

CHAPTER 1

INTRODUCTION

This chapter provides the motivation of this paper, which leads to the formulation of research questions, and presents the potential contribution of the paper.

1.1 Motivation and Research Questions

It is widely recognized that accounting information provides investors with valuable data which is vital for investment decisions. Since accounting information generally reflects the performance and financial health of a firm, the quality of this information has been an intensive topic under interests and studies by numerous professional organizations and scholars. Therefore, accurate and reliable information is not only important, but it is also the very essence that investors will encompass their decisions. Without adequate level of confidence on that information, the investors may decide not to invest in the target firms.

The reliability of financial reports can be strengthened by good corporate governance (Chtourou et al., 2001: 3). The board of directors is known as the important mechanism of corporate governance to monitor the quality of accounting information provided by the company in financial reports (Vafeas, 2000: 139).

During the 1990s, the stock market in Thailand were developing rapidly and substantially while corporate governance systems were lagged. Wallace and Zinkin (2005: 1) said that “prior to the turmoil of event of the 1997 Asian financial crisis, corporate governance did not appear to matter very much to an Asian audience.”

After the financial crisis in 1997, corporate governance has become a key focus in Thailand. All parties in Thailand, public or private, realized that good corporate governance is a crucial factor for economic reform in the country. It is believed that good corporate governance enhances the firm’s sustainable growth and, importantly, it boosts the investor’s confidence on the business operation of firm reflected through reliable accounting data (The Stock Exchange of Thailand, 2001).

Since 1998, Thai corporate governance system has been significantly reformed. The reforms have included restructuring and alteration in function of board of directors

(World Bank, 2005). At the end of 1999, the Stock Exchange of Thailand required listed firms to set a new subcommittee, an audit committee, as a part of board of directors to directly take care on the reliability of accounting information. An audit committee is given by board of directors the duties to oversee the financial statement reporting process (Beasley, 1996: 445). It is said that “Thailand has made significant progress in improving its corporate governance” (World Bank, 2005: i). The year 2002 was officially set as the Year of Corporate Governance. The National Corporate Governance Committee was established in that year. Six sub-committees have been designated to put efforts for improvement of various aspects of corporate governance practices.

Since such reforms of corporate governance, empirical studies relating to characteristics of board to oversee the quality of accounting information in Thailand have been rare. I believe that doing research in this scope will provide evidences on the effect of board characteristics in Thailand on accounting information. Furthermore, since Thai stock market is one of the emerging markets, empirical evidences on the effect of board characteristics can provide valuable information to international investors. Finally, the finding on this study may be useful for Thai corporate governance regulatory bodies for future improvements.

Regarding accounting information, earnings are focused because as bottom line on income statement, which reflects the firm’s operating results, they are key performance indicator always used in investment decisions. It is believed that earnings can present firm’s ability to pay future dividends (Beaver, 1998: 69). Therefore, their informativeness is very important.

With varying board characteristics, the effect of board to monitor financial reports process and internal control system is likely to differ across firms. And due to its responsibility to monitor the quality of accounting information in financial reports, I intend to study if the characteristics of board have any effects on the informativeness of earnings. For this paper, I study, using data from the Stock Exchange of Thailand, to find evidence relating to the following questions:

1. Are earnings informative?
2. Do the characteristics of board affect the informativeness of earnings?

3. What is the change on the effect of board characteristics on informativeness of earnings between the year following the reforms of corporate governance and the recent year?

1.2 Contribution

This paper contributes to the accounting literature as following perspectives. First, in the investigation line of the effect of board characteristics on the informativeness of earnings, it provides the effect of some board characteristics, educational background of board and of audit committee members, outside directors' directorship in other firms, and outside directors' tenure, that other related research does not. Second, it adds up the limited empirical evidences of the effect of board characteristics in overseeing the quality of accounting information in Thailand, which is believed that they benefit corporate governance studies in one of emerging markets. Finally, Thai corporate governance regulatory agencies may value the evidences found in this study, both relating to the effect of board characteristics on informativeness of earnings and relating to the effect after the year 2002 which has been set as the year to start promotion of Good Corporate Governance, and implement or do further studies for future improvements in the related regulations.

1.3 Summary

The purpose of this paper is to investigate whether the board characteristics in Thailand affect informativeness of earnings and what the change on that effect during the period after the reforms of corporate governance is. I intend to find the evidences which answer my three research questions as mentioned. The second chapter discusses the theoretical background regarding relation between earnings and stock returns, and the theoretical background regarding board of directors. The third chapter presents literature review and development of hypotheses. The fourth chapter provides details of research design. The fifth chapter shows the found empirical results. The final chapter expresses discussion and interpretation of results, implication of the findings, limitations of this paper, and suggestions for future research.

CHAPTER 2

THEORETICAL BACKGROUND

The theoretical backgrounds of this paper relate to informativeness of earnings and board of directors.

2.1 Theoretical Relation between Earnings and Stock Returns

The informativeness of earnings is measured by the relation between earnings and stock returns (e.g., Warfield, 1995; Vafeas, 2000; Petra, 2002). Nichols and Wahlen (2004: 264-267) explain three theoretical links between earnings and stock prices that developed on the seminal text, *Financial Reporting: An Accounting Revolution*, by Beaver (1998). Beaver (1998)'s three theoretical links are: (1) current earnings provide information to form expected future earnings, (2) expected future earnings provide information to develop expected future dividends, and (3) expected future dividends provide information to determine stock prices.

Regarding link 1, it is assumed that current earnings provide useful information to stockholders to predict future earnings. Nichols and Wahlen (2004: 266) demonstrate that information on income statement, which is presented into many steps, distinguish between results of ongoing operations and results of special items (e.g., extraordinary items and discontinued operations). The former results convey information that will likely recur in the future while the latter results convey information that will less likely impact future performance. The likelihood that earnings level will recur in future period is called earnings persistence.

Regarding link 2, it is assumed that expected future earnings provide useful information to indicate the firm's ability to pay future dividends. Beaver (1998: 69) documents that "a role of earnings is to alter beliefs about the firm's ability to pay future dividends, and it is consistent with the belief that earnings are an indicator of future dividend-paying ability." Stockholders are able to employ current earnings and expected future earnings to form expected future dividends.

Regarding link 3, the assumed relation between expected future dividends and stock prices is presented through a valuation model. The model shows that stock price

equals to the present value of expected future dividends that the stockholders expect to receive through a firm's remaining life.

These theoretical links imply that earnings that influence a change in market expectation about future dividends should result in a change in stock price (Nichols and Wahlen, 2004: 265).

2.2 Theoretical Background Relating to Board of Directors

The theory of agency explains the relationship between principal and agent. Jensen and Meckling (1976: 308) define an agency relationship as “a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent.”

From the firm's perspective, owners are the principals whereas managers are the agents. Because decision-making authority is delegated to managers, it is very likely that managers do not always act in the owners' best interests. Managers could develop their power in their own interest rather than in the shareholders' interest. Therefore, the corporation faces the agency problem. It is “the problem of inducing an agent to behave as if he were maximizing the principal's welfare” (Jensen and Meckling, 1976: 309).

According to the relationship between owners and managers, Vives (2000: 4) expresses that since the managers have knowledge and abilities to run the corporation, they have the chance to do a lot of discretion to serve their interests, which may subsequently cause damage to the company.

Board of directors is a governance mechanism appointed by shareholders to solve the agency problem. It links between managers and owners (Mallin, 2004: 96). It is authorized to oversee the performance of managers and serve in the owners' interest (Imhoff, 2003: 118). It leads and controls a firm. Its roles comprise of monitoring top executives including CEO, approving firm's strategy, and monitoring financial reports process and control system (DeZoort et al.,2002: 40). To be successful, the firm should have an effective board (Mallin, 2004: 96). Vives (2000: 6) informs that the board that is controlled by outside directors tends to change managers in case of their poor performance.

Through accounting information perspective, board of directors is responsible to make sure that the financial statements and controlling system are reliable (The Stock Exchange of Thailand, 2001: 39). The accuracy and reliability of information is crucial in gaining the confidence of investors. Without this assurance, the investors may decide not to invest in the target firms.

Many researchers study the effect of board of directors through this perspective. Some work on the level of earnings management (e.g., Chtourou et al., 2001; Klein, 2002; Xie et al., 2003), some on financial statement fraud (e.g., Beasley, 1996), and others on the informativeness of earnings (e.g., Vafeas, 2000; Petra, 2002).

2.3 Summary

In this paper, the three theoretical links between earnings and stock prices developed by Beaver (1998) are employed to explain how earnings are informative. The theory of agency that presents the relationship between principal and agent can be used to indicate the agency problem, which is the consequence of that relationship. Regarding firm's perspective, board of directors is appointed to solve that problem.

CHAPTER 3

LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESES

I categorize literature review and development of hypotheses into three parts, which will result in finding evidences answering three research questions. Firstly, literature review and development of hypothesis on returns-earnings relation are performed to find evidences answering the first question of whether earnings are informative. Secondly, literature review on board of directors and development of hypothesis on the effect of board characteristics on earnings informativeness are presented to find evidences answering the second question of whether the characteristics of board affect the earnings informativeness. Finally, I show the role of the Stock Exchange of Thailand in the development of corporate governance after financial crisis in 1997 and form the related hypothesis to find evidences answering the last question regarding the change on the effect of board characteristics on earnings informativeness between the year following the reforms of corporate governance and the recent year.

3.1 Literature Review: Returns-Earnings Relation

Recognized as pioneer in the study of returns-earnings relation, Ball and Brown (1968)'s research examines the reaction of market on release of earnings. They state that "an observed revision of stock prices associated with the release of the income report would thus provide evidence that the information reflected in income number is useful" (Ball and Brown, 1968: 161). According to their evidences, there is positive association between earnings and returns (Ball and Brown, 1968: 170).

Generally, the studies of returns-earnings relation are conducted using two methods. First, the return-earnings relation is examined by using the method of event study (e.g., Ball and Brown, 1968; Brown and Kennelly, 1972). By this method, researchers investigate whether the event of earnings announcement convey new information to investors as reflected in change of stock price over a short-term window around the event (Kothari, 2001: 11). Ball and Brown (1968: 161-163, 168-170)

conduct both event study and association study. They investigate the usefulness of information contained in accounting income to investors by examining the relationship between unexpected income change (forecast error) and stock return residual (abnormal returns). In the event study, they notice the sign of abnormal returns in the month of earnings announcement and the sign of income forecast error and find that there is a significantly positive relation. For long-term window relation, the same result is presented.

Brown and Kennelly (1972: 403, 406-408, 415) examine the information content of quarterly earnings using research design similar to that of Ball and Brown (1968). They use both naïve forecasting model and regression model to predict expected quarterly and annual earnings. Based on the evidences, they find that the information contained in quarterly earnings is useful and that quarterly earnings increase the predictive content of annual earnings.

Second, the return-earnings relation is investigated by using the method of association study (e.g., Board and Walker, 1990; Easton and Harris, 1991). This method examines the relationship between returns and earnings over a long-term window by using an earnings response coefficient (ERC) as a measure of the relationship. Board and Walker (1990: 182-183, 186) study the relation between unexpected accounting earnings and abnormal returns in both intertemporal and cross-sectional variation through 1965 to 1982. They use two measures of accounting rate of return, Net Income/Opening Net Book Value (ROCE) and Net Income/Opening Market Value (ROVAL), as proxies of earnings and assume a random walk to calculate unexpected accounting rate of return. Monthly abnormal returns are calculated basing on market model and are cumulative over twelve months. The evidences present that there is significant cross-sectional and intertemporal variation in the relation between returns and earnings. Furthermore, they find that the intertemporal variation is explained partly by inflation.

Easton and Harris (1991: 29-35) examine the association of stock returns on both the level of current earnings divided by beginning-of-period price and earnings change variables. In addition, they also study the multiple regression of cumulative abnormal returns on both earnings variables. Both stock returns and cumulative

abnormal returns are measured over twelve months. Based on their evidences, both earnings variables can explain both stock returns and cumulative abnormal returns.

Easton et al. (1992: 119) analyze the association between returns and earnings with focus on the rise in the strength of the association when the period of time used in the calculation of returns and earnings increases. They aggregate earnings over time and believe that measurement errors in aggregated earnings are likely to decrease for longer period of aggregation. They find that the cross-sectional correlation between returns and earnings is higher when the period which earnings are aggregated over is longer.

3.1.1 Hypothesis Formation on Earnings Informativeness

Earnings information is useful for market participant in making investment decision. Many studies on relationship between returns and earnings confirm that earnings are informative. Upon the announcement of good news, stock returns are likely to increase and upon bad news, stock returns tend to decline. Therefore, I set the hypothesis as follows:

H 1: Earnings are positively related to returns.

3.2 Literature Review: Board of Directors

The effectiveness of board of directors is studied by many researchers. Some examine the effectiveness on firm performance. Hermalin and Weisbach (1991: 101-102, 105, 111) state that agency problem between management and shareholders is solved with functioning of the board of directors. They examine the relation between firm performance and board composition including ownership structure. Firm performance is measured by Tobin's q (the ratio of the market value of firm's equity and debt to the replacement cost of its assets). Using 142 U.S. firms, the evidences indicate that board composition does not affect firm performance. There is, however, a relationship between management ownership and firm performance. Specifically, at ownership level of less than one percent, firm performance is positively related with ownership. But, at ownership level of more than one percent, the inverse direction between them emerges.

Cloes et al (2001: 23, 35-36, 47) study the relation between government mechanisms and firm performance. They employ market valued added (MVA) and

economic value added (EVA) as the measures of firm performance. The government mechanisms consist of CEO compensation, CEO tenure, board composition, leadership structure (if CEO is the same person with chairman of board), and ownership structure. Based on regression analysis, the evidences present that there is no relationship between government mechanisms and EVA, and the found relationship between a few government mechanisms and MVA contradicts the research expectation.

Yermack (1996: 185, 208-210) examines the association between board size and market valuation of firm. He selects Tobin's Q as a proxy of firm value and uses a sample of 452 large U.S. industrial firms. He finds an inverse direction of the relation between board size and firm value. Small boards are more effective than large ones. He informs that the relation's shape appears to be convex, which suggests that the largest fraction of lost value incurs while boards' size increases from small to medium. In addition, he presents that investors reacts positively to the decreases in board size. This evidence supports the inverse direction of the relation between board size and firm value.

Several studies investigate the effect of board characteristics on reliability of accounting information. In the line of earnings management, Chtourou et al. (2001: 3-4) study whether the best practices of board of directors and audit committee impact earnings management. They measure earnings management through discretionary accruals based on Jones (1991) model. The best practices are measured on responsibilities, attributes, and activities. Based on the evidences, the results indicate that earnings management is significantly affected by some practices in the audit committee and the board of directors. To be more specific, firms with audit committee consisting of higher fraction of outside members who are not managers in other firms, or with at least one financial expert have the less likelihood of having high levels of earnings management. The firms with completely independent audit committee that conducts more than two meetings a year have the more likelihood of having low levels of earnings management. The firms with independent board members who are directors for both the firm and other firms have the less likelihood of having high earnings management.

Klein (2002: 375-376) tries to find the evidences supporting whether the independence of audit committee and board of directors is related to earnings

management. The earnings management is proxied by abnormal accruals. She employs 692 U.S. firm-years as the sample. As expected, she finds that there are significantly negative associations between abnormal accruals and the percentage of outside directors on both audit committee and board of directors.

