



Insider Trading, Information Asymmetry, and Corporate Governance *

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ABSTRACT

This paper investigates the problem of information asymmetry and agency cost in the context of insider trading as well as the mechanism to mitigate the insider trading abnormal return among Thai Listed Firms. By examining both internal and external mechanisms, the researcher found out that better auditor firm and more frequent auditing committee meetings are associated with reducing insider trading abnormal return. Additionally, the corporate governance measurement in terms of Corporate Governance Report (CGR) developed by Thai Institution of Directors showed no significant relationship with the insider trading abnormal return. However, despite that the corporate governance index showed no results, board effectiveness and ownership concentration which have been linked to more effective monitoring of management in prior research still play an important role in reducing the profitability of insider trading. Furthermore, foreign institutional investors play a more active role on mitigating the insider trading profit when comparing with domestic investors.

Key word: Insider trading, information asymmetry, agency cost, corporate governance, CGR

INTRODUCTION

This paper focuses on the issue of insider trading due to two reasons: first, insider trading activities contribute great deal in this global financial crisis. It is worth the efforts to have a deep understanding about the motivation and harmful of insiders trading activities; second, it is generally believed that insider trading gains profit at the cost of other investors. It is necessary to find out what mechanism could mitigate the insider trading and protect the integrity of capital market.

* This article was presented at the 1st International Conference on Social and Economic Prospect in Southern Mekong Sub-Region of Southeast Asia (SEPSA).



In Thailand, the Securities and Exchange Commission (SEC) is the sole governmental agency with the power to control the whole Thai capital market. However, the SEC does not mitigate insider trading. Under section 241 of the SEA¹, insider trading in Thailand was categorized as a statutory offense, but SEC did not employ severe punishment for insider trading, only require corporate executives to deliver the benefit they get from the insider trading once SEC detect such trading activities. Severe penalty in the form of jail sentences, or large fines and delisting are still rare. More than that, the jail sentences for insider trading is none since the establishment of SEC. For example, during the period of 2010-2012, the total case of insider trading is 9, but the total insider transaction is over 10,000. Base on the fact that the regulators are underperforming on detecting insider trading and mitigating their returns, it is necessary to investigate other methods to mitigate such returns.

To the extent that insider trading imposes a significant cost on outside shareholders, the importance of timely and accurately information disclosure and the efforts on increasing corporate governance are crucial. Because the former could reduce the information asymmetry problems and the latter one could reduce the agency cost problem.

In particular, analyst coverage, auditing committee meeting frequency, and prestige of auditor firm have been previously linked to reducing information asymmetry problems (Titman & Trueman, 1986; Aboody & Lev, 2000; Xie et al., 2003). In line with my hypothesis, information asymmetry problem is related to insider trading. I examined the relationship between insider trading abnormal return and analyst coverage, auditing committee meeting frequency, prestige of auditor firm. If lower information gap helps to mitigate the insider trading activities, then I expect the characteristics that reflect better information disclosure to be negatively associated with abnormal returns gained from insider trading.

Moreover, in line with my hypothesis of good corporate governance could mitigate insider trading activities, I examined the relationship between insider trading abnormal return and CGR (The corporate governance index developed by Thai Institution of Director). If my hypothesis is correct, then I expect the CGR that reflects good corporate governance to be negatively associated with abnormal returns gained from insider trading.

¹ the Securities and Exchange Act (SEA) in May, 1992



RESEARCH OBJECTIVES

Previous empirical studies have reported about the relations between governance structure and firm performance. However, the relationship between insider trading activities and corporate governance has not been verified. This paper therefore attempts to determine whether the characteristics that associated with reducing information asymmetry problem and agency cost can also mitigate the insider trading abnormal returns.

LITERATURE REVIEW

1. Insider Trading

In Thailand, SEA Section 241 defines insider trading as the purchase or sale of listed securities by any person so as to take advantage of other persons by using information material to change in the prices of securities which has not yet been disclosing to the public and to which information he has accessed by virtue of his office or position. However, it is important to differentiate insider trading according to legality. Insider trades can reflect both private information and/or individual liquidity needs. As such, not all insider trades are necessarily informed (Jagolinzer et al., 2011)

Although some insiders' trades are due to insiders' liquidity and portfolio rebalancing purposes, a component of insiders' trades are driven by insiders' information advantage over other market participants. A significant amount of prior research has found that corporate insider earned abnormal returns on the trades of corporate stock especially through purchasing (Seyhun, 1986; Jagolinzer et al., 2011) and their trades had significant relationship with earning management and accounting fraud especially in terms of insider selling (Summers & Sweeney, 1998; Cheng & Warfield, 2005; Sawicki & Sherestha, 2008). These findings suggest that insiders exploit material information and benefit themselves in trading the corporate securities.

