IMPACT OF THE MEDIATING EFFECTS OF ACCOUNTING CONSERVATISM ON THE RELATIONSHIP AMONG BOARD CHARACTERISTICS, OWNERSHIP STRUCTURE AND REAL EARNINGS MANAGEMET OF THAI LISTED COMPANIES

PHIMPAKA JAIMUK

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY PROGRAM IN BUSINESS ADMINISTRATION
FACULTY OF BUSINESS ADMINISTRATION
RAJAMANGALA UNIVERSITY OF TECHNOLOGY THANYABURI
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October 28, 2020

หัวข้อดุษฎีนิพนธ์ ผลกระทบของความระมัดระวังทางบัญชีในฐานะตัวแปรคั่นกลางที่มีต่อความสัมพันธ์ระหว่างคุณลักษณะของคณะกรรมการ โครงสร้างผู้ถือหุ้นกับการจัดการกำไรของบริษัทจดทะเบียนตลาดหลักทรัพย์แห่งประเทศไทย
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บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาผลกระทบของความระมัดระวังทางบัญชีในฐานะตัวแปรคั่นกลางที่มีต่อความสัมพันธ์ระหว่างคุณลักษณะของคณะกรรมการและโครงสร้างผู้ถือหุ้นต่อความระมัดระวังทางบัญชีความสัมพันธ์ระหว่างความระมัดระวังทางบัญชีกับการจัดการกำไรของบริษัทจดทะเบียนตลาดหลักทรัพย์แห่งประเทศไทย และศึกษาผลของความระมัดระวังทางการบัญชีแบบไม่มีเงื่อนไขในฐานะตัวแปรคั่นกลางที่มีผลต่อความสัมพันธ์ระหว่างคุณลักษณะของคณะกรรมการโครงสร้างของผู้ถือหุ้นกับการจัดการกำไร

ข้อมูลที่ใช้ในการศึกษาได้จากการเก็บรวบรวมข้อมูลทุติยภูมิจากบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทยในช่วงปี พ.ศ. 2559 – 2561 โดยไม่รวมกลุ่มธุรกิจการเงินและบริษัทที่มีข้อมูลไม่เพียงพอ กลุ่มตัวอย่างประกอบด้วยบริษัทจดทะเบียนตลาดหลักทรัพย์แห่งประเทศไทยจำนวน 234 บริษัท ตัวแปรต้นประกอบด้วย1) คุณลักษณะของคณะกรรมการ ได้แก่ ขนาดของคณะกรรมการ คณะกรรมการอิสระ การประชุมคณะกรรมการ และความเป็นผู้นำของคณะกรรมการ และ 2) โครงสร้างของผู้ถือหุ้น ได้แก่ อัตราร้อยละของผู้ถือหุ้นสูงสุด และอัตราร้อยละของนักลงทุนสถาบัน ตัวแปรตามคือการจัดการกำไร ได้แก่ รายการผิดปกติของกระแสเงินสดจากการดำเนินงาน รายการผิดปกติต้นทุนการผลิต รายการผิดปกติของค่าใช้จ่ายในดุลยพินิจของผู้บริหารและการจัดการกำไรรวม สถิติที่ใช้ในการศึกษา คือ สถิติเชิงพรรณนาและการวิเคราะห์การถดถอยพหุคูณ

ผลการวิจัยพบว่า ขนาดของคณะกรรมการ ความเป็นผู้นำของคณะกรรมการ และอัตราร้อยละของผู้ถือหุ้นสูงสุดส่งผลกระทบเชิงบวกอย่างมีนัยสำคัญทางสถิติต่อความระมัดระวังทางการบัญชีแบบไม่มีเงื่อนไข นอกจากนี้ความระมัดระวังทางบัญชีแบบไม่มีเงื่อนไขยังส่งผลกระทบเชิงบวกอย่างมีนัยสำคัญทางสถิติต่อรายการผิดปกติกระแสเงินสดจากการดำเนินงานและรวมรายการการจัดการกำไร ซึ่งแสดงว่าความระมัดระวังทางบัญชีเป็นปัจจัยที่สำคัญในการจัดการกำไรภายใต้ดุลยพินิจของผู้บริหาร ยิ่งไปกว่านั้นความระมัดระวังทางบัญชีเป็นตัวแปรคั่นกลางอย่างเต็มที่ (Full Mediation) ที่มีผลต่อความสัมพันธ์ระหว่างความเป็นผู้นำของคณะกรรมการ อัตราร้อยละของผู้ถือหุ้นสูงสุด และรายการผิดปกติกระแสเงินสดจากการดำเนินงาน ในขณะที่หลักความระมัดระวังทางบัญชีเป็นตัวแปรคั่นกลางบางส่วน (Partial Mediation) ที่มีผลต่อความสัมพันธ์ระหว่างอัตราร้อยละของผู้ถือหุ้นสูงสุดกับการจัดการกำไร

คำสำคัญ: คุณลักษณะของคณะกรรมการ โครงสร้างของผู้ถือหุ้น ความระมัดระวังทางบัญชีแบบไม่เงื่อนไข การจัดการกำไร

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ABSTRACT

This research aimed to investigate the mediating effects of accounting conservatism on the relationship among board characteristics, ownership structures and real earnings management of Thai listed companies. Furthermore, the research studied the impacts of board characteristics and ownership structures on accounting conservatism and real earnings management.

The secondary data were collected from listed companies on the Stock Exchange of Thailand, excluding financial groups and the companies with unavailable data, during 2016-2018. The sample group consisted of 234 Thai listed companies. Explanatory variables included 1) the board characteristics consisting of board size, board independence, the frequency of board meeting and board leadership; and 2) the ownership structures consisting of the highest percentage of shareholders and the percentage of institutional investors. Whereas, dependent variable was the real earnings management consisting of abnormal operating cash flows, abnormal production costs, abnormal discretionary expenses and total real earnings management. Descriptive statistics and multiple regression analysis were used in this research.

The results revealed that board size, board leadership, and the highest percentage of shareholders had statistically significant positive impact on accounting conservatism. In addition, accounting conservatism had statistically significant positive impact on abnormal operating cash flows and total real earnings management. This pointed out that accounting conservatism was a major factor affecting real earnings management under managerial discretion. Furthermore, the accounting conservatism was the full mediation affecting the relationship between the board leadership, the highest percentage of shareholders and abnormal operating cash flows. While the accounting conservatism was the partial mediation on the relationship between the percentage of majority shareholders and total real earnings management.

Keywords: board characteristics, ownership structure, accounting conservatism, real earnings management

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List of Abbreviations

BS	Board Size
BI	Board Independence
MEET	Board Meeting
BI	Board Leadership
HPS	Highest Percentage of Shareholders
PII	Percentage of Institutional Investors
CON-ACC	Accounting Conservatism
REM_PROXY	Total real earnings management
REM_PROD	Real earnings management of production costs
REM_CFO	Real earnings management of cash flow
REM_DISEXP	Total real earnings management of discretionary expenses
REM	Real Earnings Management
FL	Finance leverage
FS	Firm Size

CHAPTER 1
INTRODUCTION

1.1 Background and Statement of the Problem

A board of directors comprises a group of people who are appointed to oversee the activities of a company as “the board”. They are entrusted with powers, duties and responsibilities as determined by government regulations. The board of directors is the highest governing authority of a management structure company (Joshua Kennon, 2013). In corporate governance, key elements of the board of directors include overseeing management decisions and ensuring that all activities follow the best interests of the shareholders. The board has the power to veto what they consider to be shirking or non-optimal investments (Jensen and Meckling, 1976) by exercising control over the management (Fama and Jensen, 1983). The independence of directors from day to day management is important to maximize efficiency in the best interests of the shareholders concerning matters relating to control of ownership of common stock (John and Senbet, 1998) and independent executive management (Fama, 1980;Fama and Jensen, 1983) The directors, together with top company management are both directly responsible for maintaining assets as the stock value of the shareholders. Factors of corporate governance led to the financial crisis that swept through Asia in 1997 (Mitton, 2002; Lemmon and Lins, 2003). Many previous studies have examined the relationship between the board of director’s characteristics and performance among non-financial companies worldwide (Agrawal and Knoeber, 1996) and in Thailand (Lemmon (2003). (Smith, 2008). The characteristics of the board of directors are important and determine the role that the company plays in the economy. Economic performance of companies has received considerable attention as a result of the recent financial upheavals in Asian markets. Horváth and Persida Spirollari (2012) investigated the relationship between selected board of director’s characteristics and a firm’s financial performance. They discovered that the degree of insider ownership positively influenced a firm’s performance and this had a negative effect on financial aspects for American companies between 2005 and 2009. Results suggested that corporate governance is important for good financial performance of companies.

Earnings management is always a popular issue in accounting research. Previous studies detailed many factors that impacted real earnings including internal governance, audit quality, management power and financial debt covenant. Enactment of the Sarbanes-Oxley Act or SOX in the USA or similar strict financial reporting regulations stipulated that firms must manage and report accounting information using real operating decisions of earnings management. Compared with accrual-based earnings management, real earnings management is much more difficult to observe using both external and internal control systems. Therefore, researchers switched to inside procedures to determine the real effects of real earnings management. Previous researchers included Roychowdhury (2006) and Cohen et al. (2008). Real earnings management (hereafter abbreviated as REM) is a measurement of the abnormal cash flow of an operation, abnormal production costs, abnormal discretionary expenses and other aggregated measures. All these abnormal values are residual elements that are solved by using regression models. Conservatism is a qualitative characteristic based on theory. Basu (1997) measured the level of conservatism as the inequality of perception of good and bad news in a profit and loss statement. Consistent with other countries, Thailand encourages listed firms to employ good governance through mechanisms such as the board of directors and an audit committee (Yatim, Kent and Clarkson, 2006). The impact of corporate governance by the board characteristics and ownership structure related to accounting conservatism assist in the governance and management of companies.

The researcher also concentrated on accounting conservatism as one of the standard conventions in the application of accounting rules. The conservatism principle can be classified into unconditional and conditional aspects. In this paper, unconditional conservatism is measured as the non-operating accruals divided by last year's total assets (Givoly and Hayn 2000; Krishnan and Visvanthan, 2008; Zhang, 2013). Regression analysis results significantly testify that unconditional accounting conservatism is highly associated with real earnings management. Conservatism accounting is traditionally defined as accounting practices whereby the firm should not over anticipate profits but concern all losses (Bliss, 1924). However, conservatism is employed in different dimensions. Basu (1997) defined conservatism as the asymmetric timeliness of earnings which require higher verification to recognise good news as gains than to recognise bad

news as losses, while Givoly and Hayn (2000, p. 292) defined conservatism accounting as the relationship between accounting principles of cumulatively reported earnings by revenue recognition, faster expense recognition, lower asset valuation and higher liability valuation. All of these definitions acknowledge earnings reported under conservative accounting. Conservatism is a qualitative characteristic based on theory. Basu (1997) measured the conservatism level of inequality of perception of good and bad news in profit and loss statements, while Yatim, Kent and Clarkson (2006) assessed the impact of corporate governance of the board characteristics and ownership structure on accounting conservatism to assist in company management of governance roles.

This paper applied accounting conservatism for the listed firms to effectively constrain real earnings management. The application of accounting conservatism is one of the most important principles in the accounting framework. Previous research emphasized the relationship between accounting conservatism and accrual-based, real earnings management; however, very few papers have investigated the association between relationship accounting conservatism and real earnings management. This paper attempts to fill the research gap by shedding light on the impact of the board of director's characteristics, ownership structure and accounting conservatism on real earnings management. The research contributes to the literature in the following ways. First, very few papers have investigated the above relationship. This paper describes a more detailed picture of the effects of the board characteristics and ownership structure on accounting conservatism. Importantly, this study employs accounting conservatism as a moderator to explain the mediating effects of accounting conservatism on the relationship among board characteristics, ownership structure and real earnings management.

1.2 Purposes of the Study

The major aim of this thesis is to impact of the mediating effects of accounting conservatism on the relationship among board characteristics, ownership structure and real earnings management. Thus, the thesis conducted the purposes as followings:

1. To investigating the effect of board characteristics, ownership structure on accounting conservatism.

2. To investigating the effect of accounting conservatism on real earnings management.

3. To investigating the mediating effects of accounting conservatism in the relationship among board characteristics, ownership structure and real earnings management.

1.3 Research Questions

To fulfill the core objectives, the following research questions were addressed.

Research question 1. Do the board characteristics and ownership structure effects on accounting conservatism?

Research question 2. Does accounting conservatism effects on real earning management?

Research question 3. Do accounting conservatism play a mediating role in the relationship among board characteristics, ownership structure and real earning management ?

1.4 Research Hypotheses

This research formulated five research hypotheses as below.

Hypothesis 1: There are a significant effect of board characteristics on accounting conservatism.

H_{1a}: There is a significantly positive effect of board size on accounting conservatism.

H_{1b}: There is a significantly negative effect of board independence on accounting conservatism.

H_{1c}: There is a significantly negative effect of number of board meetings on accounting conservatism.

H_{1d}: There is a significantly positive effect of board leadership on accounting conservatism.

Hypothesis 2: There are a significant effect of ownership structure on accounting conservatism.

H2a: There is a significantly positive effect of the highest percentage of shareholders on accounting conservatism.

H_{2b}: There is a significantly negative effect of the percentage of institutional shareholders on accounting conservatism.

Hypothesis 3: There is a significantly effect of accounting conservatism on real earnings management.

H_{3a}: There is a significantly positive effect of accounting conservatism on real earnings management of cash flow.

H_{3b}: There is a significantly negative effect of accounting conservatism on real earnings management of production costs.

H_{3c}: There is a significantly negative effect of accounting conservatism on real earnings management of discretionary expenses.

H_{3d}: There is a significantly positive effect of accounting conservatism on real earnings management of real earnings management.

Hypothesis 4: There are mediating effects of accounting conservatism on the relationship between board characteristics and real earnings management.

H_{4a}:There is a mediating effect of accounting conservatism on the relationship between board size and real earnings management.

H^{4b}: There is a mediating effect of accounting conservatism on the relationship between board independence and real earnings management.

H_{4c}: There is a mediating effect of accounting conservatism on the relationship between board meetings and real earnings management.

$H4_{d}$: There is a mediating effect of accounting conservatism on the relationship between board leadership and real earnings management.

Hypothesis 5: There are a mediating effect of accounting conservatism on the relationship between ownership structure and real earnings management.

H_{5a}: There is a mediating effect of accounting conservatism on the relationship between the highest percentage of shareholders and real earnings management.

H_{5b}: There is a mediating effect of accounting conservatism on the relationship between the percentage of institutional shareholders and real earnings management.

1.5 Research Framework of the Study

The research conducted research conceptual framework as shown in Figure 1.1 below.

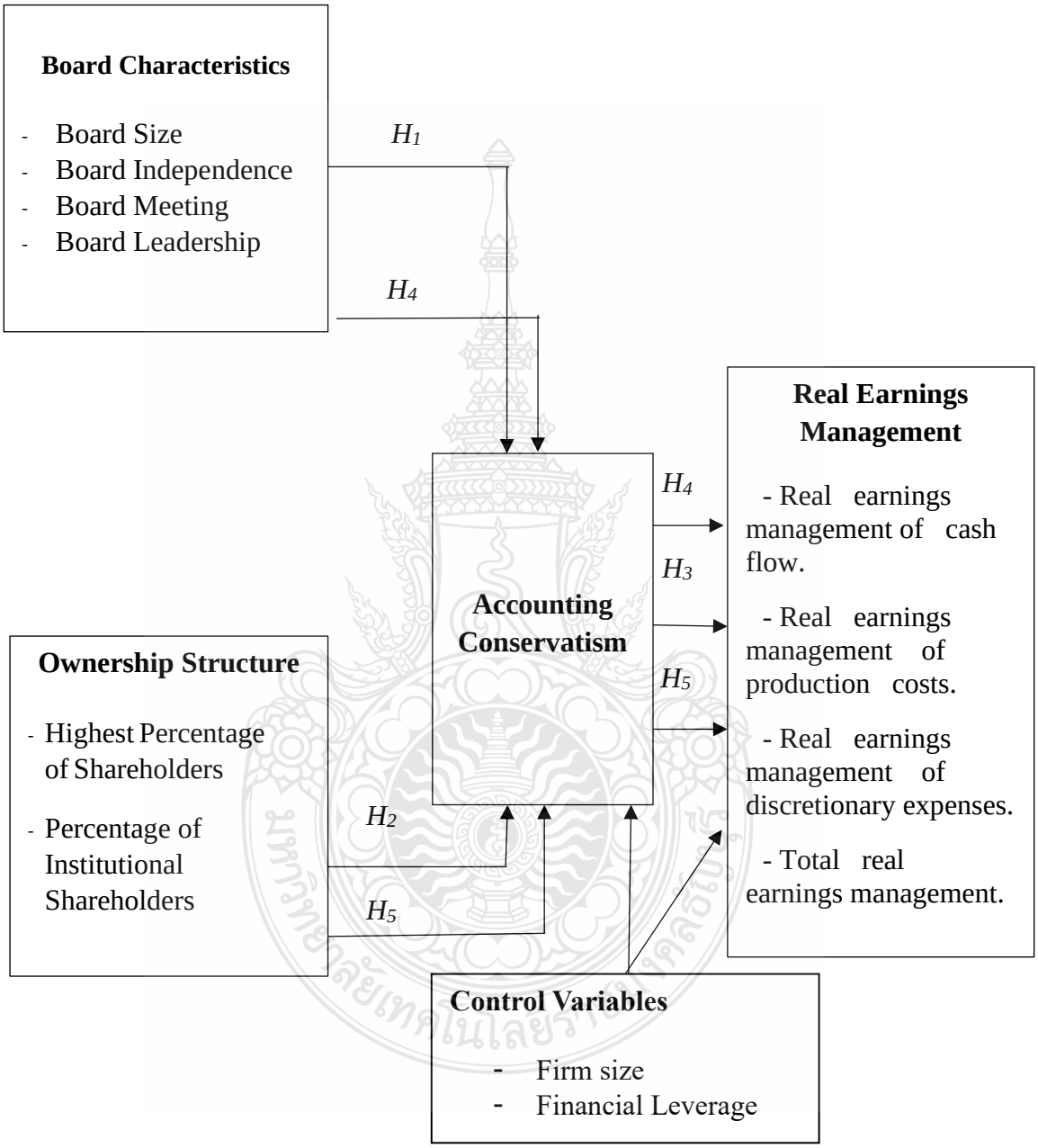

Figure 1.1 The Conceptual Framework of the Study

1.6 Definition of Key Terms

1.6.1 Board Characteristics refers to the characteristics of board of director of listed companies on the stock Exchange of Thailand; including board size, board independence, board meetings and board leadership.