Furthermore, Xie et al. (2003: 296, 302, 307, 310) investigate the relation between earnings management, proxied by discretionary accruals, and the structure, background, and composition of board of directors and audit committee. Based on 282 U.S. firm-year observations, they find that the level of earnings management is negatively related to the fraction of independent outsiders on board. With corporate background, outside directors have better monitoring on earnings management than those without corporate background. Additionally, the size of board is negatively related to discretionary accruals. They also present that the tenure of outside directors is positively associated to the level of earnings management. Regarding the evidences on audit committee, they find that the percentage of outside corporate committee members and of outside investment banking committee members are negatively related to the level of earnings management. That is, having audit committee members with financial and/or corporate background can help better monitor the level of earnings management. In addition, the authors find that the number of audit committee meetings also has negative relation with the level of earnings management.

Regarding financial statement fraud, Beasley (1996: 444-445) investigates whether board of directors composition is related to financial statement fraud. He partitions the sample into 75 fraud and 75 no-fraud firms. Based on logit cross-sectional regression, the evidences show that the fraction of outside directors in no-fraud firms is higher than that in fraud firms. With more analysis, the author finds that the presence of audit committee and audit committee composition do not affect the likelihood of financial statement fraud.

For the effect of board characteristics on earnings informativeness, Vafeas (2000: 139, 146, 157) indicates that the informativeness of earnings varies with board size but no evidence when board composition is tested. The sample of the study comprises of 307 firms and the informativeness of earnings is proxied by the earnings-returns relationship. The empirical results show that the earnings from firms with smaller board are valued more by the market. However, the board composition, which

is measured by the fraction of board outsiders, does not affect the informativeness of earnings. Consistent with Vafeas (2000), Petra (2002: 79) also finds that the presence of outside independent directors is not a significant factor for earnings informativeness.

Anderson et al. (2003: 1-2, 18-24) investigate whether earnings informativeness is affected by board and audit committee characteristics, which consist of independence, size, activity, and the separation of the CEO and board chairman. The returns-earnings relation is examined through the event study, which they consider the informativeness of annual earnings announcement. They use the sample of more than 1,200 publicly traded firms with annual shareholder meetings during the year 2001. Their results, focusing on the board, reflect that earnings informativeness is positively related to board independence and meeting, but is not affected by board size. The separation of the CEO and board chairman is related to earnings informativeness. Interestingly, the authors find that increment of board independence is likely to have larger effect on earnings informativeness for board that meets less frequently. And increment of board meeting is likely to have larger effect on earnings informativeness for board with low independence.

When the authors focus on audit committee, they find that earnings informativeness is risen with audit committee independence and meeting. In contrast to the board, audit committees with smaller size are related with more informative earnings. When they consider the effect of interaction term between independence and meeting of audit committee, the results are similar to that of board.

Finally, the authors conduct the regression that comprises of both board and audit committee characteristics. They find that audit committee independence is not related to earnings informativeness. They conclude that, overall, the characteristics of both board and audit committee affect the informativeness of earnings.

In addition to the examination of the effect of board characteristics on earnings informativeness, the researchers also study the effect of ownership structure on the informativeness of earnings. Warfield et al. (1995: 61,63) investigate whether the managerial ownership impacts both the informativeness of earnings and accounting choices of managers, which is approximated by discretionary accrual. They measure the informativeness of earnings with the return-earnings relation and show that the

informativeness of earnings is greater in firms with higher managerial ownership. Another evidence shows that there is an increment of discretionary accrual adjustment in corporations with low managerial ownership.

In contrast with Warfield et al. (1995), Yeo et al.(2002: 1026) find that, based on data from the Stock Exchange of Singapore, the informativeness of earnings is not always positively related to managerial ownership. Specifically, at low levels of managerial ownership, earnings have greater informativeness when managerial ownership increases. At higher levels of managerial ownership, nevertheless, the informativeness of earnings has negative relation with management ownership.

3.2.1 Hypotheses Formation on the Effect of Board Characteristics on Earnings Informativeness

Reviewing the related studies, I find seven board characteristics that should be investigated in this paper. The seven characteristics are educational background of board and audit committee members, board size, CEO duality, independent directors on board, directorship in other firms of independent directors, tenure of independent directors, and audit committee meeting.

3.2.1.1 Educational Background

Background on accounting and/or finance should be crucial for effectiveness of board of directors to monitor the quality of accounting information. McMullen and Raghunandan (1996: 80) express a 1993 benchmark study by Price Waterhouse for the Institute of Internal Auditors, *Improving Audit Committee Performance: What Works Best* that audit committee members' expertise in accounting, internal controls, and auditing is important for audit committee effectiveness. They do the survey of firms with financial reporting problems and firms without financial reporting problems. They find that the firms without the problems tend to have CPAs on audit committee. Chtourou et al. (2001: 26) summarize that the firms with audit committee which at least one member has financial expertise are less likely to have earnings management. Consistent with Chtourou et al. (2001), Xie et al. (2003: 295) document that the members of board and audit committee with corporate or financial background tend to monitor the level of earnings management.

Since the main duty of audit committee is to review the financial reporting process to ensure that accounting information and financial report are reliable with best

quality, the Stock Exchange of Thailand requires that at least one audit committee member must have knowledge, understanding, or experience in accounting or finance.

Based on the evidences, documented on prior studies, relating to the background on accounting and/or finance of board of directors, and requirement of the Stock Exchange of Thailand, the related hypotheses are set as follows:

H 2.1: Informativeness of earnings is positively related to the proportion of board members with accounting and/or finance background.

H 2.2: Informativeness of earnings is positively related to the proportion of audit committee members with accounting and/or finance background.

3.2.1.2 Board Size

Jensen (1993: 865) suggests that the board which consists of more than seven or eight members is less likely to effectively work. He informs that board with small size can perform improvably. As board gets increase in size, the problem of coordination incurs. Vafeas (2000: 142, 144) explains that the directors in the large board may ineffectively exchange ideas. He indicates that the directors in a small board, compared to a 14- or-15- member board, have a better circumstance to conduct the detailed discussion of actual financial reporting information. In addition, he recognizes that the relationship between board size and earnings informativeness may also be non-linear. It is explained that “when board sizes are very small, the costs of having insufficient people to monitor management adequately may outweigh the process losses resulting from having a large board” (Vafeas, 2000: 144). Thus, firms need to have an adequate number of directors.

Some studies show the evidences supporting Jensen (1993)’s view (Beasley, 1996; Vafeas, 2000). But some do not (Chtourou et al., 2001). Vafeas (2000: 144-145, 157) proposes his hypothesis that for firms with moderate to large boards, the returns-earnings association is negatively related to board size. His evidence is consistent with the hypothesis that earnings provided by the firms with smaller board are more informative to investors. Beasley (1996: 462) finds the evidence that board size is positively related to the likelihood of financial statement fraud. That is, financial statement fraud is less likely to incur in firms with smaller board. However, Chtourou et al. (2001: 24) find the result in inverse direction. The larger board tends to perform

more effectively to decrease the level of earnings management. They suggest that “the efficiency gains of small boards might be offset by the possibility that if the board is larger, the proportion of non-executives may be higher” (Chtourou et al., 2001: 25).

Additionally, Anderson et al. (2003: 19) indicates that board size does not affect the informativeness of earnings.

Although there are the inconsistent evidences of the effect of board size as discussed, I believe that board size should affect market perception of earnings. Then, the hypothesis is created as follows:

H 3: Informativeness of earnings is related to board size.

3.2.1.3 CEO Duality

Xie et al. (2003: 303) define CEO duality as that CEO also occupies the board chairman position. The board chairman has responsibility in running board meetings, and overseeing the process of appointing and monitoring CEO. The CEO as board chairman has more power and is more likely to make decisions based on his personal interest. The board, therefore, is unable to carry out its duties effectively. Then, the separation of the CEO and board chairman position is very crucial (Jensen, 1993: 866).

Many studies have not found evidence on effectiveness of the separation of the CEO and chairman of board position on the quality of accounting information (Chtourou et al, 2001; Petra, 2002; Xie et al, 2003). Based on univariate OLS regression, Xie et al. (2003: 305) document that CEO duality has no relation to discretionary accruals. Consistent with Xie et al. (2003), Chtourou et al.(2001: 25) find that the CEO with board chairman position tends to not affect earnings management. This evidence was based on multivariate analysis. Petra (2002: 69) shows the evidence that the separation of CEO and the board chairman position does not improve informativeness of earnings.

However, Dechow et al. (1996: 1) find that firms subject to SEC accounting enforcement actions for alleged violations of GAAP tend to have CEO duality and Anderson et al. (2003: 19) indicate that the separation of CEO and the board chairman is positively related to earnings informativeness.

Although there are no conclusive evidences of effect of the separation of CEO and the chairman of board position on the quality of accounting information, I expect

that, based on Jensen (1993)'s explanation mentioned before, this separation should increase the informativeness of earnings in Thailand.

H 4: Informativeness of earnings is positively related to the separation of CEO and the chairman of board position.

3.2.1.4 Independent Members on Board

Fama (1980: 293) notes that there may be collusion and transfer of shareholders' wealth by top management on board. He suggests that inclusion of outside directors on board might help solve this problem.

There are several studies examining if outside members on board impact on quality of accounting information. Beasley (1996: 463) documents that firms with financial statement fraud have lower proportion of outside members on board than firms without fraud. The researchers, however, do not find the relation between outside members on board and earnings management. Xie et al. (2003: 307) demonstrate that the percentage of outside directors is insignificantly related to discretionary accruals. Chtourou et al.(2001: 25) find that the percentage of independent non-executive directors on board does not impact on the level of earnings management.

For the studies of the relation of outside directors with informativeness of earnings, Anderson et al. (2003: 17) find that earnings informativeness is positively related to board independence. However, Vafeas (2000: 157) suggests that the percentage of outside directors is unrelated to the informativeness of earnings. Petra (2002: 79) also finds the evidence consistent with Vafeas (2000)'s.

Although the evidences of effect of outside directors serving on board on the quality of accounting information are not conclusive, I expect that, with the view that outside directors can monitor management's acts and ability to manage earnings, the percentage of outside directors¹ serving on board should increase the informativeness of earnings.

¹ In this study, the fraction of independent directors on board is studied if it affects earnings informativeness. However, audit committee independence is not focused because in the year 2004, all audit committee members of listed firms are independent.

H 5: Informativeness of earnings is positively related to the percentage of independent directors serving on board.

3.2.1.5 Directorship

The performances of outside directors are priced by market (Fama, 1980: 294). Therefore, they have incentives to be effective monitors since being directors of good firms will signal their value to the market (Beasley, 1996: 460). According to this view, the number of outside directorship held by each outside director serves as a signal of his competence or reputation. Additionally, additional directorship provides the director to acquire knowledge of best practices for board of directors (Chtourou et al., 2001: 14). These suggest that the high number of directorship of outside directors tends to relate to monitoring effectively. Chtourou et al.(2001: 25) find the evidence supporting this view. They indicate that the average number of outside directorship that independent non-executive directors hold in unaffiliated firms is negatively related to the level of earnings management.

On the other hand, Morck et al. (1988: 307) inform that monitoring the top management requires effort and time. Then, additional outside directorship held by outside directors will reduce time available for monitoring responsibility of each director at a single firm (Beasley, 1996: 461)². In this view, the high number of directorships of outside directors tends to reduce the effectiveness of monitoring. Consistent with this view, Beasley (1996: 461) find that the directorship is positively related to the likelihood of financial statement fraud. Specifically, while outside directors of fraud firms hold more outside directorships, the likelihood of financial statement fraud increases.

Because there are two opposite views of the directorship effect on monitoring of outside directors, I expect that the directorship effect will impact market perception of earnings. Then, the related hypothesis is set as follows:

² Chtourou et al. (2001: 35) suggest that “additional directorship may improve effectiveness up to a point but beyond this point, the board is penalized because of the time and effort absorbed by other directorship.”

H 6: Informativeness of earnings is related to the outside directorship held by independent directors.

3.2.1.6 Tenure

Chtourou et al. (2001: 13, 25) note that having experience on board, outside directors obtain better knowledge of executive directors as well as that of firm. These will help develop competence of monitoring and overseeing firm's process of financial reporting effectively. In examination of the relation between outside directors' tenure on board and earnings management, they find the evidences supporting this view. The outside directors' average tenure on board is negatively related to the level of earnings management. Also, Beasley (1996: 461)'s evidence is consistent with this view. He finds that as number of years of board service increases, the outside directors' ability to effectively monitor management for the prevention of financial statement fraud increases.

However, Beasley (1996: 460) notes the opposite view that outside directors with longer years of service on board tend to be entrenched with top management while new directors tend to be independent and watchful. Xie et al. (2003: 307) find that the tenure of outside directors is positively related to the level of earnings management.

With the two views of the effect of outside directors' tenure on monitoring, I hypothesize that the informativeness of earnings is affected by independent directors' tenure.

H 7: Informativeness of earnings is related to independent directors' tenure.

3.2.1.7 Audit Committee Meeting³

Meeting helps audit committee to focus on accounting and controlling matters. They can discuss the related problems and find out the way to solve them. McMullen and Raghunandan (1996: 80-81) document that audit committees of the firms with financial reporting problems have less likelihood to meet frequently. Specifically,

³ I do not study whether board meeting affects the informativeness of earnings due to incomplete data on board meeting in the year 2000.

“only 23% of audit committees of problem companies had regularly scheduled meetings three or more times a year. Forty percent of audit committees of companies without financial reporting problems met at least three times annually.”

Chtourou et al. (2001: 24) expect that the more the number of audit committee meeting, the less the level of earnings management. But the results are not consistent with their expectation. The authors find that the firms with audit committee meeting more than twice a year are likely to manage earnings. They, however, combine meeting variable with audit committee independence variable and find that the firms with audit committee consisted only of independent directors who meet more than two times a year are less likely to manage earnings.

Xie et al. (2003: 314) document that the frequency of audit committee meeting is related to the lower earnings management. They conclude that audit committee activity could serve as effective monitor. Additionally, Anderson et al. (2003: 20) demonstrate that earnings informativeness is rised with audit committee meeting.

From prior evidences relating to the frequency of audit committee meeting, the related hypothesis is set as follows:

H 8: Informativeness of earnings is positively related to the frequency of audit committee meeting.

3.3 SET's Role in the Development of Corporate Governance after Financial Crisis in 1997⁴

Over the last ten years, the Stock Exchange of Thailand (SET) has continuously supported the development of good corporate governance culture in listed firms. The role of audit committee was under study in 1995, leading to subsequent SET requirement announced in 1998 stating that from 1999 onwards, existence of audit committee is mandatory for all listed firms. During 1999, SET published a guideline called “Code of Best Practice for Directors of Listed Firms”. Two year later, Good Corporate Governance Committee, consisting of representatives from various professional organizations, publicized the Report on Corporate Governance, in order to

⁴ Source: http://www.set.or.th/th/operation/corporate/corporate_p1.html

help corporations in Thai capital market adapt good corporate governance and practices.

The Thai government has appointed 2002 as the year to start promote Good Corporate Governance, and established the National Corporate Governance Committee (NCGC). During that year, SET presented 15 principles of good corporate governance⁵ for listed firms to execute, and had required that from accounting period ending 31 December 2002 onwards, listed firms must disclose how they have put into practice these fifteen principles in their annual registration statement (Form 56-1) and annual report. Firms must provide good explanations if they fail to apply any principles.