2. Incentives for Insider Trading

Prior researches found numerous evidences that insider trading is driven by the private information and agency cost. They discover that, on average, insider trading profit mitigates with more transparent information disclosure and tighten accounting policies. Moreover, for firms with high agency costs, measured by divergence of control rights from cash flow rights, insider trading will earn higher profit.



2.1. Information Asymmetry

Information asymmetry assumes that at least one party to a transaction has relevant information whereas the other(s) do not. In the capital market, the information or “lemons problem” arises from information differences and conflicting incentives between entrepreneurs and savers. It can potentially lead to a breakdown in the functioning of the capital market (Healy & Palepu, 2001). However, information asymmetry always exists. In the competitive markets, some corporate information needs to remain confidential for the success of the company and can only be known by outsider at certain time. Because of those natural attributes of the firm, it is reasonable to assume that some insiders will take benefits from that information for personal interest.

Some academics discover the association between the prestige of auditors and accuracy of the firm’s true value. Auditors provide investors with independent assurance that the firm’s financial statements conform to the general required financial report standard, namely GAPP or IFRS. Since the quality of financial statements is the foundation for the security analysis and its accuracy, it is important to select good auditor who provides more accurate financial information. Studies of audit effectiveness examine whether audit qualifications add value for investors and whether auditors’ actions are independent of the interests of their clients. They found out that the better auditors the firm employed, the more accuracy of the firm’s financial statement and annual report, and the lesser chance for managements engaging in earning management (Titman & Trueman, 1986; Michaely & Shaw, 1995; Becker, DeFond, & Jiambalvo, 1998). Thus, I hypothesize that better firm auditor can stand stronger foot in terms of independence and objectiveness, as well as provide better financial information of the firm compared with the local auditor firms. I propose *Auditor* as the measurement of the effectiveness of auditor’s work, dummy variable 1 will be given to the company using the better auditor firms and 0 otherwise, and my hypothesis is below:

H1a: There is a negative relationship between insider trading abnormal return and the prestigious of auditors.

Besides the external auditor employed by the firm, listed firms have the obligation to set up the audit committee under the board of directors. The main purpose of Audit Committee is to assist the board of directors in fulfilling its oversight responsibilities for the financial reporting process, the system of internal control, the audit process, and the company's process for monitoring compliance with laws and regulations and the code of conduct (Institute of Internal Auditors). Statistics and empirical findings prove that auditing committee has played a significant role in mitigate earning management and ensure the quality of disclosure. Prior researches about auditing committee effectiveness showed that auditing committee meeting frequency is positively associated with the likelihood of voluntary disclosure in terms of making earning forecast and disclose forward-looking information in the annual report (Karamanou & Vafeas, 2005). In order to capture the effectiveness



of audit committee, I use *ACMeet* to represent the number of audit committee meetings hold by each company at given financial year and propose the follow hypothesis:

H1b: There is a negative relationship between insider trading abnormal return and the frequency of audit committee meetings.

Vafeas (1999) was perhaps the earliest work to examine the determinants of the frequency of annual board meetings. Vafeas argues that the frequency of board meetings is an important board attribute that can have important implications for firm value. He found out that boards respond to poor performance by raising their level of board activity, which in turn is associated with improved operating performance. Moreover, Xie et al., (2003) investigate the relation between earning management and corporate governance and they found out that Board and audit committee meeting frequency is associated with reduced levels of discretionary current accruals. On line with the prior researches, I propose that *BoardMeet*, in terms of board meeting frequency, is an effective mechanism to mitigate the information gap between corporate executives and outside investors, the hypothesis is below:

H1c: There is a negative relationship between insider trading abnormal return and the frequency of board meeting.

2.2. Agency Cost

The principal-agent problem or agency dilemma occurs when one person or entity (the "agent") is able to make decisions that impact, or on behalf of, another person or entity: the "principal". The dilemma exists because sometimes the agent is motivated to act in his own best interests rather than those of the principal.