1.6.2 Board Size refers to a number of members of the board of directors of listed companies.

1.6.3 Board Independence refers to a number of independent directors in the board of director.

1.6.4 Board Meeting refers to a number of board meeting per year

1.6.5 Board Leadership refers to chief executive officer (CEO) and chairman of the companies are the same person.

1.6.6 Ownership Structure refers to the ownership structure of Thai listed companies; including the highest percentage of shareholders and the percentage of institutional shareholders.

1.6.7 Highest Percentage of Shareholders refers to the highest percentage of shares, held by one person or one institutional shareholder.

1.6.8 Percentage of Institutional Investors refers to the percentage of share, held by institutional shareholder.

1.6.9 Accounting Conservatism refers to accounting policy rely on accounting standard, normally, accounting conservatism consisted of two types: conditional and unconditional conservatism. The thesis focused on unconditional.

1.6.10 Real Earnings Management refers to Roychowdhury (2006) and Cohen et al. (2008),Cohen and Zarowin (2010) stated that real earnings management were measured in terms of abnormal real earnings, which were existed for four aspects: 1)abnormal operating cash flow 2)abnormal production costs 3) abnormal discretionary expenses and 4) total real earnings management.

1.6.11 Finance Leverage refers Total debt / Total assets

1.6.12 Firm Size refers to total assets of firm.

1.7 Scope of the Study

The research population was companies listed on the Stock Exchange of Thailand (SET).This study used secondary data, which obtained from firms between 2016- 2018, excluding financial companies. Equity ownership, number of shares outstanding and accounting data were accessed from the SETSMART.com database while all other data were obtained from the websites of individual companies. Study samples consisted of non-financial companies excluding deli stings, companies under bankruptcy proceedings, companies with incomplete data, companies suspended from trading by the SET and property funds. Calculation of shareholdings used data at the end of each fiscal year.

1.8 Contributions of the Study

This research reflects the administrative benefits of real earnings management and decision-making of interested parties aiming to achieve the utilization of financial information from the accountants. The reporting information affects the immediate decision-making of the investor and the public and may provide positive or negative knowledge. Importantly, information disclosure verifies the reliability of financial information disclosed in the financial statement and is useful for decision-making by users of the financial statement with regard to the board characteristics, ownership structure and accounting conservatism on real earnings management. The relationship between financial information may be observed and measured from the relevant agencies and could be used in planning, decision-making and forecasting. The company is recognized the rights of stakeholders in some of the information that the company.

CHAPTER 2
REVIEW OF THE LITERATURE

This chapter presents and review of previous studies and relevant literature to the study. The review includes concepts and theoretical extensive research on the board characteristics, ownership structure, and accounting conservatism on real earnings management. This chapter begins with an overview of agency theory, corporate goverance, ownership structure, and accounting conservatism on real earnings management respectively. The next section focuses on discussion of the studies and the previous empirical evidence, followed by the review on moderating relationship.

2.1 Agency Theory

Agency theory the contractual relationship of the management as an agency, and the shareholders as a principal. This theory suggests that when both parties are expected. Since the principle grants the authority to their agents, the agent shall perform for the optimum benefit of the principle. Jensen and Meckling (1976) stated that agency theory is an economics concept based on a contract between two parties: principal and agent. This, the management is able to make a decision on behalf of the firm. Hannsmann cited in Rachagan (2006) stated that large shareholders can manage real earnings since they have more access to information and knowledge of earnings management (Shleifer & Vishny, 1986). However, the shareholders use the investment of the major shareholders, thus they have limited financial liquidity. The board of directors then acts on behalf of the Company and makes the decisions on behalf which can lead to risks arising from the Company's financial informationAgency theory shows that the interests of a principal and an agent are not always in alignment. This is a constraint of the minority shareholders since the large owners control, oversee the financial reporting policies of the firm (Fan & Wong, 2002), and record acconting reversing entries by using the financial reports (Leuz, Nanda, and Wysocki, 2003).

2.2. Corporate Governance

Boards of directors are responsible for corporate governance of the company.It involves the system of how the company is directed and controlled. Corporate governance also indicates the structure and the relationships of a company's management, its board of directors , ownership structure, its shareholders and other stakeholders.The ownership structure of shareholders plays an important role in regards to the objectives of the company. Corporate governance has a role in terms of the appointment of directors and their characteristics. Moreover, their monitoring performance are determined. (G20/OECD Principles of corporate governance, 2015). Corporate governance focuses on the transparency of financial information and systems to ensure that the management perform their responsibilities for the benefit for all shareholders OECD (2004).

The national corporate governance committee that creates a structure of corporate governance in order to creat transparency and sustainability of the business in capital market. Thus, the board of directors, shareholders, and stakeholders can achieve the objectives if they act in accordance with corporate governance. Moreover, the business ethics benefits various stakeholders including society (National Corporate Governance Committee, 2013).

Corporate governance can effectively promotes the quality of internal controls for the disclosure of financial report. It helps create a reliable financial data by reducing real earnings management (Abed et al., 2012; Becker,Defond, Jiambalvo, & Subramanyam, 1998; Bédard, Chtourou, & Courteau, 2004; Davidson et al., 2005; Ebrahim, 2007; Klein, 2002; Park & Shin, 2004). Corporate governance not only reduces real earnings management but also reduces the investment risks of shareholders. Cheng, Collins, and Huang (2006) found that the rights of shareholders can reduce the investment cost of the company significantly.

However, Huang et al. (2009) later found that ownership structure and the board of shareholders can also cause agency problem. Even though corporate governance controls the management and the executives, the conflict of interest between them sill occurs in the form of financial reports and real earnings management. Due to regulatory mechanisms, corporate governance in Asia, including Thailand, cannot reduce agent problems.

Corporate governance controls the undesirable behavior of executives, which is the cause of conflicts of interest between the owners and executives, as well as the financial reporting quality. The corporate governance mechanism is divided into several characteristics. Corporate governance in Asia cannot reduce agent problems due to regulatory mechanisms.For Thailand, it began to realize and develop corporate governance due to the damage from the bankruptcy of world-class companies, such as The stocks of Volkswagen AG in 2015, the firm had rigged engine emissions tests in America and Europe, shed nearly half its value and its global sales in the first full month fell 4.5%.

2.3 Board Characteristics

Board characteristics should be considered to investigate the relationship between a board of director characteristics and accounting conservatism, the proxies are board size, board independence, board meeting and board leadership to monitor incentives. The board of directors is as the organization's of control system according to Watts (2003). It is important to find the evidence of a negative relation between the inside directors on the board size and conservatism, and a positive relation between the highest percentage of a firm's directors on conservatism accounting (Fama and Jensen,1983). Directors require verifiable information of financial reporting quality to monitor by applying accounting conservatism to reduce losses, and examining the relationship between accounting conservatism and board of characteristics. There are a number of prior studies that examined the relation between the board of characteristics and the financial reporting quality, such as the studies of Beasley (1996), Dechow et al. (1996), and Farber (2005). They found that the percentage of board of directors is negatively related to financial reporting fraud. Peasnell et al. (2000), Klein (2002b), Xie et al. (2003), and Bowen et al. (2005) found the negative relationship between the percentage of board of directors and earnings management of financial reporting. Anderson et al. (2004) and Ashbaugh et al. (2006) found the relationship between a board of director characteristics and debt ratings. Wright (1997) revealed the positive relation between the board of director and ratings of financial reporting quality to accounting conservatism.

However, Beekes et al. (2004) found that the board independence and conservatism accounting have a positive relation between for a sample of UK firms using the measure of accounting conservatism.This study only concentrates on board of director characteristics and accounting conservatism. In other words, conservatism and board of director characteristics are endogenous with governance mechanisms, managerial ownership structure, and the financial reporting quality.

2.4 Accounting Conservatism and Board Characteristics

The control for corporate governance and accounting conservatism indicate the level of protection and the level of CEO involvement and internal governance. Using a sample of U.S firms during the period, the firms with corporate governance have more accounting conservative. Thus, strong corporate governance employs conservatism accounting as a tool for monitoring. The study is limited by the aggregation of corporate governance a structures firms.

Garcia et. al (2007) studied the relationship in the Spanish context by utilizing 69 non-financial Spanish firms from 1997 to 2002 as the sample. The board characteristics which include directors' denominations, board size, independent directors, number of board meetings, the proportion of non-executive directors, CEO/Chairman duality, the existence of audit committee and the existence of a nomination/remuneration committee were used to measure of corporate governance. The firms with boards of directors use conservative accounting numbers as a corporate governance tool. Similar to the U.S firms , their research was limited by the aggregation of governance structures across firms. Donglin and Song (2009) revealed that the measure of accounting conservatism using accrual-based measure and data from 2001 to 2006 in China had a low level of control of ultimate shareholders, and ownership. Thus, it lead to conservative accounting financial reporting. They provided a support of the argument that incentives that comply with standards significantly influence the level of conservative accounting reporting.The findings revealed that board independence does not have any significant effect on conservative accounting. However, their study as well as other researches on accounting conservatism and its effect on board of director characteristics on accounting conservatism are still the issue.

2.5 Board Size

According to Lipton and Lorsch (1992), directors on a large board, and the policies of top managers are under the control of CEO. A large board is less effective in terms of making a decision, and more risk-averse which leads to accounting conservative problems in terms of financial management reporting (Jensen, 1993). However, too many people within the same geographical of location cannot work together effectively. Lipton and Lorsch (1992), Jensen (1993), Judge and Zeithaml (1992) found that a large board size is less involved in making decision. Forbes and Milliken (1999) reported that a large board size led to a problem of coordination in organizational and financial reporting. Their studies are also in line with other empirical studies which revealed that board size is associated with low firm performance (Cheng, 2008; Guest, 2009; Mak & Li, 2001), high earnings management (Haniffa, Rahman, & Ali, 2006).and low earnings informativeness (Ahmed et al., 2006).

According to Chang et al., (2009), who studied financial reporting in Taiwanese firms, indicated that board size led to an increase in earnings. The board size of financially distressed firms was which was higher than of the healthy firms with an average of Findings of Vafeas (2000) indicated that a small board led to higher returns earnings since the board members are better informed regarding the financial performance. The recent evidence of Larmou and Vafeas (2010) shows that the small board can increase the share return. If the board size exceeds a certain limit, this reduces the financial performance. Dalton and Dalton (2005) suggested that a large board size offers a broader of knowledge and expertise, but Jensen (1993) argued that the problem of coordination in large board size can outweigh the benefit.

Bonn, Yoshikawa, and Phan (2004) examined firms in Japan and Australia. They found that there was a relationship between board size and performance in Japanese firms, but none in Australian firms. In addition, Di Pietra et al.,(2008) found that large board size reduces firm performance only in small and medium firms while large firms are not affected. Coles, Daiel and Naveen (2008) indicated that the large board size is complex due to the larger degree of diversification and the higher financial of leverage. In summary, the large board size provides a better exchange and knowledge; however, it is risky that board members are unable to coordinate. According to Jensen (1993), who

studied the effects of board size, it was also found that large board size also leads to difficulties in coordination, but less than smaller boards. This is due to the fact that the large board size size has more information, expertise and higher performance of management than smaller board size (Pearce and Zahra, 1992; Pfeffer, 1987). Duellman (2006) suggested that the large board size with specialized directors are able to monitor effectively. Lipton and Lorsch (1992) recommended that board size should consist of eight and nine directors.

The results by Haniffa and Hudaib (2006) showed that the large board size are less effective in monitoring and increases incentives to shirk financial information. Rahman and Ali (2006) found a significantly positive relationship between board size and earnings management of accounting conservative. It can be implied that large board size is difficult to control financial information. According to Jensen (1993), the small board size is able to control financial information easier. Yermack (1996) and Hermalin and Weisbach (2003) found a negative relationship between the board size earnings management of accounting conservative and confirmed that the performance of small board is more effective. Pearce and Zahra (1992) and Dwivedi and Jain (2005) found that the board size had a positive relationship, and the impact the large board with proficiency and diversity. In the UAE, the empirical results of Aljifri. (2007) and Ellili (2012) suggested that the board size has a negative relationship with a firm. Xie, Davidson, and DaDalt (2003) and Rashidah and Fairuzana (2006) found that large board size is associated with levels of discretionary accrual more than small board size.

2.6 Board Size and Accounting Conservatism

The existing literature on corporate governance show that small board size can be more efficient than larger board size with proficiency and high education level. Large board size are hampered by coordination and communication to free-riding among board members (Jensen, 1993). This is consistent with this assertion, Yermack (1996), Eisenberg et al. (1998) and Hermalin and Weisbach (2003) who found a negative association between board size and performance. Beasley (1996) revealed that financial statement fraud is positively associated with the board size due to the fact that large board lacks monitoring (Ahmed and Duellman, 2007).

In contrast, according to Klein (2002) and Lipton and Lorsch (1992), the large board size has a greater monitoring performance than small board due of ability of the board to control tasks. Consistent with this argument, Xie et al. (2003) showed a negative relationship between impact of board size and earnings management that the large board size has a greater impact on earnings management due to the experience, expertise, and education level of the directors.

The relationship between board size and accounting conservatism was also studied by Bushman et al. (2004), Ahmed and Duellman (2007) and Lim (2011). They found that the board size is unrelated to the accounting conservatism in terms of earnings management. Interestingly, Ahmed and Henry (2012) indicated that small board size is associated with accounting conservatism in terms of good cash flow. According to the conflicting views, there are two possible relationships between board size and unconditional accounting conservatism.

2.7 Board Independence

Board independence is defined as a corporate board with outside directors that are not affiliated with the top executives of the firm to avoid potential conflicts of interests. Board independence oversees the firm to mitigate managerial opportunism from shareholders and the firm. Independent board members are a part of a larg board, and perform an active oversee over company executives. However, the board independence does not reflect a sufficient condition of good governance due to the relationship with shareholders and other board members. Board independence provides protection for shareholders, and other stakeholders of the company. Therefore, the independent board members must by qualified and have accurate information to monitor the company. The experience of expertise on independent board members is beneficial to the policies for the management. In essence, the position of in board independent is a mechanism for overseeing the company's operations. Supervisory functions show that the board independent commissioner serves for the company's success and is beneficial to the policy management.

2.8 Board Independence and Accounting Conservatism

Board independence influences the management of a firm (Weisbach, 1988). Fama and Jensen (1983) found that the board independence offer shareholders the greatest protection. Previous studied of that board independence indicated that an organization has different incentives regarding accounting practices, in particular accounting conservatism. Board of directors may use discretionary accrual to reduce agency costs (Watts, 2003; Ahmed and Duellman, 2007). Board independence will apply corporate governance to control the effectiveness of the board of directors, and encourage more accounting conservative in financial reporting (Fama and Jensen, 1983). The empirical evidence of Beekes et al. (2004) showed that firms with high proportion of outsider board members tend to focus on accounting conservative more which reflects in financial reporting. Thus, a board with a relatively high proportion of board independence to effectively monitor the management and force the financial reporting to be reliable.

In contrast, Beekes et al., 2004; Bushman et al., 2004; Ahmed and Duellman, 2007 found that the board independence lower the board effectiveness. Other studies show that the presence of board independence reduces the occurrences of financial statement fraud and accounting conservatism (Beasley, 1996; Dechow et al. 1996), the earnings management (Klein, 2002; Davidson et al., 2005). However, Beekes et al. (2004) maintained that the number of board independence increases on accounting conservatism.

2.9 Board Meeting

The number of board meetings can reflect effective management, implementation and ability of the directors (Vafeas, 1999). Conger et al. (1998) stated that board meeting is important and lead to effectiveness of the firm. Lipton and Lorsch (1992) also suggested that board meeting helps solve major problems. It is a platform for the board to perform their duties by meeting frequently (Vafeas, 1999).

However, the time of the meeting is not adequate to exchange ideas. This is due to the fact that the CEO often sets out the agenda for board meetings (Jensen, 1993; Vafeas, 1999), and limits time of board of directors to exercise meaningful control of management (Vafeas, 1999). In fact, Jensen (1993) pointed out that the board that meet regularly reflects greater accounting conservatism. Vafeas (1999) and Jensens (1993)

stated that the higher board activity, the better performance of the board. In contrast, Xie et al. (2002) revealed that the frequency of board meetings is negatively associated with the earnings management. However, the frequency of board meetings is not required. It is only stated in the disclosed annual reports of the firm.

2.10 Board Leadership

The board leadership or CEO duality is defined when a CEO also acts as a chairman of the board. The theories that explains this structure are agency theory and stewardship theory. Coombes & Wong, 2004 indicated that the UK grounds the duties CEO and the chairman differently. The CEO can act as chairman in terms of communication and the facilitates of decision in accordance with agency theory (Jensen, 1993); however, the CEO cannot be chairman according to stewardship theory. Brickley, Coles and Jarrell (1997) the communication between the CEO and the chairman reduces of inconsistencies in the decision. However, the knowledge of the CEO can help make decisions which also results in firm performance. Similarly, Klein (1998) found that the directors that possess knowledge and expertise also reflects firm performance. This is the effectiveness of CEO-chairman on board leadership. Moreover, Daily and Dalton (1997) revealed a separate structure of a CEO and chairman, but lead to a strong leadership.

