.6.3 Foreign Ownership

The literature holds that foreign investors avoid investing in firms with poor corporate governance (Leuz, et al., 2009; Mangena & Taurigana, 2007; Mishra & Ratti, 2011). Therefore, to attract foreign investment, firms have incentives to improve their governance mechanisms. Khanna and Palepu (1999) also contend that foreign investors enhance firm value as they provide financial support and superior monitoring skills. Huizinga and Denis (2003) report that firms in weak institutional environments attract more capital and increase their reputation by having foreign ownership since they tend to adopt the higher institutional standards their foreign investors are accustomed to. While Chen, et al. (2006) report that foreign owners have little impact on the incidence of fraud in China, several other Asian studies provide evidence that foreign ownership improves monitoring in firms, thereby resulting in better quality of financial reports (Xiao & Yuan, 2007), firm performance (Wiwattanakantang, 2001) and lower incidences of earnings management (Chin, et al., 2009; Chung, et al., 2004)

Therefore, this study aims to add to the literature by investigating whether foreign ownership has an impact on the incidence of management misconduct. The following hypothesis is tested:

H5c: Firms with foreign ownership are less likely to experience management misconduct than firms without foreign ownership.

### **3.6.4 Institutional Ownership**

The literature recognises that institutional investors may mitigate agency conflicts since they have greater incentives to monitor management (Claessens & Fan, 2002; Gillan & Starks, 2003). However, the empirical evidence regarding the monitoring effectiveness of institutional owners is inconclusive. While several studies (Beasley, 1996; Farber, 2005; Uzun, et al., 2004) do not find any association between institutional ownership and fraud in the US, Sharma (2004) reports that firms with greater institutional ownership are less likely to experience fraud in Australia. Burns, et al. (2010) also report that the likelihood of fraud is lower in firms with concentrated institutional ownership. A number of other studies (Chung, et al., 2002; Cornett, et al., 2008; Hashim & Devi, 2008; Koh, 2003) report that institutional owners are effective in limiting earnings management due to their greater incentives, resources and power to oversee management compared to other shareholders.

This research aims to add to the current debate regard the impact of institutional ownership on management misconduct. It is proposed that institutional ownership will result in greater monitoring of management, hence reducing the likelihood of management misconduct. Therefore, the following hypothesis is tested:

H5d: Firms with institutional ownership are less likely to experience management misconduct than firms without institutional ownership.

### **3.6.5 Non-controlling Blockholder Ownership**

Isakov and Weisskopf (2009) propose that the existence of unrelated block shareholders may improve corporate governance in family firms, by balancing the power of controlling family shareholders. They also argue that unrelated blockholders are more likely to challenge the extraction of private benefits by family controllers. Faccio, et al. (2001) also argue that external blockholders possess the necessary industry knowledge and resources to effectively monitor family dominated management. Mourier (2010) provides empirical evidence that the existence of an unrelated blockholder limits the incidence of management expropriation in countries with low levels of investor protection.

Given that family controlled firms are common in Thailand, this thesis expects that the existence of a non-controlling external block shareholder will result in increased monitoring of management, thereby reducing the likelihood of management misconduct. Therefore the following hypothesis is tested:

H5e: Firms with a higher proportion of blockholders that are not related to dominant family shareholders are less likely to experience management misconduct than firms with a lower proportion of blockholders that are not related to dominant family shareholders.

### **3.7 Controlling Shareholder Dominance Hypothesis**

#### **3.7.1 Controlling Shareholder Directors**

Anderson and Reeb (2004) report that it is common for controlling family shareholders to appoint family members to the board to control and promote their interests. These family member appointments deliver power to dominate the board and act in the family's interests, and thereby increase the opportunities to expropriate firm resources (Claessens, et al., 2000; Peng & Jiang, 2010; Young, et al., 2008). While Anderson and Reeb (2004) and Jaggi, et al. (2009) find that the board is less independent when family members control the board, Matoussi and Gharbi (2011) find that in Tunisia, firms with a greater proportion of family members on the board are more likely to commit fraud. Alternatively, family members on the board may increase the monitoring of management since a large proportion of their wealth is tied to firm performance (Lee, 2006). Several studies (Ali, et al., 2007; Hashim & Devi, 2008; Jiraporn & DaDalt, 2009) find evidence that appointing family members to the board results in a lower incidence of earnings management.

The literature relating to the impact of appointing family directors to the board is inconclusive. However, based on Matoussi and Gharbi's (2011) finding, this thesis expects a positive relationship between the number of controlling shareholder directors on the board and the likelihood of management misconduct. Therefore, the following hypothesis is tested:

H6a: Firms with lower proportions of directors appointed by controlling shareholders are less likely to experience management misconduct than

firms with higher proportions of directors appointed by controlling shareholders.

### **3.7.2 Controlling Shareholder CEO**

Appointing a family CEO may align the interests of the management and shareholders and therefore reduce agency problems (Young, et al., 2008). Lin and Hu (2007) also suggest that appointing a family CEO is preferable in firms with high expropriation potential (e.g. where the controlling family have cash-flow rights) as the CEO is motivated to improve firm value. Several studies (Anderson & Reeb, 2003; Minichilli, et al., 2010; Mishra, et al., 2001; Villalonga & Amit, 2006; Wang, 2006) offer evidence that appointing a family CEO reduces agency conflicts and increases firm value.

However, other theorist argue that a family CEO may compromise the effectiveness of monitoring as the family CEO has the power to override board decisions and dominate the board selection process (Westhead & Howorth, 2006). This power may be used to misappropriate from minority shareholders or extrapolate private benefits (Lin & Hu, 2007). Prencipe and Bar-Yosef (2011) provide evidence that the effectiveness of monitoring earnings management decreases when the CEO is part of the controlling family. Rachapradit, et al. (2012) also find that CEO turnover is lower in firms with a CEO appointed from the controlling family, compared with non-family firms. Chen, et al. (2008) report that the quality of financial reporting is lower in firms with a family CEO, while Agrawal and Chadha (2005) find that the likelihood of restatements increases when the CEO is part of a controlling family.

While the results regarding the impact of appointing a controlling shareholder CEO on the incidence of management misconduct are inconclusive, this thesis expects that appointing a CEO from outside the controlling family may strengthen corporate governance. Therefore, the following hypothesis is tested:

H6b: Firms with a CEO appointed from outside a controlling shareholder group are less likely to experience management misconduct than firms with a CEO appointed from a controlling shareholder group.

### **3.8 Summary**

This chapter outlined the main research questions to be addressed in this thesis and formulates the research hypotheses that are the focus of this study. These hypotheses focus on six main corporate governance mechanisms: board independence, board size, audit committee effectiveness, CEO dominance, ownership structure and the existence of controlling shareholders. Fifteen individual hypotheses are developed to examine the relationship between corporate governance mechanisms and the likelihood of firms experiencing management misconduct. In particular, these hypotheses seek to determine whether corporate governance mechanisms shown to be effective in limiting management misconduct in Western corporate environments are relevant to emerging corporate environments such as in Thailand.

## **CHAPTER 4**

### **RESEARCH METHODOLOGY**

#### **4.1 Introduction**

This chapter outlines the research methodology employed to test the hypotheses outlined in the previous chapter. Section 4.2 discusses the identification of the sample of Thai firms experiencing management misconduct that are the focus of this study. It also outlines the process of matching the sample with a control group consisting of Thai firms that did not experience management misconduct. Section 4.3 discusses the logit regression model that is developed to examine the hypotheses. The chapter concludes with a discussion of the measurement of the variables contained in this model.

#### **4.2 The Misconduct Sample**

##### **4.2.1 Defining Management Misconduct**

The Securities and Exchange Commission of Thailand (SEC) is responsible for the investigation and prosecution of offences committed in relation to companies listed on Thailand's stock market. The SEC devotes considerable resources to monitoring Thai listed companies, including investigating complaints and reviewing news articles, public information and company disclosures. When management misconduct is suspected, SEC conducts preliminary investigations and decides whether to pursue the case. If it is determined that there has been a violation of Thai corporate or criminal law, the SEC may decide to pursue action in a civil or criminal prosecution. Successful SEC prosecutions result in the issue of either a compoundable offence or a non-compoundable offence notice. Compoundable offences are referred to the SEC's Settlement Committee that has the power to impose fines and issue orders to firms.

Non-compoundable offences are referred to the Royal Thai Police for further investigation for possible imposition of criminal charges (The Securities and Exchange Commission, 20 November, 2012).

As management misconduct is often difficult to uncover and often not reported by entities to avoid reputational damage (Apostolou & Crumbley, 2008), this study focuses on public companies where public data on management misconduct is more readily available. For the purpose of this study management misconduct is deemed to have occurred when one of the following five events was reported:

1. One or more executives of the company have been charged by the SEC with violating Sections 307, 308, 311 and 312 of the Securities and Exchange Act (SEA) B.E. 2535:

Section 307 – managers fail in their duty to property entrusted to them.

Section 308 – managers misuse company property entrusted to them.

Section 311 – managers engage in activities for unlawful personal gain.

Section 312 – managers falsify, destroy or alter financial accounts or other company documents. These also include material misstatements in accounting and authorizing incomplete, incorrect, inaccurate or untimely financial statements.

2. The company received a SEC order requiring management to reissue the company's financial statements as a result of failure to adequately disclose information in accordance with Sections 56 and 199 of SEA B.E. 2535.

3. One or more executives of the company have been found guilty of insider trading under Section 241 of SEA B.E. 2535. Section 241 defines insider trading as trading by executives using material information which has not been disclosed to the public and that the offender has access to only by virtue of their position in the company.
4. One or more executives of the company have been found guilty of manipulation of the company's share price under Sections 243 and 244 of SEA B.E. 2535.
5. One or more executives of the company have been fined by the SEC's Settlement Committee under Sections 59, 246 or 247 of SEA B.E. 2535 or Section 40 of SEA (No.4) B.E. 2551. These sections require companies and management to disclose their dealings in securities of the firm.

#### **4.2.2 Sample Selection**

There are two primary sources of information relating to enforcement actions taken by Thailand's SEC:

1. SEC public media releases; and
2. The SEC's enforcement section website which lists companies and persons which have been fined or convicted of SEC violations.

For the purposes of this study, the SEC media releases (available electronically) were scrutinized for reports of management misconduct.<sup>20</sup> A firm was included in the management misconduct sample where a violation of SEC's rules, as discussed above, was disclosed.

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<sup>20</sup> There were 956 SEC news releases between January 2002 and May 2012.

Management misconduct firms were also drawn from ‘enforcement’ disclosures contained on the SEC website ([www.sec.or.th](http://www.sec.or.th)). All enforcement actions imposed by the Settlement Committee from January 2002 to May 2012 were scrutinized. Any duplication of disclosures of firms also the subject of SEC media releases was excluded. A firm was included in the management misconduct sample if the SEC website disclosed any violations of the SEC provision previously outlined.

This study focuses on incidents of management misconduct occurring after January 2002. This starting point was chosen as it was the year several corporate governance recommendations were introduced in Thailand. For example, Thai authorities declared 2002 the Year of Good Corporate Governance and established the National Corporate Governance Committee (the NCGC), chaired by the Prime Minister. It was also in 2002 that the SEC introduced the first edition of its corporate governance code.

Analysis of these two sources provided a sample of 61 management misconduct firms (MM firms) for examination. As shown in table 4.1, 46 firms were indentified from SEC news releases and 15 firms were indentified from the SEC website.

**Table 4.1****Determining the Management Misconduct Sample**

Number of SEC media releases January 2002 – May 2012	956
Less: – News not involving enforcement action or allegations or duplicated news relating to the same firm	<u>(873)</u>
Number of management misconduct firms identified from SEC media releases	83
Less: – Firms involving in misconduct events before the year 2002	(21)
– Firms where price manipulation or insider trading was committed by non-management	(11)
– Firms with no matched-firm <sup>21</sup>	<u>(5)</u>
Subtotal number of management misconduct firms from SEC media releases	46
Add: – Criminal violations by the managements reported in the ‘enforcement’ section but not reported in SEC media releases	15
Total number of management misconduct firms included in the final sample	61

**4.2.3 Characteristics of the Data Set**

Table 4.2 contains details of the companies included in the management misconduct sample. It outlines the period in which the misconduct occurred, the persons involved and their positions in the company. A brief summary of the circumstances of the offence and the conviction recorded is also shown.

<sup>21</sup> For these firms a control firm with appropriate matching size, industry or time period could not be identified. Further details of the matching process are provided in section 4.2.4.

**Table 4.2****Characteristics of Management Misconduct**

<b>Companies</b>	<b>Management Misconduct Period</b>	<b>Particulars</b>	<b>Position of Perpetrator</b>
Agro Industrial Machinery	2008	Failed to disclose trading in company shares	Director
Apex Development	2003	Understated liabilities – 440.60 million Baht	Directors
Areeya Property	2004	Manipulating stock price by Chairman/CEO's brother	Chairman/CEO
Ascon Construction	2006-2007	Manipulating stock price	CEO
Asian Marine Services	2003	Failed to disclose trading in company shares	Managing Director
Bangkok Dusit Medical Services	2004	Failed to disclose trading in company shares	Director
Bangkok Land	2005	Collaborating with auditor / Improper disclosure of related party information	Directors
Bangkok Steel Industry	2002	Unlawful damage to BSI's assets and failure to prepare financial statements in compliance with GAAP	Chairman/CEO and Directors
Chonburi Concrete Product	2004	Manipulating stock price	Chairman

<b>Companies</b>	<b>Management Misconduct Period</b>	<b>Particulars</b>	<b>Position of Perpetrator</b>
Compass East Industry (Thailand)	2006	Scope limitation on the auditor's examination / Overstating assets – 32.1 million Baht	Directors
Capital Engineering Network	2004-2005	Colluded in misappropriating 80.1 million Baht through a contract for advanced procurement of raw materials / Making false representations of accounting information	Managing Director, Director
C.I.Group	2005	Manipulating stock price	Chairman
Circuit Electronic Industries	2003-2005	Misappropriating 3.44 billion Baht through creation of nonexistent foreign debtor	Chairman, CEO and Directors
Chai Watana Tannery Group	2004-2005	Manipulating stock price	Chairman/CEO
Daidomon Group	2002-2003	Overstated revenue of 30 million Baht / Improper disclosure of expenses of 29.04 million Baht as assets	Chairman/CEO, CFO, Directors
Thai-Denmark Swine Breeder	2004	Scope limitation on the auditor's examination / Overstated non-transferred assets – 456.54 million Baht	Directors
Focus Development and Construction	2004	Manipulating stock price	CEO
General Engineering	2011	Causing damage to the company and siphoning funds through securities trading transactions – 265 million Baht	CEO
G Steel	2008-2009	Overstated inventories – 1,585.51 million Baht	Directors

<b>Companies</b>	<b>Management Misconduct Period</b>	<b>Particulars</b>	<b>Position of Perpetrator</b>
The International Engineering	2006	Misappropriating company assets of 60.5 million Baht though improper related party transactions	Managing Director
Interhides	2010-2011	Failed to disclose trading in company shares	CEO
K.C. Property	2008	Manipulating stock price	CEO
Krisdamahanakorn	2004	Overstated earnings by 75 million Baht	Directors
The Lanna Resources	2003	Insider trading by director of subsidiary company	Director
Livingland Capital	2004	Misstated financial statements regarding incorrect book value of assets	Directors
Loxley	2003-2004	Overstated approximately 86 million Baht of assets	Directors
Media of Medias	2005	Failed to disclose trading in company shares	Managing Director
M-Link Asia Corporation	2004-2005	Failed to disclose trading in company shares	Director
Nippon Pack (Thailand)	2008-2010	Misappropriating approximately 57.7 million Baht of company assets and falsifying documents and recording false accounting information	Chairman/CEO
Natural Park	2003	Failed to disclose trading in group company shares	Directors
Oishi Group	2006	Failed to disclose trading in company shares	Managing Director

<b>Companies</b>	<b>Management Misconduct Period</b>	<b>Particulars</b>	<b>Position of Perpetrator</b>
Pan Asia Footware	2004	Failed to disclose guarantee obligations and misleading financial reports	Directors
Phatra Insurance	2007	Insider trading	Director
Picnic Corporation	2004-2005	Misstating revenues by 178.4 million Baht / Dishonest performance of duty and falsification of documents and accounts regarding 85 million Baht loan contracts	CEO, Director
Power Line Engineering	2008	Failure to include subsidiary company in consolidated financial statements	Directors
Power-P	2004-2006	Misstating revenues of 34 million Baht / Misappropriating company assets 265 million Baht	Chairman/CEO
Professional Waste Technology (1999)	2007	Insider trading	CEO
Kuang Pei San Food Products	2004-2005	Overstated 567 million Baht of assets	Directors
Roynet	2002-2003	Falsifying accounts to deceive other persons / insider trading	Chairman/CEO
RS	2005	Failed to disclose trading in company shares	Chairman
Samart Corporation	2007	Failed to disclose trading in company shares	Managing Director

<b>Companies</b>	<b>Management Misconduct Period</b>	<b>Particulars</b>	<b>Position of Perpetrator</b>
Scan Global	2010	Misstated financial statements regarding advance payments to Chairman – 190.93 million Baht	Directors
S.E.C. Auto Sales and Services	2007-2008	Falsifying purchasing documents regarding non-existent assets 597.9 million Baht	Chairman, Managing Director
Siam General Factoring	2006	Overstated income in financial statements of 500 million Baht	Directors
Sea Horse	2006	Failed to disclose trading in company shares	Chairman/CEO
Singha Paratech	2005	Failed to disclose trading in company shares	Managing Directors
Solution Corner (1998)	2009	Insider trading	Managing Director
Shun Thai Rubber Gloves Industry	2003	Manipulating stock price	Director/major shareholder
STP&I	2008	Failed to disclose trading in company shares	Director
SVOA	2003	Misstated financial statements regarding non-existent transactions	Directors
Siam2you	2007	Failed to disclose trading in company shares	Director
Thai Heat Exchange	2007	Failed to disclose trading in company shares	Director

<b>Companies</b>	<b>Management Misconduct Period</b>	<b>Particulars</b>	<b>Position of Perpetrator</b>
TFI Corporation	2004-2005	Failure to include subsidiary company in consolidated financial statements	Directors
Tongkah Harbbour	2006-2007	Misstatement of expenses / Failure to disclose adequate information	Directors
T.Krungthai Industries	2006	Failed to disclose trading in company shares	Director
Thai Unique Coil Center	2008	Failed to disclose trading in company shares	CEO
TWZ Corporation	2005-2006	Manipulating stock price	Managing Director
Unique Mining Services	2009	Insider trading	CEO
Wyncost Industrial Park	2009	Failed to disclose trading in company shares	Chairman
Yarnapund	2008-2009	Misstated financial statements regarding classification of land filling costs and incorrect market value of land	Directors
Yuasa Battery (Thailand)	2008	Failed to disclose trading in company shares	Chairman

#### **4.2.4 Matching the Sample**

To enable a comparison of the adequacy of the corporate governance environments of sample firms, each firm experiencing management misconduct (misconduct firm) was matched with a control firm (no-misconduct firm) that had not reported any incidents of management misconduct. Each misconduct firm was paired with a no-misconduct firm based on comparative size, industry and period of reporting.

The proxy data for each firm was hand collected from either the firm's Form 56-1 disclosure to the SEC or the firm's financial statements retrieved from the SEC website. To ensure a relevant focus on each firm's corporate governance, proxy data was collected for the first year that the actual mismanagement occurred rather than when it was uncovered. At this point of time, the firms commence to create the environment to facilitate the incidence of misconduct.

