

Informativeness of Earnings and Board Characteristics: Evidences from Thailand

Parinda Maneeroj, DBA*

ABSTRACT

The main objective of this paper is to investigate whether the characteristics of board of directors affect earnings informativeness after reform of corporate governance system in Thai capital market, which is one of emerging market. The informativeness of earnings is measured by the relationship between returns and earnings. The dependent variable is cumulative abnormal weekly 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.

According to the evidences, earnings in the year 2004 following the Year of Corporate Governance provide informativeness but those in the year 2000 following the reforms of corporate governance do not. There is no evidence of any variable for the year 2000 impacting earnings informativeness. However, for the year 2004,

* Lecturer, Department of Accountancy, Chulalongkorn Business School, Chulalongkorn University

Adjusted from dissertation on degree of Doctor of Business Administration
The Joint Doctoral Program in Business Administration, Chulalongkorn University, Thammasat University, And National Institute of Development Administration, 2006

educational background of board and of audit committee, CEO duality, independent directors' tenure including control variables: managerial ownership and systematic risk have effect on 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.

This paper contributes the line of investigations of the effect of board characteristics on the earnings informativeness. It provides the effect of educational background of board and of audit committee member, and independent directors' tenure on earnings informativeness. It also adds up the limited empirical evidences of the effectiveness of board in overseeing the quality of accounting information in Thai capital market, which is one of emerging market. Moreover, Thai corporate governance regulatory agencies, investors, and listed firms may value the evidences found in this study.

Keywords: Informativeness of Earnings, Director, Audit Committee, Corporate Governance

บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาว่าลักษณะของคณะกรรมการบริษัทมีผลต่อคุณค่าของข้อมูลกำไร (Informativeness of Earnings) หลังจากการปฏิรูประบบการกำกับดูแลกิจการในตลาดทุนไทยหรือไม่ คุณค่าของข้อมูลกำไรถูกวัดด้วยความสัมพันธ์ระหว่างผลตอบแทนและกำไร (ตัวแปรตาม คือ ผลตอบแทนผิดปกติสะสม (Cumulative Abnormal Returns) ตัวแปรอิสระ คือ กำไรที่ไม่คาดหวัง (Unexpected Earnings) การศึกษาของกรรมการในคณะกรรมการบริษัทและคณะกรรมการตรวจสอบ ขนาดของคณะกรรมการบริษัท ประธานคณะกรรมการไม่เป็นบุคคลเดียวกับหัวหน้าผู้บริหาร จำนวนกรรมการอิสระ จำนวนของบริษัทอื่นที่กรรมการอิสระเป็นกรรมการ ระยะเวลาในการเป็นกรรมการอิสระ และความถี่ในการประชุมของคณะกรรมการตรวจสอบ ผลการศึกษาพบว่า กำไรในปี พ.ศ. 2547 ซึ่งเป็นปีหลังจากปีแห่งการกำกับดูแลกิจการ (the Year of Corporate Governance) มีคุณค่าของข้อมูลกำไร ส่วนกำไรในปี พ.ศ. 2543 ซึ่งเป็นปีหลังจากการปฏิรูประบบการกำกับดูแลกิจการในตลาดทุนไทยไม่พบว่ามีคุณค่าของข้อมูลกำไร ผลการศึกษาไม่พบว่ามีตัวแปรอิสระใดที่มีผลต่อคุณค่าของข้อมูลกำไรในปี พ.ศ. 2543 แต่ตัวแปรอิสระซึ่งได้แก่การศึกษาของกรรมการในคณะกรรมการบริษัทและคณะกรรมการตรวจสอบ ประธานคณะกรรมการไม่เป็นบุคคลเดียวกับหัวหน้าผู้บริหาร และระยะเวลาในการเป็นกรรมการอิสระ รวมทั้งตัวแปรควบคุม ซึ่งได้แก่ ความเป็นเจ้าของบริษัทของผู้บริหาร และกรรมการบริษัทและความเสี่ยง มีผลต่อคุณค่าของข้อมูลกำไรในปี พ.ศ. 2547 นอกจากนี้ ยังพบว่า ในปี พ.ศ. 2547 ลักษณะของคณะกรรมการบริษัทมีผลต่อคุณค่าของข้อมูลกำไรดีกว่าในปี พ.ศ. 2543 งานวิจัยนี้มีประโยชน์ในการต่อยอดงานวิจัยที่เกี่ยวข้องกับลักษณะของคณะกรรมการบริษัทที่มีผลต่อคุณค่าของข้อมูลกำไร โดยเฉพาะในบริบทของประเทศไทย รวมทั้งหน่วยงานกำกับดูแล ผู้ลงทุนและบริษัทจดทะเบียนสามารถนำผลของการศึกษานี้ไปใช้ต่อไป