In the capital market, the agency problem arises because investors that invest in a company typically do not intend to play an active role in its management-that responsibility is delegated to the managers. Consequently, once investors have invested their funds in the firm, the self-interested managers have an incentive to make decisions that expropriate investors' funds (Healy & Palepu, 2001). Most of the academics focus on the internal monitor mechanism and expect the board of directors could a better role on mitigating the principal-agent problems, which has been broadly defined as corporate governance. Shleifer and Vishny (1997) proposed a broad definition of corporate governance: corporate governance concerns the ways in which suppliers of funds and the corporations themselves ensure returns on investment.



Since the corporate governance mechanism could reduce agency problem, it is reasonable to assume that it will perform the same duty on mitigating insider trading. Agency theory suggests that in the presence of information asymmetry, managers are able to exercise self-interest at the cost of other shareholders (Jensen & Meckling, 1976). Insider trading is such an agency problem when corporate insiders profit from the trading at the potential costs to outsider shareholders. In addition, the prior researches I addressed above suggest that agency problem has been significantly shaped by the good corporate governance mechanism (Shleifer & Vishny, 1997; Berglöf & Claessens, 2006).

But in order to measure the association between corporate governance and insider trading, one important aspect should be examined. To address this concern, a corporate governance index has been implemented in this research and the detailed information will be disclosed in the sub-section.

2.3. Corporate Governance Index

Generally speaking, Corporate Governance Index (CGIs) is a combination of public information related to corporate governance provisions, it has been widely acceptable because it offers a solution to address the shortcoming in corporate governance, differentiate companies in the market and increase those companies with good score a better channel to access capital.

In Thailand, the regulatory entity who conducts the corporate governance index as The Thai Institute of Directors Association (IOD). IOD was founded in 1999, two years after the Asian financial crisis; the IOD has been at the forefront of promoting good governance practices in the Thai companies. Since 2001, Thai Institution of Directors started to build corporate governance report, and it surveyed and classified the Thai listed companies by evaluating corporate governance of each firm. Since the **CGR** is the measurement for good corporate governance, I then hypothesize that:

H2a: There is a negative relationship between corporate governance mechanism and insider trading abnormal return.

However, not every corporate governance characteristics is negatively associated with insider trading activities. Larcker et al. (2007) argue that many of the governance measures used in prior research have a very modest level of reliability and construct validity. Thus, I will outline some important and widely recognized corporate governance measurements in details to support the analysis.



2.31 Board Composition and Function

The board composition and function category contains the following three measurements, namely CEO duality, board independence, board size.

*CEO duality—the practice of a single individual serving as both CEO and board chair—has been the subject of academic interest for more than 20 years (Krause et al., 2014). CEO duality drives the attention from academic worlds because the role of board chair and CEO are somehow conflict with each other. Boards of directors are obligated to ensure that chief executive officers (CEOs) carry out their duties in a way that serves the best interest of shareholders. Thus, boards can be seen as monitoring devices that help align CEO and Shareholder interests. But CEO duality empowers the CEO with the authority that could hamper the board's ability to effectively monitor and discipline. Advocates of agency theory, which focuses on monitoring and entrenchment, argue that avoiding duality confine potential CEO entrenchment. Tuggle et al., (2010) found out that a firm with CEO duality reduces the boards' allocation of attention to monitoring. Moreover, Rechner, and Dalton (1991) examined the differential financial implications of these choices for 141 corporations over a 6-year time period and found that firms opting for independent leadership consistently outperformed those relying upon CEO duality. I am following the advocates on agency theory and assume that firms have CEO duality will negatively related to the corporate governance level. In order to measure the **Duality**, I use dummy variables and indicate the firm with CEO duality as 1 and 0 otherwise.*

H3a: There is a positive relationship between CEO duality and insider trading abnormal return.

The board size is also an important control mechanism because the board of directors' role is to monitor and discipline firm's management. From the legal perspective, the boards of directors are the first and foremost body responsible for governing the affairs of a corporation because directors have a fiduciary duty to look after the best interest of the shareholders. However, the debate on optimal board size is still unsettled. Jensen (1993) argues that large boards may be less effective than small boards because large boards can make coordination and decision making more cumbersome. Moreover, Yermack (1996) found out that companies with oversized boards of directors have poorer performance both in countries where internal mechanisms of governance dominate and in countries where external mechanisms are predominant.