Farooque, Farooque et al., (2007) showed the positive relationships between impact of CEO duality on financial performance and the effect of board leadership according to agency theory and stewardship theory. Klein (2002) found that when the CEO is also a part of the compensation committees, discretionary accrual increases. Muniandy (2007) reported that, in Malaysia, the CEO and chairman position were associated with higher audit fees. Abdullah & Nasir (2004), Ahmed and Duellman (2007) and Chang (2009) did not support CEO duality.

In contrast, Cornett, Marcusn and Tehranian (2008) stated that the CEO duality had no influence on the earnings quality of US-listed firms on accounting conservatism. Dahya, Garcia, and Bommel (2009) showed the difference in firm with CEO duality that the accounting conservatism is high. Other studies showed that leadership structure of

CEO duality is dependent on other factors. For instance, Faleye (2007) found that the CEO duality is beneficial to firms if he is a reputable person.

However, the board leadership may be dominated by the insiders. Thus, the chairman should be independent of management to avoid conflict of interest. Ramdani and Witteloostuijn (2010) tested the effect of CEO duality in Indonesia, Malaysia, South Korea, and Thailand to find different levels of performance of accounting conservatism, and found that CEO duality is beneficial for average firms and top performing firms.

2.11 Board Leadership and Accounting Conservatism

The associated CEO-chairman and accounting conservatism were studied but the result of empirical studies are still inconclusive. Ahmed and Duellman (2007) found that CEO duality is unrelated to financial reporting and accounting conservatism. Krishnan, Vivanathan (2008), and Lim (2011) showed that the separation of CEO's and chairperson's roles leads to good governance, and is positively associated between to accounting conservatism. Hence, the literature review of the impact on board characteristics and accounting conservatism is shown in Table 2.1 as follows:

Table 2.1 Previous Researches on Board of Directors Characteristics and Accounting Conservatism

Researchers and Research Title	Statistics	Independent Variables	Dependent Variables	Results
Bradbury, Mak & Tan (2006) Board Characteristics, Audit Committee Characteristics and Abnormal Accruals	Regression	1.Board independence 2.Board independence on audit committee 3. Board leadership 4. Board size	Accounting conservatism : Accrual	1)The board Independence on negative related accounting conservatism.2)The board independence is significantly positive related audit committee and accounting conservatism.
Kanagarenam,Lobo and Whalen (2007) Does good corporate governance reduce information asymmetry around quarterly earnings announcement ?	OLS regression and 2LS regression	Corporate governance 1.Board independence 2.Board Structured 3.Board activity 4.Directors' percentage holding	Information asymmetry	The Information asymmetry significantly negatively related to board independence, board activity, the percentage holdings of directors and officers. the Information asymmetry significantly positively related to board structure , board activity, and directors' and officers' percentage holding.

Table 2.1 Previous Researches on Board of Directors Characteristics and Accounting Conservatism (Cont.)

Researchers and Research Title	Statistics	Independent Variables	Dependent Variables	Results
Lara,Osma & Penalva (2009)Accounting Conservatism and Corporate Governance	Regression	1. External governance 2. CEO involvement 3. Board composition 4. Board effectiveness	Accounting conservatism	The corporate governance will a higher degree of accounting conservatism. The impact of earnings discretion on earnings to bad news across governance structures and governance firms appear to usediscretionary accruals accounting to inform investors about bad news.
Jaggi,eung. & Gul (2009) Family control, board independence and earnings management : Evidence based on Hong Kong firms.	Regression	Board independence	Accounting conservatism	The board independence of ensure high- quality financial reporting. the board independence on positively related earnings increases.

Table 2.1 Previous Researches on Board of Directors Characteristics and Accounting Conservatism (Cont.)

Researchers and Research Title	Statistics	Independent Variables	Dependent Variables	Results
Saleh, Iskandar & Rahmat (2005).Earnings management and board characteristics: Evidence from Malaysia		1.Board independence 2.Existence of CEO-Chairman duality	Accounting conservatism	The discretionary accruals is negatively related to management ownership, but positively related to the existence of CEO - Chairman duality, after controlling for size, leverage and performance.
Abdullah & Nasir (2004) Accrual management and the independence of the boards of directors and audit committees.	Regression	1.Board independence 2.Audit committee independence	Accounting conservatism	The board independence and audit committee independence to negatively related of counting conservatism.

Table 2.1 Previous Researches on Board of Directors Characteristics and Accounting Conservatism (Cont.)

Researchers and Research Title	Statistics	Independent Variables	Dependent Variables	Results
Makhlouf,Al-Sufy & Almubaideen (2018). Board Diversity and Accounting Conservatism: Evidence from Jordan	Regression	1. Gender diversity 2. Education level 3. Average Age 4. Nationality diversit Control variables 1. Firm Size Leverage	Accrual-based conservatism	The results indicate that gender diversity, education level and nationality diversity are significantly positively correlated with accounting conservatism.
Wang & Kallunki. (2015) Board gender diversity and accounting conservatism: Evidence from Finland.	Regression	1.Board Gender Diversity 2. Board of directors Control Variables 1.Firm size 2.Leverage 3.Litigation Risk	Accounting conservatism	The insignificant effect of board gender diversity and board of directors on conditional accounting conservatism.

Table 2.1 Previous Researches on Board of Directors Characteristics and Accounting Conservatism (Cont.)

Researchers and Research Title	Statistics	Independent Variables	Dependent Variables	Results
Cornett,Marcus & Tehranian (2007) The impact of institutional ownership on corporate operating performance.	Regression	1. Percent of Independent Outside Directors on the Board 2.CEO/Chair Duality 3.Independent outside directors 4.Board Size 5.Age and Tenure of CEO 6. CEO's Pay-PerformanceSensitivity.	Accounting conservatism	The board of director characteristics positive relationship between of institutional investor involvement and significant relationship between a firm's operating cash flow returns and both the percent of institutional stock ownership and the number of institutional stockholders.
Ho, (2009).Association between board characteristics and accounting conservatism: Empirical evidence from Malaysia	Regression	1.Inside directors 2.CEO/Chairman Separation 3.Board size 4. Board meetings 5.managerial ownership	Accounting conservatism	The board characteristics, namely the percentage of inside directors, CEO, board size, board meetings and managerial ownership. the negatively related of conservatism on percentage of inside directors to conservatism and board size is negatively related to conservatism.

Table 2.1 Previous Researches on Board of Directors Characteristics and Accounting Conservatism (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Ahmed & Henry(2012) Accounting conservatism and voluntary corporate governance mechanisms by Australian firms	Regression	1.Board size 2. Board Remuneration 3.Director Ownership 4.Institutional Investors 5. External Share Ownership 6. CEO/Chairperson Duality	Accounting conservatism	1) The voluntary audit committee and board independence have a positive relationship with conservatism.2) Board size has a positive relation with conservatism associated with unconditional accounting conservatism. 3) CEO/ chairperson duality,board remuneration,director ownership, institutional investors,and external share ownership have no significant relation with conservatism.
Ahmed & Duellman, (2007) Accounting conservatism and board of director characteristics: An empirical analysis	Regression	1.Board Size 2. CEO/Chair Separation 3.Nonexecutive Directors 4.Institutional Ownership 5. Managerial Ownership	Accounting conservatism	1) Board Size, CEO/Chair separation, and managerial ownership have no significant relation with conservatism 2) Non-executive directors have a positive relationship with conservatism.3) Institutional ownership has a negative relationship with conservatism.

Table 2.1 Previous Researches on Board of Directors Characteristics and Accounting Conservatism (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Rahimah, M. Y. (2011). The eff The effect of ownership concentrate of ownership concentration, boar ation, board of dird of directors, audit ors, audit committee and ethnicity on conservative accounting : Malaysian evidence	Regression	1. Board Composition 2. Board Size 3. Board Tenure 4. Board Financial Expertise 5. Multiple Directorships 6. CEO Duality 7. Inside Substantial Shareholders 8. Outside Substantial Shareholders	- Accrual-based Conservatism - Earnings Price ratio	1) Board size is positively associated with conservative accounting. 2) CEO duality are positively associated with conservatism.
Nasr & Ntim (2018) Corporate governance mechanisms and accounting conservatism: evidence from Egypt.	Regression	1.board size 2. board Composition 3.CEO/chair separation, and external auditor type.	Accounting conservatism	1)Board independence has a positive influence on conservatism. 2) Board size and auditor type have a negative impact on conservatism. 3)CEO/Chair separation has no significant influence on conservatism

Table 2.1 Previous Researches on Board of Directors Characteristics and Accounting Conservatism (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Kukah.et.al.,(2016) Corporate governance mechanisms and accounting information quality of listed firms in Ghana.	Regression	1.Board size 2.Board Independence 3.Board diversity 4.Audit committee independence 5.Mangerial ownership 6.foreign ownership 7.Firm size 8.Big 4 audit firms 9. CEO duality 10. Family ownership	Accounting conservatism	1)The board Independence and CEO duality has a positive Impact on conservatism. 2) The board size, board diversity, managerial ownership, foreign ownership, firm size and big 4 audit firms has a negative Impact on conservatism.

Table 2.1 Previous Researches on Board of Directors Characteristics and Accounting Conservatism (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Bao,S.R.,&Lewellyn,K. B.(2017) Ownership structure and earnings management in emerging markets—An institutionalized agency perspective	Regression	1) Controlling ownership 2)Insritutional ownership 3)The largest shareholder as a percentage 4) Regulatory quality 5)Proportion of outside directors 6) CEO duality 7)Board size 8)Debt –to-equity 9)Firm size	Accounting conservatism	1)The controlling ownership,Insritutional ownership,The largest shareholder as a percentage,Regulatory quality,Proportion of outside directors,CEO duality, Debt –to-equity and Firm size has a positive Impact on conservatism. 2) The board size has a negative Impact on conservatism.
Mohamme et al. (2017) Accounting conservatism, corporate governance, and political connections	Regression	1.Board size 2.Board Independence 3.CEO/chair separation 4.Audit committee 5.ManagerialOwnership 6.largest Shareholders	Accounting conservatism	1)Board independence has a positive Impact on conservatism.2) Management ownership has a negative effect on conservatism.3) Political connections positively associated with the company's future performance.

2.12 Ownership Structure

In the financial literature, the research of the relationship between ownership structure and accounting conservatism (Jensen and Meckling, 1976; Morck, Shleifer, and Vishny, 1988) showed only a few studies on the relationship between accounting conservatism, ownership structure, and the earnings quality of accounting information financial reporting. (Warfield et al., 1995; Rajgopal et al., 1999; Fang and Wong, 2002). The earnings quality in the financial reporting is the impact of earning management of managers and owners (Hadani, Goranova and Khan, 2011).This process was found in the firm's earnings management in the accounting conservatism and financial statements (Pfarrer, Smith, Bartol, Khanin and Zhang, 2008). Healy and Wahlen (1999) found that the earnings management can alter accounting numbers and financial reports.

From a theoretical point of view, managerial ownership structure impacts the quality the accounting information and accounting conservatism. Hence, the high managerial of ownership structure reflects the financial situation of accounting conservatism. The ownership structure increases of exploitation, but decreases accounting conservatism (Morck, Shleifer, and Vishny, 1988). According to Morck et al. (1988), the impact is intermediate levels of ownership structure. In the researches on relationship between corporate performance and managerial ownership structure, Morck et al. (1988) found the positive relationship between low and high levels of ownership structure, and found a negative relationship between managerial ownership structure and firm performance.

Short and Keasy (1999) found the relationship between the ownership structure and firm performance. McConnell and Servaes (1990) showed that the result is consistent with the empirical results of Ellili (2012) since the managerial ownership structure does not have any impact on the firm. Gul and Wah (2002) showed the impact of the interests on the accounting informativeness by comparing of ownership structure.

The accounting of informativeness, and accounting income are measured by the accounting conservatism. Consequently, accounting income in the financial statements is higher. Lennox (2005) found that the ownership structure is negatively related to audit regardless low and high levels of ownership. Teshima and Shuto (2008) found a relationship between the ownership structure and the discretionary accruals of the

Japanese firms. In related research, LaFond and Roychowdhury (2008) showed the impact of examined ownership structure on the conservatism of accounting.

In an extension of this, Shuto and Takada (2010) examined the impact of the ownership structure on the accounting conservatism, and showed that there is a relationship between ownership structure and accounting conservatism. The low and high levels of ownership structure are significantly negatively related to the asymmetric timeliness of earnings quality on accounting conservatism. These results are helpful in terms of accounting conservatism to reduce the agency costs of the firms, and enhance a corporate governance system.

2.13 Ownership Structure and Accounting Conservatism

Bushee, Ling Lin (2012) classified institutional investors, quasi-exponential type, and focused on institutional investors on accounting conservatism. Based on this, the research on the relationship between institutional investors and accounting conservatism showed the results of short-term and exponential of institutional investors that they have a short payback period. The relationship between institutional investors and accounting conservatismare is positive. Fengyi Lin et al. (2014) used Benford's law to study the topic. The accounting conservatism of institutional investors is in accordance with greater incentive for managers to manipulate accounting conservatism.

Shuqiang Cheng (2006) studied the relationship between institutional investors and accounting conservatism in China listed companies and found that a higher institutional investors affect accounting conservatism and manipulation of earnings. Shanmin Li et al. (2011) found that institutional ownership has a significant positive impact on earnings management of listed companies. The results of a study of the relationship between institutional investors and earnings management and accounting conservatism , the studies about the relationship between the two are not the same. The institutional investors affect earnings management. The institutional investors studied the relationship between institutional investors and earnings management and accounting conservatism. Chi, Liu, and Wang (2009) [21] used C-Score proposed by Khan and Watts (2007) to measure the accounting conservatism and corporate governance during 1996-2004 in Taiwan's stock market.

The higher shares of institutional investors are, the lower demand for soundness of accounting information on accounting conservatism is. Ramalingegowda and Yu (2011) used the model proposed by Basu (1997) to measure the accounting conservatism. Wen (2010) analyzed the data from 2006 to 2008 and found that the higher the proportion of institutional investors in a company, its accounting information is more robust on accounting conservatism. The data from 1995 to 2006 in the US were collected. Moreover, the higher the proportion of institutional investors hold, the higher of financial reporting on accounting conservatism are lower.

The institutional investors also have a supervisory role which reduces the company's proxy problem. Most of the research focus on studying the relationship between the proportion of institutional investors holding and accounting conservatism. Although the institutional investors are a group of stakeholder, the feature may influence the final result. Korczak and Korczak (2009) studied Polish listed companies, and found that earnings information of the managerial ownership was between 25% and 50% which indicates that excessive of managerial ownership is detrimental to the firm value of accounting conservatism.

In terms of highest percentage of shareholders and accounting conservatism, further evidence indicated that highest percentage of shareholders were associated with low firm performance (Schiehll, 2006), low level of corporate social responsibility (Ghazali, 2007) and high earnings management (Sarkar, Sarkar, & Sen, 2008). The impact of the highest percentage of shareholders potentially reflects an effective firm. The findings of Yeo, Tan, Ho and Chen (2002) suggested that outside large shareholders in reducing earnings management on accounting conservatism as the shareholders improved informativeness of the earnings management. Azofra, Castrillo, and Delgado (2003), who studied the Spanish firms, found that the outside large shareholders reduce earnings management on accounting conservatism. Additionally, Bhattacharya, Daouk, and Welker (2003) indicated that the earnings of Malaysia ranked in 9th place out of 34 countries, as having severe earnings opacity.

The highest percentage shareholders are relevant to the agency theory in regards to exploitation. Thus, managerial ownership helps align the interest of the managers and shareholders. There are still conflict in East Asian countries between majority

shareholders and minority shareholders due to highly concentrated ownership structure (Claessens, Djankov, & Lang, 2000; Lim, 1981; Tam & Tan, 2007; Zhuang, Edwards, & Capulong, (2001). Thillainathan (1999) reported that, according to a joint survey carried out by FCCG, the KLSE (Bursa Malaysia) and Price Waterhouse Coopers in 1998, there were conflicts between substantial shareholders of the board of most Malaysian listed firms and minority shareholders regarding earnings management of the firms, and ownership structure (Fan & Wong, 2002). The controlling power of the highest percentage of shareholders in East Asian economies deprive the rights of the minority shareholders and impact corporate governance (Haniffa & Hudaib, 2006).

Empirical studies showed that accounting conservatism can reduce agency problems. The accounting conservatism is traditionally defined as accounting practices that anticipate no profit but anticipate all losses (Bliss, 1924). Basu (1997) indicated that the conservatism is similar to the asymmetric timeliness of earnings which requires to recognize good news as gain than to recognize bad news as losses. In the same way, Wuchun et al.(2009) and Chi et al. (2009) found that the companies with a large board size have a higher percentages of ownership. Yunos et al. (2011) and also indicated that there was a positive relationship in that higher percentages of ownership as one of the influential demand of accounting conservatism. The previous researches on ownership structure and accounting conservatism are shown in Table 2.2 as follows:

Table 2.2 Previous Researches of Ownership Structure and Accounting Conservatism

Researchers and Research Title	Statistics	Independent Variables	Dependent Variables	Results
Wang (2006b) Founding family ownership and earning quality	Regression	1. Fonding family 2. Percentage of founding 3. CEO is founder 4. CEO is the descendant 5. CEO is hired from outside	1)Absolute value of abnormal accrual 2)Earnings in formativeness.3)Persistence of transitory loss component in earning	The family ownership is associated with negatively abnormal accrual accounting, greater earnings informatibeness, and the less persistence.
Han (2006) Ownership structure and characteristics of earnings.	Regression	Ownership structure 1.Institutional Ownership 2.Managerial Ownership	1.Absolute value of discretionary 2.The standard deviation of residuals from the dechow-Dichev model 3.Earnings smoothing 4.Persistence of return on asset.	Managerial ownership is positively associated with the of discretionary accrual accounting, the Institutional ownership is negatively associated with the absolute value of discretionary accrual accounting and standard deviation of residual. Private-backed firms have a higher earnings quality firms.