Choice-based and matched sample was employed since management misconduct is a relatively rare outcome and this method is a common technique used to analyse the impact in selected observations (Cram, Karan, & Stuart, 2009). As the sample was specifically collected rather than being a random sample, this technique is considered more efficient (as cited in Palepu, 1986). To ensure appropriate matching, each misconduct firm was matched with a no-misconduct firm that was its closest match in terms of firm size (total assets), industry and period of reporting. Any misconduct firm that could not be appropriately matched with a control firm was excluded from the

study.<sup>22</sup> A large number of studies of corporate fraud such as Agrawal and Chadha (2005), Beasley (1996), Chen, et al. (2006) and Sharma (2004) employed a matching procedure identical to that adopted in this study.

Consistent with Beasley (1996), Chen, et al. (2006) and Sharma (2004), each misconduct firm was matched with a no-misconduct firm based on the following criteria:

#### 1. Size

Beasley, et al. (2010) report that fraud can occur in any size firm and at any stage of the firm's life cycle. In relation to size, the literature holds that large firms have better corporate governance compared with small firms (DeFond & Jiambalvo, 1991). Empirical evidence is provided by Doyle, Ge, and McVay (2007) who examine determinants of weaknesses in internal control for 779 firms from 2002 to 2005 and find that small firms are more likely to have poor internal control when compared to large firms. The authors argue this is because large firms have more resources, more employees and more extensive procedures in place to ensure proper segregation of duties and to develop suitable internal controls. Kouwenberg (2010) importantly reports that in the Thai context, bigger firms are more likely than smaller firms to follow corporate governance recommendations issued by the SET.

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<sup>22</sup> Given the relatively small number of companies listed on the Stock Exchange of Thailand, it was not feasible in all cases to match a sample firm with a control firm that was similar in terms of both size and industry. There are 545 firms (as of June 2012) listed on the Stock Exchange of Thailand. This compares with approximately 2,211 firms listed on the Australian Securities Exchange and 2,800 listed firms on the New York Stock Exchange.

To control for the effect of firm size on both the likelihood of management misconduct and corporate governance, misconduct firms and no-misconduct firms were matched on the basis of similar size, as measured by total assets. Similar size criteria are used by Abbott, et al. (2004), Beasley (1996), Chen, et al. (2006), Dechow, et al. (1996), Sharma (2004) and Smaili and Labelle (2009). Beasley (1996) uses total assets as a measure of size when market capitalisation data for fraud firms is either unavailable or distorted due to potential market reaction to suspected fraudulent activity.

## 2. Industry

Beasley, et al.'s (2010) study of US frauds found that the occurrence of fraud varied across industries, with the two most frequently affected industries being computer hardware and software and other manufacturing. In China, Chen, et al. (2006) also find that more than 65% of Chinese firms subject to enforcement actions between 1999 and 2003 were from the industrial and manufacturing industry. Professional standards also recognise that industry traits may impact of the likelihood of management misconduct. For example, appendix 1 ISA 240 'The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements' highlights the importance of industry traits which may increase the opportunities to commit fraud. Beasley, et al. (2000)'s study of corporate governance in three industries (technology, health care and financial services) found differences in corporate governance between fraud firms and no-fraud firms and reported that fraud techniques varied across industries. Beasley, et al. (2000) suggest that corporate governance should be compared to relevant industry benchmarks when assessing corporate governance mechanisms.

Listed companies in Thailand trade on two markets: SET and MAI.<sup>23</sup> The SET classifies listed companies into eight industries, sub-classified into 27 sectors, however there is no industry classification for listed companies trading on the MAI. To control for differences between governance structure and susceptibility to management misconduct across various industries, management misconduct firms and no-management misconduct firms were matched on the basis of sector. If no sector match was identified, sample firms were matched to control firms on the basis of industry. If no industry match was found, the firm was discarded from the sample.<sup>24</sup> This occurred on five occasions.

### 3. Time period

After matching each misconduct firm with a no-misconduct firm on the basis of size and industry, data for each pair was collected for the same period of time. To capture the governance conditions at the point of time that management misconduct occurred, data was gathered in the year that management misconduct was perpetrated rather than reported. It is possible that management misconduct activities had occurred prior to the first recorded incidence of perpetration. It is, however, likely that the corporate governance traits that facilitated the misconduct continued throughout the period of perpetration.

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<sup>23</sup> The Market for Alternative Investment (MAI) was established and supervised by SET for trading innovative companies that have high potential growth (medium-sized enterprise, capital of less than 300 million Baht. The trading system, trading surveillance and supervision and disclosure requirements are also based entirely on existing SET operations.

<sup>24</sup> As previously mentioned, the relatively small size of the Stock Exchange of Thailand limits the availability of companies suitable for matching.

To ensure the selected no-misconduct control firms had not previously experienced management misconduct prior to the sample period, media releases were reviewed from 1999 (three years before the sample period) to 2001 to verify that there was no report of management misconduct in these firms.<sup>25</sup>

The matching process resulted in 61 misconduct firms matched with no-misconduct firm, creating a total sample of 122 firms. Table 4.3 shows the matched firms in term of size (total assets). 23 pairs (37.70%) were matched within a 5% variance, 10 pairs (16.39%) were matched within a variance of between 5% and 10%, 12 pairs (19.67%) were matched within a variance of between 10% and 15%, five pairs (8.20%) were matched within a variance of between 15% and 20%, and 11 pairs (18.03%) were matched within a variance of between 20% and 30%.

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<sup>25</sup> Chen, et al. (2006) use a similar approach. They screen for fraud in their control firms for the period three years prior to the study period to ensure no control firms experienced fraud.

**Table 4.3****Matched Misconduct Firms and No-misconduct Firms**

	<b>Year</b>	<b>Industry</b>	<b>Misconduct Firms</b>	<b>Total Assets (Million Baht)</b>	<b>Control Companies (i.e. No-misconduct Firm)</b>	<b>Total Assets (Million Baht)</b>	<b>% Variance</b>
1	2008	Industrials	Agro Industrial Machinery	259.68	Yong Thai	268.43	3.37 %
2	2003	Agro and Food Industry	Apex Development	651.46	Thailuxe Enterprises	576.96	11.44 %
3	2004	Property and Construction	Areeya Property	4,016.43	N. C. Housing	3,785.86	5.74 %
4	2006	Property and Construction	Ascon Construction	1,179.44	Pre-Built	1,075.59	8.81 %
5	2003	Services	Asian Marine Services	563.70	Sub Sri Thai	550.18	2.40 %
6	2004	Services	Bangkok Dusit Medical Services	14,598.37	Precious Shipping	13,375.78	8.37%
7	2005	Property and Construction	Bangkok Land	41,493.60	Land and Houses	39,286.33	5.32 %
8	2002	Property and Construction	Bangkok Steel Industry	15,066.89	MBK	11,777.26	21.83 %
9	2004	Property and	Chonburi Concrete	2,339.55	Quality Construction	2,231.36	4.62 %

	<b>Year</b>	<b>Industry</b>	<b>Misconduct Firms</b>	<b>Total Assets (Million Baht)</b>	<b>Control Companies (i.e. No-misconduct Firm)</b>	<b>Total Assets (Million Baht)</b>	<b>% Variance</b>
		Construction	Product		Products		
10	2006	Consumer Products	Compass East Industry (Thailand)	756.30	Inter Far East Engineering	708.10	6.37 %
11	2004	Property and Construction	Capital Engineering Network	787.37	Thailand Iron Works	842.53	7.01 %
12	2005	Medium-Sized Enterprise <sup>26</sup>	C.I.Group	718.06	International Research Corporation	741.74	3.30 %
13	2004	Technology	Circuit Electronic Industries	2,384.41	KCE Electronics	2,688.05	12.73 %
14	2004	Industrials	Chai Watana Tannery Group	2,220.95	The Siam Pan Group	2,293.46	3.26 %
15	2002	Agro and Food Industry	Daidomon Group	1,153.21	Haad Thip	1,185.00	2.76 %
16	2004	Agro and Food Industry	Thai-Denmark Swine Breeder	1,290.60	Chiangmai Frozen Foods	1,332.56	3.25 %
17	2004	Medium-Sized Enterprise	Focus Development and Construction	203.18	Business Online	212.93	4.80 %

<sup>26</sup> There is no industry classification for medium-sized enterprise. These companies are listed companies trading in MAI.

	<b>Year</b>	<b>Industry</b>	<b>Misconduct Firms</b>	<b>Total Assets (Million Baht)</b>	<b>Control Companies (i.e. No-misconduct Firm)</b>	<b>Total Assets (Million Baht)</b>	<b>% Variance</b>
18	2011	Property and Construction	General Engineering	1,120.43	Wilk & Hoeglund	1,096.23	2.16 %
19	2009	Industrials	G Steel	56,332.03	Sahaviriya Steel Industries	42,773.25	24.07 %
20	2006	Technology	The International Engineering	2,333.48	Metro Systems Corporation	2,075.30	11.06 %
21	2010	Industrials	Interhides	1,872.50	Thai Nam Plastic	1,546.34	17.42 %
22	2008	Property and Construction	K.C. Property	2,943.74	Sammakorn	2,345.15	20.33 %
23	2004	Property and Construction	Krisdamahanakorn	9,240.34	Asian Property Development	9,246.51	0.07 %
24	2003	Resources	The Lanna Resources	1,952.56	Susco	1,928.45	1.23 %
25	2004	Property and Construction	Livingland Capital	480.64	Pae (Thiland)	406.29	15.47 %
26	2003	Services	Loxley	11,122.32	Berli Jucker	12,582.08	13.12 %
27	2005	Services	Media of Medias	1,828.23	Amarin Printing and Publishing	1,749.85	4.29 %
28	2004	Technology	M-Link Asia Corporation	2,555.12	Samart Telcoms	1,871.75	26.75 %
29	2008	Industrials	Nippon Pack (Thailand)	480.60	Thai Coating Industrial	506.93	5.48 %
30	2003	Property and Construction	Natural Park	14,328.41	Golden Land Property Development	13,149.23	8.23 %

	<b>Year</b>	<b>Industry</b>	<b>Misconduct Firms</b>	<b>Total Assets (Million Baht)</b>	<b>Control Companies (i.e. No-misconduct Firm)</b>	<b>Total Assets (Million Baht)</b>	<b>% Variance</b>
31	2006	Agro and Food Industry	Oishi Group	2,487.39	S & P Syndicate	2,398.46	3.58 %
32	2004	Consumer Products	Pan Asia Footware	5,791.12	Luckytex	5,525.47	4.59 %
33	2007	Financials	Phatra Insurance	3,069.84	The Navakij Insurance	3,442.18	12.13 %
34	2005	Resources	Picnic Corporation	11,406.76	Eastern Water Resources Development and Management	8,108.90	28.91 %
35	2008	Property and Construction	Power Line Engineering	10,184.56	SC Asset Corporation	9,053.09	11.11 %
36	2005	Property and Construction	Power-P	731.72	Preecha Group	893.12	22.06 %
37	2007	Services	Professional Waste Technology (1999)	1,321.48	General Environmental Conservation	1,352.80	2.37 %
38	2004	Agro and Food Industry	Kuang Pei San Food Products	521.53	Food and Drinks	644.00	23.48 %
39	2002	Medium-Sized Enterprise	Roynet	31.18	The Brooker Group	34.42	10.40 %
40	2005	Services	RS	1,861.33	The Post Publishing	1,652.37	11.23 %
41	2007	Medium-Sized Enterprise	Siam2you	104.10	Adamas Incorporation	132.48	27.26 %

	<b>Year</b>	<b>Industry</b>	<b>Misconduct Firms</b>	<b>Total Assets (Million Baht)</b>	<b>Control Companies (i.e. No-misconduct Firm)</b>	<b>Total Assets (Million Baht)</b>	<b>% Variance</b>
42	2007	Technology	Samart Corporation	13,116.83	Jasmine	14,979.43	14.20 %
43	2010	Property and Construction	Scan Global	2,283.54	Metrostar Property	2,197.86	3.75 %
44	2007	Industrials	S.E.C. Auto Sales and Services	1,880.56	Thai Steel Cable	1,895.68	0.80 %
45	2006	Financials	Siam General Factoring	1,112.57	Eastern Commercial Leasing	1,123.10	0.95 %
46	2006	Agro and Food Industry	Sea Horse	2,278.34	Chumporn Palm Oil Industry	2,717.97	19.30 %
47	2005	Property and Construction	Singha Paratech	1,715.10	Pacific Pipe	1,855.13	8.16 %
48	2009	Medium-Sized Enterprise	Solution Corner (1998)	74.59	Three Sixty Five	67.09	10.05 %
49	2003	Medium-Sized Enterprise	Shun Thai Rubber Gloves Industry	692.50	Chuo Senko (Thailand)	543.26	21.55 %
50	2008	Property and Construction	STP&I	5,910.10	Prinsiri	7,144.11	20.88 %
51	2003	Technology	SVOA	2,361.24	K.R. Precision	2,309.20	2.20 %
52	2007	Property and Construction	Thai Heat Exchange	1,271.71	Thailand Carpet Manufacturing	1,139.12	10.43 %

	<b>Year</b>	<b>Industry</b>	<b>Misconduct Firms</b>	<b>Total Assets (Million Baht)</b>	<b>Control Companies (i.e. No-misconduct Firm)</b>	<b>Total Assets (Million Baht)</b>	<b>% Variance</b>
53	2004	Industrials	TFI Corporation	6,680.42	Thai Central Chemical	6,546.35	2.01 %
54	2006	Resources	Tongkah Harbbour	1,802.63	Solartron	1,266.80	29.72 %
55	2006	Industrials	T.Krungthai Industries	650.02	Eason Paint	573.57	11.76 %
56	2008	Industrials	Thai Unique Coil Center	1,968.49	Permsin Steel Works	1,871.66	4.92 %
57	2005	Technology	TWZ Corporation	1,022.78	MFEC	957.61	6.37 %
58	2008	Medium-Sized Enterprise	Unique Mining Services	2,553.45	Tirathai	1,932.73	24.31 %
59	2009	Services	Wyncost Industrial Park	483.19	Krungdhep Sophon	459.82	4.84 %
60	2009	Industrials	Yarnapund	11,400.26	Aapico Hitech	9,545.46	16.27 %
61	2008	Medium-Sized Enterprise	Yuasa Battery (Thailand)	1,132.35	Goldfine Manufacturers	1,153.77	1.89 %

**Table 4.4****Matching of Misconduct Firms and No-Misconduct Firms**

	<b>(in Million Baht)</b>	
	<b>Misconduct Firms</b>	<b>No-Misconduct Firms</b>
<b>Total Assets</b>		
Mean	4,822.55	4,388.96
Median	1,872.50	1,855.13
Standard Deviation	9,234.05	7,794.35
Size	n = 61	n = 61
<b>Net Incomes</b>		
Mean	3,247.92	3,277.26
Median	1,052.13	1,517.54
Standard Deviation	5,148.31	5,521.64
Size	n = 61	n = 61
<b>Match based on:</b>		
Sectors	55	
Industries	<u>6</u>	
Total	<u>61</u>	

Note: Paired t-tests for means and Wilcoxon matched-pair sign-rank tests for medians were performed to determine whether misconduct and no-misconduct firms differ significantly based on Total Assets. Overall, no statistically significant differences in firm size were found to exist.

### **4.3 Research Methodology**

#### **4.3.1 Distribution and Variance within the Sample**

Although parametric tests are recognized as superior to non-parametric techniques, they do hold more restrictive assumptions relative to a matched sample study (Padgett, 2011). For example, parametric methods require a normal distribution in the sample (Howell, 1989). As described by central limit theorem, drawing a sufficiently large number of items randomly from a population will produce an approximately normally distributed sample. Then, the sample size for parametric testing should be large. Clark-Carter (2009) also point out that normal parametric testing is most appropriate when the data is interval or ratio. If the data is nominal with more than two levels, parametric tests should not be employed since there is no inherent order between the levels. Field (2009) also notes that for parametric testing, the variance of the sample should not differ throughout the data.

When the following characteristics of the data central to this study were considered, parametric testing techniques were not considered appropriate, for the following reasons:

1. The sample size of 61 paired firms was relatively small, compared to the population of 545 listed firms in Thailand (as of June, 2012);
2. The sample was not selected randomly; and
3. Using a Shapiro-Wilk Test the results indicated that the sample was not normally distributed. Furthermore, the results from Levene's Test showed that the problem of homogeneity of variance might exist among the groups.

### **4.3.2 Research Method and the Statistical Model**

As can be seen from the sample characteristics, using the parametric technique may not be appropriate for this study. Tomkins (2006) notes that with a small sample, non-parametric tests are frequently as powerful as parametric tests. Therefore, this study applied a non-parametric test to analyse the data, and applied a logistic regression analysis to the 1-1 matched sample (conditional logistic regression). Logistic regression is most relevant to this study as the dependent variable (misconduct or no-misconduct) is dichotomous or binary (Hosmer & Lemeshow, 2000). Maddala (1991) also argues that when the explanatory variables are not normally distributed, the sample size is small and a matched non-random sample is selected, logit analysis is most appropriate.

As this study employs a choice-based matched sample design, Cram, et al. (2009) recommend a conditional logit model which takes pairings into account to control for effects that are conditional (industry and size). They note that “this within-group effect may not be found if the data is pooled (as in an unconditional analysis) rather than analysed conditionally on industry and size” (2009, p. 480). Breslow and Day further posit that “the pooling of matched or stratified samples for analysis will result in relative risk estimates which are conservatively biased in comparison with those which would be obtained using the appropriate matched analysis” (1980, p. 276). Hosmer and Lemeshow (2000) also explain that with this approach, the likelihood is modified to estimate the probability of the covariate values instead of the probability of the outcome (i.e. in unconditional logistic regression).

Maddala argues that although choice-based sampling is often criticised on the base of its unequal sampling rates, “the coefficients of the explanatory variable are not affected by

the unequal sampling rates from the two groups. It is only the constant term that is affected” (1991, p. 793). Cram, et al. (2009) point out that the exemption (unbiased coefficients estimated) is only applicable in conditional analysis. Since this study employed conditional regression to analyse the matched sample, the impact of a bias rate should not be an issue. Conditional logit regression was used in similar empirical studies conducted by Carcello, et al. (2011) and Agrawal and Chadha (2005).