คำสำคัญ: คุณค่าของข้อมูลกำไร กรรมการ กรรมการตรวจสอบ การกำกับดูแลกิจการ

INTRODUCTION

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).

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 as 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: 9). 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. 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, this paper studies if the characteristics of board have any effects on the informativeness of earnings. Using data from the Stock Exchange of Thailand, it finds evidence relating to the following questions:

- Q.1 Are earnings informative?
- Q.2 Do the characteristics of board affect the informativeness of earnings?
- Q.3 What is the change on the effect of board characteristics on informativeness of earnings between the year (2000) following the reforms of corporate governance and the year (2004) following the Year of Corporate Governance?

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 of the related regulations.

LITERATURE REVIEW

1. Returns-Earnings Relation

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.

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. 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.

2. Literature Review: Board of Directors

Reviewing the related studies, this paper finds 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.

2.1 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 Pricewaterhouse 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. (2002: 225) 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.

2.2 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.

2.3 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.

2.4 Independent Members on Board

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.

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.

2.5 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.

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)¹. In this view, the high number of directorships of outside directors tends to reduce the effectiveness of monitoring.

2.6 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 entangled with top management while new directors tend to be independent and watchful.

2.7 Audit Committee Meeting

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, “only 26% 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 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.

¹ 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.”

3. SET's Role in the Development of Corporate Governance after Financial Crisis in 1997²

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 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 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 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 practice with directors and executives of listed firms and with firms preparing for listing, SET founded the Corporate Governance Centre in July 2002.

RESEARCH DESIGN

1. Conceptual Framework

The conceptual framework of this paper is presented as Figure 1.

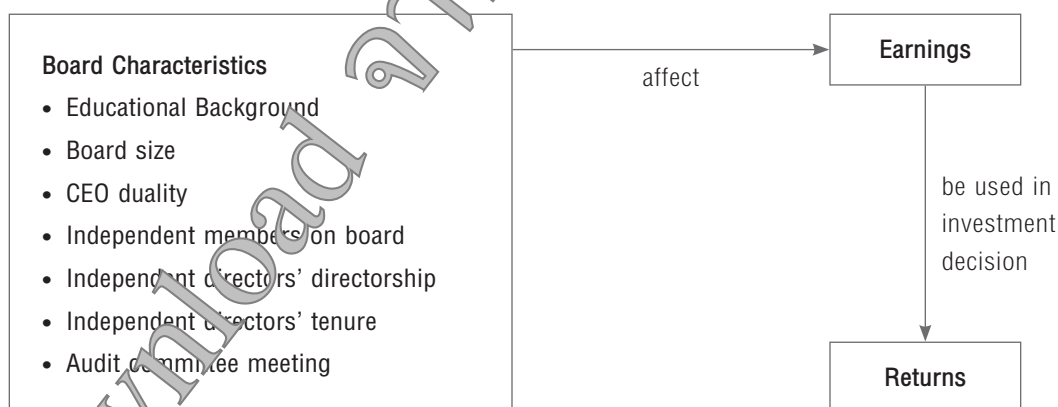


Figure 1 Conceptual framework: The effect of board characteristics on earnings that are employed for investment decision

² Source: http://www.set.or.th/th/operation/corporate/corporate_p1.html

2. Research Model

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

The cross-sectional regression model:

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

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

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. The companies in banking, finance, securities, and insurance industries are excluded 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 companies. 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. 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 databases.⁴ 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.