Table 2.2 Previous Researches of Ownership Structure and Accounting Conservatism (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Kiatapiwat (2010a) Controlling shareholders audit committee effectiveness and earnings quality : The case of Thailand	Regression	1.Family controlling shareholders 2.Widely held corporation of financial institutions 3.Government controlling shareholders 4.Foreign controlling shareholders25%-50%,Votingright between50% -75%,Voting right between75%	Earnings quality	Firms with shareholder, are relationship between with both lower and higher earnings quality no controlling shareholders. the family, government controlled firms and firms with controlling shareholder have voting right below 75% are relationshp between with both lower and higher earnings quality.
Bao and Lewllyn (2017) Ownership structure and earnings management in emerging market :An institutionalized agency perspective.	Regression	Precentage of largest shareholders	Discretionary earnings management	Controlling ownership is positively relationship between to discretionary earnings management.

Table 2.2 Previous Researches of Ownership Structure and Accounting Conservatism (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Katz (2009) Earnings quality and ownership structure : The role of private ewuity sponsors	Regression	Ownership structure 1.Private equity sponsorship (PE-backed firms) 2.Non-PE-backed	Enrnings quality	The private equity sponsorship have a higher earning quality a positive and than Non-PE-backed.
De Sousa and Galdi (2016) The relationship between equity ownership concentration and earnings quality evidence from Brazil.	Regression	Index of concentration	Earnings persistence and asymmetric timeliness	Accounting conservatism high as the ownership more concentrated. the persistence of profit less persistent.

Table 2.2 Previous Researches of Ownership Structure and Accounting Conservatism (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Gorkittisunthorn,Jumreornvong and Limpaphayom (2006) Insider ownership, bid-ask spread, and stock spilt: Evidence form the stock Exchange of Thailand.	Regression	Insider ownership	The percentage change in the average of the percentage spread from the pre - split to post - split.	The negative significant relationship between insider ownership and the change in the percentage bid – ask spred.
Velury and Jenkins (2006)Institutional ownership and the quality of earnings.	Regression	Institutional ownership1)Institutional ownership 2)Ownership concentration	Enrnings quality	There is a positive relationship between institutional ownership and earnings quality. There is a negative relationship between concentrated ownership and earnings quality.

Table 2.2 Previous Researches of Ownership Structure and Accounting Conservatism (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Jung and kwon (2002) Ownership structure and earnings informaiveness : Evidcece from Korea.	Regression	Ownership structure 1.Owner-largest shareholder 2. Institutional holding 3. Large blockholder	Earnings informativeness	There is a positive relationship between earnings informativeness and the owner - largest shareholder.
Bobakerr and sami (2011) Mulitiple large shareholders and earnings informativeness.	Regression	Multiple large shareholders 1.Ultmate cash flow right at the 10 Percnt 2. Multiple large share dummy 3.Vote 21	Earnings informativeness	The earning informativeness is significant positively relationship between to the ultimate cash rights and relationship between significant negatively to exceed control.
Lin (2016) Institutional ownership composition and accounting conservatism.	Regression	Institutional ownership	Conservatism	The institutional ownership has a negative relationship with conservatism.

Table 2.2 Previous Researches of Ownership Structure and Accounting Conservatism (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Liu (2019) The impact of ownership structure on conditional and unconditional conservatism in China: Some new evidence.	Regression	1.State ownership 2.institutional investors 3.foreign investors 4.managerial shareholders	Conservatism	1) Managerial ownership has a negative effect on both conditional and unconditional conservatism.2) Accounting conservatism can be influenced by certain ownership and control features in the context of state ownership.
Ramalingegowda & Yu (2012) Institutional ownership and conservatism.	Regression	Institutional ownership	Conservatism	The high institutional ownership is associated with a high-level of accounting conservatism.

2.14 Accounting Conservatism

Accounting conservatism was defined as "anticipate no profit, but anticipate all losses" (Bliss, 1924). Good news is considered as profits that should be in higher level (Basu, 1997). The profits and losses leads to undervalue net assets in the current financial periods. Due to agency problem, accounting information in financial reports cannot be disclosed under the requirements of accounting regulations. Therefore, accounting conservatism gives a negative impact on earnings and managerial short termism. The accounting conservatism reflects efficient profits in much higher level than losses. The impact of such increase also reflects the value for the firm, the shareholders. The constraint of opportunistic behavior would benefit the managements' value of the firm (Watts, 2003). According to the accounting standards, the application of accounting conservatism is applied to liabilities, income, assets, and other information which will reduce the capitalized assets, and accelerate the deprecation for the non-current assets. These activities will understate the net assets in the balance sheet and undervalue the net income in the income statement as well. This treatment of accounting conservatism is named as "unconditional conservatism" (Basu, 1997; Givoly et al., 2007).

Beaver and Ryan (2005) found the two types of conservatism: unconditional and conditional conservatism. Unconditional conservatism means inception assets and expected liabilities (Wolk et al, 2013). For example, immediate expensing, and historical cost accounting for positive net present value projects. Conditional conservatism is valued as bad news, such as asymmetric recognition of loss and gain. Basu (1997) suggested that the conditional conservatism of earnings is more positively associated with stock returns (Kim & Jung, 2007). The accounting researchers found that conservatism impacts economic losses and defers the recognition of economic gains (e.g. Basu, 1997; Watts, 2003a). The accounting conservatism: the recognition of unrealized economic gains in earnings is delayed until becoming realized in later periods of the firm. However, it also lowers earnings in one period and higher earnings in another. Accounting conservatism can also create a higher standard of recognition, as a mechanism for economic uncertainties which is its main purpose (Chi,Liu, & Wang, 2009). Wang, 2009).

Accounting conservatism is an important qualitative characteristic of accounting information according to Neag and Maşca (2015). discussed accounting of

asset valuation bases for the financial report. Watts (2003) found that the accounting conservatism impact agency problems owing to financial information.

The conservatism accounting allows discretionary to estimate uncertainties in the future, such as income, assets, the show a high or low-cost. Therefore, accounting conservatism does not mean that it must be paid before they can be recognized accounting. Although accounting conservatism in academic research with unconditional conservatism and conditional conservatism attract attention from scholars, there is no relevant research investigating accounting conservatism between conditional conservatism and unconditional conservatism.In this research, unconditional conservatism represents accounting conservative of discretionary accrual rules whether there is a negative relation between unconditional conservative and conditional conservatism.

2.15 Conditional Conservatism

Conditional conservatism is defined as a requirement for recognizing good news (gains) than bad news (loss) (Basu 1997). Due to the asymmetric timeliness between a different kind of news, the conditional conservatism is beneficial both for investors and organizations. Kim and Pevzner (2010) revealed that conditional conservatism is associated with a lower probability of bad news. The stock market reacts of sensitively to organizations with more conditional conservatism than to a good (bad) news. Liu and Elayan (2015) and Lafond and Watts (2008) also agreed with the implementation of conditional conservatism as it can mitigate the information asymmetry between investors. Liu and Elayan (2015) also indicated the implementation of conditional conservatism and the information asymmetry problem, a higher litigation risk may motivate organizations. Lafond and Watts (2008) found that the conservatism does an information role for the organization to manipulate accounting information and financial statement. Likewise, conditional conservatism arises. Wibawa and Wardhani (2018) stated that "as the economic losses become timely, the firm investment to cash flow decreases".Hence, it is hard to draw the advantages and disadvantages of conditional conservatism and conclude.

2.16 Unconditional Conservatism

Unconditional conservatism means that the value of the net asset in the market. Their unrecorded goodwill yielded from assets and liabilities (Beaver and Ryan 2005). Compared with conditional conservatism, conditional conservatism reacts asymmetrically to bad news and to good news while unconditional conservatism has no connection of news in stark contrast. Most academic researchers pay more attention to studying conditional conservatism, but unconditional conservatism although there are many studies on conditional conservatism and unconditional conservatism. (Kohansal et al 2017, Beaver and Ryan 2005, Gassen et al. 2006 and Iatridis 2011). However unconditional conservatism should be studied and investigated.

2.17 Definition of Reporting Conservatism

The conservatism is important in accounting theory in terms of obtaining the neutrality of information. Ahmed and Duellman (2007) studied the accounting conservatism of board independence and outside director. Lara, Osma, and Penalva (2009, LOP)'s findings are consistent with Ahmed and Duellman (2007) since they found the positive relation between the accounting conservatism of corporate governance. However, the accounting conservatism of large ownership structure can monitor financial issues, the conservatism of investment ownership structure reflects accounting decisions, and ownership can influence managers' decision (Watts 2003a; Ball and Shivakumar 2005).

The positive relation of accounting conservatism and larger ownership shareholder are less diversified than the ownership of institutional investors and the ownership of (non-CEO). While recent studies found that institutional ownership has important impacts on firms' performance and financial reporting. Large shareholder ownership can be divided into institutional ownership and family ownership (Anderson et al. 2003). The accounting conservatism accruals were used in the research (e.g., Givoly and Hayn 2000; Beatty et al. 2008). It was found that the accounting conservatism is positively related to large shareholder ownership and relation of investors.

Accounting Conservatism Literature is a time-honored accounting principle of imposing stricter verification standards for recognizing good news as gains than bad news as losses (Basu 1997). This definition of conservatism is conditional since it is contingent on the nature of the news good news and bad news (Beaver and Ryan 2005). Conservative accounting is an important feature of corporate governance (Ball et al. 2000). Accounting conservatism mitigates the information asymmetry between informed and uninformed equity investors (Kim and Pevzner 2010; LaFond and Watts 2008). By requiring standards for accounting conservatism, it reduces managers' ability and information on expected losses, inflate earnings and overstate net assets. (Ahmed et al. 2002; Holthausen and Watts 2001; Watts 2003; Watts and Zimmerman 1986). Accounting conservatism lowers cost of capital and eventually enhances firm value according to Zhang 2008. Li (2013) found that conservative accounting also warns debtholders of potentially unfavorable situations, enabling them to make better liquidation decisions.

According to agency theory (Jensen and Meckling 1976), the insiders possess more information than the outsiders regarding asset substitution, consumption, and empire building. Moreover, the accounting Conservatism is thus negatively related to cost of debt according to Ahmed et al. 2002; Li (2012). This negative association between conservative financial reporting and the cost of debt and equity capital is also documented in Li (2010).

Accounting conservatism is also found to play a governance role in monitoring firms' investment decisions. By recognizing economic losses earlier, conservatism helps identify negative NPV projects or poorly performing investments. Thus, it improves investment efficiency (Bushman et al. 2011). Francis and Martin (2010) found a positive association of firms with higher ex-ante agency cost between accounting conservatism and the profitability of acquisition investments. The prior studies showed that accounting conservatism mitigated the information asymmetry. For instance, the USA passed the Sarbanes Oxley Act to protect investors from the possibility of accounting. (Chan 2008; Mitra et al., 2009). South Africa also improved the companies act and promoted the code of good practice through the Kings' reports. (Basu, 1997; Beaver and Ryan, 2005).

2.18 Measure of Accounting Conservatism

Basu (1997, p. 7) defined accounting conservatism as the "accountant's tendency to require a higher degree of verification to recognize good news as gains than to recognize bad news as losses". Since annual returns capture news arrival during the year, Basu (1997) introduced a measure of conservatism using a regression of annual earnings on returns, which is based on the differential reaction of good and bad news in earnings. Stock prices were used as a proxy for good and bad news, as changes in stock prices take into account all the information in a timely manner. Since bad news in earnings reflected timelier than good news, he predicted a higher association between earnings and returns when returns are negative than when returns are positive. The Basu (1997) model is also known as the asymmetric timeliness of earnings. Basu (1997) defined accounting conservatism as the "accountant to require a degree of verification to recognize good news and bad news". Annual returns capture the year, Basu (1997) the measure of conservatism using annual earnings on returns, on the differential reaction of good and bad news in earnings.

The existence of transitory components affects income changes. However, the model fails to identify whether these components are contemporaneously correlated with annual returns, which is a proxy for good and bad news (Ball and Shivakumar, 2005). Another common measurement of accounting conservatism is the market-to-book (MTB) measure, which is the ratio of market value of equity to the book value of equity. This measurement is based on the notion that conservatism results in the understatement of book value relative to equity value (EV) (Roychowdhury and Watts, 2007; Beaver and Ryan, 2005). Roychowdhury and Watts (2007) noted a deficiency inherent with the measurement of MTB, and also the asymmetric timeliness measure. The theory of conservatism in Watts (2003) suggested that the role of accounting is to record the value of separable net assets (NAV), not equity value (EV), with the difference between these two being rents (above-competitive returns representing growth opportunities or monopoly returns). Watts (2003) employed the asymmetric verification standards in this theory which explain the understatement of separable net asset values and conservatism.

Unfortunately, the use benchmark for conservatism results in an error due to rents, but that accounting practice has not measured rents. (Roychowdhury and Watts,

2007).had another important basis for the argument against the Basu (1997) measure which is the negative correlation with the MTB measurement. Although several authors discussed this negative association, they have not postulated any theories to explain how asymmetric timeliness is related to MTB (Roychowdhury and Watts, 2007). According to Beaver and Ryan (2005)'s model, the mechanical model was based on observed practice, rather than the conservatism theory. Roychowdhury and Watts (2007) stated that the magnitude of asymmetric timeliness might influence the measurement period of earnings and returns. The asymmetric timeliness is measured over a short horizon period, and results in a negative association between this measure and MTB. Over measurement periods, as the intended effect of asymmetric timeliness becomes prominent, the correlation with MTB should be increasingly (Roychowdhury and Watts, 2007).

Givoly and Hayn (2000) revealed another method to measure the degree of conservatism and accumulated accruals over time and accruals. For instance, a firm experiencing a period net income exceeds (falls below) cash flow from operations will be expected to have negative (positive) accruals in the subsequent period. For a firm in a steady state, the accumulated net income before depreciation is expected to converge to cash flows from operations (Givoly and Hayn, 2000). The constant predominance of negative accruals over a long horizon period indicates conservatism, while the rate of accumulation of net negative accruals the change in the degree of conservatism (Givoly and Hayn, 2000). The above discussion indicates that all measures of conservatism accounting are subject to measurement error and biases. Therefore, two measures of conservatism: (a) accrual-based measure of conservatism (CON-ACC), (b) market-based measure of conservatism (CON-MKT) will be used.Accrual-Based Measure of Conservatism (CON-ACC)

The accounting conservatism can clearly be classified into two types: unconditional conservatism and conditional conservatism. Unconditional conservatism is continuously downwards (bias) estimation of the net assets and net income in financial reporting. It is independent on the change of the markets and the firms' operation background; However, conditional conservatism depends on the timeliness of recognition of the outcome. The bad news is recognized quicker than the good news (Beaver and Ryan, 2005). In this paper, accounting conservatism is measured as unconditional

conservatism. The variable CON-ACC is the proxy for unconditional conservatism (Givoly and Hayn, 2000; Krishnan and Visvanthan, 2008; Zhang and Wang, 2013). In this research, it is defined as non-operating accruals divided by the last year's total assets (TAi, t-1 means the last year's total assets.)The negative symbol in this equation fits for the change of conservatism. In other words, the higher of this ratio, the more conservatism would be in the financial reporting.

CON-ACC= -(Net income - Operating cash flow performance)/Total assets

Table 2.3 Previous Researches on Board of Accounting Conservatism and Real Earnings Management

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Amran,Ishak & Manaf (2016). The influence of real earnings on Malaysian corporate board structure.	Regression	1.Board Zize 2. Board Independent 3.Non-executive director	Real earnings management	The real earnings management relationship between of board size and high number of board independen the earnings management activities.
Li (2018) Unconditional accounting conservatism and real earning management.	Regression	Accounting conservatism	Real earnings management	The abnormal cash flow of operations, the abnormal operation costs and the abnormal discretionary expenses on the negative relationship between unconditional accounting conservatism and real earnings management after controlling internal control quality and audit risk.

Table 2.3 Previous Researches on Board of Accounting Conservatism and Real Earnings Management (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Alarlooq Aslani, & Azadi, (2014). Evaluating the Impact of Accounting Conservatism on Accrual-Based Earnings Management in Tehran Stock Exchange.	Regression	1.Unconditional accounting conservatism 2.Conditional accounting conservatism	Real earnings management	The conditional accounting conservatism has a negative impact on real earnings management, and unconditional accounting conservatism has a positive impact on real earnings management. The company size, Book-to Market Value have positive on real earnings management, and rate of return on assets has a negative impact on real earnings management.
Han Li (2019) Conservatism, Earnings Management and R&D Capitalization	Regression	Conservatism	Real earnings management	This paper focuses on the relationship between accounting conservatism and earnings management. The finding shows that accounting conservatism is negatively associated with real earnings management.

Table 2.3 Previous Researches on Board of Accounting Conservatism and Real Earnings Management (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Sugiyanto, & Candra,. (2019). Good Corporate Governance, Conservatism Accounting, Real Earnings Management, And Information Asymmetry On Share Return.	Regression	Conservatism	Real earnings management	The accounting conservatism with accrual- based conservatism proportion has significantly negative effect to stock returns. the real earnings management with a discretionary cash flow the stock returns and information asymmetry with bid-ask spread has no significant effect on stock returns.
Zamri,, Rahman & Isa (2013).The Impact of Leverage on Real Earnings Management.	Regression	Leverage	Real earnings management	The leverage and real earnings management (REM) have a significant negative association with leverage and REM. The leveraged firms have lower levels of REM and support REM activities, which in turn,could affect the quality of accounting earnings.

Table 2.3 Previous Researches on Board of Accounting Conservatism and Real Earnings Management (Cont.)

Researchers and Research Title	Statustics	Independent Variables	Dependent Variables	Results
Deng & Ong, (2018).Real earnings management, liquidity risk and REITs SEO dynamics.	Regression	Liquidity Risk	Real earnings management,	The liquidity risk are more likely to earnings management prior to equity offerings and uninformed trading is higher following real earnings management. It is consistent with real option and liquidity risk explanations for equity offerings.