On the other hand, Dalton et. al. (2003) argue that the higher levels of company performance are related to larger boards. They suggest that corporate performance in terms of ROA and ROE increases with the board size. And Coles et al. (2008) also identify the positive association between board size and firm performance; they discovered that large, diversified firms tend to use a greater number of directors in their boards for both monitoring and advising purposes. Moreover, Yermack (1996) and Klein (2002) argue that board monitoring ability and efficiency increase in board size because the responsibilities can be distributed to greater number of monitors.

*Consider the controversial ideas; it is reasonable to believe that an either large or small board has its cost. And not surprisingly, some academic proposed that the board size should not be overly large or overly small. Jensen (1993) suggests that the idea board size is within 5 to 8 board members. Ryan and Wiggins (2004) on the other hand classify a board as large if it has more than nine directors. I assume that the optimal board size of 6 to 9 directors and use propose **OptimalSize** by applying dummy variable 1 as the firm's board size is within 6 to 9 directors and 0 otherwise in order to capture the complex relation between board size and effective monitoring.*

H3b: There is a negative relationship between with optimal board size and the insider trading abnormal return.

*Board independence is another attributes that has been linked to effective governance. In the common wisdom, Independent board members are more likely to protect shareholders' interest and serve at the best interest of the stakeholders since they have less material collection and family tie with the firm. Consistent with this view, prior research suggests that boards with a higher fraction of outside directors are more effective at mitigating agency problem. Rubenstein and Wyatt (1990) found out that board independence is associated with greater appreciation in shareholder wealth. Similarly, Millstein and MacAvoy (1998) also discovered that corporations with active and independent boards added significantly more value for shareholders than those with passive, "rubber-stamp" boards. Besides the effect on firm performance, some researchers address that better board independence is associated with a lower likelihood of accounting fraud when more independent directors in the position of audit committee (Klein, 2002; Farber, 2005). Considering the board size varieties, I propose the measurement of **Independence** as the ratio of number of independent board members and the total board numbers.*

H3c: There is a negative relationship between level of board independence and insider trading abnormal return.



2.3.2. Ownership Structure

The ownership structure category has been divided into two different measurements, namely institutional ownership and blockholder's ownership.

Notwithstanding the function of the board, some shareholders, especially those shareholders hold significant amount of interest on the company's equity, choose to actively monitor the affairs of a corporation themselves. Prior researches document that certain ownership structure or the levels of ownership concentration are associated with shareholders' willingness and ability to monitor the executives. Also, it is reasonable for certain shareholders to closely monitor the firm performance since they have relatively more value at stake and have a greater incentives to monitor managers.

*Agrawal and Mandelker (1990) examined the role of large shareholders in monitoring managers when they proposed antitakeover charter amendments and found a statistically significant positive relation between institutional ownership and the stockholder wealth effects of various types of amendments. For example, Baek et. al. (2004) investigated the 1997 Korean financial crisis and found out that during the crisis, firms with higher ownership concentration by unaffiliated foreign investors experienced a smaller reduction in their share value. In contrast, Chaebol firms with concentrated ownership by controlling family shareholders experienced a larger drop in the value of their equity. Similar result also found in the context of US, which Denis and Serrano (1996) found out that institutional shareholders appeared to facilitate post-contest asset restructurings that increased the value of the target and improved operating performance. Other than that, Wright et. al. (1996) found out that Institutional owners exerted a significant positive influence on risk taking. Likewise, several studies showed that greater institutional ownership is associated with greater shareholder protection, increased firm value, and improved performance (Mallette & Fowler, 1992; Gillan & Starks, 2000). Shareholders who hold significant interest on the company have strong motivation on monitoring the company's performance, and they generally have enough resources and expertise to do so, Thus, I measure **Institution** as the fraction of shares held by institutional investors with more than 1 percent of total paid up capital. I assume a negative relationship between institutional ownership and opportunistic insider trading,*

H4a: There is a negative relationship between sum amounts of institution ownership and insider trading abnormal return.