The hypotheses previously outlined were tested using the following model:

$$\text{Logit (MISCONDUCT)} = \beta_1\text{BODIND} + \beta_2\text{AUDIND} + \beta_3\text{AUDEXP} + \beta_4\text{DUALITY} + \beta_5\text{OUTTENURE} + \beta_6\text{CEOTENURE} + \beta_7\text{BUSYBOD} + \beta_8\text{BODSIZE} + \beta_9\text{MANOWN} + \beta_{10}\text{DOMINOWN} + \beta_{11}\text{FOREOWN} + \beta_{12}\text{INSTIOWN} + \beta_{13}\text{FAMIBOD} + \beta_{14}\text{FAMICEO} + \beta_{15}\text{BIG4} + \beta_{16}\text{GROWTH} + \beta_{17}\text{LEVERAGE} + \beta_{18}\text{LOSS} + \beta_{19}\text{SECONHLD}$$

MISCONDUCT	=	a dummy variable with a value of one when a firm has experienced management misconduct, and a value of zero otherwise
BODIND	=	the percentage of board members who are independent from the firm’s executive
AUDIND	=	the percentage of audit committee members who are independent from the firm’s executive
AUDEXP	=	the percentage of audit committee members who have financial or accounting knowledge
DUALITY	=	a dummy variable with a value of one if the Chair of the board also holds the position of CEO or president, and a value of zero otherwise

OUTTENURE	=	the average number of years that independent board members have served as directors
CEOTENURE	=	the number of years that the CEO has served in the role of CEO
BUSYBOD	=	the average number of other firms that independent directors serve as a director
BODSIZE	=	the total number of directors on the board
MANOWN	=	the cumulative percentage of the firm's shares held by executives
DOMINOWN	=	the cumulative percentage of the firm's shares held by a controlling shareholder
FOREOWN	=	a dummy variable with a value of one if the firm's shares are held by foreign person, company or institution that is listed in the firm's top ten shareholders, and a value of zero otherwise
INSTIOWN	=	a dummy variable with a value of one if the firm's ten largest shareholders include a bank or other financial investment institution, and a value of zero otherwise
FAMIBOD	=	the percentage of board members or other executives who are related to the firm's controlling shareholder
FAMICEO	=	a dummy variable with a value of one if the CEO is related to the firm's controlling shareholder, and a value of zero otherwise

BIG4	=	a dummy variable with a value of one if the firm is audited by a top-tier auditor, and a value of zero otherwise
GROWTH	=	the average percentage change in net income for the two years ending with the year the fraud occurred
LEVERAGE	=	total debt divided by total assets
LOSS	=	a dummy variable with a value of one if the firm reports losses in the two years consecutively ending with the misconduct year and a value of zero otherwise
SECONHLD	=	the percentage of shares held by the second largest blockholder that is not related to the dominant shareholder

### 4.3.3 Measurement of Variables

#### **BODIND**

BODIND measures the independence of the firm's board of directors. It is calculated by computing the percentage of board members who are independent of the firm's executive. For the purpose of this study, a director is deemed independent if they satisfy the criteria outlined by the Stock Exchange of Thailand. The SEC classifies a director as independent if, within the previous two years, they have not been a former employee of the firm or related entity, a relative of management, a professional provider to the firm, representative of shareholders, holding more than one percent of total shares or have had significant transactions with the firms. Information to determine the independence

of directors was obtained from the company's disclosure report (form 56-1). This mandatory disclosure report is prepared and authorized by company management and is retrieved from the SEC website.

### **AUDIND**

AUDIND represents the percentage of audit committee members who are independent from the firm's executive. Independence of committee member was determined using the same SEC criteria as outlined for board independence. The details of AUDIND were disclosed in the 'Management' section and Attachment 1 'Management and Authorized Person Information' section of the Disclosure Report (Form 56-1).

### **AUDEXP**

AUDEXP represents the proportion of independent audit committee members with accounting or financial expertise. The classification of a member as having financial expertise used in this study is consistent with that used by SEC, which recognises that a member gains financial knowledge through education and experience. For example, experience as a certified public accountant, auditor or financial controller. Details of members qualification and experience were taken from disclosures in Attachment 1 'Management and Authorized Person Information' of the Disclosure Report (Form 56-1).

### **DUALITY**

Duality measures whether an individual holds the dual position of CEO and board chair. Information regarding individuals occupying the roles of CEO and Chair were taken from the 'Management' section of the SET Disclosure Report (Form 56-1).

### **OUTTENURE**

OUTTENURE represents the average number of years that an independent director has served on the board. The length of outside director tenure was obtained from disclosures in Attachment 1 ‘Management and Authorized Person Information’ of Form (56-1) and the SETSMART<sup>27</sup> database.

### **CEOTENURE**

CEOTENURE is measured as the number of years that the CEO has served in that role as disclosed in Attachment 1 ‘Management and Authorized Person Information’ of form (56-1) and the SETSMART database.

### **BUSYBOD**

BUSYBOD represents the average number of other firm directorships held by outside directors. Information regarding the number of other directorships held by the firm’s outside directors was obtained from the Attachment 1 ‘Management and Authorized Person Information’ of the firm’s SET Disclosure Form (56-1) and the SETSMART database.

### **BODSIZE**

BODSIZE represents the total number of directors appointed to the board. The number of the directors appointed to the board was obtained from the ‘Management’ section of the firm’s SET Disclosure Report (Form 56-1).

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<sup>27</sup> SETSMART (SET Market Analysis and Reporting Tool) is the SET database that integrates comprehensive sources of listed company data (i.e. historical stock prices, historical indices, listed company profile and historical news).

### **MANOWN**

MANOWN is measured as the cumulative percentage of the firm's share held by executives. The percentage of executive share ownership in the firm was obtained from the Attachment 1 'Management and Authorized Person Information' section of the firm's SET Disclosure Form (56-1).

### **DOMINOWN**

DOMINOWN is measured as the cumulative percentage of the firm's shares held by the largest controlling shareholder. For the purposes of this study, the percentage of the largest controlling shareholders was obtained from 'Capital structure' and the Attachment 1 'Management and Authorized Person Information' section of the firm's SET Disclosure Form (56-1). In addition, information was obtained from the SETSMART database which discloses major shareholder information including the relationship among managers. Members of the one family<sup>28</sup> are treated as a single shareholder since they may vote as a coalition.

### **FOREOWN**

FOREOWN is measured as the firm's shares held by a foreign person, company or institution as listed in the firm's top ten shareholders. The foreign shareholder information was obtained from the 'Capital Structure' section of the firm's SET Disclosure Form (56-1) and the SETSMART database. A shareholder was classified as a 'foreign investor' if the shareholder was disclosed as a 'foreign jurisdiction person.'

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<sup>28</sup> Members of family are those who have the same family name and are relatives or in-laws.

**INSTIOWN**

INSTIOWN is a dummy variable given a value of one when the firm discloses the presence of an institutional investor among its ten largest shareholders. The institutional shareholder information was obtained from the ‘Capital Structure’ section of the firm’s SET Disclosure Form (56-1) and SETSMART database. Foreign institutional shareholders were classified as foreign investors.

**FAMIBOD**

FAMIBOD is measured as the percentage of board members who are related to a controlling shareholder. The information of board members who are related to the controlling shareholder was obtained from the ‘Management’ section and Attachment 1 ‘Management and Authorized Person Information’ section of the firm’s SET Disclosure Form (56-1). Directors were classified as family board members if they had the same family surname or were disclosed as being a family member.

**FAMICEO**

FAMICEO is measured as a dummy variable with a value of one if the CEO is related to the firm’s controlling shareholder and a value of zero otherwise. Information on related CEOs was obtained from the ‘Management’ section and Attachment 1 ‘Management and Authorized Person Information’ of the firm’s SET Disclosure Form (56-1).

## **SECONHLD**

SECONHLD is measured as the percentage of shares held by the second largest shareholder who is not related to the dominant shareholders. Details of shareholders were obtained from 'Capital structure' section of the firm's SET Disclosure Form (56-1) and SETSMART database.

### **4.3.4 Control Variables**

## **GROWTH**

GROWTH is measured as the average percentage change in net income for the two years ending with the year the fraud occurred. Rapid firm growth is recognized as a significant 'red flag' or indicator of fraud (Bell & Carcello, 2000; Loebbecke, Eining, & Willingham, 1989). However, sustained growth can also be inductive to fraudulent reporting (Summers & Sweeney, 1998). In firms experiencing rapid growth, management may be motivated to misstate the firm's performance in order to give an impression of stable growth. Alternatively, firms with sustained growth may be motivated to manipulate disclosure to create the impression of growth. Rapid growth may also lead to weaknesses in internal control as companies are continually modifying procedures and structures, creating uncertainty about roles and responsibilities (Beasley, 1996; Summers & Sweeney, 1998). Kryzanowski and Zhang (2013) report that growth in sales is positively associated with the likelihood of restatement in Canada. Information was obtained from the financial statements of the respective companies.

## **FINANCIAL STABILITY**

LEVERAGE is measured as the firm's total debt divided by its total assets, whereas LOSS is measured as a dummy variable with a value of one if the firm reports losses in two consecutive years ending with the fraud year, and a value of zero otherwise. When management is under pressure to meet debt or other covenants, they may be motivated to artificially increase earnings to show higher levels of performance (Albrecht, et al., 2004; Church, McMillan, & Schneider, 2001). Callen, Robb, and Segal (2008) also find that firms are more likely to manipulate revenue when they have consecutive annual losses or negative cash flows. The model, therefore, includes LEVERAGE and LOSS proxies for financial stability. Information was obtained from the financial statements of the respective companies.

## **AUDITOR QUALITY**

BIG4 is measured as a dummy variable with a value of one if firms were audited by a top-tier auditor and a value of zero otherwise. Details of the company's auditor were obtained from auditor's report in the financial statements.

### **4.4 Summary**

This chapter discusses the research method employed in this study. A sample of 61 listed companies on SET that experienced management misconduct was identified. To examine hypotheses discussed in Chapter 3, the misconduct firms were matched to a control group of firms not experiencing management misconduct on the basis of size, industry and period. This thesis adopted multivariate conditional logistic regression modelling to examine differences in the corporate governance environment of the two groups. Fifteen independent variables relating to board independence, board size, audit

committee effectiveness, CEO dominance, ownership structure and controlling shareholder were investigated. This study also included four control variables that had the potential to influence the likelihood of management misconduct: firm growth, firm leverage, financial performance and auditor quality.

## **CHAPTER 5**

### **RESEARCH RESULTS**

#### **5.1 Introduction**

This chapter reports the empirical findings on the relationship between a company's corporate governance environment and the likelihood of it experiencing management misconduct. The examination begins with a discussion of the descriptive statistics in relation to the sample of firms experiencing management misconduct and the comparative matched control group. It then describes the process of interpreting the inferential statistics. The analysis concludes with a detailed discussion of the results of this study.

#### **5.2 Descriptive Statistics**

##### **5.2.1 Misconduct Sample Characteristics**

###### ***Type of Misconduct Behaviours***

Table 5.1 provides a summary of the various types of misconduct behaviours experienced by firms included in the misconduct sample:

**Table 5.1****Type of Misconduct**

<b>Type of Misconduct</b>	<b>Type of Misconduct Companies (%)</b>
Failure to disclosure trading in company shares	20 (32.79%)
False or misleading statements/fraudulent financial reporting	18 (29.51%)
Embezzlement of company funds/assets	9 (14.75%)
Manipulating stock price	9 (14.75%)
Insider trading	5 (8.20%)
<b>Total number of companies</b>	<b>61 (100.00%)</b>

Table 5.1 shows that the most common type of management misconduct (32.79%) related to the failure to disclose trading in company shares by management. The second most common instance of misconduct (29.51%) related to the making of false or misleading statements/fraudulent financial reporting. The remaining instances of misconduct related to embezzlement of company funds/assets (14.75%), manipulating stock price (14.75%) and insider trading (8.20%).

***Misconduct Firms – Size***

Section 4.2.4 of this thesis outlines the literature regarding the relationship between firm size and the likelihood of management misconduct. Details of the measurement of ‘total assets’ is outlined in Section 4.2.4. Table 5.2 shows the total assets of those companies included in the management misconduct sample.

**Table 5.2****Misconduct Firms – Entity Size by Total Assets**

<b>Total Assets (Baht)<sup>29</sup></b>	<b>Number of Companies (%)</b>
Less than 500 million	9 (14.75%)
500 million to less than 1.5 billion	17 (27.87%)
1.5 billion to less than 3 billion	19 (31.15%)
3 billion to less than 6 billion	4 (6.56%)
6 billion to less than 20 billion	10 (16.39%)
More than 20 billion	2 (3.28%)
<b>Total</b>	<b>61 (100%)</b>

Table 5.2 shows a wide variance in firm size across the sample of misconduct firms. Smaller firms (with total assets of less than 500 million and total assets of between 500 million and 1.5 billion) appear over represented at 42.62% of the misconduct sample, given that firms of this size represent approximately 31% of all SET firms.<sup>30</sup> Larger firms (those with total assets of 6 billion to less than 20 billion and total assets more than 20 billion) however appear to be underrepresented in the sample (19.67%), given that firms of a similar size comprise approximately 35% of all SET firms. Medium-size firms (with total assets of 1.5 billion to less than 3 billion and total assets of 3 billion to less than 6 billion) represent 37.71% of the misconduct sample, which is similar to the overall proportion of all SET firms, firms of this size represent (35%). The higher incidence of management misconduct in smaller firms may be due to the fact that larger firms have stronger corporate governance than smaller firms. Kouwenberg's (2010)

<sup>29</sup> As at November 2012, one Australian dollar is approximately 32 Baht.

<sup>30</sup> As at 30 June 2012, firms with total assets of less than 1.5 million represent 30.72 % of overall market, firms with total assets of 1.5 million to less than 6 billion account for 34.64 % of SET firms and firms with total assets of more than 6 billion represent 34.64 % of SET firms.

study of Thai corporate governance provides evidence that larger firms are more likely to adopt corporate governance recommendations than smaller firms.

### *Misconduct Firms – Type of Misconduct and Size*

Table 5.3 provides a summary of the various categories of misconduct behaviours identified in relation to the sample, classified according to entity size:<sup>31</sup>

**Table 5.3**

#### **Misconduct Firms – Type of Misconduct Classified by Entity Size**

Type of Misconduct	No. Small Firm (%)	No. Medium-size Firm (%)	No. Large Firm (%)	Total (%)
Failure to disclose trading in company shares	9 (34.62%)	9 (39.13%)	2 (16.67%)	20 (32.79%)
False or misleading statements/fraudulent financial reporting	7 (26.92%)	3 (13.04%)	8 (66.67%)	18 (29.51%)
Embezzlement of company funds/assets	4 (15.38%)	3 (13.04%)	2 (16.67%)	9 (14.75%)
Manipulating stock price	5 (19.23%)	4 (17.39%)	0 (0.00%)	9 (14.75%)
Insider trading	1 (3.85%)	4 (17.39%)	0 (0.00%)	5 (8.20%)
<b>Total</b>	<b>26 (100.00%)</b>	<b>23 (100.00%)</b>	<b>12 (100.00%)</b>	<b>61 (100.00%)</b>

Table 5.3 shows that in smaller firms, the most common type of misconduct related to the failure of management to disclose trading in the company's shares (34.62%). The second most common type of misconduct related to false or misleading

<sup>31</sup> Small firms are firms with total assets of less than 1.5 million Baht. Medium-size firms are firms with total assets of 1.5 million to less than 6 billion Baht, and large firms are firms with total assets of more than 6 billion Baht.

statements/fraudulent financial reporting (26.92%). The remaining misconduct events related to manipulating stock price (19.23%), embezzlement of company funds/assets (15.38%) and insider trading (3.85%). In relation to medium-size firms, failure to disclose trading in company shares was the most common form of misconduct (39.13%), followed by stock price manipulation and insider trading, both at 17.39%. Embezzlement of company funds/assets, and false or misleading statements/fraudulent financial reporting are similarly represented at 13.04%. In large firms, two-thirds of misconduct events (66.67%) related to false or misleading statements/fraudulent financial reporting. The remaining cases related to embezzlement of company funds/assets and the failure to disclose trading in company shares (both 16.67%). There were no instances of manipulating stock price and insider trading in larger firms.

These results suggest that different sized Thai firms are subject to different types of management misconduct. The results of this study are consistent with Lynch, Bryant, and Reck (2011) who report that smaller US firms are more likely to experience revenue fraud and fraud committed by top level management. However, while Lynch, Bryant and Reck (2011) report that larger US firms tend to experience higher levels of asset fraud, this study found that larger Thai firms are more likely to experience instances of false or misleading statements or fraudulent financial reporting.

### ***Misconduct Firms – Industry Classification***

The following table classifies firms in the misconduct sample according to industry of operation, as determined by SET guidelines. Details of the determination of industry are contained in Section 4.2.4.

**Table 5.4****Misconduct Firms – Industry Classification**

<b>Industry Group</b>	<b>Sector Title</b>	<b>Number of Management Misconduct Firms</b>	<b>Percent of Sample (%)</b>
Agro and Food Industry	Agribusiness	3	4.92
	Food and Beverage	3	4.92
Consumer Products	Fashion	1	1.64
	Home and Office Products	1	1.64
	Personal Products and		
	Pharmaceuticals	-	-
Financials	Banking	-	-
	Finance and Securities	1	1.64
	Insurance	1	1.64
Industrials	Automotive	5	8.20
	Industrial Materials and		
	Machinery	3	4.92
	Packaging	2	3.28
	Paper and Printing Materials	-	-
	Petrochemicals and		
	Chemicals	-	-
Property and Construction	Construction Materials	6	9.84
	Property Development	11	18.03
	Property Fund	-	-
Resources	Energy and Utilities	2	3.28
	Mining	1	1.64
Services	Commerce	1	1.64
	Media and Publishing	2	3.28
	Health Care Services	1	1.64
	Tourism and Leisure	-	-
	Professional Services	1	1.64
	Transportation & Logistics	2	3.28

Industry Group	Sector Title	Number of Management Misconduct Firms	Percent of Sample (%)
Technology	Electronic Components	1	1.64
	Information and Communication Technology	5	8.20
Market for Alternative Investment <sup>32</sup>	MAI	8	13.11
<b>Total</b>		61	100.00

Table 5.4 shows that while misconduct appears widespread across industries, certain industries experience higher levels. For example, a significant number of misconduct firms were located in the property industry (18.03% of sample firms). The next most common sectors were MAI, comprising 13.11% of sample firms; construction materials, comprising 9.84% of sample firms; automotive and information and communication technology, both comprising 8.20% of the sample; and agribusiness, food and beverage, and industrial materials and machinery, each representing 4.92% of the sample. The remaining firms (less than 4% of the management misconduct sample) belong to other sectors such as packaging, media and publishing and energy and utilities. The high concentration of management misconduct firms in particular industries such as the property and construction industries suggests certain sectors are more susceptible to management misconduct than others. This is consistent with other similar studies. For example, Seamer (2008) found that management perpetrated fraud was more likely to occur in diversified financials industry in Australia, while Beasley, et al. (2010) report

<sup>32</sup> Listed companies trading on this market are medium-sized enterprises that can move to trade on the SET when their qualifications meet SET requirements (i.e. capital exceeds 300 million Bath). There is no industry classification for medium-sized enterprise.

fraud in the US was most common in the computer hardware/software and other manufacturing sectors.

### ***Misconduct Firms – Year***

Table 5.5 categorizes the management misconduct sample by year of event. 22.95% of misconduct events occurred in 2004, 13.11% in each of the years 2005, 2006 and 2008, and 11.48% in 2003. The remaining years each contain less than 10% of the misconduct sample. The lower number of management misconduct incidences recorded in 2010 and 2011 may reflect the fact there is a significant time delay between the occurrence of a misconduct event and its disclosure by the SEC. This is due to the extended period associated with fraud investigations. For example, ACFE (2012) reports that in the US the average time between the occurrence of a misconduct event and its discovery is 18 months and that misconduct events can last between 12 to 36 months. Sharma (2004) also reports that the time period between discovery of fraud and its public disclosure by authorities in Australia is approximately five to six years.

**Table 5.5****Misconduct Year of Occurrence**

<b>Year</b>	<b>Number of Management Misconduct Firms</b>	<b>Percent of Sample (%)</b>
2002	3	4.92
2003	7	11.48
2004	14	22.95
2005	8	13.11
2006	8	13.11
2007	6	9.84
2008	8	13.11
2009	4	6.56
2010	2	3.28
2011	1	1.64
<b>Total</b>	<b>61</b>	<b>100.00</b>

***Misconduct Firms – Age***

The following table classifies misconduct firms according to their age as measured from the date of their Initial Public Offering (IPO) to the relevant misconduct year:

**Table 5.6****Firm Age**

<b>Firm Age (Years)</b>	<b>No. Misconduct Firms (%)</b>
less than 5 years	25 (40.98%)
5 years to less than 10 years	11 (18.03%)
10 years to less than 15 years	18 (29.51%)
15 years to less than 20 years	5 (8.20%)
More than 20 years	2 (3.28%)
<b>Total</b>	<b>61 (100%)</b>

Table 5.6 shows a large proportion of misconduct firms are relatively new, aged less than 5 years (40.98%). Firms aged 5 years to less than 10 years represent 18.03% of the sample, those aged 10 years to less than 15 years 29.51 %, those aged 15 years to less than 20 years 8.20%, while those aged more than 20 years represent 3.28 % of the sample. This is consistent with Beneish (1999) and Lee, Ingram, and Howard (1999) who find that younger firms are more likely to experience misconduct than older firms.