2.19 Control Variables

2.19.1 Firm Size

The control of a large firm is more complex, and tend to have governance structure. Large firms tend to have conservative accounting (Watts and Zimmerman, 1978). Ahmed et al. (2002) argued that sales growth can affect CON-ACC and CON-MKT for three reasons; (1) the sales growth affects accruals, such as receivables and inventory, which subsequently affect CON-ACC, (2) CON-ACC might be a poor measure for firms with declining sales, and (3) firms with large sales growth affect market value. The cash flows from operations are divided by average total assets and act as a proxy for profitability. According to Ahmed at al. (2002), the profitable firms tend to use more conservative accounting. Leverage is also included as a control variable since it has been documented that firms with high leverage tend to have greater bondholder, and shareholder conflicts which affect conservatism (Duellman, 2006).

A control variable is included in the CON-MKT measure, the lagged market-to-book ratio. Roychowdhury and Watts (2007) stated that the equity value of a firm is affected by past asymmetric of timeliness, and its investment opportunity which have an impact on future asymmetric timeliness. Lagged market-to-book ratio captures investment opportunity and it is negatively associated with asymmetric timeliness of earnings. The control variables, according to Khan and Watts (2009) model, were taken into account as firm characteristics that may affect conservatism.

As in previous studies, this auditor, firm size, growth, profitability and leverage were considered as control variables in the regression models according to the evidence of the association between these variables and accounting conservatism. Sales growth and market to book ratio are the two proxies for growth; where sales growth is a control factor in accrual-based conservatism whilst the market to book ratio is a control factor in asymmetric timeliness. Auditor (AUD) is measured by using binary variables; a dummy is assigned by the value of 1 if firms are audited by big four audit firms and 0 in other cases. Empirical evidence revealed that the auditor influences financial reporting process; for instance, appointment of a big six auditor led to lower earnings management (Becker at al., 1998; Francis & Krishnan, 1999). Additionally, big-firm auditors were more widely associated with conservatism than non-big-firm auditors. For instance, DeFond

and Subramanyam (1998) found that big six auditors adopted more conservatism than the non-big six auditors. Chung et al. (2003) indicated that the large audit firms demand more accounting conservatism. Relative to small and medium size audit firms, large audit firms are more exposed to loss of reputation. Small audit firms are less likely to be sued because of their ability , and the costs incurred by the shareholders or creditors. A positive association is expected between auditor and conservatism.

2.19.2 Firm Size (FS) Measured by the natural logarithm of total assets.

This measurement was employed by Krishnan and Visvanathan (2008). According to Watts and Zimmerman (1978), large firms will adopt more accounting conservatism. However, the information asymmetry affects the aggregation. LaFond and Watts (2008) found that large firms tend to suffer less information asymmetry because they disclose more information to the public. This is supported by the findings of Givoly et al. (2007) where asymmetric timeliness of earnings of the large firms was significantly smaller than small firms. Thus, large firms with less information asymmetry may be exposed to lower political costs, and adopt lower conservatism accounting. A negative association is expected between firm size and conservatism profitability.

2.19.3 Financial Leverage

In regards to a review of literature on earnings management, Jelinek (2007) argued that 'an increase in leverage' reduces earnings management, and earnings management for some reasons: 1) leverage requires debt repayment, so it reduces available cash for the management for non-optimal spending (Jensen, 1986); 2) when a firm employs debt financing, it undergoes the scrutiny of lenders and is often subject to lender-induced spending restriction (Jensen, 1986). However, prior studies (Jelinek, 2007) only examined the impact of leverage on accrual earnings management (AEM). Thus, this study aims to examine the impact of financial leverage on accounting conservatism.

Leverage is used as a control variable for the pressures from debtholders to report unconditionally conservative earnings. To measure LEV, we first estimate firms' leverage as the ratio of total interest-bearing debt to total assets, both measured at the beginning of the fiscal year. Firms with higher leverage are expected to face incentives for unconditional conservatism, especially in years when the corporate bond yield rate is

greater. Ball et al. (2013) discussed in criticized Basu (1997)'s measure in terms of the market capitalization control, book-to-market ratio, and leverage. Lafond and Roychowdhury (2008) applied controls to limit the omitted control variable. The book value of equity consists of the end of the fiscal year value of common equity. Market-to-book (MB) ratio is the market value of equity divided by the book value of equity.Leverage (LEV) is included as a control.

Previous research found that it is not related to agency problems as well as to conservatism (Lafond & Roychowdhury, 2008). A higher leverage means that there is relatively more debt, this will increase monitoring of creditors and limits excess cash. Leverage is said to be decreasing the tendency of managers to overinvest (Harvey et al., 2004). Moreover, it encourages managers to behave in a more prudent manner (Joos & Lang, 1994). Leverage is calculated as the long term debt plus the debt in current liabilities divided by total assets at the end of the fiscal year.

2.20 Real Earnings Management (REM)

There are numerous definitions of real earnings management (REM). Schipper (1989) defined REM as an alternative type of earnings management that can be achieved by changing the timing of spending in investing to manipulate the reported earnings. Roychowdhury (2006) defined real earnings management (REM) as departures from normal operational practices into believing certain financial reporting goals have been met in the normal course of operations. According to Gunny (2010), REM refers to managing the normal operating activities of companies to adjust earnings according to managers' targets. Lastly, Xu et al. (2007) provided a concise definition saying that REM was a deviation from normal operational activities to affect reported earnings. (Lo, 2008). Abad, et al.(2016) documented that real earnings management (REM) is positively associated with the level of information asymmetry in Spanish listed firms, which indicated that real earnings management (REM) garbles the market. The literature suggests that real earnings management (REM) affect companies in different aspects owing to the actual financial position and economic performance (Sellami, 2015). Moreover, Real earnings management (REM) is considered a signal of worse financial

performance in the future (Cohen & Zarowin, 2010; Gunny, 2005; Tabassum, Kaleem, & Nazir, 2015).

Interestingly, Real earnings management (REM) reflects weaknesses in the internal audit function (IAF). A study conducted by Lenard et al., (2016) in the US market demonstrated that internal control weaknesses in companies is positively associated with real earnings management (REM) have lower performance in subsequent years. Similarly, Moradi, Salehi, and Zamanirad (2015) reported that real earnings management (REM) is negatively associated with the future performance of companies. Additionally, previous studies reported that REM affects a company's value.

According to Roychowdhury (2006), real earnings management (REM) techniques, such as price discounts and more lenient credit conditions, may negatively affect cash flow in subsequent periods. Researchers also postulate that real earnings management (REM) have negative consequences on cash flows and company value in the long run (Chi et al., 2011; Cohen & Zarowin, 2010; Cohen et al., 2008; Ewert & Wagenhofer, 2005; Roychowdhury, 2006). Kim and Sohn (2013) investigated the influence of real earnings management (REM) on the cost of equity in US companies and found the positive relationship. The result implies that real earnings management (REM) practices increase the costs of the equity market. Furthermore, Cupertino, Martinez, and Costa Jr (2016) examined the impact of real earnings management (REM) on the future return in Brazilian capital market, and found a negative impact of real earnings management (REM) on return on assets. Additionally, Taylor and Xu (2010) found that companies with real earnings management (REM) do not have a significant decline in operating performance in subsequent years. Similarly, the evidence provided by Pacheco Paredes and Wheatley (2017) indicated that real earnings management (REM) is associated with improved future performance.

Roychowdhury (2006) developed empirical models by separating the abnormal levels of real operational activities reflected in cash flows from operations (CFO), production costs, and discretionary expenditures. Analysis shows that managers engage in real activities manipulation to meet certain earnings targets. Subsequent studies on REM issues revealed normal levels of real activities with optimal operational decisions,

and found that abnormal levels are associated on managerial opportunism to boost reported earnings.

One strand of previous REM research focuses on whether managers use REM as a substitute for accrual earnings management (AEM) when making strategic decisions on the timing and magnitude of earnings manipulation. For example, Cohen et al. (2008) examined the impact of Sarbanes-Oxley Act's (SOX) managers' preference for REM and found that firms were heavily involved in AEM in the pre-SOX period, but the involvement declined significantly after the passage of SOX. Graham et al. (2005) found that the large majority of managers are willing to delay the timing of new investment projects to meet a certain earnings target that a deferment has adverse implications. The management choose and change their accounting policies, accounting estimates, and corrections of errors to increase the relevance and reliability of the entity's financial statements and the comparability of financial statements of entities with financial statements of other entities (IAI, 2012). Earnings quality of the important indicators for accurately evaluating the value of a company (Li, 2014). Dechow et al. (2010) explained that the high earning quality provides more information about company's performance that is relevant to a specific decisions made by specific decision-maker. Furthermore, Demerjian et al. (2013) showed that the high earning quality accurately reflects the company's operating performance.

Conservatism also affects the company's performance. Traditionally, accounting conservatism is described as "anticipate no profits, but anticipate all losses" (Bliss, 1924; Watt, 2003). This indicates that bad news is recognized earlier than good news in reported earnings. Basu (1997) showed the inconsistency in conservatism for recognizing criteria for profits and losses in accounting standards results in a slower earnings response to good news compared to bad news. Asymmetric timeliness relating the information by an economic event is recorded in periodic accounting earnings earlier if it conveys bad news, and later if it conveys good news (Shroff et al., 2013). Asymmetric timeliness in news recognition is also as asymmetric persistence in earnings (Watt, 2003).In regards to real earnings management, Roychowdhury (2006) used the term of real activity manipulation, and defined it as departures from normal operational practices to attract stakeholders to believe in a certain financial reporting goals that have been met

in the normal course of operations. Real earnings management changes the timing of an operation, investment, and in an effort to influence the output of the accounting system (Gunny, 2010). Challen and Siregar (2012) proved that management use either accrual earnings management and real earnings management as a substitute when the management cannot use accrual earnings management to improve the performance of the company because the company audited with real activity manipulation to achieve desired earnings.

However, the economic value which is to maximize the shareholder's wealth are two kinds of earnings management: accrual earnings management and real earnings management. Accrual based earnings management means the management teams discretionally charge the accrual accounting items and report financial information based on the accounting standards to meet the desired targets which may benefit the shareholders. Real earnings management will impact on cash flows directly and make the future earnings more uncertainty. Evans et al. (2015) believed that without constraining earnings by the financial reporting regulation policies, management teams would prefer the accrual-based earnings management.

Roychowdhury (2006) advocated that there is the evidence that the top managers would manipulate the earnings by real earnings management on the purposes of avoiding annual financial reporting losses. In addition, Roychwdhury (2006) especially investigated three manipulating channels by the managers to reduce the costs and create the upward profits. Three manipulating methods are (a) sales manipulation (b) discretionary expenses and (c) overproduction. Increasing sales by supplying large percentage of price discounts or lower threshold of credit terms, reducing the discretionary expenditures. For instances, research and development expenditures to decrease the costs of goods sold by over-production and over-allocating the inventories. These manipulating methods that belong to real earnings management are quite different with the accrual earnings management (Healy and Wahlen 1999; Fields et al.2001). According to Section 404 of the Sarbans-Oxley Act of 2002 (SOX, 2002) in USA or other supervision regulations in many countires, many accrual earnings management methods are effectively restricted. Therefore, the management shall apply for the real earnings management and meet the requirements of much stricter financial information disclosure as well as more effective internal control (Järvinen and Myllymäki, 2016).

2.21 Board Characteristics and Real Earnings Management

Due to the evolution in several events, including the 1997 East Asia crisis and the series of recent corporate scandals in the US and many other countries world over (Becht,Bolton & Rosell, 2002; Roy, 2015), the sound corporate governance regarding the management and control are needed (Azubike and Aggreh, 2014). It is targeted for the board in the preparation offinancial reports. It increases the expectation that corporate governance of accrual based and manipulation of real activities (Hsu & Wen, 2015). Setting a corporate board structure could lead to benefits the organisation to maximize earnings, and minimise investment risk in order to enhance the firm's value (Liu & Tsai, 2015; Zgarni, Halioui, & Zehri, 2014).

Nevertheless, most of the studies on board attributes and earnings management on the accrual earnings management (Bala & Gugong, 2015; Isenmila & Afensimi, 2012; Omoye & Eriki, 2014; Uwuigbe, Peter & Oyeniyi, 2014; Salihi & Kamardin, 2015) are conducted in non-financial sector (Hassan & Ibrahim, 2014) ; Omoye and Eriki (2014); Uwuigbe et al. (2014); Salihi and Kamardin (2015), who specifically conducted studies on non-financial sectors in Nigeria using the accruals manipulation without taking real earnings management into consideration. Thus, the objective of this study is to examine the impact of board of director characteristics on real earnings management.

2.22 Relationship between Board Size and Real Earnings Management

Empirically studies that examined the relationship between board size and Real earnings management are the studies of Iraya Mwangi,& Muchoki (2015). They found that the earnings management is negatively related to board size, and the more the number of directors on the board the lower the earnings manipulation. However, Hashemi and Rabiee (2011) showed that the small boards seem to be more likely to fail in detecting real earnings management. Smaller boards are corporate managers while large board size are more capable in monitoring the action of corporate managers. In contrast, other previous studies have reported positive correlation between board size and real earnings management. For example, Gonzalez and Garcia-Meca (2014) investigated the influence of corporate governance on earnings management. The result revealed positive correlation between board size and earnings management. In addition, Abdul Rahman

and Ali (2006) found an effect of board size on real earnings management, and that the board size is positively associated with earnings management. Moreover, Chandren et al. (2015) investigated the relationship between board size and accretive share buyback. Their findings identified that board size is positively associated with real earnings management practices.

2.23 Relationship between Board Indendence and Real Earnings Management

Prior researches regarding the association between board independence and earnings management under the notion that independent directors are more effective. Board independence is expected to be negatively correlated with the real earnings management. Using a sample of 692 firm in the period 1992-1993, Klein (2002) found that board independence is negatively correlated with earnings management, proxied by the absolute value of abnormal accruals. Guay (2008) and Bushman (2009) indicated that having lower board independence and higher earnings management can be part of the general equilibrium. This does not necessarily indicate that board independence reduces earnings management. It is necessary to investigate whether the effectiveness of increases in board independence reduces earnings management.

2.24 Relationship between Board Meeting and Real Earnings Management

In regards to the impact of board meeting frequency and real earnings management, Bala and Gugong (2015) examined board structure and earnings management. The result reveals that there is a significant negative relationship between board meeting frequency and earnings management. Gonzalez and Garcia-Meca (2014) also found a relationship between board meeting frequency and real earnings management, and a significant negative correlation between board meeting frequency and earnings management. There are other studies that found a negative association between board meeting frequency and earnings management (Ahmed, 2013; Zgarni et al., 2014). Nevertheless, Gulzar and Wang (2011). The effect of corporate governance attributes in decreasing earnings management practices among listed companies. The finding revealed that there is a significant positive relationship between the frequency of board meeting

and earnings management. Chandren et al. (2015) found that board meeting frequency has an insignificant positive association with real earnings management.

2.25 Relationship between Board Leadership and Real Earnings Management

According to organizational theory, CEO-chairman duality increases use of discretion and formally structural power and strategic decision-making process in the firm (Firstenberg & Malkiel, 1994). The CEOs will perform on behalf of shareholders without the exploitation, and support the board structure. Thus, the CEO duality with decision-making power is essential under uncertainty environment (Boyd, 1995). The CEO duality structure ows between the CEOs and chairperson (Brickley, Coles, & Jarrell, 1997), the external stakeholders and accountability of decision with corporate activities (Hambrick & Finkelstein, 1987). CEO duality structure has been studied by Halioui, Halioui,Neifar, & Abdelaziz (2016). They found that CEO duality reduces earnings management to the NASDAQ 100 index. Jermias & Gani (2014) and Veprauskaite˙ & Adams (2013) used the firms in S&P 500 and UK, respectively to reveal the evidences that the firms with the CEO duality with the power on the board and has financial performance. Lewellyn & Fainshmidt (2017) the structural power by the CEO duality does not solely determine CEO power, but there are other sources of CEO power.

The literature of the CEO duality generating accruals-based earnings management. For instance, Sarkar, Sarkar, & Sen (2008) found that the CEO duality encourages the discretionary accruals manipulations in the India economy. Most of the corporations are family-owned corporations dominate industrial landscape and suggested that discretionary accruals increase CEO duality of the Government Linked Companies (GLC) in Malaysia. In Nigeria, governance mechanism is weak according to Miko & Kamardin (2016). This leads to decrease in future firm value due to overall reduced cash inflows (Roychowdhury, 2006). In this study, the CEO duality is used as a moderator to the association between information asymmetry and sales-driven real earnings management (REM). The CEO duality might weaken that relationship, and fill the gap of real earnings management literature. Dai, Kong, & Wang (2013) found the impact of the mutual fund ownership and information asymmetry on accrual earnings management in the Chinese capital market. Wang (2017) suggested that in Taiwanese firms both real

earnings management and information asymmetry increase managerial ownership, and can mitigate earnings management and information asymmetry in the firms.This study do not predict board characteristics on the relationship between real earnings management (REM)

2.26 Ownership Structure and Real Earnings Management

2.26.1 Highest Percentage of Shareholders and Real Earnings Management

The highest percentage of shareholders has been examined in order to find the relationship between the ownership structure and real earnings management (Doukakis & Papanastasopoulos, 2014; Fan & Wong,2002; Kazemian & Sanusi, 2015; Leuz et al., 2003). It was found that there was a negative relationship between the manipulation of the financial statements and the controlling owner who holds a higher proportion of the outstanding shares. Through greater and tighter control of majority shareholders, managers have less discretionary power to manipulate the financial reports by real earnings management. Alves (2012) highlighted the importance of ownership structure and ownership concentration with earnings management in Portuguese firms. According to Morck, Shleifer, & Vishny (1988), the majority owner's decisions deprive the rights of minority shareholders because the former is often uncontestable in the weak legal systems and the majority shareholder may consent to certain accounting practices for private benefits at the expense of minority investors.