Since the source of agency problems is the separation of ownership and control, and managers have inadequate stakes in their firms, large shareholders—otherwise known as blockholders—can play a critical role in governance because their sizable stakes give them incentives to bear the cost of monitoring managers. Shareholder is regarded as concentrated when there exists a single entity such as individual or family, corporations, non-financial firms and banks. Cremers and Nairs (2005) defined the block shareholders or blockholders as the shareholders who hold more than 5% of total paid up capital of a firm. In this paper, we follow their ideas and use 5% as the benchmark to differentiate blockholders from normal shareholders.

Although a great deal of research has analyzed the impact of ownership concentration on firm value and other performance measures, the question remains whether the presence of large blockerholder does, in fact, improve company performance. In general, prior researches on the relation between good corporate governance and block shareholders' ownership are somehow mixed. Some researchers found insignificant relationship between blockholder's ownership with firm value (Demsetz & Lehn, 1985; Loderer & Martin, 1997). By apply single regression model and simultaneous equation models, they found out that the impact of ownership structure on firm value was insignificant.

*Nevertheless, many researchers find a positive relationship between large blockholders and firm performance (McConnell & Servas, 1990; Claessens et al., 2000; Dittmar & Mahrt-Smith, 2007). Also, several studies suggest that blockholders tend to actively discipline management (Shleifer & Vishny, 1997; Bethel & Liebeskind, 1993). Consistent with majority findings, I evaluate **Block** as a proxy for good corporate governance. And I assume that there is a negative relationship between blockholder's ownership and opportunistic insider trading.*

H4b: There is a negative relationship between insider trading abnormal return and level of ownership structure

METHODOLOGY

In this chapter, the methodology developed to cover the research objectives and to investigate the relationship between information asymmetry, agency cost and insider trading is outlined. The chapter provides detailed information about data, sample selection, and control variables applied in the research.



1. Data

As mentioned in previous chapter, this research aimed to discover the relationship between insider trading, information asymmetry and agency cost on firm listed on Stock Exchange of Thailand (SET). The major data sources are generally fall into different parts below. In terms of firms' financial, accounting and general information, I collected those data from companies' annual report. Moreover, the measurement of corporate governance index was collected from Thai Institute of Director. The Thai Institute of Directors Association (IOD) in collaboration with the Stock Exchange of Thailand (SET) and the Office of the Securities and Exchange Commission (SEC, Thailand) had continuously assessed corporate governance practices of listed companies since 2001. The overall survey results were published in the reports entitled "Corporate Governance Report of Thai Listed Companies (CGR)" and publicized to all listed companies and related parties in the capital market.

2. Sample Selection

Insider trading transaction data include all the corporate insider transaction during the year of 2010 to 2012 with 9804 observations. I obtained insider trading data from SEC. The database includes only self-reported transactions of corporate insiders as required by law, and it is likely that there are insider trading transactions executed through trusts, off-shore accounts, family members, and other means that are hidden and thus excluded from my analysis. Following previous studies, we future limit the sample by excluding the following transactions: 1) transaction with less than 100 shares or the total trading value less than 10,000 Baht; 2) transactions with traded price outside the range of daily high and low prices reported by SETSMART. Those restrictions limited the final observation of 233 firm-year observations and 8123 insider transactions. Sample firms applied in this study were Thai listed companies which engage in insider trading transactions. The study covers the firms in all industry types that disclose complete data of company profile in term of corporate governance index measurement. The company with incomplete governance and financial information during the above-mentioned period are excluded from the study. The listed companies in financial sector are excluded because they are subjected to a different standard of monitoring mechanisms that may affect the results of study.



3. Empirical Methodology

Building on the theoretical background and evidences in the literatures, I argue that insiders who trade on non-public information earn abnormal return compare with the market, both in term of sell and purchase. The presence of private information about a firm that has not been reflected in stock prices provides a potential opportunity for those in possession of the information.