In order to provide consulting services and act as a centre for sharing of ideas about corporate governance practices with directors and executives of listed firms and with firms preparing for listing, SET founded the Corporate Governance Centre in July 2002. Major activities are listed below:-

- Meet with directors and executives of listed firms and other organizations to exchange ideas on developing good corporate governance
- Prepare and publicize information relating to development of corporate governance including “Good Governance Assessment”, “Guidelines for Risk Management”, “The Examples of Fifteen Principles of Good Corporate Governance Report” and “Best Practices for Shareholders”
- Organize activities to educate directors and executives of listed firms on good corporate governance such as seminars, roundtable discussions, radio broadcast programs and website www.cgthailand.org in order to promote and exchange ideas. Rewards are awarded to firms with the best corporate governance report for 2004 & 2005 in SET Awards
- Support research on Corporate Governance performed by other organizations
- Support listed firms to join Corporate Governance Rating Program of the Thai Rating and Information Service Co., Ltd.
- Sponsor training programs for directors of listed firms

⁵ See in Appendix B

3.3.1 Hypothesis Formation on the Change of the Effect of Board Characteristics on Earnings Informativeness during the Development of Corporate Governance in Thailand

Thai corporate governance system has been significantly reformed since 1998 and has been made significant progress in improvement. The Stock Exchange of Thailand has continuously supported the development of good corporate governance. Furthermore, the year of 2002 has been appointed as the year to start promote Good Corporate Governance. These lead to forming the hypothesis as follows:

H 9: Comparative to that in the year 2000, the effect of board characteristics on earnings informativeness is better in the year 2004.

3.4 Summary

To answer the first research question, I set one hypothesis of whether earnings of listed firms in Thailand are positively related to return. To answer the second research question, the seven board characteristics that consist of educational background of board and audit committee members, board size, CEO duality, independent directors on board, directorships in other firms of independent directors, tenure of independent directors, and audit committee meeting are considered. The related hypotheses are formed to find the evidences answering whether the board characteristics affect the earnings informativeness. To answer the last research question, I review the role of the Stock Exchange of Thailand relating to the development of corporate governance after the year of financial crisis and hypothesize that comparative to that in the year following the reforms of corporate governance, the effect of board characteristics on the informativeness of earnings is better in the recent year. The conceptual framework of this paper is presented on Figure 3.1.

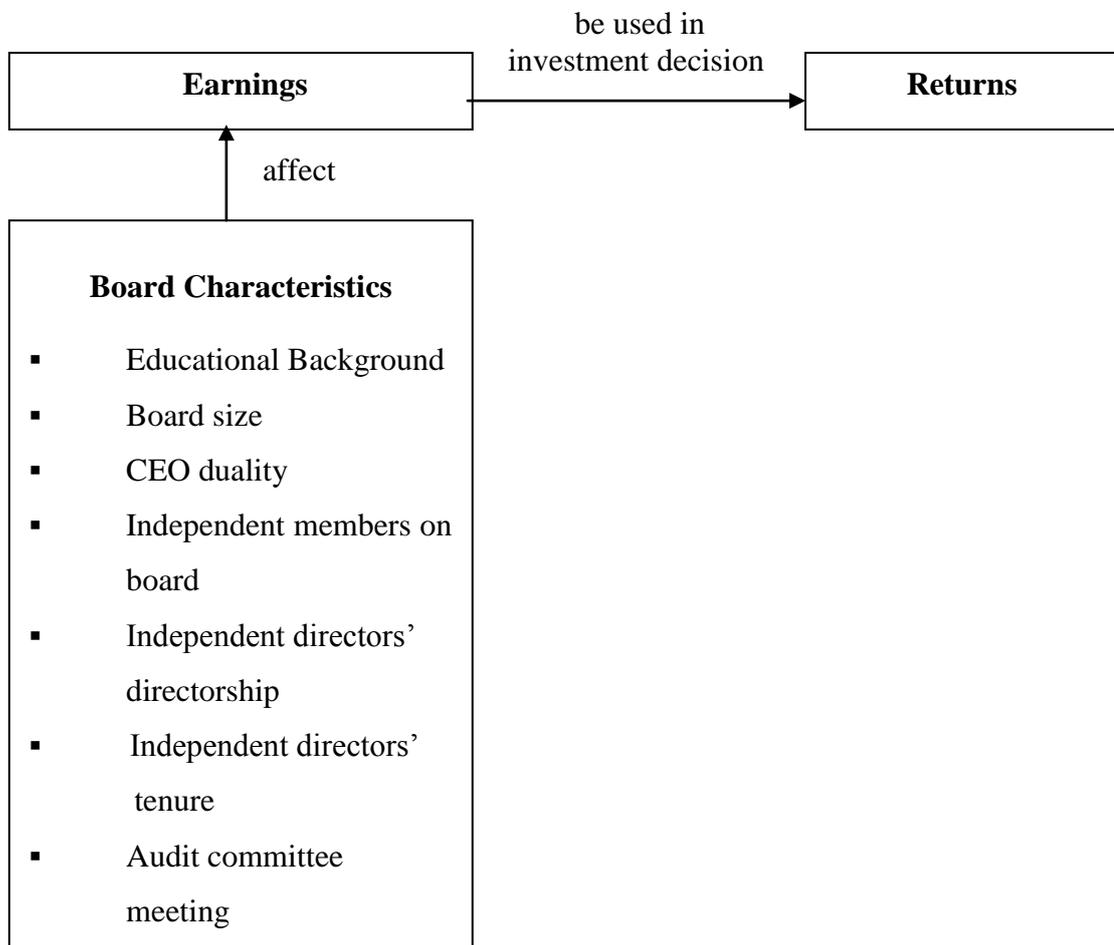


Figure 3.1 Conceptual framework: The effect of board characteristics on earnings that are employed for investment decision

CHAPTER 4

RESEARCH DESIGN

This chapter shows the details of research design that comprise of research model, the measurement of dependent variable, independent variables including control variables, and the selection and source of sample and data.

4.1 Research Model

The studies of returns-earnings relation are generally conducted using two methods: event study and association study. By the event study, researchers examine whether the event of earnings announcement convey new information to investors as reflected in change of stock price over a short-term window around the event. By association study, researchers investigate the relationship between returns and earnings over a long-term window by using an earnings response coefficient (ERC) as a measure of the relationship. Ball and Brown (1968)'s research is recognized as pioneer in the study of returns-earnings relation. They examine this relation by using both event study and association study.

Nichols and Wahlen (2004: 269) state that “in examining the association between unexpected earnings and stock returns, we test the fundamental question of whether earnings numbers reflect information that the capital markets believe is relevant and reliable.” Informativeness of earnings can be investigated through the association between unexpected earnings and stock returns.

This paper employs the earnings response coefficient on regression of returns and earnings that is measured through the association study because it focuses on the market response to various releases about earnings throughout the year.

To measure informativeness of earnings that is affected by corporate governance, the related studies present two measurements: earnings response coefficient (ERC) itself (Petra, 2002), and earnings response coefficient (the slope coefficient) on regression of returns and earnings (e.g., Warfield et al, 1995; Vafeas, 2000).

To calculate ERC itself, Petra (2002: 49-53) explains that it results from regressing quarterly abnormal returns on unexpected quarterly earnings over forty-eight quarters prior to the first test year, over fifty-two quarters prior to the second test year, over fifty-six quarters prior to the third test year, and over sixty quarters prior to the last test year. Regarding timing to measure dependent and explanatory variables (corporate governance), he informs that the variables are measured for each firm as close as possible to the beginning of each fiscal year ending in calendar 1996 through 1999 (test period). The advantage of this measurement is that ERC itself (earnings informativeness) can be the dependent variable of model. When the investigation of whether board characteristics affect earnings informativeness is conducted, the relation between board characteristics (independent variables) and ERC (dependent variable) can be easily noticed. The disadvantage of this measurement is that ERC itself is obtained by regressing prior period abnormal returns on prior period unexpected earnings. Therefore, ERC itself is the past value. The year of informativeness of earnings should be the same year that characteristics of board are considered.

For the earnings informativeness measurement of earnings response coefficient (the slope coefficient) on regression of returns and earnings, its advantage is that the year of earnings informativeness can be the same year that board characteristics are considered. However, using slope coefficient as measurement of earnings informativeness may result in that notice on the effect of board characteristics on earnings informativeness is inconvenient.

In this paper, the earnings response coefficient (slope coefficient) on regression of returns and earnings is used to measure informativeness of earnings. This is because the objective of this paper is to examine whether the characteristics of board affect the informativeness of earnings. The year of informativeness of earnings should be the same year that board characteristics are considered since the existing characteristics impact perceiving earnings of market in that year or, at least, in the following year, not in the past years.

The cross-sectional regression model:

$$CAR_{it} = \beta_0 + \beta_1 UE_{it} + \varepsilon_{it} \quad (1)$$

$$\begin{aligned} CAR_{it} = & \beta_0 + \beta_1 UE_{it} + \beta_2 UE_{it} \times BdBackground_{it} + \beta_3 UE_{it} \times AdBackground_{it} \\ & + \beta_4 UE_{it} \times BdSize_{it} + \beta_5 UE_{it} \times CEOdual_{it} + \beta_6 UE_{it} \times BdInd_{it} \\ & + \beta_7 UE_{it} \times BdDir_{it} + \beta_8 UE_{it} \times BdTen_{it} + \beta_9 UE_{it} \times AdMeet_{it} \\ & + \beta_{10} UE_{it} \times Block_{it} + \beta_{11} UE_{it} \times Own_{it} + \beta_{12} UE_{it} \times FmSize_{it} \\ & + \beta_{13} UE_{it} \times Risk_{it} + \beta_{14} UE_{it} \times Growth_{it} + \beta_{15} UE_{it} \times Persist_{it} \\ & + \beta_{16} UE_{it} \times Lev_{it} + \beta_{17} UE_{it} \times Big4(5)_{it} + \varepsilon_{it} \end{aligned} \quad (2)$$

- CAR_{it} = The cumulative abnormal return of firm i in year t
- UE_{it} = The unexpected earnings of firm i in year t
- $BdBackground_{it}$ = The proportion of board members with accounting and/or finance education on board of firm i in year t.
- $AdBackground_{it}$ = The proportion of audit committee members with accounting and/or finance education on audit committee of firm i in year t.
- $BdSize_{it}$ = The number of members on the board of directors of firm i in year t.
- $CEOdual_{it}$ = The dummy variable of whether chief executive officer is chairman of the board (1 = not same person, 0 = same person) of firm i in year t.
- $BdInd_{it}$ = The proportion of independent directors on board of firm i in year t.
- $BdDir_{it}$ = The average number of directorship in other firms held by independent directors of firm i in year t.
- $BdTen_{it}$ = The average years of board service of independent directors of firm i in year t.
- $AdMeet_{it}$ = The number of audit committee meetings of firm i in year t.
- $Block_{it}$ = The sum of stock ownership of large shareholders who own 5% or more of firm's stocks of firm i in year t.
- Own_{it} = The percentage of equity shares held by officers and directors of firm i in year t.
- $FmSize_{it}$ = The log of market value of equity for firm i in year t.

Risk _{it}	=	The standardized beta of firm i in year t, that is calculated from market model.
Growth _{it}	=	The market to book ratio for equity of firm i in year t.
Persist _{it}	=	The dummy variable of whether the absolute magnitude of unexpected earnings lies below the median of firm i in year t (1= absolute magnitude lies below the median, 0=otherwise).
Lev _{it}	=	The debt/equity ratio of firm i in year t.
Big4(5) _{it}	=	The dummy variable of whether auditor is Big 4(5) auditor (1 = Big 4(5), 0 = otherwise) of firm i in year 2004 (2000).
ε _{it}	=	The random disturbance of firm i in year t, with N(0, σ ²)

In addition to interested variables, control variables are also added into the model. This is because they also affect the informativeness of earnings.

The interaction terms between unexpected earnings and board characteristics including control variables are put on the model. The β parameters measure the joint relation between board characteristics including control variables and earnings informativeness and reflect the extent to which the earnings informativeness is affected by the level of board characteristics and control variables. Specifically, if equation (2) is differentiated with respect to UE_{it} , we obtain $\beta_1 + \beta_2 BdBackground_{it} + \beta_3 AdBackground_{it} + \beta_4 BdSize_{it} + \beta_5 CEOdual_{it} + \beta_6 BdInd_{it} + \beta_7 BdDir_{it} + \beta_8 BdTen_{it} + \beta_9 AdMeet_{it} + \beta_{10} Block_{it} + \beta_{11} Own_{it} + \beta_{12} FmSize_{it} + \beta_{13} Risk_{it} + \beta_{14} Growth_{it} + \beta_{15} Persist_{it} + \beta_{16} Lev_{it} + \beta_{17} Big4(5)_{it}$. This result implies that the effect of UE_{it} on CAR_{it} is positively (inversely) related to board characteristics and control variables if $\beta_2, \beta_3, \dots, \beta_{17}$ are significantly greater (less) than zero.

To find the evidence supporting hypothesis 1, the significance of coefficient β_1 in equation (1) is tested. As for that of hypotheses 2-8, the significance of coefficient of the interaction term between UE and related variable in equation (2) is tested. For that of hypothesis 9, the significance of coefficient in standardized value of the interaction term between UE and related variable in equation (2) is tested and comparison of standardized coefficient between the year 2000 and 2004 is performed.

4.2 Measurement of Variables

4.2.1 Dependent Variable

Cumulative abnormal returns (CAR) are dependent variable in the research model. Abnormal returns are calculated by expected return subtracting from actual returns. Actual returns of each listed firm are extracted from database of DATASTREAM INTERNATIONAL in form of Return Index (RI). According to the definition of Return Index from DATASTREAM INTERNATIONAL, it shows a theoretical growth in value of a share holding over a specified period, assuming that dividends are reinvested to purchase additional units of an equity at the closing price applicable on the ex-dividend date.

From 1988 onwards, the availability of detailed dividend payment data enables a more realistic method to be used in which the discrete quantity of dividend paid is added to the price on the ex-date of payment. Then:

$$RI_t = RI_{t-1} * (P_t/P_{t-1})$$

except when $t = \text{ex-date of the dividend payment } D_t$ then:

$$RI_t = RI_{t-1} * ((P_t + D_t)/P_{t-1})$$

Where:

P_t = price on ex-date

P_{t-1} = price on previous day

D_t = dividend payment associated with ex-date t

Gross dividends are used where available and the calculation ignores tax and re-investment charges. Adjusted closing prices are used throughout to determine price index and hence return index.

According to Kittima Acaranupong (2003: 88), I can obtain returns by:

$$RI_t = RI_{t-1} * ((P_t + D_t)/P_{t-1})$$

$$\text{then, } RI_t / RI_{t-1} = (P_t + D_t) / P_{t-1}$$

take -1 into the both sides of equation,

$$(RI_t / RI_{t-1}) - 1 = ((P_t + D_t) / P_{t-1}) - 1$$

$$(RI_t - RI_{t-1}) / RI_{t-1} = (P_t + D_t - P_{t-1}) / P_{t-1}$$

$$\text{so, } (RI_t - RI_{t-1}) / RI_{t-1} = \text{returns}$$

Expected returns are estimated using the traditional market model as follows:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}$$

Where:

$$\begin{aligned} R_{it} &= \text{weekly returns for firm } i \text{ in week } t \\ R_{mt} &= \text{weekly market returns in week } t \\ \alpha_i \text{ and } \beta_i &= \text{market model parameters for firm } i \\ \varepsilon_{it} &= \text{random disturbance firm } i \text{ in week } t, \text{ with } N(0, \sigma^2) \end{aligned}$$

The period of fifty-two weekly returns, that is used in the estimation of the parameters of the market model, is four weeks prior to the test period. I leave some period of time before the test period to ensure that estimated parameters stem from information in the estimation period, not in the test period. Earnings information in the test period may be released early.