2.26.2 Inside Substantial Shareholders and Real Earnings Management

The ownership structures of investor protection of shareholders have been concentrated in many studies. According to Lefort and Walker (2005), corporate governance in Latin America is characterized by high level of ownership structures in which many companies are controlled by one of the industrial or financial conglomerates. This system is as a governance tool to protect investors' rights according to the law. In Latin America, the ownership structures increases the discretionary capacity of real earnings manager. In regards to the corporate governance characteristics in Latin America, Lefort and Walker (2005) and López and Saona (2005) found that the institutional framework has mold the insiders' ownership through complex structures where managers, families chains, conglomerates, business groups, directors, politicians

and other related stakeholders have powerful interested. Stulz (2005) refered to this as the twin agency problems as the concurrence of the agency problem of corporate insider discretion, and the agency problem of the state ruler discretion. Masmoudi Ayadi (2014), wo studied French companies as a representative sample of a civil-law country, found that managerial ownership has a positive effect on the real earnings management.

2.26.3 Percentage of Institutional Investors and Real Earnings Management

Institutional investors is considered as governance device due to their sophisticated nature. They can use financial information to make decisions and monitor firms. James, Shivaram, and Mohan (2002) and Hashim and Devi (2012), who studied US and Malaysian firms, found that firms with relatively high level of institutional investors reduce the discretionary capacity of managers and the agency costs. Moreover, the firms can enhance the informativeness of real earnings management. The presence of institutional investors improves practices, but contributes to a better quality of accounting information since it allows to mitigate the real earnings management.

In another context, Shapeero, Koh & Killough (2003) studied Australian firms and found that those with lower institutional ownership levels engage in income increasing discretionary accruals. This means that firms with higher institutional ownership limit managerial accruals discretion. Therefore, institutional investors can help corporate governance in real earnings management when they have a sufficiently high ownership level.Velury and Jenkins (2006) demonstrated a positive relationship between institutional ownership and real earnings management. Similarly, Lowe and Koh (2007) found that the long-term institutional investors constrain accruals management for firms that manage earnings to meet/beat their earnings benchmarks. Masmoudi Ayadi (2014) indicated that the ownership structure and institutional ownership have a positive impact on the real earnings management. This study aims to examine the ownership structure on the relationship between real earnings management (REM).

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

Chapter 1 provided significance of the study and developed the research questions, followed by a review of the literature and empirical studies in Chapter 2. The independent and dependent variables are presented in this chapter with description of how they were used to formulate the research framework and hypotheses. The main purpose of this chapter is to explain the details of hypothesis formulation and research methodology used in this thesis.

The chapter starts, in Section 3.1, with the scope of the data sample. The major sources of data and the numbers of observations are presented. Section 3.2 presents variable measurement of dependent and independent variables. Section 3.3 formulates hypotheses testing. Lastly, Section 3.4 included statistics for analysis.

3.2 The Scope of the Study

The population of this study was listed companies in the Stock Exchange of Thailand (SET) during 2016 – 2018. It consisted of a total of 234 companies totaling 702 data. The financial statements and annual financial reports of those listed companies were used. The research focused on the companies occupying the information in the line with research hypotheses from all industries, except the finance sector consisting of finance and securities, banking, and insurance, because they operated under special regulations and was supervised by government agencies such as the Bank of Thailand. Furthermore, the asset structure management was quite different from other industries, leading to the differences in financial statement reports. Additionally, the companies under the rehabilitation and the companies with unavailable data were dropped from this research.

The research employed the secondary data, which were the financial and non-financial information of the companies listed on the SET during 2016 – 2018. Finally, it consisted of a total of 234 companies totaling 702 data, which were collected from the database of SET Market Analysis and Reporting Tool and reported tool (SETSMART)

database, and the websites of each listed companies. They were analyzed by descriptive statistics.

Table 3.1 Industry of Sample Companies

No	Industry type	Sample
1	Agro & Food Industry Group	36
2	Resources Group	27
3	Technology Group	25
4	Service Groups	40
5	Industrials Group	49
6	Consumer Products Group	29
7	Property and Construction Group	28
	Total	**234**

3.3 Variable Selection and Variable Measurement

This section aimed to descript the details of dependent variables and dependent variables, including their measurement. In addition, the expected signs of hypothesis testing are conducted. Board characteristics the study focused on directors' characteristics; including board size, board independence, board meeting and board leadership, while the ownership structure were the highest percentage of shareholders and institutional investors. The dependent variable was real earnings management' which concerned in term of abnormal earnings for four aspects: real earning management on cash flow, real earning management on production, real earning management on discretionary expense and total real earning management.

3.3.1 Variable Measurement

This section aimed to descript the details of independent variables and dependent variables, including their measurement. In addition, the expected signs of hypothesis testing are conducted. The details of each variable were explained below.

3.3.2 Independent Variable

In the thesis, the independent variables were divided into two major groups, consisting of board of director characteristics and ownership structure rely on corporate governance. The details of each groups were explained below.

3.3.3 Board Characteristics

The principles of good corporate governance principles were the basis for confidence on the part of shareholders and all those concerning, ensuring efficient management, transparency and accountability. The company's value formed a firm basis for sustainable growth. (La Porta et al., 1999; Wiwattanakantang.2001). The definition of directors from the Stock Exchange of Thailand was the effectiveness controlling the firm. The controlling shareholders might be corporates with foreign government agency more than one group individual.

From prior research, Researcher employed four board characteristics, consisting of board size, board independence, board meeting and board leadership. Each variable was explained in terms of definition, measurement in Table 3.2 below

Table 3.2 Summary of the Measurements of Board Characteristics.

Variables	Definitions	Measurements
Independent Variable		
1.Board Size (BS)	The number of directors.	The number of directors.
2.Board Independence (BI)	The number of independent directors	The number of independent directors.
3.Board Meeting (MEET)	The board meeting per year.	A number a board meeting per year. The number of board meeting held per year
4. Board Leadership (BL)	The same person serves as both CEO and chairperson	A dummy variable, equal to 1 if the same person serves as both CEO and chairperson; 0 otherwise

3.3.4 Ownership Structure

The ownership structure had high quality of financial report. Ownership structure reflected the controlled firms, which also affected to incentives of managers and a shareholders for preparing the financial report. The firms had incentives to manipulate the reported accounting, while shareholders were controlling firms, which also affected to quality of financial reported information. The nature of each ownership structure could help firms to be provided appropriately and efficiently monitored the firms. The financial report showed the possible consequences and carefully used information for presenting in the financial report.Similar to prior subsection above, Researcher employed 2 criteria of ownership structure, consisting the highest percentage of shareholders, the percentage of shareholders and the proportion of institutional investors. Each variable was explained in terms of definition, measurement and prediction in Table 3.3 below

Table 3.3 Summary of the Measurements and Ownership Structure

Variables	Definitions
Independent variable	
1. Highest Percentage of Shareholders (HPS)	The highest percentage of Shareholding
2. Percentage of Institutional Investors (PII)	The proportion of institutional investors

3.3.5. Accounting Conservatism

The discretionary accruals were items which were caused by normal operation and related with the operation cash flow, which could not be explained by the cash flow in the past, present, and future, and they were calculated as the difference between the total accruals and normal accruals. The accounting conservatism was measured from the research of Givoly and Hayn (2000) model. The discretionary accruals were used for measuring real earnings management based on the relationship between earnings, accruals, and cash flow.The discretionary accrual of accounting conservatism was in discretionary accruals. Beaver and Ryan (2005) Jones, there was a model as a measuring

accounting conservatism the discretionary accruals. Dabor and Adeyemi (2009),the model had components of annual financial statements such as turnover, account receivables, profit, and assets to discretionary accruals. Ayorinde & Babajide (2015) TACC the represented of total accruals. Was the net income before extraordinary items, and CFO was cash flow from operations. For the total accruals of the company and discretionary accruals, the discretionary accrual was a function of accounting conservatism of accounting policies. The Givoly and Hayn (2000) model, the average value of the timeliness of appropriate information was used as a measure of caution affecting to the timeliness of information disclosure. The conservatism passing the income statement impacted the timeliness. And accounting conservatism led to negative items permanently. There was the average of the financial report in the period. The measurement of mediating variable on accounting conservatism which the study of Givoly and Hayn (2000), The formula is as follows:

CON-ACC = - (Net income - Operating cash flow performance) / Total assets

Table 3.4 Summary of the Measurements and Accounting Conservatism.

Variables	Definitions
Mediator variable	
Accounting Conservatism (CON-ACC)	Unconditional accounting conservatism

3.3.6. Dependent Variable:

According to real earnings management by the firms, many researches focused on the measurement of real earnings manipulation. Real earnings management meant earnings from cash flow and production costs. The real earnings management was measured from the research of Roychowdhury (2006) and Cohen et al. (2008). For this measure, it used discretionary accruals, and the high level of discretionary accruals which indicated low earnings quality. Another measure of earnings quality was operating the cash index.

The prior studies developed our variables for real earnings management. As in Roychowdhury (2006) the abnormal levels of cash flow were from operations (CFO), discretionary expenses and production costs of real activities. In Zang (2006) and Gunny (2005), the proxies focused on the impact of the above three variables:

1.Sales activity manipulations referred to the timing of sales increasing price discounts of the credit terms.

2.The price discounts of lower cost of sold goods increased the reporting production.

3.The manipulation decreased the advertising expenses, research and development, and SG&A expenses.

This study emphasized the real earnings management by the researches focusing on the measurement of real earnings manipulation. The real earnings management was measured from the research of Roychowdhury (2006) and Cohen et al. (2008). The real earnings management (hereafter abbreviated as REM) used proxy as the real earnings management of cash flow, real earnings management of production costs, real earnings management of discretionary expenses, total real earnings management. The following research of Cohen and Zarowin (2010)

3.3.7 Real Earnings Management of Operating Cash Flow

According to Cohen and Zarowin (2010), normal levels of operating cash flows of current sales of the equation were below. In the model, the measurement of sales activity was abnormal operating cash flows of a result of unusual sales volumes. There was earnings management through sales activities. However, to deal with both positive and negative abnormal cash flows, they used the absolute value of abnormal operating cash flows as a proxy for sales-driven real earnings management. There was the higher value of abnormal operating cash flows of firms manage earnings. This real earnings management would incur the abnormal cash flow that was the residual value from Model for real earnings management of cash flow (1).

$CFO_{it} / A_{i,t-1} = \alpha_0 + \alpha_1 / A_{i,t-1} + \alpha_2 SALES_{i,t} / A_{i,t-1} + \alpha_3 \Delta SALES_{i,t} / A_{i,t-1} + \mu_{i,t}$ …….. Model (1)

Where:

i = The firm,

t = The cash flow from operating activities.

A = The total assets.

SALES = The total sales revenues.

ΔSALES = The change of sales revenues between current year and last year.

μ = The residual value that represented the abnormal cash flow of operation due to the real earnings management.

3.3.8 Real Earnings Management of Production Costs.

The firm's management of fixed costs product units increased the cost of sold goods. In the model, due to real earning management in over production of real earnings management of production costs was the residual value from model (2).

$PROD_{i,t} / A_{i,t-1} = \alpha_0 + \alpha_1 / A_{i,t-1} + \alpha_2 SALES_{i,t} / A_{i,t-1} + \alpha_3 \Delta SALES_{i,t} / A_{i,t-1} + \mu_{i,t}$

……..……..Model (2)

Where:

i = The firm

t = The time real earnings management of production costs meant abnormal production costs activities

A = The total assets

SALES = The total sales revenues

ΔSALES = The change of sales revenues between current year and last year.

μ = The abnormal production costs (REM_PROD)

3.3.9 Real Earnings Management of Discretionary Expenses.

The management could also decrease the discretionary expenses such as research and development (R&D), training expenses and other sales & administrative expenses. In this model, the represented the abnormal discretionary expenses due to real earning manipulation. In this way, less expenses made higher earnings in the financial reports. Real earnings management of discretionary expenses.

$DISEXP_{i,} / A_{i,t-1} = \alpha_0 + \alpha_1 / A_{i,t-1} + \alpha_2 SALES_{i,t} / A_{i,t-1} + \mu_{i,t}$ ……..……

Model(3)

Where:

i = The firm

t = The time real earnings management of discretionary expenses meant the normal discretionary expenses

SALES = The total sales revenues

μ = The residual value from the model

3.3.10 Total Real Earnings Management

According to the methods applied by Cohen and Zarowin (2010), the management to upwards earnings management, the cash flow of operation and discretionary expenses would be less than the normal amount, while the production costs would be more than the normal amount. Therefore, the values real earnings management of cash flow and real earnings management of discretionary expenses from the models respectively would be negative; the residual value real earnings management of production costs from the models would be positive. Therefore, the composition proxy variable real earnings management of cash flow , real earnings management of production costs, real earnings management of discretionary expenses and total real earnings management for measuring real earning management was applied as following:

REM_PROXY = REM_PROD - REM_CFO - REM_DISEXP

…..…….Model (4)

Where:

REM_PROXY = Real earnings management

REM_PROD = Real earnings management of production costs

REM_CFO = Real earnings management of cash flow

REM_DISEXP = Total real earnings management of discretionary expenses

Table 3.5 Summary of the Measurements of Real Earnings Managemen

Variables	Definitions
Dependent variable	
1.Real earnings management of cash flow	Abnormal Cash Flow from on real earnings management

Table 3.5 Summary of the Measurements of Real Earnings Managemen (Cont.)

Variables	Definitions
Dependent variable	
2.Real earnings management of production costs.	Abnormal Production Costs on real earnings management
3.Real earnings management of discretionary expenses.	Abnormal Discretionary Expenses on real earnings management
4.Total real earnings management	Proxy variable on real earnings management
Control Variable	
1.Finance leverage	Total debt / Total assets
2.Firm Size	Log (Total assets)

Table 3.6 Summary of the Group of the Hypotheses

Summary of the group of the hypotheses	Expected	Reference
Hypothesis 1: There is a significant effect of the board characteristics on accounting conservatism.		
H_{1a}: There is a significantly positive effect of board size on accounting conservatism.	+	Rahimah, M. Y. (2011)

Table 3.6 Summary of the Group of the Hypotheses (Cont.)

Summary of the group of the hypotheses	Expected	Reference
Hypothesis 1: There is a significant effect of the board characteristics on accounting conservatism.		
H_{1b}: There is a significantly negative effect of board independence on accounting conservatism.	-	Amran, Manaf, & Bahrain (2014)
H_{1c}: There is a significantly negative effect of number of board meetings on accounting conservatism.	-	Jensen(1993), Ho (2009)
H_{1d}: There is a significantly positive effect of board leadership on accounting conservatism	+	- Ho (2009) - Xia and Zhu, (2009) - Anderson, Deli & Gillan (2003) - Yasser & ,Mamun (2015) - Omoye & Eriki (2014)
Hypothesis 2: There is an effect of the ownership structure on accounting conservatism.		
H_{2a}: There is a positive effect of the highest percentage of shareholders on accounting conservatism.	+	- Ding, Zhang, and Zhang (2007) - Teshima and Shuto (2008) - Sarkar, Sarkar, and Sen (2008)
H_{2b}: There is a negative effect of inside substantial shareholders on accounting conservatism.	-	- Salehi & Sehat (2019) - Ramalingegowda & Yu (2012) - Kukah et al., (2016) - Ahmed & Duellman, (2007)

Table 3.6 Summary of the Group of the Hypotheses (Cont.)

Summary of the group of the hypotheses	Expected	Reference
Hypothesis 3 : There is an effect of accounting conservatism on real earnings management.		
H_{3a} : There is a positive effect of accounting conservatism on real earnings management of cash flow (REM_CFO).	+	- Li (2018) - Guidry et al., (1999) - Burgstahler and Dichev (1997)
H_{3b} : There is a negative effect of accounting conservatism on real earnings management of production costs (REM_PROD).	-	- Nera & Murwaningsari,(2017) - Li (2018)
H_{3c} : There is a negative effect of accounting conservatism on real earnings management of discretionary expenses (REM_DISEXP).	-	- Dechow and Sloan (1991) - Perry and Grinaker (1994) - Roychowdhury, (2006)
H_{3d}:There is a positive effect of accounting conservatism on real earnings management of real earnings management (REM-PROXY).	+	- Demski (2004) - Ewert and Wagenhofer (2005) - Aslani and Azadi (2014)

Table 3.6 Summary of the Group of the Hypotheses (Cont.)

Summary of the group of the hypotheses	Expected	Reference
Hypothesis 4: There is a mediating of accounting conservatism on the relationship between the board characteristics and real earnings management.		
H_{4a}:There is a mediating of accounting conservatism on effect the relationship between board size and real earnings management.	+	- Demski (2004) - Ewert and Wegenhofer (2005) - Aslani and Azadi (2014) - Lewellyn. (2017)
H_{4b}: There is a mediating of accounting conservatism on effect the relationship between board independence and real earnings management.	-	- Li (2018) - Demski (2004) - Ewert and Wagenhofer (2005)
H_{4c}: There is a mediating of accounting conservatism on effect the relationship between board meetings and real earnings management.	-	- Guidry et al., (1999) - Bao & Lewellyn. (2017) - Aslani and Azadi (2014)
H_{4d}: There is a mediating of accounting conservatism on effect the relationship between board leadership and real earnings management.	+	- Demski (2004) - Ewert and Wegenhofer (2005) - Guidry et al., (1999) - Burgstahler and Dichev (1997)

Table 3.6. Summary of the Group of the Hypotheses (Cont.)