***Misconduct Firms – Type of Misconduct and Firm Age***

To further investigate whether firm age could be a factor determining the nature of management misconduct, Table 5.7 classifies types of misconduct behaviour according to firm age:

**Table 5.7****Misconduct Firms – Type of Misconduct Classified by Firm Age**

<b>Type of Misconduct</b>	<b>Age 0-5 Year</b>	<b>Age &gt;5 Years</b>	<b>Total</b>
	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>
Failure to disclose trading in company shares	8 (32.00%)	12 (33.33%)	20 (32.79%)
False or misleading statements/ fraudulent financial reporting	6 (24.00%)	12 (33.33%)	18 (29.51%)
Manipulating stock price	7 (28.00%)	2 (5.56%)	9 (14.75%)
Embezzlement of company funds/assets	1 (4.00%)	8 (22.22%)	9 (14.75%)
Insider trading	3 (12.00%)	2 (5.56%)	5 (8.20%)
<b>Total</b>	<b>25 (100.00%)</b>	<b>36 (100.00%)</b>	<b>61 (100.00%)</b>

Table 5.7 shows that in relatively young firms (aged no more than 5 years), the most common type of misconduct was the failure to disclosure management's trading in company shares (32.00%). This is followed by manipulation of stock price (28.00%) and false or misleading statements/fraudulent financial reporting (24.00%). Embezzlement of company funds/assets was the least common misconduct in relatively young firms (4.00%). In relation to relatively older firms (aged more than 5 years), false or misleading statements/fraudulent financial reporting, and failure to disclose trading in company shares were the most common misconduct events (each 33.33%), followed by embezzlement of company funds/assets (22.22%). The least common misconduct occurring in older firms was manipulating stock price and insider trading (5.56%).

### 5.2.2 Descriptive Statistics – Variables of Interest

The following table compares the descriptive statistics relative to the variables of interest outlined in section 2.5 for both misconduct firms and no-misconduct firms:

**Table 5.8**

#### Descriptive Statistics – Variables of Interest

##### Misconduct firms and No-misconduct firms

Variable	Statistics	Misconduct Firms	No-misconduct Firms
<b>BODIND</b>	Mean	34.11	35.59
Proportion of independent board members (%)	Std. Dev.	8.64	10.53
	Median	33.33	33.33
	Mode	37.50	33.33
<b>OUTTENURE</b>	Mean	3.90	5.24
Average years that independent board members have served on the board	Std. Dev.	2.91	2.97
	Median	3.00	5.00
	Mode	1.00	2.00
<b>BUSYBOD</b>	Mean	1.25	1.97
Average number of other firms that independent directors also serve as a director	Std. Dev.	1.12	1.62
	Median	1.00	1.67
	Mode	0.00	1.00
<b>BODSIZE</b>	Mean	9.98	10.13
Total board members	Std. Dev.	2.81	2.49
	Median	10.00	10.00
	Mode	10.00	9.00

Variable	Statistics	Misconduct Firms	No-misconduct Firms
<b>AUDIND</b>	Mean	32.05	31.28
Proportion of independent members on the audit committee (%)	Std. Dev.	9.28	9.05
	Median	30.00	30.00
	Mode	30.00	33.33
<b>AUDEXP</b>	Mean	42.62	41.12
Proportion of audit committee members who have financial or accounting experience (%)	Std. Dev.	22.11	25.77
	Median	33.33	33.33
	Mode	33.33	33.33
<b>DUALITY</b>	Number	16	14
Companies where the CEO is also chairman of the board		(26.23%)	(22.95%)
<b>CEOTENURE</b>	Mean	8.59	11.46
Years that the CEO has served in that role	Std. Dev.	7.45	8.95
	Median	6.00	9.00
	Mode	1.00	5.00
<b>DOMINOWN</b>	Mean	38.83	43.96
The cumulative percentage of firm equity held by controlling shareholders (%)	Std. Dev.	18.54	20.97
	Median	35.99	40.63
	Mode	-	-
<b>MANOWN</b>	Mean	23.09	20.66
The cumulative percentage of firm equity held by executives (%)	Std. Dev.	22.29	20.57
	Median	16.86	16.11
	Mode	-	-
<b>FOREHLD</b>	Number	31	35
Number of firms where equity is held by foreign investors		(50.82%)	(57.38%)
<b>INSTIOWN</b>	Number	12	23
Number of firms where equity is held by institutional investors		(19.67%)	(37.70%)

Variable	Statistics	Misconduct Firms	No-misconduct Firms
<b>SECONBLK</b>	Mean	10.18	10.89
The cumulative percentage of	Std. Dev.	7.73	7.93
firm equity held by the	Median	8.18	9.09
second largest blockholder			
(%)	Mode	4.66	9.81
<b>FAMIBOD</b>	Mean	26.98	29.61
The proportion of board	Std. Dev.	15.79	18.37
members who are related to	Median	28.57	28.57
controlling shareholders (%)	Mode	28.57	33.33
<b>FAMICEO</b>	Number	36	37
Proportion of companies		(59.02%)	(60.66%)
where the CEO is related to			
the firm's controlling			
shareholder/family			
<b>GROWTH</b>	Mean	+51.08	+15.64
Percentage change in net	Std. Dev.	169.23	26.88
income from the year prior to	Median	9.50	12.45
the misconduct to the			
misconduct year (%)	Mode	-	-
<b>LEVERAGE</b>	Mean	0.83	0.76
Total debt divided by total	Std. Dev.	2.71	0.51
assets	Median	1.01	0.65
	Mode	1.78	0.43
<b>LOSS</b>	Number	17	6
Proportion of firms reporting		(27.87%)	(9.84%)
losses in both the misconduct			
year and the previous year			
<b>BIG4</b>	Number	28	31
Companies audited by top-		(45.90%)	(50.82%)
tier auditors			

In relation to board independence, Table 5.8 shows no marked difference between misconduct firms and control firms with respect to the proportion of independent board members (BODIND). On average, misconduct firms had slightly fewer independent directors (34.11%) than no-misconduct firms (35.59%). However, a difference appears apparent in relation to the tenure of independent directors (OUTTENURE). On average, independent directors of misconduct firms served on the board for 3.90 years, compared to 5.24 years for those serving in no-misconduct firms. A difference was also apparent in the number of other firms that independent directors also served (BUSYBOD). On average independent directors of misconduct firms served as directors on 1.25 other companies compared to directors of no-misconduct firms who, on average, served on 1.97 other firms. No observable difference was apparent with respect to board size (BODSIZE) between the two groups. On average, misconduct firm boards comprised 9.98 members while no-misconduct firm boards comprised 10.13 members.

Little difference was observed between the two groups with respect to audit committee independence (AUDIND). On average, misconduct firm audit committees were comprised of 32.05% independent members compared to 31.28% independent members appointed to audit committees in no-misconduct firms. In terms of audit committee expertise (AUDEXP), there also appeared to be little difference between misconduct firms and no-misconduct firms. On average, misconduct firms had audit committees containing 42.62% members with accounting or finance knowledge while no-misconduct firm audit committees had, on average, 41.12% of their members with accounting or finance expertise.

With respect to board domination, misconduct firms appeared to have a higher incidence of appointing a CEO who was also the board chair (26.23%) (DUALITY) compared to no-misconduct firms (22.95%). An observable difference was also apparent in relation to the number of years that the CEO had served in that role (CEOTENURE). On average, the CEO served 8.59 years in misconduct firms, compared to 11.46 years in no-misconduct firms.

With respect to ownership structure, both misconduct firms and no-misconduct firms were categorized by a high concentrated ownership. On average, 38.83% of misconduct firm shares were held by controlling shareholders (DOMINOWN) compared to 43.96% of no-misconduct firm shares. While misconduct firms had slightly less concentrated ownership than no-misconduct firms, the cumulative percentage of firm shares held by executives (MANOWN) was slightly higher in misconduct firms (23.09%) compared to no-misconduct firms (20.66%). Less variance was observed regarding the presence of foreign shareholders (FOROWN), with 50.82% of misconduct firms reporting the existence of a foreign investor compared to 57.38% of no-misconduct firms.<sup>33</sup> An observable difference was also apparent with respect to the presence of institutional investors (INSTIOWN), with 19.67% of misconduct firms reporting the existence of an institutional investor compared to 37.70% of no-misconduct firms.<sup>34</sup> In relation to the presence of a non-controlling blockholder (SECONBLK), on average, 10.18% of shares

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<sup>33</sup> On average, misconduct firms had 8.84% firm's shares held by foreign investors, compared to 13.93% in no-misconduct firms.

<sup>34</sup> On average, misconduct firms had 1.08% firm's shares held by institutional investors, compared to 3.48% in no-misconduct firms.

in misconduct firms were held by the second largest non-controlling shareholders while such investors held 10.89% of shares in no-misconduct firms.

Variance in the proportion of board members who are related to the controlling shareholder group (FAMIBOD) was less apparent between misconduct and no-misconduct firms. On average, misconduct firms appointed 26.98% of their board members from the controlling shareholder group compared to 29.61% of board appointments in no-misconduct firms. The appointment of a CEO from the controlling shareholder group (FAMICEO) was considerable, and equally common in both misconduct firms (59.02%) and no-misconduct firms (60.66%).

In terms of financial profile, a key difference between the two groups was apparent with respect to income growth, with misconduct firms reporting average income growth (GROWTH) of 51.08% while no-misconduct firms reported only 15.64% average income growth. Misconduct firms were also more likely to report losses in both the misconduct year and the previous year (LOSS) compared to no-misconduct firms. A higher proportion of misconduct firms reported losses in these years (27.87%), compared to no-misconduct firms (9.84%). Differences in leverage (LEVERAGE) between misconduct firms and no-misconduct firms was less pronounced with misconduct firms reporting an average leverage ratio of 0.83 times compared to a ratio of 0.76 times reported by no-misconduct firms.

The proportion of companies audited by top-tier auditors (BIG4) was similar in both groups, with 45.90% of misconduct firms appointing a top-tier auditor compared to 50.82% of no-misconduct firms.

### **5.3 Inferential Statistics**

#### **5.3.1 Statistical Analysis – Univariate**

The process of determining the statistical model used in this study follows that recommended by Hosmer and Lemeshow (2000) in relation to logistic regression analysis of a 1-1 matched study (conditional logistic regression). Hosmer and Lemeshow note that an important consideration for this type of study is that: “each case is matched to a single control, thus there are two subjects in each stratum” (2000, p. 226). As such stratum-specific covariate effects (i.e., the intercepts) are not estimated, the focus changes from modelling the probability of the outcome (in logistic regression) to modelling the probability of the covariate values. Hosmer and Lemeshow (2000) also point out that matched pairs with the same covariate values (concordant pairs) do not facilitate the estimation of covariate coefficient differences between case-control pairs. Instead, the log of the ratio of discordant pairs is used to estimate the maximum likelihood of the coefficient for a dichotomous covariate in a univariable conditional logistic regression model relevant for 1-1 matched data.

Hosmer and Lemeshow (2000) recommend that the first step in building the statistical model should be the univariate analyses of all covariates. In addition, they stress it is important to determine the number of discordant pairs for all dichotomous covariates as the estimator is based on case and control pairs.

Table 5.9 presents the results of fitting the univariate models:

**Table 5.9****Univariate Logistic Regression Models Outcomes**

Variable	Standard			Odd Ratio	95% Confidence	Discordant
	Coefficient	Error	P Value		Interval	Pairs
BODIND	-0.024	0.023	0.304	0.976	(0.933, 1.022)	n/a
OUTTENURE	-0.203	0.082	0.014*	0.816	(0.695, 0.959)	n/a
BUSYBOD	-0.409	0.157	0.009*	0.664	(0.488, 0.903)	n/a
AUDIND	0.015	0.026	0.555	1.015	(0.966, 1.067)	n/a
AUDEXP	0.002	0.007	0.752	1.002	(0.989, 1.016)	n/a
DUALITY	0.167	0.410	0.683	1.182	(0.529, 2.638)	(11, 13)
CEOTENURE	-0.060	0.029	0.037*	0.941	(0.889, 0.996)	n/a
BODSIZE	-0.045	0.100	0.655	0.956	(0.786, 1.163)	n/a
MANOWN	0.006	0.009	0.516	1.006	(0.988, 1.023)	n/a
DOMINOWN	-0.014	0.010	0.152	0.986	(0.967, 1.005)	n/a
FOROWN	-0.268	0.368	0.467	0.765	(0.371, 1.574)	(17, 13)
INSTIOWN	-0.944	0.445	0.034*	0.389	(0.162, 0.931)	(18, 7)
FAMINBOD	-0.010	0.011	0.381	0.990	(0.969, 1.012)	n/a
FAMINCEO	-0.074	0.385	0.847	0.929	(0.436, 1.975)	(14, 13)
GROWTH	0.004	0.003	0.173	1.004	(0.998, 1.010)	n/a

Variable	Standard		P Value	Odd Ratio	95% Confidence	Discordant
	Coefficient	Error			Interval	Pairs
LOSS	1.322	0.563	0.019*	3.750	(1.245, 11.299)	(4, 15)
LEVERAGE	0.020	0.096	0.835	1.020	(0.845, 1.231)	n/a
BIG4	-0.241	0.403	0.549	0.786	(0.357, 1.731)	(14, 11)
SECONHLD	-0.010	0.021	0.650	0.990	(0.950, 1.032)	n/a
* Significant at the 0.05 level						

As shown in Table 5.9, the univariate analyses indicate a significant statistical difference (at the 5% significance level) between misconduct companies and control companies with respect to several variables: average years served by independent board members (OUTTENURE,  $p = 0.014$ ); average other firms that independent directors serve as a director (BUSYBOD,  $p = 0.009$ ); years CEO has served in that role (CEOTENURE,  $p = 0.037$ ); the presence of an institutional investor (INSTIOWN,  $p = 0.034$ ); and the incidence of reporting a loss in both the misconduct year and the previous year (LOSS,  $p = 0.019$ ).

The analysis showed no significant statistical difference between the two groups with respect to the proportion of independent board members (BODIND), proportion of independent audit committee members (AUDIND), proportion of audit committee members with financial or accounting experience (AUDEXP), CEO/Chair duality (DUALITY), board size (BODSIZE), the proportion of firm equity held by executives (MANOWN) or controlling shareholder group (DOMINOWN) and the presence of foreign investors (FOROWN). No statistical difference was also observed with respect to the proportion of board members appointed from the controlling shareholders/family (FAMIBOD), CEO appointments from the controlling group/family (FAMICEO), firm growth (GROWTH), firm leverage (LEVERAGE), the appointment of a top-tier auditor (BIG4) and the proportion of firm equity held by the second largest blockholders (SECONHLD).

Further statistical analysis was performed to gain insight into the characteristics of the dichotomous variables. Analysis of the discordant pairs for the categorical variables

DUALITY, FOROWN, INSTIOWN, FAMICEO, LOSS and BIG4 indicated that ‘thin data’ (small number of discordant pairs) may be a problem for each variable. As shown in Table 5.9, 24 of the total 61 pairs were discordant with respect to CEO/chair duality (DUALITY), with 13 of the 24 paired firms being a no-misconduct firm. Thirty of the total of 61 firms were discordant with respect to the presence of foreign investors (FOROWN), of which 13 were no-misconduct firms. Twenty-five of the total of 61 firms were discordant in terms of the presence of institutional shareholders (INSTIOWN), with 7 of those 25 no-misconduct firms reporting no institutional shareholdings. Twenty-seven pairs were also discordant with respect to the existence of a CEO appointed from the controlling shareholder/family (FAMICEO), with 13 of these pairs being no-misconduct firms. Nineteen pairs were discordant with respect to reporting consecutive losses in both the misconduct year and the previous year (LOSS). In 15 of those 19 pairs the firm reporting no two-year consecutive loss was a no-misconduct firm. Twenty-five pairs were discordant with respect to auditor type. In 11 of these 25 pairs the firm without a top-tier auditor (BIG4) was a no-misconduct firm.

### **5.3.2 Correlations and Multicollinearity**

A Pearson correlation coefficient was performed to test for evidence of multicollinearity among variables. Manard (2001) holds that high levels of multicollinearity (correlation coefficient more than 0.80) may result in greater standard errors, and therefore coefficients need to be larger in order to be statistically significant. The correlations shown in Table 5.10 indicate that there are no coefficients greater than 0.80, with the highest correlation coefficient ( $R = -0.74$ ) observed between the audit committee independence variable (AUDIND) and the board size variable (BODSIZE). This

indicates that the proportion of independent audit committee members decreases as board size increases. As expected, board independence (BODIND) and audit committee independence (AUDIND) are also correlated ( $R = 0.73$ ). This is reasonable given that more independent directors on the board provides a greater pool for appointment to the audit committee. Board independence (BODIND) and board size (BODSIZE) are also negatively correlated ( $R = -0.64$ ) suggesting that smaller boards are more independent. In the Thai context, as reported by Kouwenberg (2010), in order to meet the independent director's rules which require one-third of the board members, small firms tend to reduce their board size. The remaining coefficients show correlations less than 0.50, with the vast majority of the coefficients having values less than 0.20.

The correlations shown in Table 5.10 also suggest that firms with less independent audit committees (AUDIND) tend to have foreign ownership (FOROWN,  $R = -0.31$ ). Firms with independent directors with longer tenures are also tend to have a longer tenure CEO ( $R = 0.25$ ), larger boards ( $R = 0.39$ ) and lower loss reports ( $R = -0.23$ ), compared to firms with less independent directors with long tenure. As expected, a CEO tends to stay longer in firms with increasing management ownership ( $R = 0.37$ ). The correlation also suggests a negative relationship between management shareholding and board size ( $R = -0.24$ ). As the literature suggests that controlling shareholders seek to become involved in the firm's management, it is not surprising that firms with concentrated controlling shareholdings (DOMINOWN) also tend to have a greater proportion of their shares held by executives (MANOWN,  $R = 0.28$ ), a greater proportion of the board appointed from the controlling shareholder/family (FAMIBOD,  $R = 0.38$ ), a CEO appointed from the controlling shareholder/family ( $R = 0.23$ ), and a lower proportion of

shares held by the second largest blockholder (SECONBLD,  $R = -0.25$ ), compared to firms with less concentrated controlling shareholders. Firms with greater levels of managerial ownership are also shown to be more likely to appoint a CEO from the controlling shareholder/family ( $R = 0.24$ ) compared to firms with lower levels of management ownership. It is also not surprising that firms with a greater proportion of the board appointed from the controlling shareholder/family (FAMIBOD) are more likely to appoint a CEO from their group (DOMINCEO,  $R = 0.45$ ). The correlation also show that firms with foreign ownership tend to have a lower proportion of their share held by executives ( $R = -0.32$ ) and a larger board ( $R = 0.28$ ). Firms audited by big 4 audit firms are more likely to have a lower proportion of audit committee members with financial knowledge ( $R = -0.25$ ), larger boards ( $R = 0.25$ ) and a share held by foreign investor ( $R = 0.27$ ).