Assuming that the estimated parameters are stationary through the test period, the weekly expected returns of each firm are calculated using those parameters for fifty-two weeks (test period) starting the fifth week after the estimation period. As the difference between actual returns and expected returns, abnormal returns in the test period are written as follows:

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt})$$

Where:

$$AR_{it} = \text{weekly abnormal returns for firm } i \text{ in week } t$$

This paper, I employ weekly returns rather than monthly returns to obtain many returns data in the estimation period for better estimation of the parameters. If monthly returns are employed, the estimation period may be during 1997-1999, that is, thirty-six monthly returns are collected to obtain estimated parameters. The year of 1997, however, was the year of financial crisis that resulted in highly monthly returns fluctuations which may affect the quality of the estimated parameters.

To obtain cumulative abnormal returns for each firm in year t , fifty-two weekly abnormal returns are accumulated. According to the Stock Exchange of Thailand, if the financial statements of the fourth quarter have not been submitted, listed firms have to disclose the annual audited financial statements within 60 days from the end of

accounting period. If the fourth-quarter financial statements have been submitted, listed firms can disclose the annual audited financial statements within 3 months from the end of accounting period. Since most listed firms do not submit the fourth-quarter financial statements, they disclose the financial statements within 60 days after the end of accounting period. I calculate cumulative abnormal returns starting in the first week of March of the year 2000 and 2004 until the last week of February of the year 2001 and 2005.

$$CAR_{it} = \prod_{j=9}^{60} (1 + AR_{ijt}) - 1$$

Where:

CAR_{it} = cumulative weekly abnormal returns for firm i in year t
 AR_{ijt} = weekly abnormal returns for firm i in week j in year t

This measure assumes that earnings of period t are perceived in returns from the first week of March in year t to the last week of February in year $t+1$.

4.2.2 Independent Variables

4.2.2.1 Unexpected Earnings

Nichols and Wahlen (2004: 268-269) indicate that when the announced earnings differ from market expectation, stock price generally reacts to that unexpected earnings. The unexpected earnings are new information conveyed by earnings.

It is indicated that analysts' earnings forecasts are often used as proxy for earnings expectation. Alternatively, if they are not available, earnings from random walk model (prior-period earnings) are often served as expected earnings. In this paper, I employ random walk expectation model to estimate the expected earnings since analysts' earnings forecasts are not available. In addition, I believe that investors usually tend to compare current earnings to the last period earnings before they make decisions. Therefore, expected earnings for the year t equal to earnings for the year $t-1$. Unexpected earnings⁶ can be written in the equation as follows:

⁶ I deflate the difference between actual earnings and expected earnings with the absolute value of expected earnings because I believe that change in earnings in the proportion form is more easily used in decision making.

$$UE_{it} = (E_{it} - E_{it-1})/|E_{it-1}|$$

Where:

UE_{it} = unexpected earnings for firm i in year t

E_{it} = earnings per share before extraordinary items for firm i in year t

E_{it-1} = earnings per share before extraordinary items for firm i in year $t-1$ (expected earnings)

4.2.2.2 Educational Background

As discussed above, the Stock Exchange of Thailand requires that at least one audit committee member must have knowledge, understanding, or experience in accounting or finance. I measure the proportion of board members and audit committee members with accounting and/or finance educational background. Most people who have experience on accounting or finance are likely to possess a degree in accounting or finance.

4.2.2.3 Board Size

Board size is measured by the number of members on the board of directors.

4.2.2.4 CEO Duality

CEO duality is measured by that CEO also occupies the board chairman position. It is assigned that the dummy variable valuing 1 if there is the separation of the CEO and board chairman position, 0 otherwise.

4.2.2.5 Independent Directors on Board

Independent directors⁷ on board are measured by percentage of independent directors on board.

4.2.2.6 Directorship

Directorship is measured by the average number of directorship in other firms held by independent directors.

4.2.2.7 Tenure

Tenure is measured by the average years of board service of independent directors. For the two years (2000 and 2004) to be comparable, the maximum number of service years to be collected for each independent director is four years. The reason

⁷ Independent director is defined by the Stock Exchange of Thailand as shown in Appendix A.

for using four years is that data for most observations in the year 2000 can only be traced back up to four years.

4.2.2.8 Audit Committee Meeting

Audit committee meeting is measured by number of committee meetings. However, since data of audit committee meeting are not able to be completely collected as shown on Table 4.2, the number of four meetings per year is employed for observation that does not provide the data of meeting. The number of four is considered because listed firms have to prepare quarterly financial reports and audit committee tends to hold quarterly meetings to review them.

4.2.3 Control Variables

4.2.3.1 Control Variables Relating to Corporate Governance

1) Concentrated Ownership

Fan and Wang (2002: 402-403, 410-411) examine the relation between corporate ownership structure and the quality of accounting information, which is measured by the informativeness of earnings to market participants, in seven East Asia countries including Thailand. In regards to corporate ownership structure, they focus on ultimate owners along with their shares of voting rights and cash flow rights. Firm-specific information on pyramid and cross-holding structures are employed to measure the distinction between voting rights and cash flow rights. They employ the ownership data of 1996. However, the returns and earnings data are collected during the period of 1991 through 1995 by assuming that “the ownership and control structures of the firms did not change substantially during that period” (Fan and Wang, 2002: 411). Based on the evidences, the results show that earnings informativeness is significantly negatively related to the control level of ultimate owner and the degree of divergence between the ultimate owner’s control level and the ultimate owner’s equity ownership level.

However, this paper does not focus the ultimate owner’s voting rights and cash flow rights to be the measure of ownership structure. This is because it is quite subjective to find the ultimate owner and measure his voting rights. I, therefore, use percentage of shares of blockholders, which are disclosed in the Form 56-1 to measure

concentrated ownership. The concentrated ownership equals to the sum of stock ownership of large shareholders who own 5% or more of firm's stocks⁸.

Besides controlling the firm, blockholders also control the production of accounting information (Fan and Wong, 2002: 408). There are two incentive effects of ownership concentration: entrenchment effect and alignment effect (Fan and Wang, 2002: 405). In accordance with the entrenchment effect, the controlling owner can determine how profits are allocated among shareholders. Furthermore, the controlling owner may benefit from self-dealing transactions in which earnings are transferred to other firms that he owns. Subsequently, outside investors may not trust the process of producing earnings since the concentrated owners may report accounting information in the view of their self-interest instead of firm's true underlying economic information. Therefore, it is expected that the informativeness of earnings is negatively related to concentrated ownership.

Regarding the alignment effect, it is believed that "increasing an owner's share ownership beyond the minimum level needed for effective control improves the alignment of interests between the controlling owner and the minority shareholders and reduces the effects of entrenchment" (Fan and Wang, 2002: 406). The reason is that, in light of high ownership concentration, if the controlling owner extracts high private benefits, minority stockholders will discount stock price resulting in the reduction in value of concentrated owners' stocks. Therefore, in the view of alignment effect, it is expected that the informativeness of earnings is positively related to concentrated ownership.

In summary, since concentrated ownership affects the informativeness of earnings according to both effects, I hypothesize that the informativeness of earnings is related to concentrated ownership.

2) Managerial Ownership

There are also two incentive effects of managerial ownership: alignment effect and entrenchment effect. Regarding alignment effect, the interest of shareholders and management will align as the fraction of management ownership increases. Managers

⁸ According to the qualification of independent director, The Stock Exchange of Thailand regulates that an independent director cannot hold shares which exceed 5 % of firm's paid-up capital. Therefore, I use 5% as a base of measuring the concentrated ownership.

are less likely to be extravagant on corporate wealth or make self-serving maximizing decisions at cost of firm value because these actions impact their own financial position (Morck et al., 1988: 293; Petra, 2002: 21).

According to the entrenchment effect, it is predicted that corporate value can be impaired when firm is managed by an individual without having control checks in place. Morck et al. (1988: 294) address some points of entrenchment effect. They indicate this effect in accordance with Demsetz (1983) and Fama and Jensen (1983) as “a manager who controls a substantial fraction of the firm’s equity may have enough voting power or influence more generally to guarantee his employment with the firm at an attractive salary.” They, however, point out that this effect is not just a result of voting power. The tenure with firm, status as a founder, or personality can make a manager to be entrenched with relatively small stakes.

Regarding the study of the effect of managerial ownership on the informativeness of earnings, Warfield et al. (1995) and Petra (2002) find the relation according to the view of alignment effect. Their evidences indicate that when the level of managerial ownership increases, the level of earnings informativeness also increases. In addition, Warfield et al. (1995: 61) show that as managerial ownership rises, the magnitude of earnings management declines. This implies that, when managerial ownership increases, the increment of earnings informativeness is likely due to the decline of earning manipulation.

Interestingly, Yeo et al.(2002: 1026) find that, based on data from the Stock Exchange of Singapore, at low levels of managerial ownership, earnings have greater informativeness when managerial ownership increases. At higher levels of managerial ownership, nevertheless, the informativeness of earnings has negative relation with management ownership. This is, based on Yeo et al (2002)’s evidences, the alignment effect appears at low level of managerial ownership and the entrenchment effect appears at high level of managerial ownership.

Since managerial ownership affects the informativeness of earnings relating to both alignment and entrenchment effects, I hypothesize that the informativeness of earnings is related to managerial ownership.

The managerial ownership is measured by the percentage of equity shares held by officers and directors. Nevertheless, in this paper, to avoid the losses of the number

of observations that result from inconsistent disclosure of the percentage of equity shares held by officers, that held by only directors is collected. Moreover, some directors are also firm's officers.

4.2.3.2 Other Control Variables

Other control variables that are commonly used in the literature of the effect of corporate governance on the informativeness of earnings (e.g. Warfield et al., 1995; Vafeas, 2000; Petra, 2002; Fan and Wang, 2002) are as follows:

1) Firm Size

Large firms are likely to manage earnings. According to Watt and Zimmerman (1986: 235), the large firm tends to be more politically sensitive. The firms are more likely to manipulate accounting information to reduce the political costs. In this view, informativeness of earnings tends to be lower. However, Chaney and Jeter (1992) quoted in Warfield et al. (1995: 74) inform that investors more relevantly perceive earnings from larger firms. The investors may believe that these firms have more scrutiny of their accounting choices.

Therefore, I expect that firm size affects the informativeness of earnings. Firm size is measured by market value of firm's equity (e.g., Petra, 2002: 54; Warfield et al., 1995: 75).

2) Risk

The high-risk firms are likely to manipulate earnings. Warfield et al. (1995: 67) indicate that high-risk firms tend to face political costs. These firms are more likely to manage earnings to reduce the political costs. The informativeness of earnings should be lower in the high-risk firm. Collins and Kothari (1989: 178) summarize that earnings response coefficient (ERC) negatively varies with systematic risk.

I expect that informativeness of earnings is negatively related to firm's systematic risk. The systematic risk is measured by standardized beta that is calculated from market model (e.g., Collin and Kothari, 1989: 158; Warfield et al., 1995: 75).

3) Growth

Collins and Kothari (1989: 148, 178) explain that when firm has growth opportunity, the future earnings and dividend stream should be larger. So they expect that ERC is positively related to growth opportunity. Their evidences support what they hypothesize. However, in the sense of high growth-high risk, Fan and Wang

(2002: 414) inform that high growth firm tends to be more risky. This implies that high growth opportunity weakens ERC.

As above discussed, growth can affect informativeness of earnings in both ways. I expect that growth impacts informativeness of earnings. Growth is measured by the market to book ratio for equity (e.g., Vafeas, 2000: 153; Petra, 2002: 54).

4) Persistence of Earnings

It is indicated that the greater persistence of earning will lead to larger revisions in market expectation of dividend (Collins and Kothari, 1989: 148). Thus, ERC is expected to be larger. Based on their evidence, Collins and Kothari (1989: 178) find that ERC increases with increment of earnings persistence. Warfield et al. (1995: 73, 75) expect that earnings persistence, which is a control variable in studying the relation between managerial ownership and informativeness of earnings, affects positively informativeness of earnings and obtain the results supporting what they expect.

As above discussed, I hypothesize that the informativeness of earnings is positively related to earnings persistence. The persistence is measured by the first-order autocorrelation in earnings⁹ for five years prior to the test year. The period of five years is used because most firms normally use the period of five years to plan their long-term business strategy. Therefore, investors should consider the trend of earnings during five years. Since the year of 1997, which is during the period of five years, was the year of financial crisis, it was obviously not the normal year. I use naïve procedure that is widely used by many academics to find the representative of 1997 earnings. By the procedure, the representative is calculated from the average of earnings in 1996 and earnings in 1998.

However, obtaining the earnings data for five years makes losses of the number of observations. Penman (1992: 564) argues that “projecting future earnings from information limited to the earnings time series does not utilize other information that a rational investor would use to assess persistence. Given this consideration, persistence (and thus earnings multipliers) are identified by the discovery of information that projects future earnings. As this information changes over time, so does the persistence

⁹ It is widely used for measurement of earnings persistence in the literature (e.g., Warfield et al., 1995: 75; Petra, 2002: 55)

of successive earnings realizations.” Ali (1994: 66) indicates small earnings changes are more persistent than large changes. Freeman and Tse (1992: 185) show that marginal response of stock price to unexpected earnings diminishes as the absolute magnitude of unexpected earnings increases. Therefore, this paper employs the absolute magnitude of unexpected earnings to measure persistence of earnings. The dummy variable 1 presents the group of unexpected earnings that their absolute magnitude lies below the median and 0 presents the group of unexpected earnings that their absolute magnitude lies above the median.

5) Leverage

Firm with high level of debt faces the default risk. Petra (2002: 64) indicates that increase of earnings must first allocate to creditors before any earnings will be given to shareholders. Watt and Zimmerman (1986: 216) inform that firm with larger debt/equity ratio is more likely to manipulate earnings. Dhaliwal et al. (1991) quoted in Fan and Wang (2002: 414) and Petra (2002: 64) find that highly levered firms encounter the weaken returns-earnings relation.

I expect that firm with high debt tends to provide less informativeness of earnings. Leverage variable is measured by the debt/equity ratio.

6) Big Four (Five) Auditor

DeAngelo (1981: 197) states that “the larger the auditor as measured by the number of current clients and the smaller the client as a fraction of the auditor’s total quasi-rents, the less incentive the auditor has to behave opportunistically, and the higher the perceived quality of the audit.” Teoh and Wong (1993: 346, 364) study the relation between perceived auditor quality and the earnings response coefficient (ERC). They investigate if ERC is different between Big Eight (B8) and non-Big Eight (NB8) audited firms. They find that the ERCs of B8 clients are statistically significantly larger than the ERCs of NB8 clients.

We had Big Five audit firms in the year 2000 and Big Four audit firms in the year 2004. I expect that firm with Big Five or Big Four auditor is likely to provide more informativeness of earnings. Big Five or Big Four audited firm is measured by the dummy variable 1 and 0 otherwise.

4.3 Data and Sample Selection

The data is extracted from the sample of listed firms on the Stock Exchange of Thailand (SET) in the year 2000 and the year 2004. Year 2000 is chosen for investigation since the requirement for existence of audit committee has just been implemented in late 1999. As for the year 2004, it is selected since it is the most current year that I can collect relative data to examine in order to pursue evidences for answering the research question. I exclude companies in banking, finance, securities, and insurance industries because the nature of their businesses is relatively different from that of companies in other industries and they are also subjected to monitoring by other related organizations such as the Bank of Thailand. Moreover, they are concerned about good corporate governance by National Corporate Governance Committee which appoints the Sub-Committee on the Enhancement of Corporate Governance in Commercial Banks, Finance Companies, and Insurance Companies to set the principles for raising the standard of Corporate Governance of commercial banks, finance companies, and insurance companies¹⁰. The companies with the fiscal year end not on December, 31 are also excluded from my sample. This is because the fiscal year of most of listed firms ends on December, 31 and I would like to examine the relation between returns and earnings and the effect of board characteristics on earnings informativeness over the same twelve months for all listed firms in the sample. Additionally, the listed firms under rehabilitation sector are excluded from the sample.