Summary of the group of the hypotheses	Expected	Reference
Hypothesis 5: There is a mediating of accounting conservatism on the relationship between the board of ownership structure and real earnings management.		
H_{5a}: There is a mediating of accounting conservatism on effect the relationship between highest percentage of shareholders and real earnings management.	+	-Lewellyn. (2017) -Guidry et al., (1999) - Deng & Ong, (2018) -Sugiyanto (2017) - Burgstahler and Dichev (1997)
H_{5b}: There is a mediating of accounting conservatism on effect the relationship between percentage of institutional investors and real earnings management.	-	- Aslani and Azadi (2014) - Deng and Ong (2018) - Demski (2004)

The testing the influence of mediating variable on accounting conservatism the according to the Baron & Kenny method concept (1986).However, mediating variable influenced the dependent variable. Therefore, the influence of the mediating variable and the moderating variable had to be retested by "The Sobel Test" Sobel (1982),the calculate critical ratio as a test of whether the indirect effect of the direct effect on the mediator is significantly different from zero, and the mediator variables influenced the dependent variable. The research found that mediator variables act as mediating.

CHAPTER 4
RESEARCH RESULTS

This chapter addressed the analysis of research results consisting of two sections. The first section provided the descriptive statistics of the variables used in the study including board characteristics, ownership structure and accounting conservatism on real earnings management. The second section discussed the empirical results of hypotheses tested by using multiple regression and Baron and Kenny (1986) model. The objective of this study was the impact of board characteristics, ownership structure and accounting conservatism on real earnings management of Thai Listed Companies during 2016 - 2018. The final samples were 234 listed companies. The summary of all tested hypotheses was also provided.

4.1 Descriptive Statistics of Variables

The data were collected from the annual financial reports by the website of securities and exchange commission, Thailand, and the data were from SET-SMART database. There were three types of variables used in this study consisting of independent variables, mediating variable, and dependent variables. The data were analyzed by using the descriptive statistics which included mean, median, and standard deviation of the variables used in this study. The results were shown in table 4.1 as followings.

Table 4.1 Descriptive Statistics of Variables (702 data)

	Minimum	Maximum	Mean	Std. Deviation
BS	5	21	10.33	2.54
BI	3	12	4.15	1.28
MEET	3	21	7.39	3.31
BL	0	1	0.48	0.50
HPS	4.78	98.48	34.26	18.17
PII	0.00	98.66	23.37	25.01
CON-ACC	-0.24	0.37	0.03	0.08
REM_CFO	-2.75	2.51	0.00	0.72
REM_PROD	-5.41	8.91	-0.01	0.80
REM_DISEXP	-2.44	7.95	0.02	1.03
REM_PROXY	-8.10	6.34	-0.01	1.24
FL	0.00	1.84	0.42	0.23
FS	8.00	12.00	9.77	0.66

NOTE: BS = Board Size, BI = Board Independence, MEET = Board Meeting, BL = Board Leadership, HPS = Highest Percentage of Shareholders, PII = Percentage of institutional investors, CON-ACC = Accounting Conservatism, REM_CFO = the real earnings management on operating cash flow, REM_PROD = the real earnings management on production, REM_DISEXP = the real earnings management on discretionary expenses, REM_PROXY = total real earnings management

Table 4.1, presented an overview of the preliminary data analysis resulted from 234 companies in seven industry groups, using descriptive statistics to analyze and describe the data by types of variables. The mean of board size was 10.33; the mean of board independence was 4.15; the mean of board meeting was 7.39; the mean of board leadership was 0.48; the mean of the highest percentage of shareholders was 34.26; the percentage of institutional investors was 23.37; the mean of financial leverage was 0.42; the mean of firm size was 9.77; the mean of real earnings management on operating cash flow was 0.00; the mean of real earnings management on production was - 0.01; the mean of real earnings management of discretionary expenses was 0.02; the mean of total real earnings management was - 0.01; the mean of accounting conservatism was 0.03.

4.2 Results of Correlation Analysis

Results of correlation analysis was used to determine whether there was a relationship between two variables, as well as the direction of this relationship. The pearson correlation for research had two purposes. The first purpose was to check the multicollinearity problem, and the second purpose was to explore the relationships among variables. The bivariate analysis of correlation procedure was subject to a two-tailed test of statistical significance at $p < 0.05$ and < 0.01.

Table 4.2 Correlation Coefficient between Variables

	BS	BI	MEET	BL	HIS	PII	CON-ACC	REM_ CFO	REM_ PROD	REM_DIS	REM_PROXY	FL	FS
BS	1												
BI	.578**	1											
MEET	.096*	.225**	1										
BL	-.006	.157**	.013	1									
HIS	.093*	.062	-.023	.093*	1								
PII	.255**	.170**	.118**	-.097*	.210**	1							
CON-ACC	.095*	.037	.037	.149**	.116**	.060	1						
REM_ CFO	.064	.052	-.059	.078*	.133**	.136**	.676**	1					
REM_ PROD	-.080*	-.078*	-.004	-.013	.013	-.131**	-.025	-.218**	1				
REM_DIS	.056	-.004	-.003	.084*	-.073	.156**	.099**	.119**	-.447**	1			
REM_PROXY	.042	.084*	-.029	-.017	.128**	.033	.324**	.617**	-.397**	-.472**	1		
FL	.119**	.079*	.000	.104**	.001	-.088*	.081*	-.182**	.093*	-.033	-.137**	1	
FS	.264**	.313**	.198**	.071	.083*	.267**	-.072	.036	-.010	-.069	.084*	.299**	1

**p< 0.01 ; *p< 0.05

NOTE: BS = Board Size, BI = Board Independence, MEET = Board Meeting, BL = Board Leadership, HPS = Highest Percentage of Shareholders, PII = Percentage of institutional investors, CON-ACC = Accounting Conservatism, REM_CFO = the real earnings management on operating cash flow, REM_PROD = the real earnings management on production, REM_DISEXP = the al earnings management on discretionary expenses, REM_PROXY = total real earnings management

As presented in Table 4.2 showed that there were significant relationships betweenboard size and accounting conservatism of 0.095. The board leadership had the significant relationships with accounting conservatism of 0.149. The highest percentage of shareholders had the significant relationships with accounting conservatism of 0.116. Accounting conservatism had the significant relationships with the real earnings management on operating cash flow of 0.676. While, the relationship between accounting conservatism and the real earnings management on discretionary expenses had the significant correlation of 0.099. Finally, accounting conservatism also had the significant relationships with total real earnings management of 0.324.

4.3 Results of Hypothesis Testing

This research employed the multiple regression to investigate the hypothesized relationships of independent and dependent variables. The generated regression equation was a linear combination of the independent variables and dependent variables. The board characteristics, the ownership structure and the accounting conservatism on real earnings management best explained and predicted the dependent variable, Demski (2004),Li, H. (2018), Ewert and Wagenhofer (2005). In this research, all hypotheses were transformed into empirical models. Furthermore, two control variables of firm size and financial leverage were also included in the models. The results of descriptive statistics and tested hypotheses were discussed according to the regression equations followed by hypotheses 1 to 5. This research model was investigated. The assumption that research answered by model 1 were H_1; there was a relationship between board characteristics on accounting conservatism, H_2; There is a relationship between ownership structure on accounting conservatism, H_3; there was a relationship between accounting conservatism on real earnings management, H_4; there was a relationship between board characteristics, mediation of accounting conservatism on real earnings management, H_5; there was a relationship between ownership structure, mediation of accounting conservatism on real earnings management. In each type of real earnings management variable was presented in the following figure.

Then, Model 1 to test the impact of board characteristics on accounting conservatism was conducted. The Table 4.3 presented the empirical results below.

CON-ACC = $\beta_0 + \beta_1$ BS + β_2 BI + β_3 MEET + β_4 BL + β_5 FL + β_6 FS + β_7 2.Indcd + β_8 3.Indcd + β_9 4.Indcd + β_{10} 5.Indcd + β_{11} 6.Indcd +β_{12} 7.Indcd + β_{13} 2017.Date + β_{14} 2018.Date + ε ……(Model 1)

Table 4.3 The Impact of Board Characteristics on Accounting Conservatism.

Variables	**Unstandardized Coefficients**	**Standardized Coefficients**	**t-test**	**p-value**
	Beta	**Beta**		
(Constant)	0.141		2.855	0.004
BS	0.004	0.116	2.608	0.009
BI	-0.005	-0.071	-1.519	0.129
MEET	0.001	0.046	1.228	0.220
BL	0.022	0.136	3.682	0.000
FL	0.038	0.110	2.896	0.004
FS	-0.016	-0.131	-3.081	0.002
2.Indcd	0.030	0.117	2.551	0.011
3.Indcd	0.003	0.012	0.274	0.784
4.Indcd	0.031	0.145	3.092	0.002
5.Indcd	-0.009	-0.047	-0.959	0.338
6.Indcd	-0.006	-0.023	-0.494	0.622
7.Indcd	-0.060	-0.240	-5.305	0.000
2017.Date	-0.009	-0.049	-1.227	0.220
2018.Date	-0.012	-0.070	-1.732	0.084
R^2	0.167			
$Adj.R^2$	0.150			
F-statistic	9.804**			

**p< 0.01 ;*p< 0.05

NOTE: BS=Board Size, BI=Board Independence, MEET=Board Meeting, BL=Board Leadership, FS=Firm size ,FL=Financial Leverage,CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwise

The results of the analysis model of unstandardized coefficients was summarized as follows.

CON-ACC = 0.141 + 0.004 BS -0.005 BI+ 0.001MEET +0.022 BL + 0.0038 FL - 0.016 FS+ 0.030 2.Indcd + 0.003 3.Indcd + 0.031 4.Indcd - 0.009 5.Indcd - 0.006 6.Indcd - 0.060 7.Indcd - 0.009 2017.Date - 0.0012 2018.Date + ε

As presented in Table 4.3, it was found that the tested model was fit, reflecting from the significance of F-statistics. The results of the model showed that the coefficient regression for board size was significantly and positively associated with accounting conservatism (BS = 0.009 $p < 0.05$); For being consistent with the H1, a board size was positively associated with accounting conservatism as following: R2 = 0.167, Adjusted R Square = 0.150. It was concluded corresponding to the empirical data. This meant that the board members were increased. The larger size of boards members that was too high. Ahmed & Duellman, S. (2007) found the significant positive association between board size and accounting conservatism. Thus, hypothesis H1a was supported.

However, The table also revealed that board independence had no significant effects on accounting conservatism. The results showed that the conclusion was not consistent with the empirical data. . This meant that higher or low board independence did not align with conservatism. Instead, the independent non-executive directors did not actually have the power of 'independence', monitoring and advising the board of directors corresponding to studies, in line with Ahmed & Duellman, S. (2007) and Amran & Manaf (2014). Thus, hypothesis H1b was not accepted.

That board meetings had the negative significance with accounting conservatism. The results showed that the coefficient regression of board meetings had the negative significance with accounting conservatism, resulting to not accept hypothesis H1c. It was imconcluded corresponding to the empirical data. Therefore, the model showed that board meetings had not significant impact on accounting conservatism. The high frequency of board meeting was also associated with reduced levels of accruals in accounting conservatism of firm. The board meetings had not the significant relationship with accounting conservatism. This was in line with the works of Xie et al. (2003).and Amran & Manaf (2014), Thus, hypotheses H1c was not accepted.

Nevertheless, this examination of study was found that the tested model was conducted as following. There were the linkages between board of leadership structure in terms of board leadership which was jointly served as board chairs. The proportion of expert outside directors on the board leadership regression analyses of board was associated with lower levels of voluntary corporating disclosures.There were significant effects on strategic of board leadership associating with accounting conservatism ($p < 0.000$). The model supported board leadership with accounting conservatism. It was not concluded corresponding to empirical data. Therefore, the model showed that significant impact on accounting conservatism was at 0.000 significant level. It was the substitution relating between expert outside directors and voluntary disclosure monitoring managers. Eng and Mak, (2003) and Rechner & Dalton, (1991). More interestingly, we found that the association between corporating board leadership had a higher proportion of board leadership, and the accounting conservatism of high firm. Thus, hypotheses H1d was supported.

Next, the thesis examined the impact of ownership structure on accounting conservatism by employing the Model 2 as below

$$\text{CON-ACC} = \beta_0 + \beta_1 \text{HPS} + \beta_2 \text{PII} + \beta_3 \text{FL} + \beta_4 \text{FS} + \beta_5 \text{2.Indcd} + \beta_6 \text{3.Indcd} + \beta_7 \text{4.Indcd} + \beta_8 \text{5.Indcd} + \beta_9 \text{6.Indcd} + \beta_{10} \text{7.Indcd} + \beta_{11} \text{2017.Date} + \beta_{12} \text{2018.Date} + \varepsilon \quad \text{.....(Model 2)}$$

The regression result was reported in Table 4.4 as below.

Table 4.4 The Impact of the Ownership Structure on Accounting Conservatism.

Variables	**Unstandardized Coefficients**	**Standardize Coefficients**	**t-test**	**p-value**
	Beta	**Beta**		
(Constant)	0.159		3.129	0.002
HPS	0.000	0.081	2.190	0.029*
PII	0.000	0.053	1.310	0.191
FL	0.048	0.137	3.577	0.000
FS	-0.016	-0.130	-3.046	0.002
2.Indcd	0.025	0.097	2.176	0.030
3.Indcd	0.003	0.010	0.239	0.811
4.Indcd	0.032	0.149	3.190	0.001
5.Indcd	-0.011	-0.054	-1.083	0.279
6.Indcd	-0.009	-0.037	-0.786	0.432
7.Indcd	-0.063	-0.249	-5.525	0.000
2017.Date	-0.009	-0.051	-1.256	0.209
2018.Date	-0.011	-0.065	-1.604	0.109
R^2	0.153			
$Adj.R^2$	0.138			
F-statistic	10.363			

**p< 0.01 ;*p< 0.05

NOTE: HPS =Highest Percentage of Shareholders, PII=Percentage of institutional investors FS=Firm size ,FL=Financial Leverage,CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise, 3.Indcd = Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd = Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwise

The results of the analysis model unstandardized coefficients was summersized as follows.

CON-ACC = 0.159 + 0.000 HPS + 0.000 PII + 0.048 FL - 0.016 FS + 0.0 25 2.Indcd + 0.003 3.Indcd + 0.032 4.Indcd - 0.011 5.Indcd - 0.009 6.Indcd - 0.063 7.Indcd - 0.009 2017.Date – 0.011 2018.Date + ε

The results showed that that the tested model was fit, reflecting from the significance of F-statistics. the regression showed that there was the positive significance of the high percentage of shareholders on accounting conservatism ($0.029\ p < 0.05$), therefore, this supported hypothesis H_{2a}. It was positively associated with accounting conservatism as following: $R^2 = 0.153$, Adjusted R Square= 0.138, was concluded corresponding to the empirical data. We found that the level of the highest shareholder protection implied the highest percentage of shareholders of accounting conservatism, that the highest percentage of shareholders had the significant relationship with accounting conservatism. This was in line with the works of Xie et al. (2003), Bao & Lewellyn (2017) and Amran & Manaf (2014). Thus, hypotheses H2a was supported.

From the table above, the regression results were also consistent with the hypothesis H_{2b}. The model showed that institutional ownership had the negative significant impact on accounting conservatism. It was insignificantly and negatively associated with accounting conservatism , which did not supported hypothesis H2d. These results confirmed Pound (1988) according to the efficiency. The institutional ownership had the positive impact on performance. The business related to firm shareholders. Therefore, the institutional owners had less managers efficiently. Yunos, et al. (2011) and Ramalingegowda and Yu (2012),Salehi & Sehat (2018) there was the negative relationship in that institutional investors of the influential demanding of accounting conservatism. Thus, hypotheses H_{2b} was not supported.

In addition, the study examined the impact of accounting conservatism on real management for four aspects: real earnings management on operating cash flow (REM_CFO), real earnings management on production (REM_PROD), real earnings management on discretionary expense (REM_DISEXP) and total real earnings management (REM_PROXY). The specification models for each examination were

presented as below.; The model examined the impact of of the accounting conservatism on the real earnings management on operating cash flow (REM_CFO).

REM _CFO = β_0 + β_1 CON_ACC + β_2 FL + β_3 FS + β_4 2.Indcd + β_5 3.Indcd + β_6 4.Indcd + β_7 5.Indcd + β_8 6.Indcd + β_9 7.Indcd + β_{10} 2017.Date + β_{11} 2018.Date + ε .....(Model 4)

; The model examined the impact of of the accounting conservatism on the real earnings management production costs (REM_PROD).

REM _ PROD = β_0 + β_1 CON_ACC + β_2 FL + β_3 FS+ β_4 2.Indcd + β_5 3.Indcd + β_6 4.Indcd + β_7 5.Indcd + β_8 6.Indcd + β_9 7.Indcd + β_{10} 2017.Date + β_{11} 2018.Date + ε .....(Model 5)

; The model examined the impact of of the accounting conservatism onthe real earnings management discretionary expenses (REM_DISEXP).

REM _ DISEXP = β_0 + β_1 CON_ACC + β_2 FL + β_3 FS + β_4 2.Indcd + β_5 3.Indcd + β_6 4.Indcd + β_7 5.Indcd + β_8 6.Indcd + β_9 7.Indcd + β_{10} 2017.Date+ β_{11} 2018.Date + ε .....(Model 6)

; The model examined the impact of of the accounting conservatism on the real earnings management (REM_PROXY).

REM _ PROXY = β_0 + β_1 CON_ACC + β_2 FL + β_3 FS + β_4 2.Indcd + β_5 3.Indcd + β_6 4.Indcd + β_7 5.Indcd + β_8 6.Indcd + β_9 7.Indcd + β_{10} 2017.Date + β_{11} 2018.Date + ε .....(Model 7)

Then the results of regression analysis were presented in Table 4.5 as below.