The Variance Inflation Factors (VIF) of all variables was calculated in order to determine the level of inflation of standard error potentially caused by multicollinearity. Manard (2001) suggests that a VIF of more than 5 (tolerance less than 0.2) is cause for concern with a VIF of more than 10 (tolerance less than 0.1) indicating a serious multicollinearity problem. Appendix 1 shows that all variables have a VIF of less than 4 and a tolerance of more than 0.3 indicating there is no evidence to suggest that multicollinearity is a concern for this study.

**Table 5.10**

**Pearson Correlation Coefficients among Variables**

	BODIND		AUDIND	AUDEXP	DUALITY	OUTTENURE	CEOTENURE	BUSYBOD	BODSIZE	MANOWN
BODIND	1.000									
AUDIND	0.731 **	1.000								
	0.000									
AUDEXP	0.120	0.082		1.000						
	0.188	0.371								
DUALITY	0.006	0.080		-0.045	1.000					
	0.951	0.380		0.624						
OUTTENURE	-0.163	-0.194 *		-0.083	-0.083	1.000				
	0.073	0.032		0.365	0.365					
CEOTENURE	-0.055	-0.030		0.035	0.184 *	0.248 **	1.000			
	0.549	0.741		0.700	0.042	0.006				
BUSYBOD	0.082	-0.050		0.118	-0.015	0.166	0.160	1.000		
	0.368	0.581		0.197	0.874	0.068	0.079			
BODSIZE	-0.637 **	-0.736 **		0.017	-0.128	0.387 **	0.075	0.159	1.000	
	0.000	0.000		0.851	0.160	0.000	0.412	0.080		
MANOWN	0.134	0.229 *		0.074	0.165	-0.142	0.372 **	0.010	-0.243 **	1.000
	0.140	0.011		0.420	0.069	0.119	0.000	0.909	0.007	
DOMINOWN	0.094	0.132		-0.043	0.054	-0.104	0.043	-0.045	-0.058	0.284 **
	0.302	0.148		0.638	0.551	0.255	0.637	0.619	0.528	0.002

	BODIND		AUDIND		AUDEXP		DUALITY		OUTTENURE		CEOTENURE		BUSYBOD		BODSIZE		MANOWN	
FOROWN	-0.186	*	-0.310	**	-0.113		-0.200	*	0.163		0.007		-0.011		0.276	**	-0.321	**
	0.040		0.001		0.216		0.027		0.073		0.942		0.908		0.002		0.000	
INSTIOWN	-0.019		-0.158		0.109		0.143		0.017		0.031		0.149		0.021		-0.128	
	0.833		0.082		0.234		0.117		0.853		0.735		0.102		0.822		0.160	
DOMINBOD	-0.051		-0.021		-0.015		0.137		0.089		0.176		-0.148		-0.057		0.175	
	0.580		0.822		0.869		0.133		0.331		0.052		0.103		0.530		0.054	
DOMINCEO	0.025		0.067		0.106		0.196	*	-0.007		0.178	*	-0.211	*	-0.122		0.236	**
	0.787		0.463		0.243		0.030		0.937		0.050		0.019		0.181		0.009	
BIG4	-0.167		-0.154		-0.249	**	-0.134		0.171		-0.086		0.087		0.253	**	-0.156	
	0.065		0.089		0.006		0.142		0.060		0.347		0.342		0.005		0.086	
GROWTH	0.071		0.036		0.114		-0.021		-0.095		-0.036		0.054		-0.026		-0.098	
	0.438		0.690		0.210		0.817		0.295		0.690		0.555		0.776		0.283	
LEVERAGE	0.041		0.012		-0.030		-0.016		0.015		0.051		0.122		0.076		0.161	
	0.650		0.894		0.740		0.862		0.872		0.579		0.182		0.405		0.077	
LOSS	0.020		-0.073		-0.231	*	-0.032		-0.233	**	-0.191		-0.192	*	-0.122		-0.172	
	0.825		0.424		0.010		0.727		0.010		0.035		0.034		0.181		0.059	
SECONHLD	-0.147		-0.092		0.037		0.140		-0.040		0.070		0.125		0.084		0.049	
	0.106		0.315		0.689		0.125		0.663		0.446		0.170		0.357		0.594	

	DOMINOWN	FOROWN	INSTIOWN	DOMINBOD	DOMINCEO	BIG4	GROWTH	LEVERAGE	LOSS	SECONHLD
DOMINOWN	1.000									
FOROWN	-0.123 0.178	1.000								
INSTIOWN	-0.101 0.268	0.039 0.672	1.000							
DOMINBOD	0.378 ** 0.000	-0.135 0.140	0.012 0.898	1.000						
DOMINCEO	0.233 ** 0.010	-0.084 0.360	-0.072 0.432	0.452 ** 0.000	1.000					
BIG4	0.140 0.125	0.266 ** 0.003	0.003 0.977	0.006 0.945	-0.077 0.399	1.000				
GROWTH	-0.101 0.268	0.025 0.783	-0.040 0.663	-0.153 0.093	0.041 0.657	0.010 0.910	1.000			
LEVERAGE	0.087 0.343	-0.076 0.406	0.022 0.809	0.004 0.962	0.012 0.892	0.064 0.483	0.072 0.430	1.000		
LOSS	-0.214 * 0.018	0.108 0.238	-0.120 0.187	0.018 0.845	-0.118 0.195	-0.131 0.150	-0.120 0.188	-0.036 0.690	1.000	
SECONHLD	-0.252 ** 0.005	0.177 0.051	0.126 0.167	-0.087 0.343	-0.135 0.139	0.007 0.942	-0.066 0.472	0.058 0.527	0.009 0.926	1.000

\*\* Correlation is significant at the 0.01 level

\* Correlation is significant at the 0.05 level

### 5.3.3 Fitting the Multivariate Main Effects Model

Hosmer and Lemeshow note that when samples are small, commencing the multivariable model by including all variables can produce numerically unstable results. They argue a subset of variables should be selected “based on results of the univariable analysis” (2000, p. 96). As recommended by Hosmer and Lemeshow (2000), model development is commenced by including all variables shown to have a p-value of  $< 0.25$  during the univariate testing state. Hosmer and Lemeshow recommend using a p-value  $< 0.25$  as a screening criterion as “use of a more traditional level (such as 0.05) often fails to indentify variables known to be important” (2000, p. 95).

Table 5.11 presents the results of the initial fitting of a multivariable model containing all covariates identified as significant at the 0.25 level under univariable testing (outlined in Section 5.3):

**Table 5.11****Results of Initial Fitting a Multivariable Model Containing the Covariates****Significant at the 0.25 Level under Univariate Testing**

<b>Variable</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>P Value</b>	<b>Odds Ratio</b>
OUTTENURE	-0.187	0.101	0.064**	0.829
CEOTENURE	-0.009	0.037	0.806	0.991
BUSYBOD	-0.484	0.196	0.014*	0.616
DOMINOWN	-0.028	0.015	0.061**	0.973
INSTIOWN	-1.281	0.628	0.041*	0.278
GROWTH	0.004	0.004	0.270	1.004
LOSS	0.699	0.717	0.330	2.012

---

Log likelihood = -27.339034

\* Significant at the 0.05 level

\*\* Significant at the 0.10 level

Table 5.11 shows that other directorships held by independent directors (BUSYBOD,  $p = 0.014$ ) and institutional ownership (INSTIOWN,  $p = 0.041$ ) are statistically significant at 0.05 level, while the proportion of outside directors with longer tenure (OUTTENURE,  $p = 0.064$ ) and the proportion of equity held by controlling shareholders (DOMINOWN,  $p = 0.061$ ) are statistically significant only at 0.10 level.

Table 5.12 shows the results of refitting all significant variables in a preliminary main effects model:

**Table 5.12****Preliminary Main Effects Model**

<b>Variable</b>	<b>Coef.</b>	<b>Std. Err.</b>	<b>z</b>	<b>P-value</b>	<b>Odds Ratio</b>
OUTTENURE	-0.2455	0.0936	-2.62	0.009	0.7823
BUSYBOD	-0.5003	0.1859	-2.69	0.007	0.6064
DOMINOWN	-0.0318	0.0143	-2.22	0.026	0.9687
INSTIOWN	-1.4518	0.6178	-2.35	0.019	0.2341

Log likelihood = -28.850452

As shown in table 5.12, after refitting all variables shown to be significant at the 0.25 level, other directorships held by independent directors (BUSYBOD) has the most statistically significant explanatory power ( $p = 0.007$ ). The proportion of outside directors with longer tenure (OUTTENURE,  $p = 0.009$ ) is also statistically significant at the 1% level. Both proportions of equity held by controlling shareholder (DOMINOWN,  $p = 0.026$ ) and the presence of institutional ownership (INSTIOWN,  $p = 0.019$ ) are statistically significant at the 5% level. The other variables included in the initial multivariable model (i.e. covariates shown to be significant at the 0.25 level during univariable modelling), CEO tenure (CEOTENURE), loss reporting (LOSS) and firm growth (GROWTH) are no longer significant at the 0.10 level.

### 5.3.4 Determining the Scale of Variables

Hosmer and Lemeshow (2000) suggest that additional testing should be performed to ensure all continuous variables meet the assumption of linearity required in the logit model prior to refining the main effects model. The scales of the three continuous variables (OUTTENURE, BUSYBOD and DOMINOWN) were tested using both quartile analyses and analysis of fractional polynomials.<sup>35</sup> The plots of the estimated coefficients for the quartiles versus the midpoint of the quartile of OUTTENURE, BUSYBOD and DOMINOWN are shown in Figure 5.1, 5.2 and 5.3 respectively in Appendix 2. Table 5.13 shows the results of using fractional polynomials to check the scale of the three continuous variables:

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<sup>35</sup> The fractional polynomials method helps to assess if there are non-linear transformations significantly different from the linear model.

**Table 5.13****Fractional Polynomials Tests of Continuous Variables**

	Model	df	Deviance	G for Model vs. Linear	Approx. P-Value	Powers
<b>OUTTENURE</b>	Not in model	0	66.586	15.028	0.005	
	Linear	1	57.701	6.143	0.105*	1
	m = 1	2	55.674	4.117	0.128#	0
	m = 2	4	51.558	--	--	2, 3
<b>BUSYBOD</b>	Not in model	0	66.855	11.726	0.020	
	Linear	1	57.701	2.572	0.462*	1
	m = 1	2	57.691	2.562	0.278#	2
	m = 2	4	55.129	--	--	-2, 2
<b>DOMINOWN</b>	Not in model	0	63.716	8.414	0.078	
	Linear	1	57.701	2.398	0.494*	1
	m = 1	2	55.823	0.520	0.771#	3
	m = 2	4	55.303	--	--	3, 3

\* Compares linear model to the M = 2 model

# Compare the M = 1 model to the M = 2 model

As shown in Figure 5.1, 5.2 and 5.3 (in Appendix 2) and table 5.13, the quartile analyses and fractional polynomial analysis suggests there is no statistically significant difference at the 0.10 level between the assumption that the variables (OUTTENURE, BUSYBOD and DOMINOWN) are linear and the transformation model (M =1 and M = 2). Therefore, the analyses gives no indication that the variables (OUTTENURE, BUSYBOD and DOMINOWN) cannot be treated as linear in the logit model.

### 5.3.5 Assessment of Fit in the Model

In order to assess the fit of the model, the change in Pearson chi-square ( $\Delta X^2$ ) and change in the estimated parameters ( $\Delta \hat{\beta}$ ) were plotted in Figures 5.4, 5.5 and 5.6 as shown in Appendix 3.

Examination of plots shown in Appendix 3 (Figure 5.4 - 5.6) identified two covariate patterns (pairs 26 and 53 of the matched sample) with outlying values of  $\Delta \hat{\beta}$  and  $\Delta X^2$ . Analysis of these two covariate patterns is shown in Table 5.14:

**Table 5.14**

**Pair, Data, Estimated Probability and the Two Diagnostic Statistics  $\Delta \hat{\beta}$ ,  $\Delta X^2$  and Leverage ( $h$ ) for Two Extreme Pairs**

Pair	Cont/ Case	OUTTE NURE	BUSY BOD	DOMIN OWN	INSTI OWN	$\hat{\pi}$	$\Delta \hat{\beta}$	$\Delta X^2$	$h$
26	0	2	0.33	83.81	0	0.12	1.39	7.96	0.15
	1	15.33	1	34.37	0				
53	0	7.33	0	43.92	1	0.09	0.75	9.5	0.07
	1	4	4.5	70.31	1				

Analysis of pair 26 shows the data is contrary to expectations with the control firm having a lower proportion of outside directors with longer tenure (OUTTENURE) and multiple other directorships (BUSYBOD) and no presence of institution ownership (INSTIOWN). In contrast, the misconduct firms have a lower proportion of controlling shareholder ownership (DOMINOWN). This is contrary to what was hypothesised. Similarly, analysis of pair 53 also shows the reverse expectations, with the control firm having a lower proportion of outside directors with multiple other directorships

(BUSYBOD) and the misconduct firms reporting the presence of institution ownership (INSTIOWN). Again, this is contrary to what was hypothesised. The results of fitting the model with both pairs (26 and 53) excluded are also shown in Table 5.15:

**Table 5.15**

**Estimated Coefficients from Preliminary Main Effects Model (Table 5.12),  
Estimated Coefficients Obtained When Deleting Selected Pairs, Percent Change  
from the All Data Model and Values of Pearson Chi-Square Statistic**

<b>Data</b>	<b>OUTTE NURE</b>	<b>BUSY BOD</b>	<b>DOMIN OWN</b>	<b>INSTI OWN</b>	<b>X<sup>2</sup></b>
All	-0.246	-0.500	-0.032	-1.452	59.117
Delete 26	-0.379	-0.546	-0.026	-1.480	55.183
% Change	54.244	9.195	17.123	1.915	
Delete 53	-0.243	-0.687	-0.040	-1.685	50.778
% Change	1.225	37.255	26.789	16.033	

Table 5.15 shows that deleting pair 53 results in an increase in the coefficient for BUSYBOD, DOMINOWN and INSTIOWN, of at least 16% with a change in Pearson chi-square of 8.34. Deleting pair 26 from the sample results in an increase for OUTTENURE (54.24%) with a change in the Pearson chi-square of 3.93.

Overall, the results show that the model fits well with only a few covariate patterns as exceptions. The diagnostic statistics in Table 5.15 show that the change in estimated coefficients has no effect on the interpretation of the model after excluding the two extreme pairs (see appendix 4). Therefore, it is reasonable that these pairs should continue to be assessed in the model.

### 5.3.6 Results of the Final Model

The results of applying the final main effects model show that the average tenure of independent directors (OUTTENURE,  $p = 0.009$ ) and the average number of other firms that independent directors serve as directors (BUSYBOD,  $p = 0.007$ ) are a statistically significant determinant of the likelihood of a company experiencing management misconduct (at the 1% significance level). The percentage of a company's shares held by the largest controlling shareholders (DOMINOWN,  $p = 0.026$ ) and the presence of institutional shareholder (INSTIOWN,  $p = 0.019$ ) may also explain the likelihood of a company experiencing management misconduct (at the 5% significance level).

The odds ratio shown in table 5.16, in relation to average tenure of independent directors (OUTTENURE), estimates a 22% reduction in the likelihood of a company experiencing management misconduct per year of increased independent director tenure. The confidence interval suggests that the decrease in risk could be as much as 35% or as little as 6%, with 95% confidence. These results support hypothesis H1b in that independent directors with longer tenure are more effective in monitoring management than independent directors with shorter tenure. The results of further analysis quantifying the effect on independent director tenure on management misconduct are contained in Appendix 7.

**Table 5.16****The Final Main Effect Model**

Variable	Odds Ratio	P-Value	95% Confidence Interval
The average tenure of independent directors	0.78	0.009	0.651, 0.940
The average number of other firms that independent directors serve	0.61	0.007	0.421, 0.873
The percentage of company shares held by the largest controlling shareholders <sup>36</sup>	0.97	0.026	0.942, 0.996
The presence of institutional shareholders <sup>37</sup>	0.23	0.019	0.070, 0.786
Log likelihood = -28.850452			

Table 5.16 also indicates that firms with higher proportions of directors with multiple directorships are less likely to experience management misconduct than firms with lower proportions of directors with multiple directorships. The odds ratio shows that an additional appointment for independent directors (BUSYBOD) reduces the risk of the firm experiencing management misconduct by 39%. The confidence interval suggests this reduction in risk could be as much as 58%, or as little as 13%, with 95% confidence. This result is contrary to hypothesis H1c which proposed that multiple directorships by independent directors would be positively associated with management

<sup>36</sup> Cumulative shareholdings of the five largest shareholders were investigated to measure a concentration ownership instead of DOMINOWN. These were found to have no impact on the results previously outlined (Appendix 5).

<sup>37</sup> No significant difference in results is observed when using the proportion of institutional shareholders rather than the presence of an institutional shareholder (Appendix 6).

misconduct. The results of further analysis quantifying the effects of independent directors with multiple directorships on management misconduct are contained in Appendix 8.

The odds ratio for the percentage of company shares held by the largest controlling shareholders (DOMINOWN) estimates a 3% reduction in the likelihood of a company experiencing management misconduct per 1% increase in the proportion of shares held by the largest controlling shareholder. The reduction could be as much as 7%, or as little as 0.1%, with 95% confidence. These findings support hypothesis H5b which posited that higher concentrations of ownership were more effective in mitigating management misconduct than lower concentrations of ownership. The results of further analysis quantifying the effects of concentrated ownership on management misconduct are contained in Appendix 9.

The odds ratio in relation to the variable institutional ownership (INSTIOWN) suggests that firms with an institutional shareholder are 0.23 times less likely to experience management misconduct than firms with no institutional ownership. The confidence interval suggests the likelihood could be as little as 0.07 times or as much as 0.79 times. This evidence supports hypothesis H5d which posited that firms with institutional ownership are more effective in mitigating management misconduct than firms with no institutional ownership.

#### **5.4 Summary**

This chapter reports the results of the study into the relationship between corporate governance mechanisms and the likelihood of management misconduct. Section 5.2 of this chapter presents descriptive statistics relating to the sample of firms experiencing management misconduct. Overall, the most common type of management misconduct related to the failure to disclose trading in company shares. Management misconduct was most common in medium-size firms (total assets between 1.5 and 3 billion Baht) and in younger firms (less than five years) with the property industry the most common sector experiencing management misconduct. The results from inferential statistics shown in Section 5.3 provide evidence that the likelihood of a company experiencing management misconduct decreases with increases in the tenure of independent directors; the number of other firms that independent directors serve; the proportion of company shares held by the largest controlling shareholder; and the presence of an institutional shareholder. Importantly, the study found no relationship between major internationally recommended corporate governance mechanisms, such as independent boards, audit committee effectiveness and separation of the roles of CEO/Chair, and the likelihood of a reduction in a firm experiencing management misconduct.

## **CHAPTER 6**

### **CONCLUSIONS AND IMPLICATIONS**

#### **6.1 Introduction**

This chapter proceeds as follows. Section 6.1 provides some context for the study and highlights the keys variables examined. Section 6.2 outlines the contribution of the thesis to the corporate governance literature. Section 6.3 outlines the conclusions drawn in relation to the general objectives of the study, while section 6.4 outlines the conclusions drawn in relation to the specific hypotheses previously outlined. Section 6.5 outlines the possible implications of the findings of this thesis for policy and practice, with section 6.6 discussing potential limitations regarding the research methodology applied. Section 6.7 discusses further research opportunities, with section 6.8 concluding the thesis.