EMPIRICAL RESULTS

1. Descriptive Statistics

Descriptive statistics of data for the year 2000 and 2004 are presented on Table 2 and 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

³ Source: <http://www.cgthailand.org/SetCG/inter/inter.html> and <http://www.cgthailand.org/SetCG/inter/secure.html>

⁴ I-SIMS and SET SMART databases are provided by the Stock Exchange of Thailand.

Table 1 Summary of variable 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	BdTenn	The average years of board service of independent directors.
8. Audit committee meeting	AdMeet	The number of audit committee meetings.
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	Fm, size	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 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	1.65	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	0.67	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	10.00	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

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.

2. Assessment of Regression Models

2.1 Returns-Earnings Relation

From Table 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%. These evidences show 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.

Table 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	0.71
• Independent variables					
1. Unexpected earnings	170	-2.56	12.67	0.43	1.66
2. Educational Background					
- Board	170	0.00	0.89	0.02	0.18
- Audit Committee	170	0.00	1.00	0.18	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	6.03	1.38	1.21
7. Tenure	170	1.50	1.00	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	1.00	5.50	3.30	0.74
4. Risk	170	-0.50	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 4 Regression results of the return-earnings relation

Model: $CAR_{it} = \beta_0 + \beta_1 UE_{it} + \varepsilon_{it}$

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.

2.2 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, 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 6, for the year 2000, the model for 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.

Table 5 Regression results of the effect of board characteristics on earnings informativeness (year 2000)

Model: $CAR_{it} = \beta_0 + \beta_1 UE_{it} \times BdBackground_{it} + \beta_2 UE_{it} \times AdBackground_{it} + \beta_3 UE_{it} \times BdSize_{it} + \beta_4 UE_{it} \times CEOdual_{it} + \beta_5 UE_{it} \times BdInd_{it} + \beta_6 UE_{it} \times BdDir_{it} + \beta_7 UE_{it} \times BdTen_{it} + \beta_8 UE_{it} \times AdMeet_{it} + \beta_9 UE_{it} \times Block_{it} + \beta_{10} UE_{it} \times Own_{it} + \beta_{11} UE_{it} \times Risk_{it} + \beta_{12} UE_{it} \times Growth_{it} + \beta_{13} UE_{it} \times Persist_{it} + \beta_{14} UE_{it} \times Lev_{it} + \beta_{15} UE_{it} \times Big5_{it} + \epsilon_{it}$

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)

Table 5 Regression results of the effect of board characteristics on earnings informativeness (year 2000) (Cont.)

Variables	(1)	(2)
UExBdInd	0.349 (1.198)	0.331 (1.136)
UExBdDir	-0.008 (-0.416)	-0.003 (-0.142)
UExBdTenn	0.019 (0.662)	0.001 (-0.046)
UExAdMeet	-0.021** ¹ (-2.102)	-0.018** ¹ (-1.860)
UExBlock	0.012 (0.092)	0.045 (0.316)
UExOwn	0.278 (1.630)	0.262 (1.574)
UExRisk	-0.026 (-0.251)	-0.060 (-0.592)
UExGrowth	-0.021 (-0.354)	-0.018 (-0.292)
UExPersist	0.018 (0.097)	0.008 (0.044)
UEx Lev	-0.004 (-0.274)	-0.006 (-0.420)
UEx 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 6 Regression results of the effect of board characteristics on earnings informativeness (year 2004) (Cont.)

Variables	(1)	(2)
UE×CEOdual	-0.417*** ¹ (-3.430)	-0.510*** ¹ (-2.601)
UE×BdInd	0.398 (0.845)	0.518 (1.175)
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 (-2.348)	-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.