I measured the profitability of insider trading by estimating abnormal returns over 20 trading days, which was approximately 30 calendar days following the transaction date. I applied the approach of Ravina and Sapienza (2010) and defined the abnormal return as the difference between a firm's buy-and-hold return over the 20 trading days following the transaction date and the corresponding buy-and-hold return for the market.

$$AR_{it} = R_{it} - R_{mt} \qquad CAAR(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{it}$$

Where

AR_{it} is the abnormal return of stock I on day t

R_{it} is the return of stock i on day t

R_{mt} is the return of SET index on day t

To examine whether external monitor mechanisms play a role in limiting the profitability of insider trading, I estimated the following regression: $AR20 = \alpha + \beta_1 Auditor + \beta_2 ACMeet + \beta_3 BoardMeet + \beta_4 CGR + \beta_5 MB + \beta_6 Size + \beta_7 TradeSize + \beta_8 Industry + \beta_9 List + \varepsilon$

Following most researchers, we include firm market capitalization and the market to book ratio to control the return-based measure (Atiase, 1985; Chari, Jagannathan, and Ofer, 1988). These two financial data along with industry classification and list exchange represent the cross-sectional differences in factors that likely to affect the insider trading behaviors in some degrees. Consistent with Brochet (2010), I included the trade size to control the price impact of large transaction.

In order to better investigate and verify my sample selection and model, I estimated equation below using particular data in terms of corporate governance characteristics to further analysis the corporate governance mechanism.

$$AR20 = +\beta_1 Duality + \beta_2 OptimalSize + \beta_3 Independence + \beta_4 Institution + \beta_5 ForeignIns + \beta_6 DomesticIns + \beta_7 Block + \beta_8 Controls + \varepsilon$$



RESULTS

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	Intercept	1	-0.06505	0.04917	-1.32	0.1859
CGR	CGR	1	0.01407	0.00351	4.01	<.0001
ACMeet	ACMeet	1	-0.00259	0.00116	-2.22	0.0263
Auditor_	Auditor	1	0.01584	0.00754	2.10	0.0357
size		1	-0.00069050	0.00226	-0.31	0.7595
R_PB		1	0.00203	0.00132	1.54	0.1228
I_INDUSTRY		1	-0.00003857	0.00035892	-0.11	0.9144

Figure 1: empirical result for insider buy

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	Intercept	1	-2.20184	0.14754	-14.92	<.0001
CGR	CGR	1	-0.03889	0.00998	-3.90	<.0001
ACMeet	ACMeet	1	-0.04106	0.00307	-13.37	<.0001
Auditor_	Auditor	1	-0.07597	0.02098	-3.62	0.0003
size		1	0.11096	0.00679	16.34	<.0001
R_PB		1	0.01068	0.00337	3.17	0.0015
I_INDUSTRY		1	0.00331	0.00068737	4.81	<.0001

Figure 2: empirical result for insider sell

By applying information asymmetry measurements, I discovered that frequency of audit committee meeting and board meeting were associated with mitigating insider trading abnormal return. Moreover, prestige auditors and CGR index were associated with reducing insider trading abnormal return. However, the relationship was only significant under insider sell.

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	Intercept	1	-0.04035	0.06051	-0.67	0.5049
ACMeet	ACMeet	1	-0.00320	0.00130	-2.46	0.0139
Auditor_	Auditor	1	0.03030	0.00946	3.20	0.0014
BoardMeet	BoardMeet	1	0.00246	0.00095552	2.58	0.0100
Duality	Duality	1	-0.00576	0.00968	-0.59	0.5520
BoardSize	BoardSize	1	-0.00577	0.00221	-2.61	0.0090
OptimalSize	OptimalSize	1	-0.04844	0.01114	-4.35	<.0001
Independence	Independence	1	0.07318	0.04707	1.55	0.1201
Ins		1	-0.07301	0.01708	-4.28	<.0001
blac		1	-0.01199	0.02165	-0.55	0.5798
R_PB		1	0.00187	0.00137	1.37	0.1720
size		1	0.00257	0.00265	0.97	0.3318
I_INDUSTRY		1	-0.00017512	0.00036830	-0.48	0.6345

Figure 3: supporting analysis for insider buy



Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	Intercept	1	-1.89839	0.18412	-10.31	<.0001
ACMeet	ACMeet	1	-0.03331	0.00322	-10.35	<.0001
Auditor_	Auditor	1	-0.07201	0.02299	-3.13	0.0017
BoardMeet	BoardMeet	1	0.00133	0.00276	0.48	0.6292
Duality	Duality	1	0.10157	0.02910	3.49	0.0005
BoardSize	BoardSize	1	-0.02047	0.00631	-3.24	0.0012
OptimalSize	OptimalSize	1	-0.01493	0.02908	-0.51	0.6077
Independence	Independence	1	0.40355	0.12326	3.27	0.0011
Ins	Ins	1	0.19041	0.04518	4.21	<.0001
bloc	bloc	1	-0.56937	0.05969	-9.54	<.0001
R_PB	R_PB	1	0.01473	0.00340	4.33	<.0001
size	size	1	0.09918	0.00843	11.76	<.0001
I_INDUSTRY	I_INDUSTRY	1	0.00432	0.00070139	6.16	<.0001