The recent spate of management misconduct scandals throughout the world has highlighted serious deficiencies in the application of mechanisms designed to detect and protect firms from corporate misconduct. In response, regulators have moved to recommend firms strengthen or adopt corporate governance reforms designed to restore corporate public confidence (Farber, 2005). This call for improved corporate governance has been universal and no less prevalent in South East Asian countries (Claessens & Yurtoglu, 2012; Globerman, Peng, & Shapiro, 2011).

Despite universal acceptance that corporate governance is effective in controlling agency conflict and can mitigate management misconduct, much of the empirical evidence relating to Asian corporate governance suggests that practices prescribed in

Western countries (such as the OECD principles) may not be as applicable or useful to developing nations (Chen, et al., 2011; Chuanrommanee & Swierczek, 2007; Gibson, 2003; Van Essen, et al., 2012). Theorists, such as Van Essen, et al. (2012) argue that as the Asian environment differs from that in Western countries with regards to corporate governance institutions, ownership structures and resource constraints, corporate governance guidelines developed in Western countries may not be a good fit in the Asian context. Sauerwald and Peng (2012) further argue that informal institutions such as culture and trust may be most relevant to explain agency conflicts in emerging countries such as in Asia where formal institutions are weak or absent.

The motivation for this thesis is to provide empirical evidence on the effectiveness of corporate governance on limiting management misconduct in the context of developing nations. This study attempts to determine whether international corporate governance best practices are applicable to South East Asian countries by focusing on a sample of Thai firms that have experiencing management misconduct. The hypotheses proposed are that companies are less likely to experience management misconduct where they have:

1. Higher proportions of independent directors on their board;
2. Higher proportions of outside directors with longer tenure;
3. Lower proportions of independent directors with multiple directorships;
4. Smaller boards;
5. Higher proportions of independent audit committee members;
6. Higher proportions of independent audit committee members with accounting or financial expertise;

7. A CEO who is not also the board chair;
8. A CEO with shorter tenure;
9. Lower proportions of their equity held by management;
10. Lower proportions of their equity held by controlling family shareholders;
11. The presence of a foreign investor shareholder;
12. The presence of an institutional shareholder;
13. Higher proportions of their equity held by non-controlling blockholder shareholders;
14. Lower proportions of members appointed by controlling shareholders on their board; and
15. A CEO appointed from outside the controlling family shareholder.

The study focused on a sample of 61 firms listed on the SET that experienced incidences of management misconduct. To examine the above hypotheses, the sample of misconduct firms was compared to a control group of firms not experiencing management misconduct. Matching was achieved on the basis of size, industry and year.

Multivariate conditional logistic regression modelling was employed to examine differences in the corporate governance environments of the two groups. The following control variables, which have the potential to impact the likelihood of management misconduct and affect corporate governance environments, were also included in the model:

1. Firm growth
2. Firm leverage
3. Financial performance
4. Auditor quality.

## **6.2 Contribution of the Thesis to the Literature**

The broad objective of this thesis is to provide empirical evidence on the contribution of corporate governance in limiting agency conflict. In particular, its focus is the association between corporate governance and the likelihood of a company operating in a developing economy encountering management misconduct.

This thesis provides several important and unique contributions to the corporate governance and corporate misconduct literature. Firstly, as the majority of studies of corporate governance and misconduct focus on Western countries (Carcello, et al., 2011), this thesis provides an opportunity to test whether corporate governance mechanisms identified in an Anglo-American context are applicable and useful to the Asian context. The particular focus of this thesis is on the Thai economy, an environment where business is based on networks and relationships (Tipton, 2009), legal enforcement is weak (eStandardsForum, 2009; Kanchanapoomi, 2005) and ownership is highly concentrated (Dhnadirek & Tang, 2003; Suehiro & Wailerdsak, 2004; World Bank, 2005). This highly concentrated ownership of Thai firms is often associated with the presence of controlling family owners who often involve themselves in management and exert abnormal influence over both management and the board (Young, et al., 2008). An important contribution of this study is that little evidence exists regarding the effect that concentrated ownership has on the likelihood of

management misconduct in developing economies. In addition, there is little empirical evidence regarding the relationship between specific corporate governance mechanisms and management misconduct in Thailand. The evidence from this study also suggests that corporate governance guidelines based on agency theory may not be sufficient to explain and address interest conflicts in Asia. Alternative theories such as stewardship theory, stakeholder theory, resource dependence theory, managerial hegemony theory and institutional theory may be more appropriately applied to understand corporate governance in this unique environment.

This thesis also extends the existing corporate misconduct literature by investigating various types of management misconduct behaviour. Most prior studies on misconduct tend to focus on a single misconduct type, such as financial accounting fraud. This study examines several different types of misconduct behaviour: embezzlement, false or misleading statements/fraudulent financial reporting, manipulation of stock price, insider trading and failure to disclose managements trading in a company's shares.

Another contribution to corporate governance literature provided by this thesis is the broad range of corporate governance variables that were examined. Prior studies often focus on only a single corporate governance variable or a limited subset of governance characteristics (Carcello, et al., 2011). This research examines both internal and external corporate mechanisms including outside director tenure, outside director experience, CEO tenure and ownership structures. The role of non-controlling blockholders, in particular, is often ignored in previous studies.

### **6.3 Conclusions Regarding the Research Objective**

As outlined in Section 1.3, the primary objective of this thesis is to provide empirical evidence on the effectiveness of Western based corporate governance recommendations in limiting management misconduct in developing countries such as Thailand.

The results of this study find no evidence supporting the effectiveness of major internationally recommended corporate governance mechanisms such as board independence, audit committee effectiveness and separation of the roles of CEO/Chair in mitigating management misconduct in Thailand. These findings are not consistent with either agency theory or the empirical evidence from the US, the UK and Australia which unilaterally hold these attributes to be important in limiting management misconduct. The results are, however, consistent with Van Essen, et al. (2012) who conclude that corporate governance recommendations prescribed for Western economies are not transferable to the Asian context.

This study does find independent directors with greater levels of experience and knowledge, the presence of an institutional owner and concentrated controlling shareholding are significant in limiting of the likelihood of a Thai company experiencing management misconduct. These findings align with resource dependence theory which posits that company directors serve to connect their firm with external environments and bring resources to firms (Gerald & Cobb, 2010; Hillman, et al., 2000; Pfeffer & Salancik, 1978). In addition, the importance of concentrated family ownership in limiting management misconduct highlights the significance of an important structural feature embedded in the Thai business environment.

## **6.4 Conclusions Regarding the Research Questions**

### **6.4.1 Are Firms With More Independent Boards Less Likely to Experience Management Misconduct Than Firms With Less Independent Boards?**

#### ***6.4.1.1 Board Independence***

As previously discussed in section 2.3.1.1, the literature holds that board independence is effective in limiting agency conflict, including management misconduct. While much empirical evidence exists in relation to developed countries, less evidence exists regarding developing countries. Descriptive analysis of the proportion of independent directors in this study showed little variance between no-misconduct firms and misconduct firms. Further analysis confirmed there was no statistically significant difference between the groups, suggesting that independence of the board is not effective in monitoring management misconduct in the Thai setting. This finding is contrary to that predicted by agency theory and evidenced in studies in Western countries (Beasley, 1996; Dechow, et al., 1996; Farber, 2005; Persons, 2006; Seamer, 2008; Sharma, 2004; Smaili & Labelle, 2009; Uzun, et al., 2004). The result is, however, consistent with other studies focusing on Asia that also report no relationship between board independence and misconduct (Abdullah, et al., 2010; Hasnan, et al., 2009; Huang & Liang, 2008; Rahman & Ali, 2006; Wang, et al., 2010). A possible explanation may be that Thai firms appoint independent directors only to comply with the SET requirement that one-third of the board's members must be independent. These independent directors may lack sufficient knowledge of the firm to be effective monitors of management and may see their role as resource providers, as predicted by resource dependence theory. Another possible reason for an absence of a strong relationship between board independence and management misconduct is that non-executive board members in Thailand may not be truly independent from management.

Most Thai firms are controlled by a family who may prefer a less independent board to enable them to dominate board proceedings and the process of board selection (Van Essen, et al., 2012). It is also common for non-executive directors in Thailand to be associated with the controlling shareholders (Roche, 2005), and as such, may be reluctant to challenge management appointed by the controlling family. Another possible reason is that the proportion of independent directors in Thailand is relative low, approximately one third, compared to Western countries where more than half of board directors will be independent (ASX Corporate Governance Council, 2010; Financial Reporting Council, 2012; New York Stock Exchange, 2009). The corporate governance literature holds that independent directors have more incentive to monitor management than non-independent directors (Fama, 1980; Fama and Jensen, 1983). The more independent directors on the board, the more independent the board is from management. As the average Thai board contains only one-third independent directors, they may lack the necessary balance of power to challenge other directors, especially those appointed from a controlling family.

#### ***6.4.1.2 Independent Director Tenure***

Section 2.3.1.2 outlined the literature that holds that outside directors with longer tenure have greater experience, commitment and competence than outside directors with shorter tenure and are therefore better monitors of management. Descriptive analysis of the sample showed a higher proportion of outside directors with longer tenure in no-misconduct firms than misconduct firms. Long tenure of outside directors remained a statistically significant variable in univariate analysis, with further multivariate analysis confirming the positive relationship between outside director tenure and a reduction in the likelihood of management misconduct. The analysis showed that a company with

outside directors with longer tenure was 19% less likely to experience management misconduct compared to a company with outside directors with shorter tenure. This suggests that independent directors who serve for a longer period of time are more effective in monitoring management than independent directors with shorter periods of service. This finding is consistent with that reported by Beasley (1996), Thoopsamut and Jaikengkit (2009) and Persons (2005). They all find that longer tenure independent directors are more likely to challenge management than independent directors with shorter tenure and can better handle conflict issues. The findings also support the view that when independent directors serve for longer periods, they gain more knowledge, experience and commitment resulting in better monitoring of management (Buchanan, 1974; Quinones, et al., 1995; Vafeas, 2003).

#### ***6.4.1.3 Independent Director Experience***

The literature in relation to the effect that holding multiple directorships has on independent directors monitoring of management is inconclusive. Some theorists argue independent directors with multiple outside directorships may be less effective in monitoring management due to time restraints (Beasley, 1996; Berberich & Niu, 2011; Fich & Shivdasani, 2006; Matoussi & Jardak, 2012), while others argue independent directors with multiple outside directorships bring greater knowledge, experience and networks to firms, resulting in improved monitoring of management (Chakravarty, et al., 2009; Keys & Li, 2005; Sarkar & Sarkar, 2009). The descriptive analysis of this study showed that independent directors of misconduct firms had fewer outside directorships than independent directors of no-misconduct firms. The results of both univariate and multivariate analysis showed a statistically significant negative relationship between the level of independent directors' outside directorships and the

likelihood of management misconduct. Further analysis showed the odds of a company with independent directors holding greater numbers of outside directorships experiencing management misconduct to be 39% less than those odds applicable to a company with independent directors serving on fewer outside boards. The findings indicate that firms with higher proportions of directors with multiple directorships are less likely to experience management misconduct than firms with lower proportions of directorships with multiple directorships. This result is contrary to Beasley (1996) who reported a positive association between multiple directorships of independent directors and the likelihood of management fraud. The findings of this study support the view that independent directors are concerned about their reputation (Fama, 1980; Fama & Jensen, 1983) and are less likely to be involved in misconduct and more motivated to effectively monitor management. The results also support resource dependency theory which posits that independent directors with multiple directorships provide a firm with greater knowledge, experience and networks, resulting in a superior monitoring of management.

#### **6.4.2 Are Firms With Smaller Boards Less Likely to Experience Management Misconduct Than Firms With Larger Boards?**

The corporate governance literature on the effect of board size on limiting management misconduct is inconclusive. Some theorists argue that a smaller board is more effective in monitoring management than a larger board as it faces less coordination and process problems (Jensen, 1993). Also it is claimed that a large board is also more likely to experience free-riding issues (Hermalin & Weisbach, 2003). However, other theorists argue that a larger board provides more skills and resources that result in better management monitoring (Anderson, et al., 2004; Christensen, et al., 2010; Williams, et

al., 2005). Descriptive analysis in this study showed misconduct firms had, on average, slightly smaller boards than no-misconduct firms, however the difference was not statistically significant. These results suggest that board size is not associated with the likelihood of management misconduct in Thailand.

### **6.4.3 Are Firms With More Effective Audit Committees Less Likely to Experience Management Misconduct Than Firms With Less Effective Audit Committees?**

#### ***6.4.3.1 Independence of the Audit Committee***

Section 2.3.2 of this thesis outlined the extensive body of empirical evidence which shows that audit committees are effective in limiting agency conflicts, including management misconduct. However, contrary to expectation, the descriptive analysis in this study shows a slightly higher proportion of independent audit committee members in misconduct firms than in no-misconduct firms. However, the difference was not statistically significant. These results are contrary to the findings of major studies in Western countries which show an independent audit committee limits the likelihood of management misconduct and earnings management (Abbott, et al., 2004; Beasley, et al., 2000; Bédard, et al., 2004; Davidson, et al., 2005; Klein, 2002; Mustafa & Youssef, 2010; Persons, 2005). This study's findings, however, are consistent with Thoopsamut and Jaikengkit (2009) and Kiatapiwat (2010) who provide evidence that audit committee independence is not associated with limiting earnings management in Thailand. It is possible that audit committees in Thailand may not be truly independent or are not effective, being appointed merely to fulfil regulatory requirements. In addition, as the functioning of audit committees in Thailand is at an early stage of development, members may lack sufficient knowledge of the audit committee role

(Tengamnuay & Stapleton, 2009), thereby reducing the effectiveness of its monitoring of management.

#### **6.4.3.2 *Audit Committee Expertise***

The literature also recognizes that audit committees with members with financial or accounting expertise are more effective in monitoring management and the financial reporting process than audit committees without financial or accounting expertise. This study found the proportion of audit committee members with finance or accounting expertise in misconduct firms was slightly greater than in no-misconduct firms, however, the difference was not statistically significant. These findings contrast with those of several studies in Western countries (Abbott, et al., 2004; Agrawal & Chadha, 2005; Bédard, et al., 2004; DeZoort & Salterio, 2001; Farber, 2005; Lin & Hwang, 2010; Mustafa & Youssef, 2010; Pomeroy, 2010) which all report a positive relationship between the financial expertise of the audit committee and a reduction in misconduct and earnings management. However, the findings of this study are consistent with Thoopsamut and Jaikengkit (2009) who did not find a relationship between audit committee expertise and earnings management in Thailand. A possible explanation is that Thai firms may appoint ‘ineffective members’ with little financial or accounting expertise to the audit committee, solely to meet the SEC requirement.

#### **6.4.4 Are Firms With Boards Free From CEO Domination Less Likely to Experience Management Misconduct Than Firms With Boards Dominated by the CEO?**

##### ***6.4.4.1 CEO/Chair Duality***

Section 2.3.4 outlined the literature that posits that the effectiveness of board oversight of management is compromised when the CEO also serves as board chair. A large body of empirical evidence also shows that CEO/Chair duality is associated with the likelihood of management misconduct (Beasley, et al., 2000; Chapple, et al., 2009; Dechow, et al., 1996; Persons, 2005; Sharma, 2004; Smaili & Labelle, 2009). Descriptive analysis in this study showed the proportion of misconduct firms with a dual CEO/Chair was slightly higher than the proportion of no-misconduct firms with a dual CEO/Chair, although the difference was not statistically significant. This finding suggests that the SET recommendation to separate the roles of CEO and chairperson does not necessary improve corporate governance in Thailand. A plausible explanation may be that controlling family shareholders, common in the Thai setting, hold sufficient power to influence and monitor both the CEO and board operations. As shown in Table 5.8, approximately 60% of both misconduct and no-misconduct firms appointed a CEO from the controlling family and more than one-quarter of board members in both groups came from the controlling family shareholder group.

##### ***6.4.4.2 CEO Tenure***

The literature in relation to the effect that CEO tenure has on management misconduct is inconclusive. A CEO with longer tenure may value their reputation more than a CEO with shorter tenure and be motivated to avoid misconduct (Persons, 2006). Alternatively, a CEO with longer tenure may dominate the board and override internal

control systems leading to entrenchment problems and greater opportunity for misconduct (Alexander & Cohen, 1999; Cheng, et al., 2011; Hermalin & Weisbach, 2003). Descriptive analysis in this study showed that the average tenure of no-misconduct firm CEOs is longer than the average tenure of misconduct firm CEOs. This finding was statistically significant when univariate analysis was employed, however, it was not significant when multivariate analysis was employed. The result of the correlation analysis also shows CEO tenure has a strong positive association with management ownership. This finding is consistent with several studies (Agrawal & Chadha, 2005; Beasley, 1996; Burns & Kedia, 2006; Saksena, 2003; Uzun, et al., 2004) which fail to find any relationship between CEO tenure and management misconduct. It is possible that a strong family controlling shareholder moderates the power of a CEO. This also supports the findings of Rachapradit, Tang and Khang (2012) who report that a CEO's performance is not relevant in determining their tenure in Thai family-controlled-firms.

#### **6.4.5 What Role Does Ownership Structure Play in Limiting Management Misconduct in Thai Firms?**

##### ***6.4.5.1 Management Ownership***

Section 2.3.4.1 outlined the literature that posits that when management hold a substantial amount of equity they gain power that creates entrenchment problems and may motivate them to engage in conduct designed to artificially inflate the value of their shares. Descriptive analysis in this study showed a slightly higher proportion of shares held by management in misconduct firms compared to no-misconduct firms, however the difference was not statistically significant. This suggests that managerial ownership is not associated with management misconduct in the Thai setting. A possible

explanation may be that unlike Western firms where management is appointed from outside, Thai firms often appoint their management from within the controlling family (Wiwattanakantang, 2001). The results from the Pearson correlation coefficients also show that management ownership has a strong positive relationship with concentrated family ownership. Perhaps as shareholders become managers, agency conflicts are reduced.

#### ***6.4.5.2 Controlling Shareholder Ownership***

The literature in relation to the impact of a controlling shareholder on the likelihood of management misconduct is inconclusive. Some theorists argue that large blockholding shareholders enhance corporate governance as they have strong incentives to monitor managers (Jiraporn & DaDalt, 2009; Wang, 2006). Alternatively, other theorists argue large block ownership leads to entrenched management which is more likely to expropriate from minority shareholders (Haw, et al., 2011; Jaggi, et al., 2009; Morck & Yeung, 2004). Descriptive analysis in this study showed a higher average concentrated shareholding in no-misconduct firms than in misconduct firms. Although the difference was not statistically significant during univariate statistical analysis, further multivariate analysis indicated concentrated shareholding was effective in limiting the likelihood of a firm experiencing management misconduct.

This finding is consistent with Hasnan, et al. (2009) who report that Malaysian firms with greater concentrated shareholdings are less prone to experience fraudulent financial reporting than Malaysian firms with lower concentrated shareholdings. Wiwattanakantang (2001) also finds concentrated family ownership acts an effective monitor of management, preventing managers extracting private benefits for themselves

in Thailand. This finding also corroborates the view that the board may not be as essential to corporate governance in Asian firms, as the prevalence of large blockholding shareholders monitors management and is an efficient substitute for the board (Van Essen, et al., 2012).

Several empirical studies in the Asian context provide evidence that ownership concentration is positively associated with management monitoring, resulting in lower earnings management (Hashim & Devi, 2008; Jiraporn & DaDalt, 2009). One possible explanation is that in Asia, controlling shareholders wish to pass their business to the next generation and therefore are less likely to prevent manipulating earnings for short-term benefits (Wang, 2006). Another possible explanation may lie within institutional theory. As Thailand is an environment where enforcement is relatively weak (eStandardsForum, 2009; Kanchanapoomi, 2005), controlling concentrated shareholders have greater incentives to monitor management as regulators cannot be relied on to act as a significant deterrent (Liu, et al., 2012).