¹ The number in the parenthesis is the t-statistics for the estimated regression coefficient

¹ One-tailed test.

² Two-tailed test.

For control variables, the evidences show that two control variables: managerial ownership, and risk have effect on the informativeness of earnings.

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 of 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.

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

From table 5 and 6, both the evidences of p-value of the models for the year 2000 and 2004

Table 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 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.

and the relation of some board characteristics with earnings informativeness for the year 2004 state that comparative to that in the year 2000, the effect of board characteristics on earnings informativeness is better in the year 2004.

CONCLUSION

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 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.

According to the evidences, earnings in the year 2004 following the Year of Corporate Governance provide informativeness but those in the year 2000 following the reforms of corporate governance 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.

1. Discussion and Interpretation

1.1 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. Kanoporn Narktabtee (2000: 88, 98) investigates whether accounting information, particularly cash flow information, is useful to investors in Thai capital market. 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. Kanoporn 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, the 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 Kanoporn 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.

1.2 The Effect of Board Characteristics 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 difference 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 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.

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

The evidence shows 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 in 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. Since 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 difference 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 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.

2. 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.

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

References

- Aim-orn Jaikengkit. (2003). Corporate Governance and Financial Distress: An Empirical Analysis-The Case of Thai Financial Institutions. Doctoral Dissertation, Casewestern University.
- Ali, Ashiq. (1994). The Incremental Information Content of Earnings, Working Capital, and Operations, and Cash Flows. *Journal of Accounting Research*, 32(1), (Spring): 61-74.
- Anderson, Kirsten L. et al. (2003). Board of Directors, Audit Committees, and the Information Content of Earnings: A Working Paper. University of Delaware: 1-8.
- Ball, Ray and Brown, Philip. (1968). An Empirical Evaluation of Accounting Income Numbers. *Journal of Accounting Research*, (Autumn): 159-178.
- Beasley, Mark S. (1996). An Empirical Analysis of the Relation Between the Board of Director Composition and Financial Statement Fraud. *The Accounting Review*, 71(4), (October): 443-465.
- Beaver, William H. (1998). *Financial Reporting: An Accounting Revolution* (Third Edition). Upper Saddle River, New Jersey: Prentice-Hall.
- Boyd, Brian K. (1995). CEO Duality and Firm Performance: A Contingency Model. *Strategic Management Journal*, 16, 301-312.
- Broad, J.L.G. and Walker, M. (1990). Intertemporal and Cross-Sectional Variation in the Association between Unexpected Accounting Rates of Return and Abnormal Returns. *Journal of Accounting Research*, 28(1), (Spring): 182-192.