The sources of financial data are DATASTREAM INTERNATIONAL, I-SIMS and SET SMART databases¹¹. The board characteristics, concentrated ownership, managerial ownership, and big 4(5) auditor data are collected from SET SMART databases, Form 56-1 disclosed by listed firms, and firms' annual report.

¹⁰ Source: <http://www.cgthailand.org/SetCG/inter/inter.html> and <http://www.cgthailand.org/SetCG/inter/secure.html>

¹¹ I-SIMS and SET SMART databases are provided by the Stock Exchange of Thailand.

4.4 Summary

In this paper, the cross-sectional regression model is use to find evidences supporting the hypotheses. The data is obtained from the sample of listed firms on the Stock Exchange of Thailand in the year 2000 and the year 2004. The variable measurement is summarized on Table 4.1.

Table 4.1 Summary of variable measurement

Variables	Abbreviation	Measurement
▪ Dependent variable		
1. Cumulative abnormal return	CAR	The accumulation of difference between actual returns and expected returns for fifty- two weeks.
▪ Independent variables		
1. Unexpected earnings	UE	The difference of earnings per share before extraordinary items for current year and that for last year, which is deflated by the absolute value of earnings per share before extraordinary items for last year.
2. Educational Background	BdBackground	The proportion of board members with accounting and/or finance education on board.
	AdBackground	The proportion of audit committee members with accounting and/or finance education on audit committee.
3. Board size	BdSize	The number of members on the board of directors.
4. CEO duality	CEOdual	1 = chief executive officer is not chairman of board, 0 = otherwise.
5. Independent directors	BdInd	The proportion of independent directors on board.
6. Directorship	BdDir	The average number of directorship in other firms held by independent directors
7. Tenure	BdTEn	The average years of board service of independent directors.
8. Audit committee meeting	AdMeet	The number of audit committee meetings.

Table 4.1 (Continued)

Variables	Abbreviation	Measurement
▪ Control variables		
1. Concentrated Ownership	Block	The sum of stock ownership of large shareholders who own 5% or more of firm's stocks.
2. Managerial Ownership	Own	The percentage of equity shares held by officers and directors.
3. Firm Size	FmSize	The log of market value of equity.
4. Risk	Risk	The standardized beta that is calculated from market model.
5. Growth	Growth	The market to book ratio for equity.
6. Persistence of Earnings	Persist	The dummy variable 1 presents the group of unexpected earnings that their absolute magnitude lies below the median and 0 presents the group of unexpected earnings that their absolute magnitude lies above the median.
7. Leverage	Lev	The debt/equity ratio.
8. Big 4(5) auditor	Big4/Big5	The dummy variable of whether firm's auditor is Big 4 (5) auditor (1=Big 4(5), 0=otherwise).

Table 4.2 Number of audit committee meeting collected

Meeting	Number in Year 2000		Number in Year 2004	
Collected	93	54.71%	147	86.47%
Not available	<u>77</u>	<u>45.29%</u>	<u>23</u>	<u>13.53%</u>
Total of observations	170	100.00%	170	100.00%

CHAPTER 5

EMPIRICAL RESULTS

This chapter expresses the details of empirical results obtaining through SPSS program.

5.1 Number of Observations

The data is extracted from the sample of listed firms on the Stock Exchange of Thailand (SET) in the year 2000 and the year 2004. Number of observations in the year 2000 is used to be baseline for number of observations in the year 2004. The listed firms observed must be the same in both years. The number of observations per year is 170 as presented on Table 5.1.

5.2 Descriptive Statistics

Descriptive statistics of data for the year 2000 and 2004 are presented on Table 5.2 and 5.3 respectively. When mean of board characteristics is compared between the year 2000 and 2004, it is noticed that mean of fraction of board members with accounting and/or finance educational background increases whereas that of audit committee members with accounting and/or finance educational background does not change. Mean of board size as well as mean of CEO duality variable decline. Mean of fraction of independent directors on board, the average number of directorship in other firms held by independent directors, the average years of independent directors' board service, and audit committee meeting have the incremental value.

5.3 Assessment of Regression Models

The assessment of OLS regression models is conducted to investigate whether returns are explained by earnings, that is, whether earnings has informativeness, and whether earnings informativeness is affected by board characteristics. The regression models are assessed yearly to find if the effect of board characteristics on returns-earnings relation in the year 2004 differs from that in the year 2000. The model of returns-earnings is executed first, then, all interaction terms of earnings and each other

independent variable including each control variable are added into returns-earnings model. Additionally, since audit committee is a part of board, educational background variable of audit committee is not put in the same model as that with educational background variable of board.

5.3.1 Returns-Earnings Relation

From Table 5.4, the model of returns-earnings relation in the year 2004 presents that the coefficient of unexpected earnings (UE) (0.091) is positively significant ($t = 2.888$) at 0.01 level. It provides goodness of fit with adjusted R^2 value of 4.2%. The adjusted R^2 value measures the degree of fitness between postulated model and collected data. The significance of model is at 0.01 level. These evidences are consistent with H 1 that earnings are positively related to return. For the model in the year 2000, there is no evidence of relationship between returns and earnings. Its value of adjusted R^2 is negative.

5.3.2 The Effect of Board Characteristics on Returns-Earnings Relation

After all interaction terms of unexpected earnings and each independent variable including each control variable are added into returns-earnings model to find whether board characteristics affect earnings informativeness, the model encounters the problem of multicollinearity. The two variables with highest VIF value, unexpected earnings, and interaction term of unexpected earnings and firm size variables, are taken out from the model.

According to Table 5.5, the models of the year 2000 do not provide the significance of models. Their adjusted R^2 values equal to 0.6% and 0.9%. There is no evidence of any independent variable including any control variable affecting earnings informativeness.

On Table 5.6, for the year 2004, the model no.1 (with educational background variable of board) provides goodness of fit with adjusted R^2 value of 11.1%. The degree of fitness between postulated model and collected data is 11.1%. The significance of model is at 0.01 level. The evidences show that three interested independent variables (educational background of board, CEO duality, and tenure) have effect on the informativeness of earnings. The coefficient of interaction term of unexpected earnings and educational background variable of board

(UE×BdBackground) (0.744) is positively significant ($t = 2.711$) at 0.01 level. Earnings informativeness rises as proportion of board members with accounting and/or finance educational background increases. These show that market participants perceive earnings of firms with higher fraction of board members with accounting and/or finance educational background as being more informative than earnings of firms with lower fraction of board members with accounting and/or finance educational background. This is consistent with H 2.1 that informativeness of earnings is positively related to the proportion of board members with accounting and/or finance background.

The coefficient of interaction term of unexpected earnings and CEO duality variable (UE×CEOdual) (-0.417) is negatively significant ($t = -3.430$) at 0.01 level. These evidences present that investors perceive earnings of firms with CEO who also occupies the board chairman position as being more informative than earnings of firms with the separation of CEO and the board chairman position. This is not consistent with H 4 that informativeness of earnings is positively related to the separation of CEO and the chairman of board position.

The coefficient of interaction term of unexpected earnings and tenure variable (UE×BdTenn) (0.132) is positively significant ($t = 2.140$) at 0.05 level. Earnings informativeness increases as average years of independent directors' board service increase. These evidences present that investors perceive earnings of firms with longer period of board service of independent director as being more informative than earnings of firms with shorter period of independent director's board service. This is consistent with H 7 that informativeness of earnings is related to independent directors' tenure.

For control variables, the evidences show that two control variables (managerial ownership, and risk) have effect on the informativeness of earnings. The coefficient of interaction term of unexpected earnings and managerial ownership variable (UE×Own) (-0.580) is negatively significant ($t = -2.651$) at 0.01 level. Informativeness of earnings increases as level of managerial ownership decreases. These show that market participants perceive earnings of firms with lower level of managerial ownership as being more informative than earnings of firms with higher

level of managerial ownership. This is consistent with hypothesis that informativeness of earnings is related to managerial ownership.

The coefficient of interaction term of unexpected earnings and risk variable (UE×Risk) (-0.573) is negatively significant ($t = -2.548$) at 0.01 level. These evidences present that investors perceive earnings of firms with less systematic risk as being more informative than earnings of firms with more systematic risk. This is consistent with hypothesis that informativeness of earnings is negatively related to firm's systematic risk.

As for the model no. 2 with educational background variable of audit committee for year 2004 provides goodness of fit with adjusted R^2 value of 8.8%. The degree of fitness between postulated model and collected data is 8.8%. The significance of model is at 0.05 level. The evidences of this model indicate that the three similar interested independent variables (educational background of audit committee, CEO duality, and tenure) as in the model with educational background variable of board have effect on the informativeness of earnings. The two identical control variables (managerial ownership, and risk) also have effect on the informativeness of earnings.

The coefficient of interaction term of unexpected earnings and educational background variable of audit committee (UE×AdBackground) (0.258) is positively significant ($t = 1.843$) at 0.05 level. Earnings informativeness rises as proportion of audit committee members with accounting and/or finance educational background increases. These show that market participants perceive earnings of firms with higher fraction of audit committee members with accounting and/or finance educational background as being more informative than earnings of firms with lower fraction of audit committee members with accounting and/or finance educational background. This is consistent with H 2.2 that informativeness of earnings is positively related to the proportion of audit committee members with accounting and/or finance background.

The coefficient of interaction term of unexpected earnings and CEO duality variable (UE×CEODual) (-0.310) is negatively significant ($t = -2.660$) at 0.01 level

whereas the coefficient of interaction term of unexpected earnings and tenure variable (UE×BdTen) (0.118) is positively significant ($t = 1.884$) at 0.1 level.

The coefficients of interaction term of unexpected earnings and two control variables reflect that the coefficient of interaction term with managerial ownership variable (UE×Own) (-0.719) is negatively significant ($t = -2.980$) at 0.01 level and that with risk variable (UE×Risk) (-0.455) is negatively significant ($t = -2.060$) at 0.05 level.

5.3.3 The Change on the Effect of Board Characteristics on Earnings Informativeness between the Year 2000 and the Year 2004

Both the evidences of p-value of the models for the year 2000 and 2004 and the relation of some board characteristics with earnings informativeness for the year 2004 are consistent with H 9 which states that comparative to that in the year 2000, the effect of board characteristics on earnings informativeness is better in the year 2004.

5.4 Summary

The evidence reflects that earnings are positively related to return for the year 2004 but there is no evidence of relationship between returns and earnings for the year 2000.

The results for the year 2004 indicate that educational background of board members and of audit committee members, CEO duality, and independent directors' tenure affect earnings informativeness. Some control variables: managerial ownership and systematic risk also impact the informativeness of earnings. However, there is no evidence of any independent variable including any control variable affecting earnings informativeness for the year 2000. The results are summarized on Table 5.7 and 5.8.

Table 5.1 Number of observations per year

Year 2000¹	No. of Observations	
Listed companies		381
<u>Less</u> Companies in Banking industry	(14)	
Companies in Finance and Securities industry	(21)	
Companies in Insurance industry	(22)	
Companies under Rehabilitation	(45)	
Other companies ²	<u>(109)</u>	<u>211</u>
Total observations per year		170

Note: 1. Number of observations in the year 2000 is used to be number of observations per year since the observations in the year 2000 are the same observations as in the year 2004.
2. Other companies consist of companies with the fiscal year end not on December, 31, companies with incomplete data, and one outlier company.

Table 5.2 Descriptive statistics for the year 2000

Variables	Number of Observations	Minimum	Maximum	Mean	Std. Deviation
▪ Dependent variable					
Cumulative Abnormal Returns	170	-0.90	2.31	-0.15	0.61
▪ Independent variables					
1. Unexpected earnings	170	-3.33	121.00	1.83	9.93
2. Educational Background					
-Board	170	0.00	0.89	0.40	0.18
-Audit Committee	170	0.00	1.00	0.48	0.32
3. Board size	170	6.00	24.00	12.10	3.34
4. CEO duality	170	0.00	1.00	0.89	0.32
5. Independent directors	170	0.08	0.57	0.26	0.10
6. Directorship	170	0.00	6.00	1.26	1.30
7. Tenure	170	1.00	4.00	3.03	0.78
8. Audit committee meeting	170	2.00	18.00	4.89	2.14
▪ Control variables					
1. Concentrated Ownership	170	0.13	0.92	0.58	0.16
2. Managerial Ownership	170	0.00	0.94	0.19	0.20
3. Firm Size	170	1.60	4.99	2.85	0.70
4. Risk	170	-0.28	0.87	0.27	0.29
5. Growth	170	0.13	15.35	0.92	1.35
6. Persistence of Earnings	170	0.00	1.00	0.51	0.50
7. Leverage	170	0.00	33.86	2.15	4.07
8. Big 5 auditor	170	0.00	1.00	0.60	0.49

Table 5.3 Descriptive statistics for the year 2004

Variables	Number of Observations	Minimum	Maximum	Mean	Std. Deviation
▪ Dependent variable					
Cumulative Abnormal Returns	170	-0.87	6.53	-0.11	0.70
▪ Independent variables					
1. Unexpected earnings	170	-2.56	12.67	0.43	1.66
2. Educational Background					
-Board	170	0.00	0.89	0.42	0.18
-Audit Committee	170	0.00	1.00	0.48	0.30
3. Board size	170	5.00	25.00	11.72	3.11
4. CEO duality	170	0.00	1.00	0.88	0.33
5. Independent directors	170	0.09	0.70	0.34	0.11
6. Directorship	170	0.00	6.33	1.38	1.21
7. Tenure	170	1.50	4.00	3.62	0.55
8. Audit committee meeting	170	2.00	29.00	5.72	3.12
▪ Control variables					
1. Concentrated Ownership	170	0.05	0.98	0.55	0.20
2. Managerial Ownership	170	0.00	0.84	0.17	0.19
3. Firm Size	170	1.70	5.50	3.30	0.74
4. Risk	170	-0.30	0.88	0.34	0.27
5. Growth	170	-24.22	12.75	1.28	2.41
6. Persistence of Earnings	170	0.00	1.00	0.52	0.50
7. Leverage	170	0.01	22.42	1.20	2.25
8. Big 4 auditor	170	0.00	1.00	0.64	0.48

Table 5.4 Regression results of the returns-earnings relation

$$\text{Model: } \text{CAR}_{it} = \beta_0 + \beta_1 \text{UE}_{it} + \varepsilon_{it}$$

Variable	Year 2000	Year 2004
Constant	-0.143*** (-3.007) ⁰	-0.145*** (-2.688)
UE	-0.003 (-0.704)	0.091*** ¹ (2.888)
Adjusted R ²	-0.3%	4.2%
p-value	0.482	0.004***

Note: *** Significant at the 0.01 level.

0. The number in the parenthesis is the t-statistics for the estimated regression coefficient.

1. One-tailed test.

Definition of variables are as follows:

CAR = The difference of actual returns and expected returns for fifty-two weeks is accumulated.

UE = The difference of earnings per share before extraordinary items for current year and that for last year, which is deflated by the absolute value of earnings per share before extraordinary items for last year.