#### ***6.4.5.3 Foreign Ownership***

The literature holds that foreign ownership results in improved effectiveness of management oversight in firms operating in developing economies (Chin, et al., 2009; Claessens & Djankov, 1999; Wiwattanakantang, 2001; Xiao & Yuan, 2007). Descriptive analysis in this study showed that fewer misconduct firms reported the presence of a foreign shareholder when compared to no-misconduct firms, however, the difference was not statistically significant. One possible explanation is that in Thailand, foreign shareholders may not gain enough power to challenge a domestic major

controlling shareholder. This finding supports Ananchotikul (2006) who does not find a link between foreign ownership and improved corporate governance in Thailand.

#### **6.4.5.4 Institutional Ownership**

The literature recognises that as institutional shareholders have more at stake than non-institutional investors, they have greater incentives to monitor management. Therefore, it is expected that the likelihood of misconduct is lower in firms with institutional owners than firms without institutional owners. Descriptive statistics for this study showed that, on average, 19.67% of misconduct firm reported the presence of institutional shareholders, compared to 37.70% of no-misconduct firms. This was found to be statistically significant when both univariate and multivariate analysis was performed. This result supports the finding of Sharma (2004) who reports that the existence of institutional shareholders are associated with a reduction in the risk of fraud in Australia. As institutional investors in Thailand tend to be financial institutions who are also a major financing source for firms (Persons, 2006), they have greater motives, opportunities, resources and power to monitor managers compared to other shareholders (Chung, et al., 2002; Hashim & Devi, 2008; Koh, 2003).

#### **6.4.5.5 Non-Controlling Blockholder Ownership**

The corporate governance literature also holds that concentrated shareholdings by a non-controlling shareholder is associated with enhanced corporate governance as it acts as a counter balance against the exercise of excess power by the controlling shareholder. This study found little difference between the levels of block shareholding between misconduct and no-misconduct firms. This suggests non-controlling block shareholders are not influential in limiting management misconduct in Thailand. A possible

explanation may be that compared to the level of controlling shareholdings (38.83% of misconduct firms and 43.96% of no-misconduct firms), other non-controlling block holders (approximately 10% of equity) held insufficient power to counteract the major shareholder. This is consistent with the findings of Maury and Pajuste (2005).

#### **6.4.6 Are Firms Free From Controlling Shareholder Influence Less Likely to Experience Management Misconduct Than Firms Under Controlling Shareholder Influence?**

##### ***6.4.6.1 Controlling Shareholder Appointed Directors***

The corporate governance literature posits that non-management directors appointed from the controlling shareholder group are effective in monitoring management as their personal wealth is tied to firm performance. Conversely, appointed shareholder directors may gain excessive power and dominate the board to expropriate firm resources from the minority shareholders. In this study, there was no statistically significant difference in the appointment of directors of the controlling group between misconduct firms and no-misconduct firms. This suggests that appointing directors from the controlling shareholder group is not associated with management misconduct in Thailand. Results from a correlation analysis also show a significant positive association between the appointment of controlling group directors and the level of concentrated controlling ownership. As many Thai listed firms are controlled by a family, it is to be expected that they would appoint family members to the board (Ali, et al., 2007) in order to gain control and influence over board proceedings (Anderson & Reeb, 2004).

#### **6.4.6.2 *Controlling Shareholder Appointed CEO***

Section 2.3.5.3 outlines the literature that posits that appointing a CEO from the controlling shareholder group may compromise the effectiveness of management monitoring due to the controlling shareholder group's ability to dominate the board (Chen, et al., 2008; Prencipe & Bar-Yosef, 2011; Rachapradit, et al., 2012; Westhead & Howorth, 2006). Descriptive analysis in this study showed that a slightly higher proportion of no-misconduct firms appointed a CEO from the controlling shareholder group compared to misconduct firms. However, univariate analysis did not find a statistically significant difference between the two groups.

### **6.5 Implications for Practice and Policy**

The results of this study provide empirical evidence on the relationship between a firm's corporate governance and the likelihood of it experiencing management misconduct in the Thai setting. The findings of this thesis have several important implications. Firstly, these findings suggest that major international recommendations regarding the effectiveness of corporate governance mechanisms such as board independence, audit committee expertise and the separation of the roles of CEO and chair in mitigating management misconduct are not necessarily effective in the Thai context. This provides important evidence for the debate regarding the appropriateness of adopting international corporate governance practices without regard to cultural, political, regulatory and economic factors unique to the South East Asian environment (Sauerwald & Peng, 2012).

One significant difference between South East Asian and Western firms is the predominance of controlling family shareholders. As family owners can dominate both

the board and management, a Western structured board may be superfluous to management oversight. The SET should perhaps focus on developing mechanisms that are adapted to the unique environment of Thailand. These could include encouraging outside directors to be more independent and more active in overseeing management, encouraging audit committees to be more active in monitoring the financial reporting process and management, and strengthening the enforcement of investors' legal rights.

As corporate governance best practices, such as the OECD model, are not designed to address conflicts between controlling shareholders and minorities (Chen, et al., 2011), it may allow controlling groups to engage in behaviour that harms other shareholders. This is especially so given the weak legal enforcement regime in Thailand. Regulatory authorities may need to focus on developing practices designed to monitor controlling shareholders and ensuring minority shareholders are protected.

In relation to director attributes, the results also suggest that outside directors with adequate skills and experience are important in monitoring management and limiting management misconduct. The Thai Institute of Directors Association (IOD) is an important institution that should be encouraged to develop these important skills in future directors. Although SET recommendations require directors and audit committee members to undertake the Director Accreditation Program<sup>38</sup> (DAP), it is a basic, one day training course, which covers only simple legal responsibilities of listed directors. It is important that directors are encouraged to regularly develop and improve their skills

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<sup>38</sup> The Director Accreditation Program is provided by the Thai Institute of Directors Association (IOD). Founded in 1999 to promote good governance practice in Thailand, the IOD was established with support from major Thai capital market institutions, such as the SEC, the SET, the Bank of Thailand, the foundation of the Capital Market Development Fund and the World Bank.

and that the IOD revise their program to focus on corporate governance issues relevant to the current environment in Thailand.

The findings from this study also offer an important contribution to the accounting profession. ISA 240 ‘The Auditor’s Responsibility to Consider Fraud in an Audit of Financial Statement’ requires auditors to plan for and assess the possibility of fraud. Appendix 1 of this standard also provides guidance on situations that may be indicative of the likelihood of fraud. Currently, the risk factors outlined in the standard do not include any reference to corporate governance mechanisms or other structural features in firms shown by this study of to be indicative of fraud in Thailand. It is hoped that Thai auditors can consider these factors when assessing the risk of fraud and add to the list of ‘red flags’ to improve the efficiency of auditing.

## **6.6 Limitations of This Study**

### **6.6.1 Methodological Limitation**

Several potential limitations should be noted when interpreting the findings of this study. Firstly, since this thesis employed a choice-based sample matching design, the validity of results depends on the accuracy of sample matching. As it is not possible to exactly match each pair, differences in matching variables may lead to a distortion of results (Cram, et al., 2009). While this study compared the sample by matching each misconduct firm with a control firm matched on the basis of size, industry and period, no matched pair can be identical.

Data constraints also resulted in the sample being limited to public companies trading on the SET. As data, such as financial statements and additional disclosure information

(e.g. 56-1 form) are not publicly available for non-listed companies, management misconduct in non-listed organisations could not be examined. Another important limitation is the limited number of reported misconduct cases. As the sample was drawn from a population of cases successfully prosecuted by the SEC, it is possible that other misconduct events not prosecuted by the SEC were excluded from the population. It is also possible that misconduct companies which escape SEC detection, may have been included in the control group of no-misconduct firms. Another potential limitation is this study's reliance on publicly available information that is self-disclosed by firms (i.e. 56-1 form). It is possible that the information disclosed by firms is not reflective of reality, a possibility that is made more likely by the fact many sample firms were convicted for incidences relating to manipulated or inadequate disclosure. Ananchotikul, Kouwenberg, and Phunnarungsi (2010) also found that some Thai listed companies issued corporate governance statements that were incorrect and misleading. Given this study focuses on a sample of firms engaging in misconduct, inaccurate disclosure is a possibility.

### **6.6.2 Limitations in Evaluating Corporate Governance**

Although this study attempts to control for several characteristics influencing the likelihood of management misconduct, it is possible that other variables are not captured or identified in the restrictive matching process. Only measurable characteristics that are available for both matched pairs can be used. Furthermore, as it is difficult to measure informal corporate governance characteristics, such as a firm's ethical, corporate culture and inter-personal relationships (soft governance measures), it is not possible to address such factors in this study.

## 6.7 Further Research

This study extends the previous literature relating to the relationship between corporate governance and management misconduct with a particular focus on the Thai context. Its findings are particularly important as it focuses on an institutional environment that differs substantially from the Western context where corporate governance recommendations were developed. While Section 6.5 outlined several important contributions of this thesis, many other interesting questions warrant investigation.

This study adopted an archival method to analyse the relation between corporate governance mechanisms and management misconduct. It would be interesting if other methods were employed to further understand the relationship. For example, field studies and surveys could be used to gain an appreciation of the actual processes active in Thai corporate governance, and an experimental method could be applied to study how Thai management makes decisions in its unique environment.

As discuss in section 2.1, while there are multiple theories of corporate governance, it is agency theory that dominates current recommendations regarding corporate governance and its impact on the reduction of management misconduct. Future research is needed to consider whether alternative theoretical perspectives can provide a richer explanation of the unique corporate governance environment of Thailand. For example, as resource dependence theory sees the board more in terms of a strategic partnership connecting the firm with external resources, it may offer an alternative explanation of the board's role in Thailand.

More research is also needed regarding the role of audit committees in limiting management misconduct in Thailand. While the literature recognises that an effective audit committee mitigates the likelihood of management misconduct, this study found no evidence that audit committee independence or financial expertise were associated with a reduction in the likelihood of management misconduct. Prior studies have addressed several other attributes as important to audit committee effectiveness such as authority, access to resources and diligence (DeZoort, et al., 2002). Future research may need to examine the prevalence of these attributes in relation to Thai audit committees<sup>39</sup>. Another potential area for future research is an examination of the role of sub-committees of the board, such as remuneration and nomination committees, in mitigating management misconduct. As discussed in section 2.3.3, the empirical evidence regarding the role of remuneration committees and nomination committees in corporate governance is limited and mixed. Future research is needed to explore the role of these board subgroups and their ability to effectively monitor management and limit misconduct.

While this study examines an extensive array of corporate governance variables, both internal and external to the firm, there remains the potential to develop a richer set of corporate governance variables that may impact on the incidence of management misconduct. These may include more informal institutional features such as culture, trust and inter-firm coalitions which have been shown to play an important role in corporate governance in emerging economies (Sauerwald & Peng, 2012).

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<sup>39</sup> This study examines the effectiveness of audit committees in two characteristics: independence and financial/accounting expertise. Due to the data not being available, other characteristics such as audit committee diligence (the number of audit committee meeting) were not examined.

## **6.8 Concluding Comments**

This thesis provides empirical evidence regarding the impact of corporate governance mechanisms on the likelihood of management misconduct in the South East Asian context, in particular Thailand. The study fails to find any relationship between the incidence of management misconduct and major corporate governance mechanisms (such as board independence, audit committee effectiveness and the separation of the roles of CEO and board chair) that are internationally recommended.

This thesis, however, does show that independent directors with knowledge and experience are a significant influence in limiting the likelihood of management misconduct in Thailand. The study also finds the presence of an institutional shareholder and a controlling shareholder are important determinants in reducing the likelihood of firms experiencing management misconduct. This research adds to the corporate governance literature by providing further empirical evidence of the effectiveness and appropriateness of various corporate governance mechanisms recommended for South East Asian countries, an environment that differs significantly from Western countries, especially in relation to ownership concentration and institutional structure. Regulatory authorities should develop new corporate governance practice recommendations to monitor controlling shareholders and ensure minority shareholders are protected. Outside directors should be encouraged to be more independent and more active in overseeing management. The enforcement of investors' legal rights is an area that needs the attention of Thai authorities. While controlling family shareholders dominate most SET's companies, minority shareholders should be encouraged to be actively involved in monitoring majority shareholders and managers and outside directors given specific training to improve their monitoring ability.

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## APPENDICES

### APPENDIX 1

#### The Variance Inflation Factors (VIF) of the Interest Variables

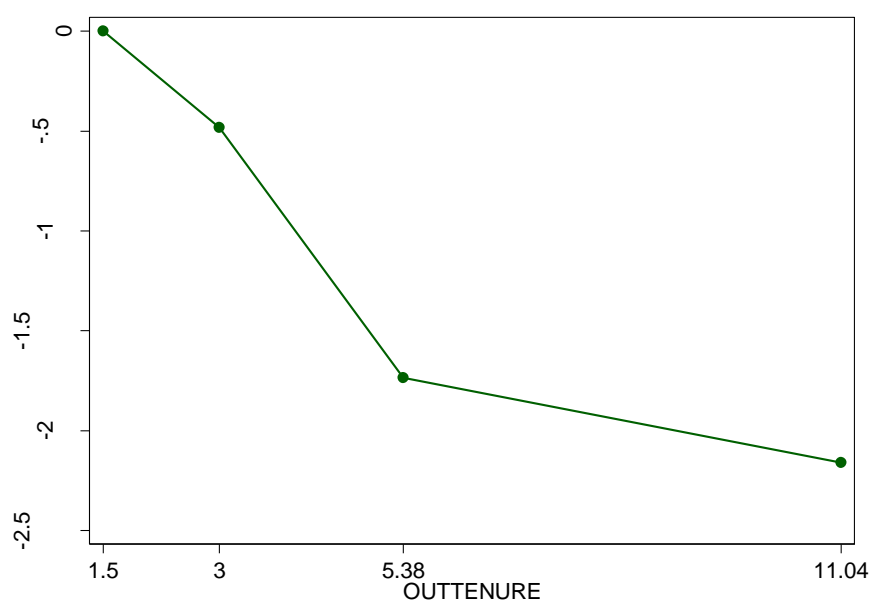
##### Collinearity Diagnostics

Variable	VIF	SQRT VIF	Tolerance	R- Squared
BODIND	2.61	1.62	0.383	0.617
AUDIND	3.58	1.89	0.2793	0.7207
AUDEXP	1.31	1.14	0.7641	0.2359
DUALITY	1.23	1.11	0.8142	0.1858
OUTTENURE	1.57	1.25	0.6382	0.3618
CEOTENURE	1.46	1.21	0.6859	0.3141
BUSYBOD	1.29	1.13	0.7779	0.2221
BODSIZE	3.31	1.82	0.3024	0.6976
MANOWN	1.70	1.31	0.5865	0.4135
DOMINOWN	1.62	1.27	0.6178	0.3822
FOROWN	1.46	1.21	0.6863	0.3137
INSTIOWN	1.24	1.12	0.8035	0.1965
DOMINBOD	1.63	1.28	0.6131	0.3869
DOMINCEO	1.50	1.22	0.6684	0.3316
BIG4	1.34	1.16	0.7483	0.2517
GROWTH	1.14	1.07	0.8769	0.1231
LEVERAGE	1.11	1.05	0.9018	0.0982
LOSS	1.52	1.23	0.6591	0.3409
SECONHLD	1.29	1.14	0.7753	0.2247
Mean VIF	1.68			

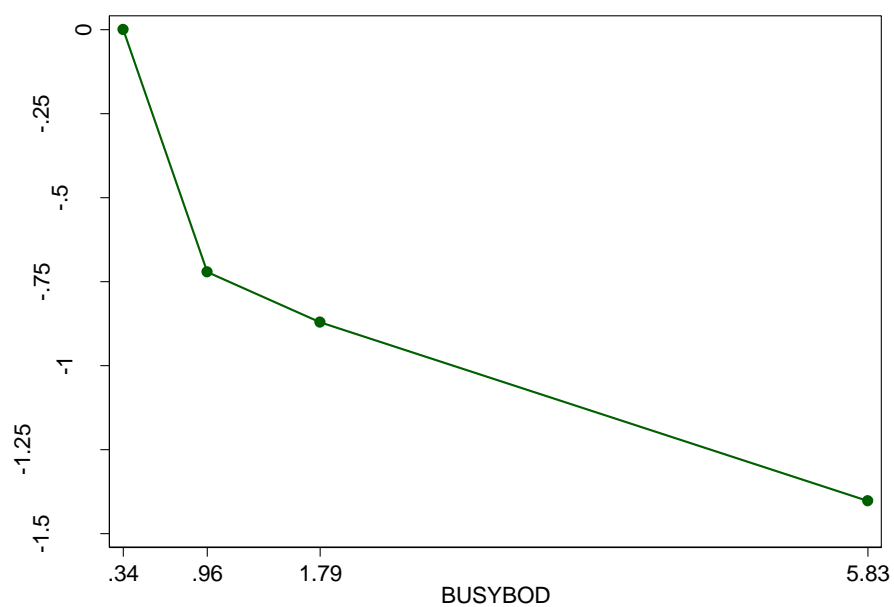
## APPENDIX 2

### The Quartiles Analysis

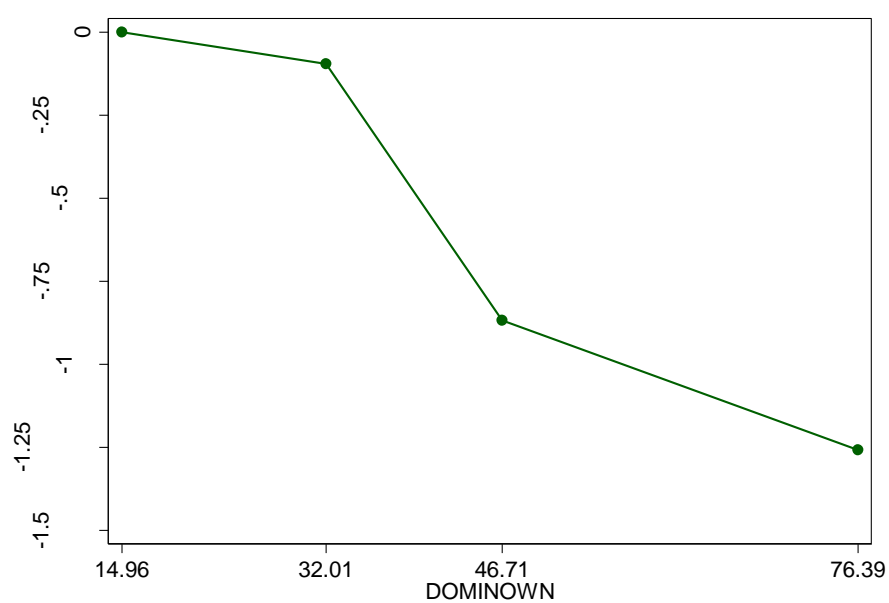
**Figure 5.1 Plot of the Estimated Coefficients for the Quartiles of OUTTENURE Versus the Midpoint of the Quartile**



**Figure 5.2 Plot of the Estimated Coefficients for the Quartiles of BUSYBOD Versus the Midpoint of the Quartile**



**Figure 5.3 Plot of the Estimated Coefficients for the Quartiles of DOMINOWN Versus the Midpoint of the Quartile**



### APPENDIX 3

#### Assessment of Fit in a Model

**Figure 5.4 Plot of  $\Delta X^2$  Versus the Estimated Probability from the Fitted Model in Table 5.12**

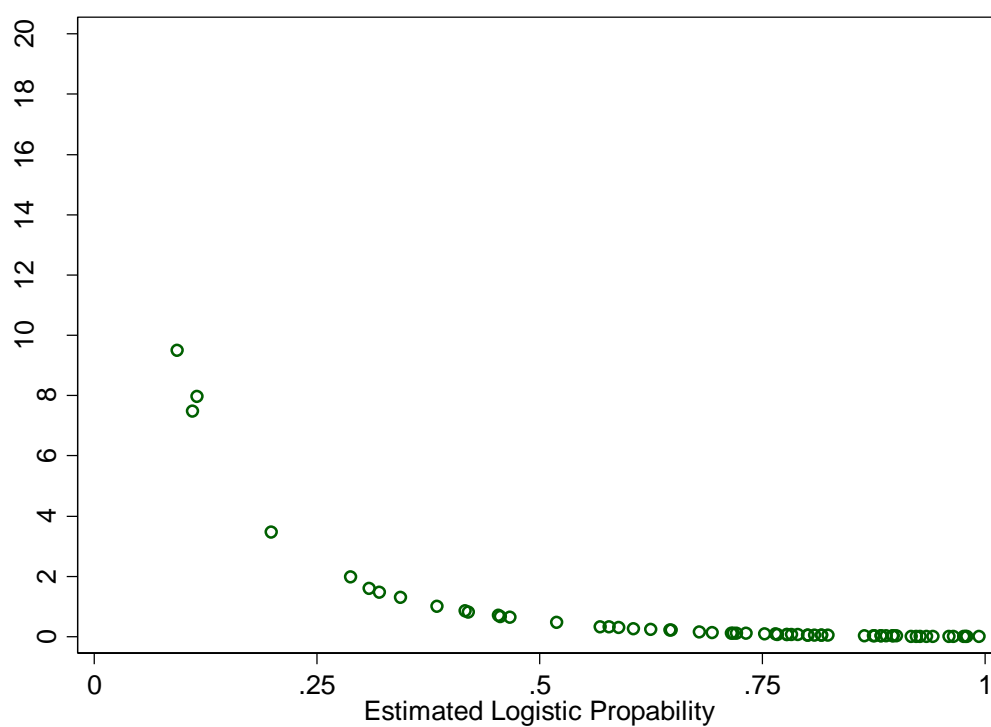


Figure 5.4 shows that  $\Delta X^2$  increases as estimated logistic probability decreases. Three points have values between about 7.0 and 10.0. Aside from these three values, the plots show that the model fits reasonably well.