- Brown, Philip and Kennelly, John W. (1972). The Information Content of Quarterly Earnings: An Extension and Some Further Evidence. *The Journal of Business*, (July): 403-415.
- Bushman, Robert, et al. (2004). Financial Accounting Information, Organizational Complexity and Corporate Governance System. *Journal of Accounting and Economics*, 37, 167-201.
- Chtourou, Sonda M., et al. (2001). *Corporate Governance and Earnings Management: A Working Paper*. Universite Laval, Canada: 1-35.
- Coles, Jerilyn W., et al. (2001). An Examination of the Relationship of Governance Mechanisms to Performance. *Journal of Management*, 27, 23-50.
- Collins, Daniel W. and Kothari, S. P. (1989). An Analysis of Intertemporal and Cross-Sectional Determinants of Earnings Response Coefficients. *Journal of Accounting and Economics*, 11, 143-181.
- DeAngelo, Linda E. (1981). Auditor Size and Audit Quality. *Journal of Accounting and Economics*, 3, 183-199.
- Dechow, Patricia M., et al. (1996). Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC. *Contemporary Accounting Research*, 13(1), 1-36.
- DeZoort, F. Todd, et al. (2002). Audit Committee Effectiveness: A Synthesis of the Empirical Audit Committee Literature. *Journal of Accounting Literature*, 21, 53-75.
- Donaldson, Lex and Davis, James H. (1991). Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns. *Australian Journal of Management*, 16(1), 49-64.
- Easton, Peter D. and Harris, Trevor S. (1991). Earnings as an Explanatory Variable for Returns. *Journal of Accounting Research*, 29(1), 19-36.
- Easton, Peter D., et al. (1992). Aggregate Accounting Earnings Can Explain Most of Security Returns: The Case of Long Return Horizons. *Journal of Accounting and Economics*, 15, 119-142.
- Fama, Eugene F. (1980). Agency Problems and the Theory of the Firm. *Journal of Political Economy*, 88, 288-307.
- Fama, Eugene F. and Jensen, Michael C. (1983). Separate Ownership and Control. *Journal of Law and Economics*, XXVI (June): 301-325.
- Fan, Joseph H. H. and Wang, T.J. (2002). Corporate Ownership Structure and the Informativeness of Accounting Earnings in East Asia. *Journal of Accounting and Economics*, 33, 401-425.
- Freeman, Robert N. and Tse, Senyo Y. (1992). A Nonlinear Model of Security Price Responses to Unexpected Earnings. *Journal of Accounting Research*, 30(2), (Autumn): 185-209.
- Hermalin, Benjamin E. and Weisbach, Michael S. (1991). The Effects of Board Composition and Direct Incentives on Firm Performance. *Financial Management*, 101-112.
- Hermalin, Benjamin E. and Weisbach, Michael S. (2003). Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature. *Economic Policy Review*, (April): 7-26.
- Imhoff, Jr., Eugene A. (2003). Accounting Quality, Auditing, and Corporate Governance. *Accounting Horizons*, (supplement): 117-128.

- Jensen, Michael C. and Meckling, William H. (1976). Theory of the Firm: Managerial Behavior, Agency Cost, and Ownership Structure. *Journal of Financial Economics*, 3, 305–360.
- Jensen, Michael C. and Meckling, William H. (1993). The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems. *The Journal of Finance*, XLVII(3) (July): 831–880.
- Kanogporn Narktabtee. (2000). The Implications of Accounting Information in the Thai Capital Market. Doctor of Philosophy, University of Arkansas.
- Kittima Acaranupong. (2003). The Effects of Year 1999 Changes in Thai Accounting Standards on Value Relevance of Accounting Information. Ph.D.'s Dissertation, Chulalongkorn University.
- Klein, April. (2002). Audit Committee, Board of Director Characteristics, and Earnings Management. *Journal of Accounting and Economics*, 33, 375–400.
- Kothari, S.P. (2001). The 2001 Summer Symposium on Accounting Research. Presented at Hong Kong University of Science and Technology, June, Hong Kong.
- Lev, Baruch and Thiagarajan, S. P. (1993). Fundamental Information Analysis. *Journal of Accounting Research*, 31 (2), (Autumn): 190–215.
- Mallin, Christine A. (2004). *Corporate Governance*. Great Britain: Oxford University Press Inc.
- McColgan, Patricia. (2001). Agency Theory and Corporate Governance: A Review of the Literature from a UK Perspective: A Working Paper, University of Strathclyde: 1–76.
- McMullen, Dorothy A. and Raghunandan, R. (1996). Enhancing Audit Committee Effectiveness. *Journal of Accountancy*, (August): 79–81.
- Morck, Randall, et al. (1988). Management Ownership and Market Valuation: An Empirical Analysis. *Journal of Financial Economics*, 20, 293–315.
- Nichols, D. Craig and Warren, Charles M. (2004). How Do Earnings Numbers relate to Stock Returns? A Review of Classic Accounting Research with Updated Evidence. *Accounting Horizons*, 18(4), (December): 263–287.
- Patcha Sitasuwan. (2000). The Relation between Ownership Structure and Performance of Thai Listed Companies. Master of Science in Finance's Thesis, Chulalongkorn University.
- Perelman, Stephen H. (1992). Financial Statement Information and the Pricing of Earnings Changes. *The Accounting Review*, 67(3), (July): 563–577.
- Petra, Steven Theodore. (2002). The Effects of Governance Structure and Ownership Structure on the Informativeness of Earnings. Ph.D.'s Dissertation, Rutgers University.
- Pimpana Srisawadi. (1996). The Relationship between Stock Returns and Earnings Information in Thailand. Doctor of Business Administration's Dissertation, Boston University.
- Schipper, Katherine and Vincent, Linda. (2003). Earnings Quality. *Accounting Horizons*, (supplement): 97–110.
- Somsak Pratomsrimek. (2005). Factors Leading to the Success in the Rehabilitation Process: An Empirical Evidence from the Stock Exchange of Thailand. Doctor of Philosophy, Chulalongkorn University.