Table 5.5 Regression results of the effect of board characteristics on earnings informativeness (year 2000)

$$\text{Model: } \text{CAR}_{it} = \beta_0 + \beta_1 \text{UE}_{it} \times \text{BdBackground}_{it} + (\beta_1 \text{UE}_{it} \times \text{AdBackground}_{it}) + \beta_2 \text{UE}_{it} \times \text{BdSize}_{it} \\ + \beta_3 \text{UE}_{it} \times \text{CEOdual}_{it} + \beta_4 \text{UE}_{it} \times \text{BdInd}_{it} + \beta_5 \text{UE}_{it} \times \text{BdDir}_{it} + \beta_6 \text{UE}_{it} \times \text{BdTenn}_{it} \\ + \beta_7 \text{UE}_{it} \times \text{AdMeet}_{it} + \beta_8 \text{UE}_{it} \times \text{Block}_{it} + \beta_9 \text{UE}_{it} \times \text{Own}_{it} + \beta_{10} \text{UE}_{it} \times \text{Risk}_{it} \\ + \beta_{11} \text{UE}_{it} \times \text{Growth}_{it} + \beta_{12} \text{UE}_{it} \times \text{Persist}_{it} + \beta_{13} \text{UE}_{it} \times \text{Lev}_{it} + \beta_{14} \text{UE}_{it} \times \text{Big5}_{it} + \varepsilon_{it}$$

Variables	(1)	(2)
Constant	-0.175*** (-3.446) ⁰	-0.183*** (-3.604)
UE×BdBackground	-0.113 (-0.621)	
UE×AdBackground		-0.063 (-0.936)
UE×BdSize	0.022*** ₂ (2.717)	0.023*** ₂ (2.887)
UE×CEOdual	-0.310** ₁ (-2.334)	-0.286** ₁ (-2.085)
UE×BdInd	0.349 (1.198)	0.331 (1.136)
UE×BdDir	-0.008 (-0.416)	-0.003 (-0.173)
UE×BdTenn	0.019 (0.662)	-0.001 (-0.046)
UE×AdMeet	-0.021** ₁ (-2.102)	-0.018** ₁ (-1.860)
UE×Block	0.012 (0.092)	0.045 (0.316)
UE×Own	0.278 (1.630)	0.262 (1.574)
UE×Risk	-0.026 (-0.251)	-0.060 (-0.592)
UE×Growth	-0.021 (-0.354)	-0.018 (-0.292)
UE×Persist	0.018 (0.097)	0.008 (0.044)
UE×Lev	-0.004 (-0.274)	-0.006 (-0.420)
UE×Big5	0.073 (1.179)	0.074 (1.200)
Adjusted R ²	0.6%	0.9%
p-value	0.384	0.350

Note: *, **, *** Significant at the 0.10, 0.05, and 0.01 levels respectively.

0. The number in the parenthesis is the t-statistics for the estimated regression coefficient.

1. One-tailed test.

2. Two-tailed test.

Table 5.5 (Continued)

Definition of variables are as follows:

CAR	=	The difference of actual returns and expected returns for fifty- two weeks is accumulated.
UE	=	The difference of earnings per share before extraordinary items for current year and that for last year, which is deflated by the absolute value of earnings per share before extraordinary items for last year.
BdBackground	=	The proportion of board members with accounting and/or finance education on board.
AdBackground	=	The proportion of audit committee members with accounting and/or finance education on audit committee.
BdSize	=	The number of members on the board of directors.
CEOdual	=	The dummy variable of whether chief executive officer is chairman of the board (1=not same person, 0=same person).
BdInd	=	The proportion of independent directors on board.
BdDir	=	The average number of directorship in other firms held by independent directors.
BdTenn	=	The average years of board service of independent directors.
AdMeet	=	The number of audit committee meetings.
Block	=	The sum of stock ownership of large shareholders who own 5% or more of firm's stocks.
Own	=	The percentage of equity shares held by officers and directors.
Risk	=	The standardized beta that is calculated from market model.
Growth	=	The market to book ratio for equity.
Persist	=	The dummy variable of whether the absolute magnitude of unexpected earnings lies below the median of firm i in year t (1=absolute magnitude lies below the median, 0=otherwise).
Lev	=	The debt/equity ratio.
Big5	=	The dummy variable of whether auditor is Big 5 auditor (1=Big 5, 0=otherwise).

Table 5.6 Regression results of the effect of board characteristics on earnings informativeness (year 2004)

$$\text{Model: } \text{CAR}_{it} = \beta_0 + \beta_1 \text{UE}_{it} \times \text{BdBackground}_{it} + (\beta_1 \text{UE}_{it} \times \text{AdBackground}_{it}) + \beta_2 \text{UE}_{it} \times \text{BdSize}_{it} \\ + \beta_3 \text{UE}_{it} \times \text{CEOdual}_{it} + \beta_4 \text{UE}_{it} \times \text{BdInd}_{it} + \beta_5 \text{UE}_{it} \times \text{BdDir}_{it} + \beta_6 \text{UE}_{it} \times \text{BdTenn}_{it} \\ + \beta_7 \text{UE}_{it} \times \text{AdMeet}_{it} + \beta_8 \text{UE}_{it} \times \text{Block}_{it} + \beta_9 \text{UE}_{it} \times \text{Own}_{it} + \beta_{10} \text{UE}_{it} \times \text{Risk}_{it} \\ + \beta_{11} \text{UE}_{it} \times \text{Growth}_{it} + \beta_{12} \text{UE}_{it} \times \text{Persist}_{it} + \beta_{13} \text{UE}_{it} \times \text{Lev}_{it} + \beta_{14} \text{UE}_{it} \times \text{Big4}_{it} + \varepsilon_{it}$$

Variables	(1)	(2)
Constant	-0.147*** (-2.754) ⁰	-0.135** (-2.498)
UE×BdBackground	0.744*** ₁ (2.711)	
UE×AdBackground		0.258** ₁ (1.843)
UE×BdSize	0.006 (0.300)	0.009 (0.426)
UE×CEOdual	-0.417*** ₁ (-3.430)	-0.310*** ₁ (-2.660)
UE×BdInd	0.398 (0.845)	0.512 (1.075)
UE×BdDir	0.001 (0.019)	0.003 (0.049)
UE×BdTenn	0.132** ₂ (2.140)	0.118* ₂ (1.884)
UE×AdMeet	-0.013 (-0.631)	-0.010 (-0.444)
UE×Block	-0.189 (-0.657)	-0.223 (-0.757)
UE×Own	-0.580*** ₂ (-2.651)	-0.719*** ₂ (-2.980)
UE×Risk	-0.573*** ₁ (-2.548)	-0.455** ₁ (-2.060)
UE×Growth	-0.027 (-1.436)	-0.016 (-0.847)
UE×Persist	-0.105 (-0.309)	-0.081 (-0.235)
UE×Lev	-0.020 (-0.920)	-0.013 (-0.601)
UE×Big4	0.076 (0.706)	0.115 (1.047)
Adjusted R ²	11.1%	8.8%
p-value	0.003***	0.011**

Note: *, **, *** Significant at the 0.10, 0.05, and 0.01 levels respectively.

0. The number in the parenthesis is the t-statistics for the estimated regression coefficient

1. One-tailed test.

2. Two-tailed test.

Table 5.6 (Continued)

Definition of variables are as follows:

CAR	=	The difference of actual returns and expected returns for fifty- two weeks is accumulated.
UE	=	The difference of earnings per share before extraordinary items for current year and that for last year, which is deflated by the absolute value of earnings per share before extraordinary items for last year.
BdBackground	=	The proportion of board members with accounting and/or finance education on board.
AdBackground	=	The proportion of audit committee members with accounting and/or finance education on audit committee.
BdSize	=	The number of members on the board of directors.
CEOdual	=	The dummy variable of whether chief executive officer is chairman of the board (1=not same person, 0=same person).
BdInd	=	The proportion of independent directors on board.
BdDir	=	The average number of directorship in other firms held by independent directors.
BdTenn	=	The average years of board service of independent directors.
AdMeet	=	The number of audit committee meetings.
Block	=	The sum of stock ownership of large shareholders who own 5% or more of firm's stocks.
Own	=	The percentage of equity shares held by officers and directors.
Risk	=	The standardized beta that is calculated from market model.
Growth	=	The market to book ratio for equity.
Persist	=	The dummy variable of whether the absolute magnitude of unexpected earnings lies below the median of firm i in year t (1=absolute magnitude lies below the median, 0=otherwise).
Lev	=	The debt/equity ratio.
Big4	=	The dummy variable of whether auditor is Big 4 auditor (1=Big 4, 0=otherwise).

Table 5.7 Summary results of hypotheses test (year 2000)

Variables	Predicted Sign	Result	Level of Significance
▪ Independent variables			
1. Unexpected earnings	+	Not support	-
2. Educational Background			
-Board	+	Not support	-
-Audit Committee	+	Not support	-
3. Board size	+/-	Not support	-
4. CEO duality	+	Not support	-
5. Independent directors	+	Not support	-
6. Directorship	+/-	Not support	-
7. Tenure	+/-	Not support	-
8. Audit committee meeting	+	Not support	-
▪ Control variables			
1. Concentrated Ownership	+/-	Not support	-
2. Managerial Ownership	+/-	Not support	-
3. Firm Size	+/-	N/A	N/A
4. Risk	-	Not support	-
5. Growth	+/-	Not support	-
6. Persistence of Earnings	+	Not support	-
7. Leverage	-	Not support	-
8. Big 4(5) auditor	+	Not support	-

Table 5.8 Summary results of hypotheses test (year 2004)

Variables	Predicted Sign	Result	Level of Significance
▪ Independent variables			
1. Unexpected earnings	+	Support	0.01
2. Educational Background			
-Board	+	Support	0.01
-Audit Committee	+	Support	0.05
3. Board size	+/-	Not support	-
4. CEO duality	+	Not support ¹	0.01
5. Independent directors	+	Not support	-
6. Directorship	+/-	Not support	-
7. Tenure	+/-	Support	0.05
8. Audit committee meeting	+	Not support	-
▪ Control variables			
1. Concentrated Ownership	+/-	Not support	-
2. Managerial Ownership	+/-	Support	0.01
3. Firm Size	+/-	N/A	N/A
4. Risk	-	Support	0.01
5. Growth	+/-	Not support	-
6. Persistence of Earnings	+	Not support	-
7. Leverage	-	Not support	-
8. Big 4(5) auditor	+	Not support	-

Note: 1. This variable has effect on earnings informativeness in inverse direction.

CHAPTER 6

CONCLUSION

This chapter presents overview of the study, discussion and interpretation of results, implication of the findings, limitations of this paper, and suggestions for future research.

6.1 Overview of the Study

The main objective of this paper is to investigate whether the characteristics of board of directors which is a mechanism of corporate governance affect earnings informativeness after reform of corporate governance system in Thai capital market, which is one of the emerging markets. The informativeness of earnings is measured by the relationship between returns and earnings. The dependent variable is cumulative weekly abnormal returns. The independent variables consist of unexpected earnings, educational background of board and of audit committee, board size, CEO duality, independent directors, independent directors' directorship, independent directors' tenure, and audit committee meeting. The eight control variables comprise of concentrated ownership, managerial ownership, firm size, systematic risk, growth, persistence of earnings, leverage, and big 4(5) auditor.

The sample is the listed firms on the Stock Exchange of Thailand in the year 2000 and 2004. Financial data are collected from DATASTREAM INTERNATIONAL, I-SIMS and SET SMART databases. The board characteristics, concentrated ownership, managerial ownership, and big 4(5) auditor data are collected from SET SMART databases, Form 56-1 disclosed by listed firms, and firms' annual report.

The cross-sectional regression is used to assess the model. The significance of coefficient of unexpected earnings is tested to find the evidence whether earnings have informativeness. The significance of coefficient of the interaction term between unexpected earnings and each interested independent variable is tested to find the evidences if board characteristics affect earnings informativeness. The significance of coefficient of the interaction term between unexpected earnings and each control

variable is also tested to find the evidences if the control variables affect earnings informativeness.

According to the evidences, earnings in the year 2004 provide informativeness but those in the year 2000 do not. There is no evidence of any variable for the year 2000 impacting earnings informativeness. However, for the year 2004, educational background of board and of audit committee, CEO duality, tenure including control variables: managerial ownership and systematic risk have effect on the informativeness of earnings.

6.2 Discussion and Interpretation of Results

6.2.1 Returns-Earnings Relation

Since the year 2000 was a few years after financial crisis in Thailand, it is likely that the confidence of investors about stability of Thai stock market in that year was still quite low. Kanogporn Narktabtee (2000: 88, 98) investigates whether accounting information, particularly cash flow information, is useful to investors in Thai capital market. She examines the relative value-relevance of accounting information to know which performance measure provides greater value-relevance to stock prices. According the evidences, she finds that cash flows from financing activities are most value-relevant in 1994 and 1997. In 1995 and 1996, cash flows from financing activities are the second most important performance measure whereas earnings are the most value-relevant information. Kanogporn Narktabtee (2000: 98-99) implies that, in Thai capital market, earnings in year 1997 lost its information content when the economic situation during that year was unstable. Her study also indicates that earnings are not necessary the most important performance measure for the investors in Thai capital market. Additionally, existence of audit committee, whose main duty is to review the financial reporting process to ensure that accounting information and financial reports are reliable with best quality, has just been implemented in late 1999 and some listed firms have just set audit committee during the year 2000. Investors' confidence on accounting information for the year 2000 after financial crisis might be minimal. Therefore, there is tendency that earnings in the year 2000 might not provide informativeness and, according to Kanogporn Narktabtee (2000)'s evidences, investors might consider more on other performance measures

such as cash flow. This is consistent with the result in this paper that there is no relationship between returns and earnings in the year 2000.

The result of returns-earnings model in the year 2004 shows that there is the relationship between returns and earnings. Then, earnings provide informativeness. The Stock Exchange of Thailand (SET) has been more concern about corporate governance system. Investors have tended to have more confidence in the quality of accounting information and their investment. SET Index increased tremendously from 269 at the end of the year 2000 to 668 at the end of the year 2004.

6.2.2 The Effect of Board Characteristics and Control Variables on Earnings Informativeness

The models for the year 2000 do not show the evidences of the effect of board characteristic variables on earnings informativeness. This is likely due to the fact that corporate governance system began to get attention after financial crisis in 1997. Wallace and Zinkin (2005: 1) said that “prior to the turmoil of event of the 1997 Asian financial crisis, corporate governance did not appear to matter very much to an Asian audience.” It was possible that the participants in Thai market just started to focus more on board characteristics including other mechanisms of corporate governance in the year 2000.

According to the evidences on the models for the year 2004, which was the year that capital market had been recovered since financial crisis, some board characteristics: educational background of board and of audit committee, CEO duality, and the service period on board of independent directors, are perceived by investors to have effects on earnings informativeness.

From the evidences found on this paper, it can be implied that the participants in Thai market for the year 2004 believe that the accounting and/or finance education of directors and audit committee members is crucial to ensure reliability and best quality of accounting information and financial report. This is consistent with the requirement of the SET that at least one audit committee member must have knowledge, understanding, or experience in accounting or finance to oversee accounting and financial reporting systems. However, for educational background of

audit committee, test of difference¹² between board characteristic variables for the year 2000 and 2004 indicates that proportion of audit committee members with accounting and/or finance educational background for the year 2004 is not different from that for the year 2000. Investors perceive earnings of firms with higher fraction of audit committee members with accounting and/or finance educational background as being more informative than earnings of firms with lower fraction of audit committee members with accounting and/or finance educational background for the year 2004 whereas there is no related evidence for the year 2000. This may be result from that existence of audit committee has just been implemented in late 1999 and some listed firms have not established audit committee since the beginning of the year 2000. Audit committee of those firms has been set during the year 2000. Therefore, investors' focus on the characteristic of audit committee in the year 2000, compared to the year 2004, might be minimal and it is likely that investors did not perceive the effect of educational background of audit committee on earnings informativeness in the year 2000.