Figure 4: supporting result for insider sell

When we further investigated the board function and ownership structure, the result was rather mixed. The board size is clearly a good measurement for mitigating insider trading abnormal return, but board independence, in terms of percentage of independent directors, does not help mitigate insider trading abnormal returns, but rather positively associate with insider trading abnormal return. And for the shareholder structure, the institutional shareholder perform well on mitigating insider buy abnormal return, and blockholder show an significant negative relationship with insider sell abnormal return.

DISCUSSION

Based on the empirical studies, we can conclude that the insider trading abnormal return can mitigate by both internal and external mechanism. However, not every mechanism is functioning well in Thailand, especially in terms of corporate governance measurements. More specifically, the independent directors are not actively monitoring the performances of corporate executives.

Moreover, Due to the limitation of data availability, my study only cover the period of 3 year and it is possible that my research has the problem of data overlapping and such may affect the validity of the result.



CONCLUSION

In this study, I investigated the insider trading and the way to mitigate such trading. I discovered that certain attributes driving from the information asymmetry and agency costs are associated with reducing insider trading abnormal return. In particular, findings showed that the trades in corporate stock by corporate insiders at firms with better auditor, more frequent auditing committee meeting and board meeting, more blockholder and higher portion of independent directors are less profitable. Thus, I expect corporate can apply the better procedures to mitigate the insider trading in order to protect the integrity of capital market, and the shareholders' benefits .

Moreover, my research contributes to the insider trading literature. Although the debate regarding the merits of trade on private information is not easily settled, the persistent efforts of capital market regulators and investors to restrict such trading reflect an underlying view that certain forms of insider trading adversely affect outsider shareholders. My findings are consistent with the general view, and the empirical evidence suggests that those characteristics that associated with mitigating information asymmetry and agency cost are also associated with mitigating insider trading abnormal return.

ACKNOWLEDGEMENTS

I would like to express my deep gratitude to Dr. Nareerat Taechapiroontong, my research supervisors, for her patient guidance, enthusiastic encouragement and useful critiques of this research work. I would also like to thank Assistant Professor Dr. Chiraphol New Chiyachantana for his advice and assistance in keeping my progress on schedule. My grateful thanks are also extended to Dr. Roy Kouwenberg for his help in doing the meteorological data analysis. I wish to thank my parents for their support and encouragement throughout my study. Finally, I wish to thank my girlfriend for her mentally support during the process of this research work.



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Appendix A provides the definitions of the variables used in the empirical tests.

Variable	Definition	Prediction Sign
AR20	Market-adjusted buy-and hold return over the 20 trading days following the transaction date.	
Auditor	Indicator that takes the value of one if the firm employees one of the Big five auditor company and zero otherwise.	—
ACMeet	Number of auditing committee holding during the financial year.	—
BoardMeet	Number of Board meetings holding during the financial year.	—
CGR	The Corporate governance score from Thai IOD and measure by 5,4,3,2 as the level of governance drop.	—
BM	Ratio of the book value to the market value of common equity.	
Size	Natural log value market capitalization at the end of the most recent fiscal quarter.	
TradeSize	Number of shares purchased and sold by insiders on the transaction date divided by the total number of shares outstanding	
Year	the year that insider trading initiated	
Industry	The industry classifications under SET regulation	
List	Whether the company listed on SET or MAI, if list on SET, Then use dummy variable of 1 and 0 otherwise.	
Duality	Indicator that takes the value of one if the firm has CEO Duality	†
OptimalSize	Indicator that takes the value of one if the firm has board size between 6 to 9	—
Independence	The ratio of independent directors to the total number of directors	—
Institution	The sum of share hold by institutional investor in terms of percentage higher than or equal to 1%	—
ForeignIns	The sum of share hold by foreign institutional investor in terms of percentage higher than or equal to 1%	—
DomesticIns	The sum of share hold by domestic institutional investor in terms of percentage higher than or equal to 1%	—
Block	The sum of share hold by shareholder in terms of percentage higher than or equal to 5%	—