**Figure 5.5 Plot of  $\Delta\hat{\beta}$  Versus the Estimated Logistic Probability from the Fitted Model in Table 5.12**

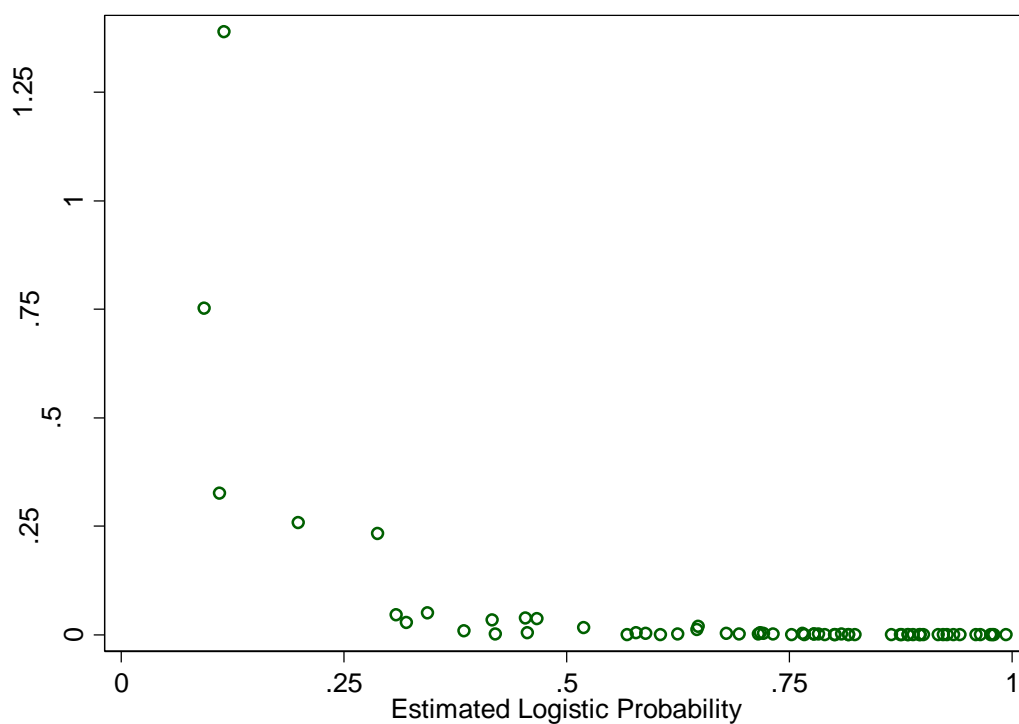


Figure 5.5 shows the change in the estimated parameter and indicates that two values are larger than 0.40.

**Figure 5.6 Plot of  $\Delta X^2$  Versus the Estimated Logistic Probability from the Fitted Model in Table 5.12 with the Size of the Plotting Symbol Proportional to  $\Delta \hat{\beta}$**

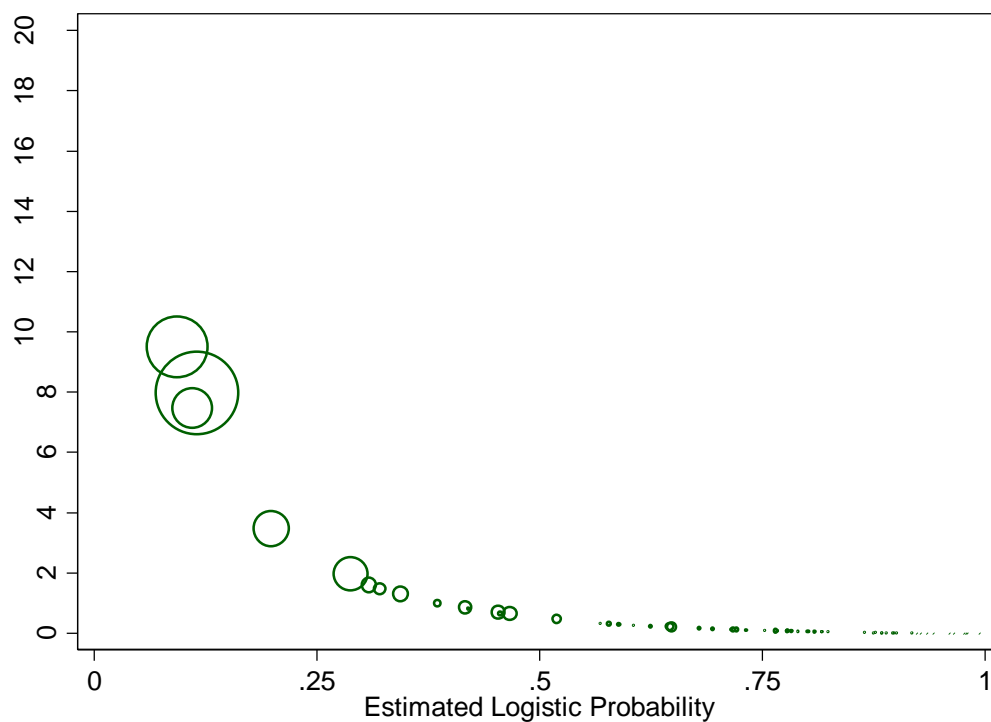


Figure 5.6 shows the relationship between  $\Delta \hat{\beta}$ ,  $\Delta X^2$  and the leverage  $h$  by plotting  $\Delta X^2$  versus  $\hat{\pi}$  with the size of the plotting symbol proportional to  $\Delta \hat{\beta}$ . The figure shows that the two pairs with the largest value of  $\Delta \hat{\beta}$  occur in the estimated probability scale of less than 0.2. These two largest values of  $\Delta \hat{\beta}$  also correspond to the three pairs with the largest values of  $\Delta X^2$ .

## APPENDIX 4

### Results of Fitting the Model after Deleting the Outliers

Conditional (fixed-effects) logistic regression	Number of obs	=	118
	LR chi2(4)	=	35.14
	Prob > chi2	=	0.0000
Log likelihood = -23.326475	Pseudo R2	=	0.4296

Misconduct	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
OUTTENURE	-0.3721612	0.1244966	-2.99	0.003	-0.6161699	-0.1281524
BUSYBOD	-0.7463283	0.2455558	-3.04	0.002	-1.2276090	-0.2650478
DOMINOWN	-0.0345154	0.0164516	-2.10	0.036	-0.0667599	-0.0022709
INSTIOWN	-1.6610290	0.7558244	-2.20	0.028	-3.1424180	-0.1796408

## APPENDIX 5

### Results of Fitting the Model Using Cumulative Shareholdings of Five Largest Shareholders (CONSHARE)

Conditional (fixed-effects) logistic regression	Number of obs	=	122
	LR chi2(4)	=	28.63
	Prob > chi2	=	0.0000
	Pseudo R2	=	0.3385
Log likelihood = -27.969241			

Misconduct	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]
OUTTENURE	-0.3023546	0.1072916	-2.82	0.005	-0.5126423 -0.0920669
BUSYBOD	-0.4469805	0.1807213	-2.47	0.013	-0.8011878 -0.0927732
CONSHARE	-0.0397740	0.0163798	-2.43	0.015	-0.0718779 -0.0076701
INSTIOWN	-1.5139840	0.6637117	-2.28	0.023	-2.8148350 -0.2131327

## APPENDIX 6

### Results of Fitting the Model Using the Proportion of Institutional Ownership

Conditional (fixed-effects) logistic regression	Number of obs	=	122
	LR chi2(4)	=	24.48
	Prob > chi2	=	0.0001
Log likelihood = -30.043291	Pseudo R2	=	0.2895

Misconduct	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]
OUTTENURE	-0.2112631	0.0903461	-2.34	0.019	-0.3883381 -0.0341880
BUSYBOD	-0.5022406	0.1858037	-2.70	0.007	-0.8664091 -0.1380721
DOMINOWN	-0.0309118	0.0140066	-2.21	0.027	-0.0583642 -0.0034594
INSTIOWN_N	-0.1158325	0.0634658	-1.83	0.068	-0.2402232 0.0085583

## APPENDIX 7

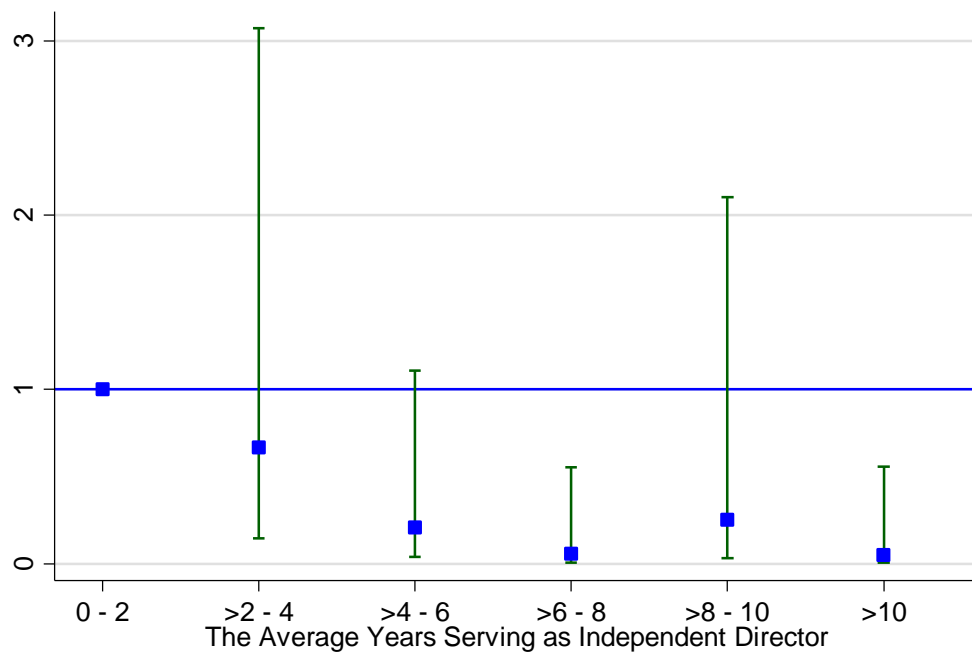
### Quantifying the Effect of the Tenure of Independent Directors on Management

#### Misconduct

The odds of a firm experiencing management misconduct are provided in Figure 5.7.

These results were obtained by comparing varying years of experience of independent directors to a reference group of independent director serving up to two years.

**Figure 5.7 Effect of the Tenure of Independent Directors on Management Misconduct**



Note: Odds ratios are shown with 95% confidence intervals

The results in Figure 5.7 indicate that the likelihood of a company having a board comprising independent directors with an average tenure of between two years and four years experiencing management misconduct is 33% less than that of a company with independent directors with an average tenure of up to two years. When independent

directors of the firm served between four years and six years, the odds of a company experiencing management misconduct decreased 79% when compared to the reference group. The results also show that a firm with independent directors with an average tenure of between six and eight years was 94% less likely to experience management misconduct when compared to the reference group. When the averaged independent director tenure was between eight and ten years, the odds of firms experiencing management misconduct decreased 75% compared to the reference group. A final comparison to a company with independent directors with an average tenure exceeding ten years shows such a company was 95% less likely to experiencing management misconduct than a company with independent directors with averaged tenure of up to two years.

## APPENDIX 8

### Quantifying the Effect of the Experience of Independent Directors on Management Misconduct

Figure 5.8 shows the results of comparing various levels of independent director experience (expressed as number of boards served) and a reference group of directors that served on no other boards.

**Figure 5.8 Effect of the Experience of Independent Directors on Management Misconduct**

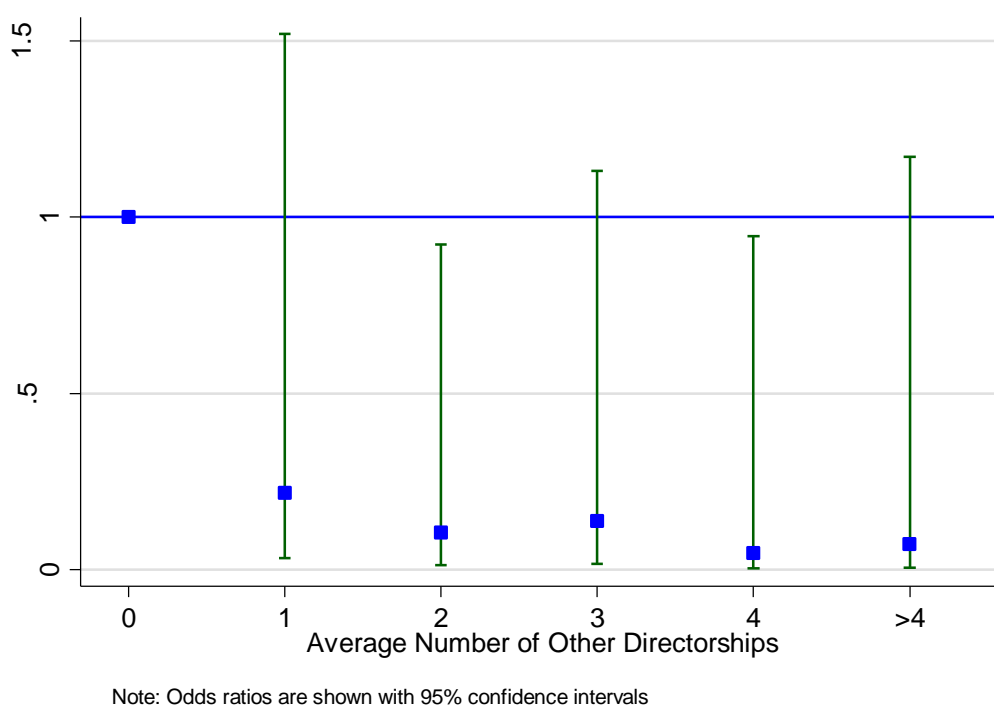


Figure 5.8 indicates that having independent directors with an average of up to one other directorship reduces the likelihood of management misconduct by 78% when compared to a company with independent directors serving on no other boards. Firms

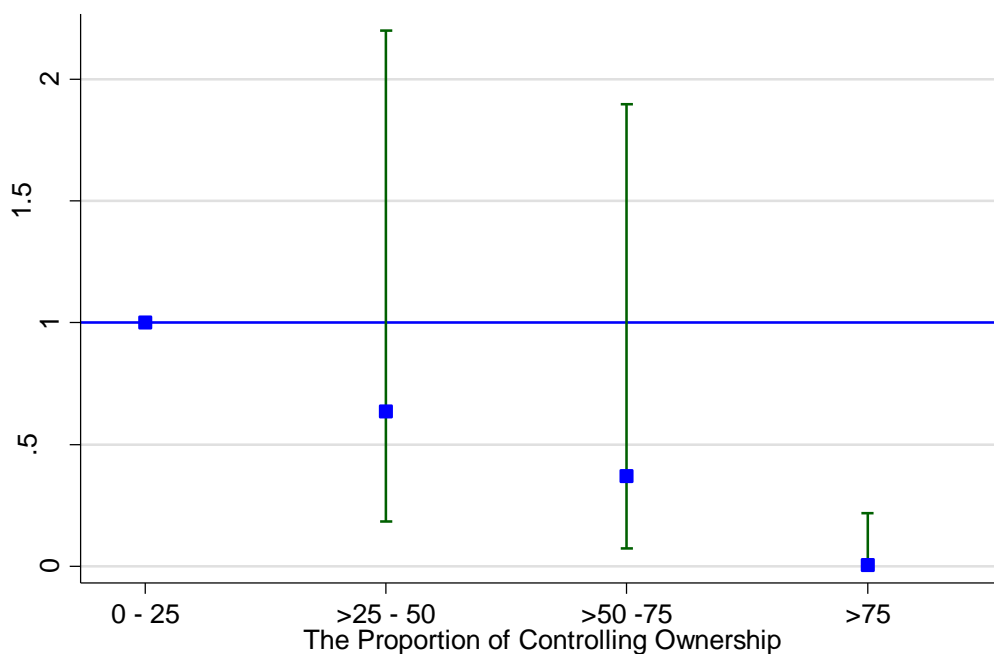
where independent directors served on between one company and two other boards were 90% less likely to experience management misconduct compared to the reference group. The results also show that a company with independent directors serving on between two and three other boards were 86% less likely to experiencing management misconduct compared to the reference group. Having independent directors serving on between three and four other boards decreased the risk of management misconduct by 95% whereas having independent directors serving on more than four other boards decrease the risk of experiencing management misconduct by 93% when compared to the reference group.

## APPENDIX 9

### Quantifying the Effect of Controlling Ownership on Management Misconduct

Figure 5.9 shows the results comparing varying proportions of shares held by the largest controlling shareholder to a reference group where the largest controlling shareholder held between zero and 25% of the firms' total shares.

**Figure 5.9 Effect of Controlling Ownership on Management Misconduct**



Note: Odds ratios are shown with 95% confidence intervals

Figure 5.9 shows that a company where the largest shareholder holds between 25% and 50% of the total shares is 36% less likely to experience management misconduct than a company where the largest shareholder owns up to 25% of the total shares. The results also shows that a company where the largest shareholder holds between 50% and 75% of the total shares is 63% less likely than the reference company to experience management misconduct. A company where the largest shareholder holds more than

75% of the company's shares is 99% less likely to experiencing management misconduct than a company where the largest shareholder holds up to 25% of total shares.