The investors in Thai market perceive that, for the year 2004, earnings of firms with CEO who also occupies the board chairman position are more informative. This is not consistent with hypothesis that informativeness of earnings is positively related to the separation of CEO and the chairman of board position. However, it is consistent with stewardship theory which proposes that CEO duality would facilitate effective action by the CEO, and consequently result in higher performance (Boyd, 1995: 304). Donaldson and Davis (1991: 51) demonstrate that "the executive manager, under this theory, far from being an opportunistic shirker, essentially wants to do a good job, to be a good steward of the corporate assets." In this case, it may imply that board chairman who is the same person as CEO may have more experience and better knowledge on firm's business and information system than the chairman who is not the same person as CEO. The investors may recognize this point and believe that with a deeper understanding of the firm's accounting and financial reporting systems and being a good steward of firm, such chairman would find ways to improve quality of accounting information and financial reports. According to fifteen principles of good corporate governance outlined by the SET, listed firms have freedom of choice with

¹² Results of test are presented on Table 6.1.

regard to combination of the titles of board chairman and CEO into one position or separation of them as two positions, and whichever way they choose, there should be a clear separation of power and authorities so that no one would be granted unlimited power.

The participants in Thai market perceive earnings of firms for the year 2004 with longer period of board service of independent directors as being more informative. This is consistent with Chtourou et al. (2001: 13, 25) that having experience on board, outside directors obtain better knowledge of executive directors as well as that of firm. These will help develop competence of monitoring and overseeing firm's process of financial reporting effectively.

The evidences on the models for the year 2004 also show that managerial ownership and risk variables affect informativeness of earnings. These present that investors in Thai market perceive earnings of firms for the year 2004 with lower level of managerial ownership as being more informative. The investors may believe that the management with high level of ownership may have enough power to manipulate earnings. This is consistent with the entrenchment effect which indicates that the management who owns a substantial fraction of firm's equity may have high voting power.

The evidences also reflect that investors perceive earnings of firms for the year 2004 with less systematic risk as being more informative. This is consistent with Warfield et al. (1995: 67) that high-risk firms tend to face political costs. These firms are more likely to manage earnings to reduce the political costs. The informativeness of earnings should be lower in the high-risk firm.

Some board characteristics: board size, board independence, outside directorship of independent directors, and audit committee meeting, do not affect informativeness of earnings on the 2004 models. Board size and outside directorship of independent directors provide both positive and negative side effects on earnings informativeness. This tends to make these variables not affect earnings informativeness.

The investors in Thai capital market do not perceive the fraction of independent directors on board that measure board independence affecting earnings informativeness for the year 2004. This may be because the investors do not believe

that independent directors on the board are acting independently. This reason is consistent with corporate governance country assessment by the World Bank that the directors are dominated by controlling shareholders. Moreover, this assessment indicates that particularly in smaller listed firms, director independence is quite limited (World Bank, 2005: iii).

For audit committee meeting, the participants do not also perceive it affecting the informativeness of earnings for the year 2004. In this paper, data of audit committee meeting are not able to be completely collected. The number of four meetings per year is employed for observation that does not provide the data of meeting. As shown in Table 4.2, audit committee meeting data of 23 observations (13.53% of total observations) in the year 2004 are not able to be collected. The reason of data on some observations that are not available may lead to having no evidence on this meeting variable. Additionally, it is possible that investors may not perceive only this meeting variable affecting the quality of accounting information. They may perceive it combining with other variables such as educational background of audit committee members.

The evidences on some control variables: concentrated ownership, growth, persistence of earnings, leverage, and big 4 auditor, do not also show that they have effect on earnings informativeness on the 2004 models. As the percentage of shares of blockholders is the measurement of concentrated ownership, the percentage of shares of directors who are blockholders are not excluded from this variable and it also remains in managerial ownership variable. The participants in Thai market perceive earnings of firms for the year 2004 with lower level of managerial ownership as being more informative. It is likely that they consider more that directors on board who own firm's equity influence the quality of earnings. Therefore, they tend not to consider whether blockholders affect the quality of earnings in the year 2004.

Growth variable provides both positive and negative side effects on earnings informativeness. This tends to make this variable not affect earnings informativeness for the year 2004. Persistence of earnings is measured with dummy variables: 1 equals to more persistence, 0 equals to less persistence. For the year 2004, the dummy variable 1 consists of 89 observations while the dummy variable 0 consists of 81 observations. There is not much difference between the number of observations on

both dummy variables. So it is likely that the persistence of earnings variable does not provide any effect on earnings informativeness for the year 2004.

As for leverage variable, since debtors tend to provide collateral for loan agreement, the investors in Thai capital market may not consider this variable affecting the quality of earnings in the year 2004. They may realize that firms may not necessarily manipulate earnings to attract the creditors since firms have to provide collateral for their loan.

According to the results on big 4 auditor, this variable does not also provide any effect on the informativeness of earnings in the year 2004. As the auditors of listed firms are reviewed by the Securities and Exchange Commission (SEC), the investors in Thai market may believe that all auditors for listed firms have good qualification. So they may not pay attention on whether firm's auditor is big 4 auditor.

6.2.3 The Change on the Effect of Board Characteristics on Earnings Informativeness between the Year 2000 and the Year 2004

The evidences show that the effect of board characteristics on earnings informativeness is better in the year 2004 than that in the year 2000. Although it is not able to certainly indicate that starting promotion of Good Corporate Governance in the year 2002 leads to the change on the effect of board characteristics on informativeness of earnings between the year 2000 and the year 2004 since firms may have their own policy to change board characteristics during that time, the Stock Exchange of Thailand (SET) has continuously supported the development of good corporate governance and during the year 2002, it presented fifteen principles of good corporate governance for listed firms to execute. These imply that the effect of board characteristics on earnings informativeness is better in the year 2004 than that in the year 2000 may result from starting promotion of Good Corporate Governance in the year 2002 and continuous supporting the development of good corporate governance by the SET. Furthermore, test of difference¹³ between board characteristic variables for the year 2000 and 2004 indicates that most board characteristics are improved in the year 2004. This may result in finding that there are the effects of some board characteristics on earnings informativeness for the year 2004 whereas there is no evidence of the effect of board characteristics on earnings informativeness for the year

¹³ Results of test are presented on Table 6.1.

2000. Improvement of most board characteristics in the year 2004 may also result from starting promotion of Good Corporate Governance in the year 2002 and continuous supporting the development of good corporate governance by the SET.

6.2.4 Conclusion of the Findings

The main purpose of this paper is to determine if board characteristics have the effect on earnings informativeness. The results indicate that, for the year 2004, educational background of board members and of audit committee members, CEO duality, and independent directors' tenure affect earnings informativeness. Some control variables: managerial ownership and systematic risk also impact the informativeness of earnings. Moreover, the effect of board characteristics on earnings informativeness is better in the year 2004 than that in the year 2000.

The results of this paper contribute the investigation line of the effect of board characteristics on earnings informativeness. For the year 2004, they provide the effect of educational background of board members and of audit committee members, and independent directors' tenure on earnings informativeness, that other related research does not. They also add up the limited empirical evidences of the effect of board characteristics in overseeing the quality of accounting information in Thai capital market, which is one of the emerging markets.

6.3 Implication of the Findings

First, Thai corporate governance regulatory agencies may value the evidences found in this paper. As for the board characteristic evidences for the year 2004, educational background of board members and of audit committee members provide effect on the informativeness of earnings in the year 2004. Thai corporate governance regulatory agencies may also focus on educational background of board members rather than focus on only educational background of audit committee members. This is because I believe that educational background in accounting and/or finance of the board would enhance the understanding on the recommendations from audit committee and drive the board to more strongly support earnings quality improvement initiatives.

As for CEO duality, the agencies may realize the result for the year 2004 that CEO who also occupies the board chairman position provides more effect on earnings informativeness. This result is consistent with stewardship theory which proposes that

CEO duality would facilitate effective action by the CEO, and consequently result in higher performance (Boyd, 1995: 304) and one principle of fifteen principles of good corporate governance outlined by the SET that listed firms have freedom of choice with regard to combination of the titles of board chairman and CEO into one position or separation of them as two positions, and whichever way they choose, there should be a clear separation of power and authorities so that no one would be granted unlimited power.

For independent directors' tenure, the agencies may value the result for the year 2004 that longer period of board service of independent directors provide more effect on earnings informativeness. They may realize that having experience on board, independent directors obtain better knowledge of executive directors as well as that of firm. These will help develop competence of monitoring and overseeing firm's process of financial reporting effectively. However, this paper limits the maximum number of four service years for each independent director. If that maximum number is changed, the result may also change. So this point should be considered

When valuing the found board characteristic evidences as above mentioned, the agencies should realize that those evidences are found for only the year 2004. Further study for the year after the year 2004 should be performed to confirm the results found in this paper.

For other evidences, although it is not able to certainly indicate that starting promotion of Good Corporate Governance in the year 2002 leads to the change on the effect of board characteristics on informativeness of earnings between the year 2000 and the year 2004, the Stock Exchange of Thailand has continuously supported the development of good corporate governance and during that year, it presented fifteen principles of good corporate governance for listed firms to execute. These imply that the effect of board characteristics on earnings informativeness is better in the year 2004 than that in the year 2000 may result from starting promotion of Good Corporate Governance in the year 2002 and continuous supporting the development of good corporate governance by the SET. Moreover, tested difference between board characteristic variables for the year 2000 and 2004 which indicates that most board characteristics are improved in the year 2004 may also stem from starting promotion of

Good Corporate Governance in the year 2002 and continuous supporting the development of good corporate governance by the SET.

Second, this paper provides the evidences that investors should not consider only earnings during investment decisions, but also value the characteristics of the board which influence earnings informativeness for the year 2004.

Finally, this paper may raise awareness on board characteristics for listed firms to boost investors' confidence on their information system and financial reports.

6.4 Limitations

The study of this paper is under some limitations that the readers should realize. First, most corporate governance data are collected from the Form 56-1. This Form must be read. Therefore, the collection of corporate governance data is under subjective decision.

Second, the disclosure of some data is limited or inconsistent. For audit committee meeting, some listed firms do not provide the number of audit committee meetings. So the number of four meetings per year is employed for the firm that does not provide the data of meeting. This number is used because listed firms have to prepare quarterly financial reports and audit committee is likely to hold quarterly meetings to review them. As for managerial ownership, there is inconsistent disclosure of the percentage of equity shares held by officers. The percentage of equity shares held by only directors is collected. Nevertheless, some directors are also firm's officers.

Third, to meet the objective of comparability on tenure variable between two years (2000 and 2004), the maximum number of service years to be collected for each independent director is four years. The reason for using four years is that data for most observations in the year 2000 can only be traced back up to four years.

Fourth, since, during the year 2002, the Stock Exchange of Thailand presented fifteen principles of good corporate governance for listed firms to execute, and had required that from accounting period ending 31 December 2002 onwards, listed firms must disclose how they have put into practice these fifteen principles in the Form 56-1 and annual report, firms disclose more information on corporate governance in the

year 2004 than in the year 2000. The data collected for the year 2004 may therefore be more accurate and reliable compared with that for the year 2000.

Fifth, earnings data are collected from firm's financial statements. Therefore, it is not able to know whether earnings are manipulated.

Finally, since the evidences found in this paper are for only the year 2004, generalization of them is limited.

6.5 Suggestions for Future Research

One extension of this research is to further investigate whether board characteristics influence earnings informativeness in the year after the year 2004. This will confirm that board characteristics affect earnings informativeness not only in the year 2004.

Another extension is to examine which factors lead to the change of the effect of board characteristics on earnings informativeness between the year 2000 and 2004.

Table 6.1 Results of test of difference between board characteristic variables for the year 2000 and 2004.

Variables	Mean⁰	Std. Deviation	t value
▪ Board characteristics			
1. Educational Background			
-Board	-0.02484*** ¹	0.12980	-2.495
-Audit Committee	0.00578	0.23495	0.321
2. Board size	0.37647*** ²	1.79068	2.741
3. CEO duality	0.01176	0.18805	0.816
4. Independent directors	-0.07288*** ¹	0.11846	-8.022
5. Directorship	-0.12312	1.01016	-1.589
6. Tenure	-0.59712*** ²	0.95842	-8.123
7. Audit committee meeting	-0.82941*** ¹	3.07505	-3.517

Note: *,**,*** Significant at the 0.10,0.05, and 0.01 levels respectively.

0. The difference of mean value between the year 2000 and 2004.

1. One-tailed test.

2. Two-tailed test.

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APPENDIX A

Qualification of Independent Director

(Extracted from NOTIFICATION OF THE STOCK EXCHANGE OF THAILAND

Re: Qualifications and Scope of Work of the Audit Committees (No.1), 1999)

1. Holding shares not more than 5 per cent of paid-up capital of the company, affiliated company, associated company or related company, which shall be inclusive of the shares held by related persons;
2. Being a director who does not take part in the management of the company, affiliated company, associated company, related company or majority shareholder of the company, and is not an employee, staff member or advisor who receives a regular salary from the company, affiliated company, associated company, related company or majority shareholder of the company;
3. Being a director who has no direct or indirect benefit or interest in finance and management of the company, affiliated company, associated company, or majority shareholder of the company, including the benefit or interest of the said nature during the period of 1 year before his appointment as a member of the audit committee except where the board of directors has carefully considered that such previous benefit or interest does not affect the performance of duties and the giving of independent opinions;
4. Being a director who is not a related person or close relative of any management member or majority shareholder of the company;
5. Being a director whom is not appointed as a representative to safeguard interests of the company's directors, majority shareholders or shareholders who are related to the company's majority shareholders;
6. Being capable of performing duties, giving opinions or reporting the results of performance of work according to the duties delegated by the board of directors free and clear of the control of the management or the majority shareholders of the company including related persons or close relatives of the said persons.

APPENDIX B

The Principles of Good Corporate Governance¹⁴

The Stock Exchange of Thailand (SET) recognizes the importance of good corporate governance and has worked continuously to promote corporate governance amongst Listed Companies here in Thailand. The SET originally disseminated “The Report on Corporate Governance” (August 2001), which contained forty principles of good corporate governance that companies were expected to comply with. Subsequently, the SET outlined fifteen principles of good corporate governance to act as a set of guidelines for Listed Companies, which they must begin implementing. Companies have to demonstrate how they have applied these fifteen principles, along with any reasons why they may have failed to comply with them, in their Annual Registration Statements (form 56-1) and Annual Reports. The SET believes that the implementation of these principles will bring great benefits to all Listed Companies as it demonstrates high standards of corporate governance and help bring greater recognition to them both domestically and internationally. It will also promote transparency and managerial efficiency and therefore strengthen the confidence of all shareholders, investors and other related parties.

1. Policy on Corporate Governance

The board of directors should provide a report on company’s Corporate Governance Policy which contains Principles of Corporate Governance such as:

- Rights and Equitable Treatment Shareholders and Various Groups of Stakeholders
- The Board: Structure, Roles, Duties, Responsibilities, and Independence
- Information Disclosure and Transparency
- Controlling System and Risk Management
- Business Ethics

The board should disclose that policy in the annual report for acknowledgment of shareholders and every group of stakeholders. The board of directors should explain in the annual report about its policy on corporate governance, how the company

¹⁴ Source: The Stock Exchange of Thailand

applies the recommended principles, along with a summary of situations and the reasons for not being able to apply them at the moment (if any).