- Teoh, Siew H. and Wong, T. J. (1993). Perceived Auditor Quality and the Earnings Response Coefficient. *The Accounting Review*, 68(2), (April): 346–366.
- The Stock Exchange of Thailand. (1998). Policy Statement on Code of Best Practices of Directors of Listed Companies. (Bor.Jor./Ror. 26-00). Bangkok, Thailand: The Stock Exchange of Thailand.
- The Stock Exchange of Thailand. (1999). Notification of the Stock Exchange of Thailand, Re: Qualifications and Scope of Work of the Audit Committees (No.1). (Bor.Jor./Ror. 01-04). Bangkok, Thailand: The Stock Exchange of Thailand.
- The Stock Exchange of Thailand. (2001). *Report on Corporate Governance*. Bangkok, Thailand: Boonsiri Printing Company Limited.
- The Stock Exchange of Thailand. (2001). *Fact Book 2001*. Bangkok, Thailand: The Stock Exchange of Thailand.
- The Stock Exchange of Thailand. (2005). *Fact Book 2005*. Bangkok, Thailand: JST Publishing Company Limited.
- Vafeas, Nikos. (1999). Board Meeting Frequency and Firm Performance. *Journal of Financial Economics*, 53, 113–142.
- Vafeas, Nikos. (2000). Board Structure and the Informativeness of Earnings. *Journal of Accounting and Public Policy*, 19, 139–160.
- Vives, Xavier. (2000). *Corporate Governance: Theoretical & Empirical Perspective*. The United States of America: Cambridge University Press.
- Wallace, P. and Zinkin, John. (2005). *Mastering Business in Asia Corporate Governance*. Singapore: John Wiley & Sons (Asia) Pte Ltd.
- Warfield, Terry D., et al. (1995). Managerial Ownership, Accounting Choices, and Informativeness of Earnings. *Journal of Accounting and Economics*, 20, 61–91.
- Watt, R.L. and Zimmerman, J.L. (1986). *Positive Accounting Theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Wild, John J. (1992). Stock Price Informativeness of Accounting Numbers: Evidence on Earnings, Book Values, and Their Components. *Journal of Accounting and Public Policy*, 11, 119–154.
- World Bank. (2005). (June). *Report on the Observance of Standards and Codes (ROSC): Corporate Governance Country Assessment, Thailand*.: 1–21. (Online). Available at http://www.worldbank.org/ifa/rosc_cg_tha.pdf
- Xie, Biao et al. (2003). Earnings Management and Corporate Governance: The Role of the Board and the Audit Committee. *Journal of Corporate Finance*, 9, 295–316.
- Yeo, Gillian H.H., et al. (2002). Corporate Ownership Structure and the Informativeness of Earnings. *Journal of Business Finance and Accounting*, 29(7), (September/October): 1023–1046.
- Yermack, David. (1996). Higher Market Valuation of Companies with a Small Board of Directors. *Journal of Financial Economics*, 40, 185–211.