2. Shareholders: Rights and Equitable Treatment

The board of directors should facilitate shareholders' meetings in such a way that they encourage equal treatments for all shareholders. There should not be any difficult procedures, excessive expenses, or denial that would lessen the access to studying company information, as well as attending shareholders' meetings.

3. Various Groups of Stakeholders

There are many groups of stakeholders within the system of corporate governance. Principal groups of stakeholders include customers, the management and employees, suppliers, shareholders or investors, external auditors, the state, and the communities in which the company's activities are located. Other stakeholders include trade unions, competitors, and creditors, etc. Each has objectives and expectations different from the company.

The board of directors should perceive about stakeholders' legally rights (stakeholders include employees, suppliers, communities, rivals, and creditors, etc.) and ensure that those rights are protected and treated with care. The board should support cooperation between the company and the various groups of stakeholders in order to secure the business wealth and stability.

4. Shareholders' Meetings

Chairman of the meeting should allocate appropriate time and encourage equal opportunities for shareholders to express their opinions and raise any question at the meeting, according to the agenda and the issues presented to the meetings.

Every director, particularly chairpersons of the committees should attend the shareholders' meeting to respond to questions.

5. Leadership and Vision

At the pinnacle of a company, the board of directors should possess leadership, vision, and decision-making independence for the best interests of the company and the shareholders at large.

Both the board and the management are accountable to the shareholders; hence there should be a system in which roles and responsibilities are clearly separated

between the board and the management, as well as between the board and the shareholders.

6. Conflict of Interests

The board, the management, and shareholders should consider to remove the issues of conflict of interest carefully, honestly, reasonably, and independently on a virtuous ground for the best interests of the company.

7. Business Ethics

The board of directors should provide code of ethics or statement of business conduct for all directors and employees to ensure that they are aware of, understand, and would keep monitoring the code of conduct as expected by the company and its shareholders.

8. Balance of Power for Non-Executive Directors

It is the duty of the board, with approval from the shareholders' meeting, to determine the number of directors, and further define the proportion of executive directors and independent non-executive directors. However, it is proposed that one-third of the total directors on the board should be independent, with three as the minimum. The qualifications of independent directors should be held to the same standard as the qualifications for membership of the audit committee in accordance with Notification of the Stock Exchange of Thailand Re: Qualifications and Scope of Work of the Audit Committees (No. 1) 1999.

In addition to the provision that the board of directors should comprise one-third members being independent directors, in case where a company has significant shareholders with dominating power, there should be a certain number of directors representing a fair proportion of each group's investment.

9. Aggregation or Segregation of Positions

The board and shareholders should be entitled to freedom of choice, with regard to the most appropriate way the company would go about the matter. They may combine the titles of chairman of the board and president into one position, or keep them as two separate positions. In the latter case, an independent director is eligible to be appointed chairman of the board.

Whichever way they choose, there should be a clear separation of power and authorities so that no one would be granted unlimited power.

10. Remuneration for Directors and the Management

- Scale and components of remuneration for directors should be appealing enough to attract and retain quality directors whom the board needs, but avoid excessive pays.

Remuneration for non-executive directors should be comparable to the general practice in the industry, with regard to work experience and commitment, as well as the benefits each director brings. Directors who are assigned with extra work (being members of committee, for example) should be paid appropriately more.

Executive directors should receive the remuneration that is linked to the performances of the company and that of each director's.

- Remuneration for the CEO and top executives should be determined in accordance with the principles and policy set by the board, within the framework approved by the shareholders' meeting. The board should review a committee's recommendation (if any) and make the final decision.

For the best interests of the company, the remuneration in salary, bonus, and long-term incentives should correspond to the performances of the company, as well as that of each executive's.

- Setting remuneration is a matter that directly involves the directors. It therefore needs to be carried out with transparency and obtains an approval from the shareholders. Directors should not be involved in the decision-making concerning their own remuneration.

The board of directors should disclose in the annual report its remuneration policy and the amounts set for directors and top executives in accordance with Securities and Exchange Commission's rule.

11. Board of Directors' Meetings

Board of directors' meetings should be regularly scheduled in advance. At the meetings, chairman of the board should promote prudent consideration and allocate appropriate time for the management to present adequate issues and enough for the directors to broadly discuss important matters with care.

It is a duty of directors to attend every board meeting, except with reasonable excuses. The board of directors should disclose the total attendance of each director in the annual report.

12. Committees

The board should provide for committees, especially for audit committee and remuneration committee, to help the board in studying various issues in details and screen workload according to certain situations. It should be clearly provided in the policy and framework regarding qualities of members in the committees, their job responsibilities, conduct of meetings, and reporting to the board.

All or most members of the committees should be non-executive directors, while chairmen of the committees should be independent non-executive director.

13. Controlling System and Internal Audit

The board of directors should provide, maintain, and review a controlling system in which financial, operations, and compliance controls are incorporated. The system should also comprise risk management and pay a great deal of attention to all the early warning signs and extraordinary items.

The board should commence internal audit activities by setting up a separate unit within the company to handle them.

14. Directors' Reporting

The board should provide a report indicating its responsibilities to prepare financial statements, and be exhibited alongside the auditor's report in the company's annual report. The board of directors' report should cover important topics of Code of Best Practice for Directors of Listed Companies as prescribed by the Stock Exchange of Thailand.

15. Relations with Investors

The board of directors should ensure that the company discloses important information correctly, timely and transparently. The board should provide an Investor Relations Unit to represent the company in communication with institutional and individual investors, stock analysts in general and state agencies concerned. The board should provide for adequate resources to help develop knowledge and ability of company personnel in their communication and presenting information.

APPENDIX C

Test of Heteroskadasticity

Scatterplot

Dependent Variable: CAR2004

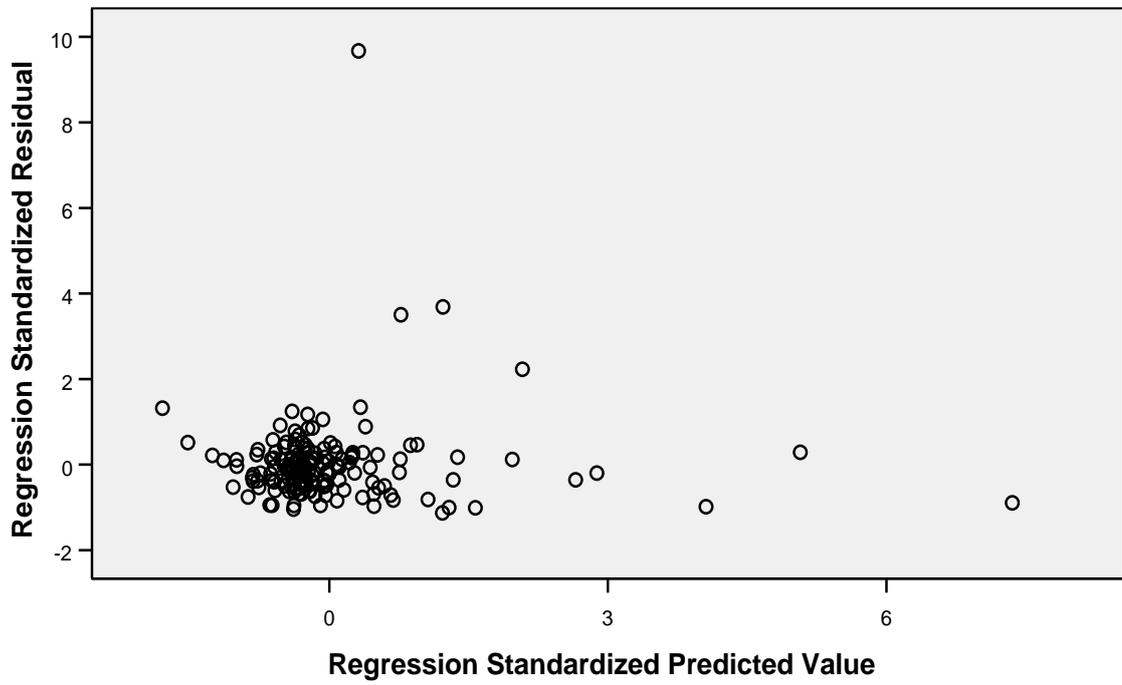


Figure C.1 Test of heteroskadasticity of returns-earnings relation in the year 2004

Scatterplot

Dependent Variable: CAR2004

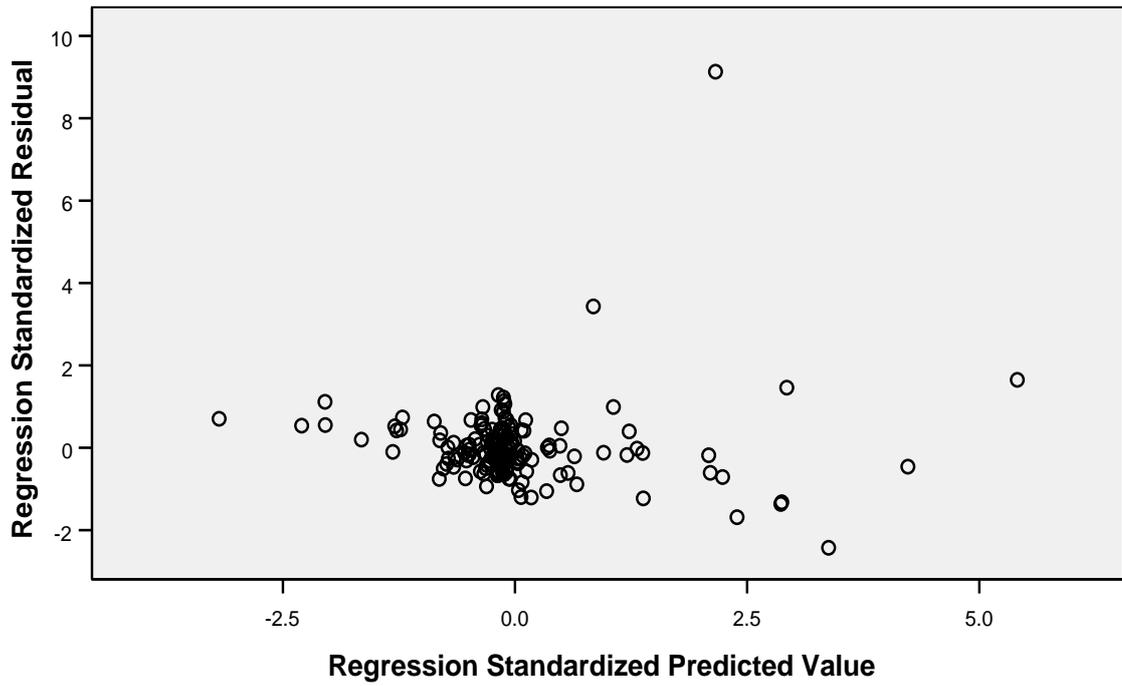


Figure C.2 Test of heteroskedasticity of model (1) on Table 5.6

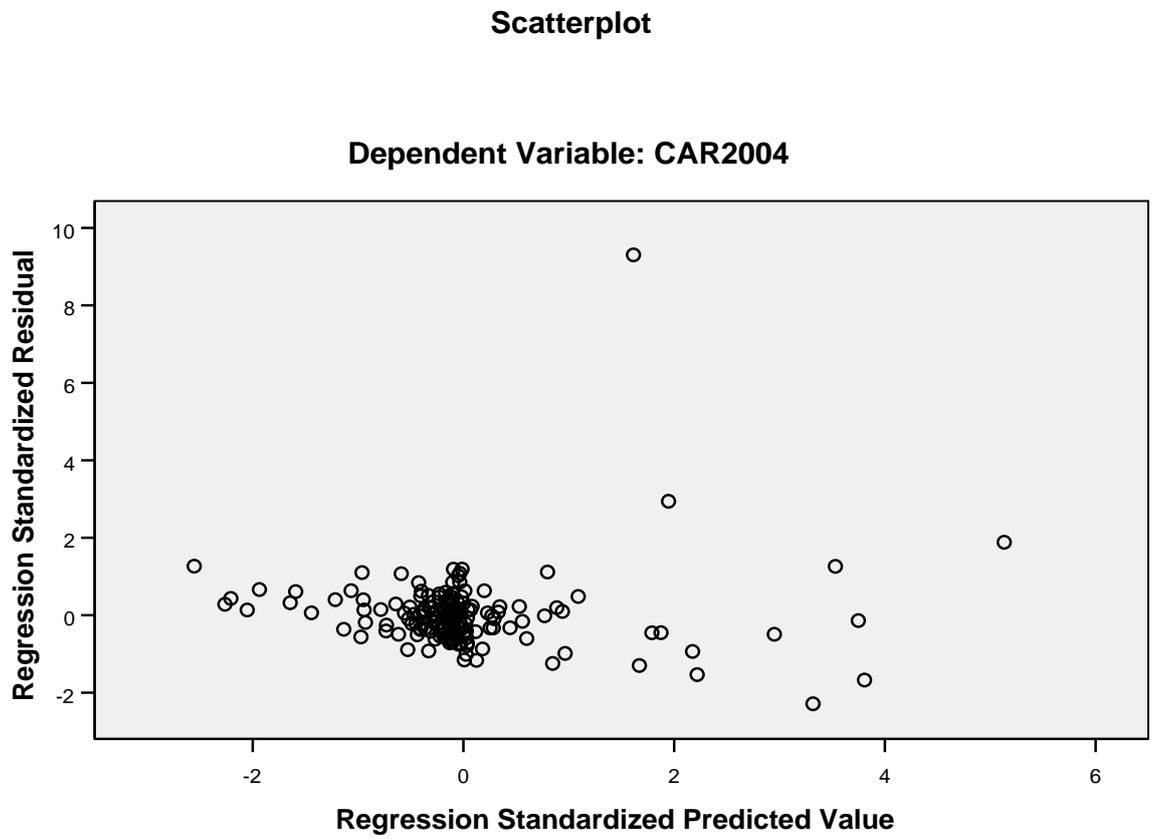


Figure C.3 Test of heteroskedasticity of model (2) on Table 5.6

Table C.1 Results of heteroskedasticity test.

Panel A: Results of heteroskedasticity test of returns-earnings relation in the year 2004.

White Heteroskedasticity Test:

F-statistic	0.917238	Prob. F(2,167)	0.401625
Obs*R-squared	1.847139	Prob. Chi-Square(2)	0.397099

Panel B: Results of heteroskedasticity test of model (1) on Table 5.6

White Heteroskedasticity Test:

F-statistic	0.962490	Prob. F(28,141)	0.525596
Obs*R-squared	27.27871	Prob. Chi-Square(28)	0.503112

Panel C: Results of heteroskedasticity test of model (2) on Table 5.6

White Heteroskedasticity Test:

F-statistic	0.593704	Prob. F(28,141)	0.946050
Obs*R-squared	17.92898	Prob. Chi-Square(28)	0.927924

BIOGRAPHY**NAME**

Miss Parinda Maneeroj

ACADEMIC BACKGROUND

1997 Master of Science in Accountancy
University of Illinois at Urbana-
Champaign, U.S.A.

1992 Bachelor of Accounting, second
class honor

Chulalongkorn University, Bangkok,
Thailand

POSITION & OFFICE

Lecturer

Faculty of Commerce and Accountancy,
Chulalongkorn University, Bangkok,
Thailand

EXPERIENCE

1995 Certified Public Accountant (CPA)
awarded by The Institution of

Accountants and Auditors of Thailand

1992-1994 Audit Assistant and Audit
Senior, Audit Department,

Ernst & Young Office Limited, Bangkok,
Thailand