Table 4.5 The Impact of the Accounting Conservatism on the Real Earnings Management

	REM_CFO				REM_PROD			
	Unstandardized Coefficients	Standardized Coefficients	t-test	p-value	Unstandardized Coefficients	tandardized Coefficients	t-test	p-value
Variables	Beta	Beta			Beta	Beta		
(Constant)	-1.538		-4.873	0.000	0.059		0.115	0.908
CON-ACC	6.272	0.715	26.022	0.000	-0.539	-0.055	-1.367	0.172
FL	-0.942	-0.308	-1.125	0.000	0.351	0.103	2.532	0.012
FS	0.186	0.171	5.772	0.000	-0.038	-0.032	-0.728	0.467
2.Indcd	0.010	0.005	0.144	0.885	0.193	0.078	1.626	0.104
3.Indcd	-0.037	-0.016	-0.510	0.610	0.235	0.091	1.960	0.050
4.Indcd	0.031	0.016	0.484	0.629	0.093	0.044	0.880	0.379
5.Indcd	0.063	0.036	0.998	0.319	0.217	0.111	2.106	0.036
6.Indcd	-0.132	-0.061	-1.861	0.063	0.050	0.021	0.430	0.668
7.Indcd	0.074	0.034	1.018	0.309	-0.072	-0.029	-0.598	0.550
2017.Date	-0.103	-0.068	-2.304	0.022	0.130	0.077	1.780	0.076
2018.Date	-0.111	-0.073	-2.490	0.013	0.079	0.047	1.081	0.280
R^2	0.554				0.033			
$Adj.R^2$	0.546				0.018			
F-statistic	77.788				2.156			

p< 0.01 ;*p< 0.05 **NOTE: CON-ACC =Accounting Conservatism , FS=Firm size ,FL=Financial Leverage, 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwi REM_CFO = the real earnings management on operating cash flow, REM_PROD =the real earnings management on production, REM_DISEXP=the al earnings management on discretionary expenses, REM_PROXY= total real earnings management

Table 4.5 The Impact of the Accounting Conservatism on the Real Earnings Management (Cont.)

	REM_DISEXP				REM_PROXY			
	Unstandardized Coefficients	Standardized Coefficients	t-test	p-value	Unstandardized Coefficients	Standardized Coefficients	t-test	p-value
Variables	**Beta**	**Beta**			**Beta**	**Beta**		
(Constant)	1.134		1.820	0.069	-2.732		-3.862	0.000
CON-ACC	0.935	0.074	1.963	0.050	5.876	0.386	10.878	0.000
FL	0.137	0.031	0.817	0.414	-1.429	-0.269	-7.533	0.000
FS	-0.075	-0.048	-1.185	0.236	0.299	0.158	4.151	0.000
2.Indcd	-1.020	-0.317	-7.123	0.000	0.838	0.215	5.153	0.000
3.Indcd	-0.525	-0.158	-3.629	0.000	0.252	0.063	1.538	0.124
4.Indcd	-0.188	-0.069	-1.468	0.143	0.126	0.038	0.867	0.386
5.Indcd	-0.956	-0.379	-7.699	0.000	0.802	0.263	5.691	0.000
6.Indcd	-0.081	-0.026	-0.578	0.563	-0.101	-0.027	-0.635	0.526
7.Indcd	-0.597	-0.189	-4.132	0.000	0.743	0.194	4.532	0.000
2017.Date	0.064	0.029	0.726	0.468	-0.297	-0.113	-2.968	0.003
2018.Date	0.004	0.002	0.044	0.965	-0.194	-0.074	-1.939	0.053
R^2	0.156				0.256			
$Adj.R^2$	0.143				0.244			
F-statistic	11.592				21.611			

p< 0.01 ;*p< 0.05 **NOTE: CON-ACC =Accounting Conservatism , FS=Firm size ,FL=Financial Leverage, 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwi REM_CFO = the real earnings management on operating cash flow, REM_PROD =the real earnings management on production, REM_DISEXP=the al earnings management on discretionary expenses, REM_PROXY= total real earnings management

The results of the analysis model unstandardized coefficients was summersized as follows.

REM _CFO = -1.538 + 6.275 CON_ACC -0.942 FL + 0.186 FS + 0.010 2.Indcd -0.037 3.Indcd + 0.0314.Indcd + 0.063 5.Indcd - 0.132 6.Indcd + 0.074 7.Indcd - 0.103 2017.Date – 0.111 2018.Date + ε .....(Model 8)

The results of the analysis model unstandardized coefficients was summersized as follows.

REM _ PROD = 0.059 -0.539 CON_ACC +0.351 FL 0.038 FS +0.193 2. Indcd + 0.035 3. Indcd + 0.093 4. Indcd + 0.217 5. Indcd + 0.050 6. Indcd - 0.072 7.Indcd + 0.130 2017.Date + 0.079 2018.Date + ε .....(Model 9)

The results of the analysis model unstandardized coefficients was summersized as follows.

REM _ DISEXP = 1.134 + 0.935 CON_ACC + 0.137 FL - 0.075 FS -1.020 2.Indcd -0.525 3.Indcd -0.188 4.Indcd -0.956 5.Indcd - 0.081 6.Indcd -0.597 7.Indcd + 0.064 2017.Date + 0.004 2018.Date + ε .....(Model 10)

The results of the analysis model unstandardized coefficients was summersized as follows.

REM _ PROXY = -2.732 + 5.876 CON_ACC -1.429 FL + 0.299 FS + 0.838 2.Indcd + 0.252 3.Indcd + 0.126 4.Indcd +0.802 5.Indcd -0.101 6.Indcd +0.743 7.Indcd +-0.297 2017.Date -0.194 2018.Date + ε .....(Model 11)

Based on the results of table 4.5, The results were demonstrated in 3 Model: the real earnings management on cash flow from (REM_CFO) the probability of significant was ($0.000\ p < 0.01$) as following : $R^2 = 0.554$, Adjusted R Square= 0.546. the real earnings management the significant probability was ($0.000\ p<0.01$) as following: R Square = 0.256, Adjusted $R^2 = 0.244$. the definition of conservatism proxy (Givoly and Hayn, 2000; Krishnan and Visvanthan,2008; Zhang and Wang, 2013), the accounting conservatism ratio in model (1) to (3) the positive conservatism ratio could be explained that the accounting conservatism principles had already constrained the real earnings management, of Roychowdhury (2006) and Cohen et al. (2008). Real earnings management of profits business resulted to lower and higher net profits of normal cash flow and real earnings management, Abnormal discretionary expense. That meant that

the real earnings management there might be a delay in real earnings management. That meant that most companies increase d the profitability by reducing costs on their executive discretionary.

However, when considering the significant level, There were real earnings management through cash flow, the real earnings management through discretionary and the real earnings management through executive discretionary . The real earnings management of the value was higher than other items and was a management for increasing profits. This resulted the probability of significant. According to the definition of conservatism proxy (Givoly and Hayn (2000) , the regression results were consistent with real earnings management the hypotheses 3. Thus, hypotheses were supported that unconditional accounting conservatism was highly associated with real earnings management.

4.4 The Research Model Mediating

The notion of Baron and Kenny,(1986); Hayes (2009) was applied to test the mediating variables which were the mediation between the causal relationship of the independent variables and dependent variables. The examination of the influence by regression analysis was conducted through four steps as followings.

Firstly, the regression analysis of the independent variables (X) on the dependent variables (Y) was conducted.

Secondly, the regression analysis of the independent variables (X) on the mediator (Med) was also performed. Thirsly,the regression analysis of the independent variables (X) on the dependent variables (Y) through mediating variable was performed.

Finally, . the last step was to use coefficient value from each equation to identify how the influences of each variable mediated. The influence between the coefficient would demonstrate the direct influence and the conditions of influence mediation. The variables in each step would be connected with related meaning especially the results of statistic significance and coefficient value in each model would lead to different influence mediation. In addition to this, for a better understanding of the connection of the mediation characteristics of the mentioned influence, the steps to test the mediator

influence, regression equation and parameter symbol which consisted of independent variables,dependent variables and mediator variables shown as follows:

The first, Regression influence analysis of the independent variables (X) on the dependent variables (Y) had the total direct influence of X on Y, that is, the resulting c value: $Y = \mu 1 + cX + \varepsilon 1$

The second, Regression analysis of the influence of independent variables (X) on the mediator variable (Med) resulted in the direct influence of X on Med which was the value a: the result $Med = .\mu 2 + aX + \varepsilon 2$

The third, . Regression analysis of influence of independent variables (X) and mediator variables (Med) on dependent variables (Y) was the remaining direct influence of X on Y when controlling the influence of mediator variable to be constant at c '. There was a direct influence of Med on Y when controlling the influence of X with a constant b. The result was $Y = \mu 3 + c'X + bMed + \varepsilon 1$

The fourth, If the c 'values were considered in the third step and no statistical significance was found, it demonstrated complete mediation results. When considering the c 'value in the third step 3 and statistical significance was found, then consider c' and c whether c' < c and the result would be partial mediation. If a or b were considered and no statistical significance was found, the result would be no mediation.

Thus,the summery of investiaging model of mediating variable was shown in Figure 3.1 below.

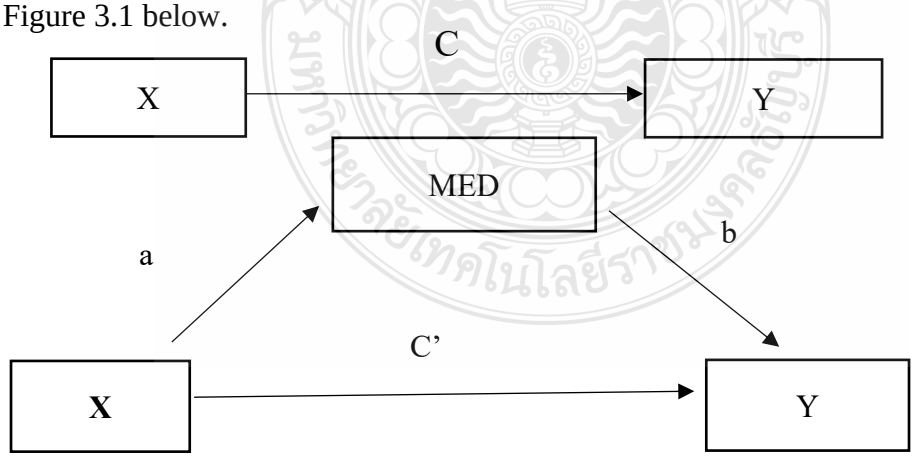

Figure. 3.1 The Summery of Investiaging Model of Mediating Variable

SOURCE: (Baron and Kenny,1986;Hayes,2009).

This thesis peformed two investigating models of accountiong conservatism as followings.

Firstly,the thesis employed the investigating models of accountiong conservatism on the relationship between board directors and the real earnings management for four aspects as shown in table 4-6 – 4-10 as below.

Lastly, the thesis conducted the investigating models of accountiong conservatism on the relationship between ownership structure and the real earnings management for four aspects as shown in Table 4-11 – 4-15 as below. The investigating models of accountiong conservatism on the relationship between board directors and the real earnings management.

Then, the investgating model as Baron and Kenny,(1986); Hayes (2009). were employed into four stages, started with

1) studying the impact of board characteristics on each respect of the real earnings management and reporting the results in Table 4.6.

2) examining the impact of board characteristics on accounting conservatism and reporting the results in Table 4.7.

3) studying the impact of accounting conservatism on each respects of the real earnings management and reporting the results in Table 4.8.

4) Investigating studying the impact of board characteristics on the real earnings management through acconting conservatism and reporting the results in Table 4.9.

5) summerising the mediating effect of accounting conservatism on the relationship between board characteristics and the real earnings management in Table 4.10.

Aspects as shown in Table 4-11 – 4-15 as below. The investigating models of accountiong conservatism on the relationship between board directors and the real earnings management. the model as Baron and Kenny,(1986); Hayes (2009).were employed into four stages, started with

1) studying the impact of ownership structure on each respect of the real earnings management and reporting the results in Table 4.11.

2) examining the impact of ownership structure on accounting conservatism and reporting the results in Table 4.12.

3) studying the impact of accounting conservatism on each respects of the real earnings management and reporting the results in Table 4.13.

4) Investigating studying the impact ofownership structure on the real earnings management through acconting conservatism and reporting the results in Table 4.14.

5) Summerising the mediating effect of accounting conservatism on the relationship between ownership structure and the real earnings management in Table 4.15.

Table 4.6 : The Impact of Board Characteristics on Each Respects of the Real Earnings Management.

Variables	REM_CFO					REM_PROD				
	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value
Step 1	**Beta**	**Std.Error**	**Beta**			**Beta**	**Std.Error**	**Beta**		
(Constant)	-0.713	0.441		-1.616	0.107	-0.040	0.516		-0.077	0.938
BS	0.017	0.013	0.061	1.330	0.184	-0.016	0.015	-0.051	-1.059	0.290
BI	-0.016	0.027	-0.028	-0.594	0.553	-0.032	0.031	-0.052	-1.036	0.301
MEET	-0.019	0.008	-0.089	-2.320	0.021	0.004	0.010	0.018	0.448	0.655
BL	0.116	0.054	0.081	2.147	0.032	-0.032	0.063	-0.020	-0.502	0.616
FL	-0.713	0.119	-0.233	-6.009	0.000	0.350	0.139	0.103	2.518	0.012
FS	0.110	0.047	0.101	2.335	0.020	0.000	0.055	0.000	0.007	0.994
2.Indcd	0.237	0.105	0.106	2.258	0.024	0.172	0.123	0.069	1.399	0.162
3.Indcd	0.014	0.105	0.006	0.135	0.892	0.180	0.123	0.070	1.470	0.142
4.Indcd	0.265	0.091	0.140	2.920	0.004	0.083	0.106	0.039	0.781	0.435
5.Indcd	0.004	0.089	0.002	0.048	0.962	0.205	0.104	0.105	1.981	0.048
6.Indcd	-0.110	0.103	-0.051	-1.076	0.282	0.034	0.120	0.014	0.282	0.778
7.Indcd	-0.281	0.102	-0.127	-2.758	0.006	-0.068	0.119	-0.028	-0.574	0.566
2017.Date	-0.157	0.062	-0.104	-2.524	0.012	0.134	0.073	0.079	1.835	0.067
2018.Date	-0.185	0.063	-0.122	-2.946	0.003	0.078	0.073	0.046	1.064	0.288
R^2	0.130					0.038				
$Adj.R^2$	0.112					0.018				
F-statistic	7.314*					1.941				

**p< 0.01 ;*p< 0.05 *a Dependent Variable: REM_CFO, REM_PROD, REM_DISEXP, REM_PROXY

NOTE: BS=Board Size, BI=Board Independence, MEET=Board Meeting, BL=Board Leadership, FS=Firm size ,FL=Financial Leverage,CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwise

Table 4.6 : The Impact of Board Characteristics on Each Respects of the Real Earnings Management. (Cont.)

Variables	REM_DISEXP					REM_PROXY				
	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value
Step 1	Beta	Std.Error	Beta			Beta	Std.Error	Beta		
(Constant)	1.267	0.624		2.031	0.043	-1.940	0.764		-2.539	0.011
BS	0.01	0.018	0.024	0.525	0.600	0.023	0.022	0.048	1.055	0.292
BI	-0.002	0.038	-0.002	-0.045	0.964	0.018	0.046	0.019	0.394	0.694
MEET	-0.001	0.012	-0.002	-0.057	0.954	-0.023	0.014	-0.061	-1.595	0.111
BL	0.156	0.076	0.076	2.047	0.041	-0.009	0.094	-0.003	-0.092	0.927
FL	0.14	0.168	0.032	0.833	0.405	-1.203	0.206	-0.226	-5.852	0.000
FS	-0.104	0.067	-0.066	-1.556	0.120	0.213	0.082	0.113	2.614	0.009
2.Indcd	-0.954	0.149	-0.297	-6.423	0.000	1.019	0.182	0.262	5.604	0.000
3.Indcd	-0.488	0.148	-0.147	-3.286	0.001	0.321	0.182	0.08	1.769	0.077
4.Indcd	-0.16	0.128	-0.059	-1.245	0.214	0.342	0.157	0.104	2.175	0.030
5.Indcd	-0.952	0.125	-0.377	-7.609	0.000	0.751	0.153	0.246	4.902	0.000
6.Indcd	-0.045	0.145	-0.014	-0.311	0.756	-0.099	0.178	-0.026	-0.558	0.577
7.Indcd	-0.612	0.144	-0.193	-4.251	0.000	0.400	0.176	0.104	2.266	0.024
2017.Date	0.056	0.088	0.026	0.637	0.524	-0.348	0.108	-0.132	-3.218	0.001
2018.Date	-0.017	0.089	-0.008	-0.197	0.844	-0.245	0.109	-0.093	-2.259	0.024
R^2	0.157					0.135				
$Adj.R^2$	0.140					0.117				
F-statistic	9.131*					7.635*				

**p< 0.01 ;*p< 0.05 *a Dependent Variable: REM_CFO, REM_PROD, REM_DISEXP, REM_PROXY

NOTE: BS=Board Size, BI=Board Independence, MEET=Board Meeting, BL=Board Leadership, FS=Firm size ,FL=Financial Leverage,CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwise

Table 4.7 The Impact of Board Characteristics on Accounting Conservatism.

Variables	**Unstandardized Coefficients**		**Standardized Coefficients**	**t-test**	**p-value**
Step 2	**Beta**	**Std.Error**	**Beta**		
(Constant)	0.141	0.049		2.855	0.004
BS	0.004	0.001	0.116	2.608	0.009*
BI	-0.005	0.003	-0.071	-1.519	0.129
MEET	0.001	0.001	0.046	1.228	0.220
BL	0.022	0.006	0.136	3.682	0.000
FL	0.038	0.013	0.110	2.896	0.004
FS	-0.016	0.005	-0.131	-3.081	0.002
2.Indcd	0.030	0.012	0.117	2.551	0.011
3.Indcd	0.003	0.012	0.012	0.274	0.784
4.Indcd	0.031	0.010	0.145	3.092	0.002
5.Indcd	-0.009	0.010	-0.047	-0.959	0.338
6.Indcd	-0.006	0.011	-0.023	-0.494	0.622
7.Indcd	-0.060	0.011	-0.240	-5.305	0.000
2017.Date	-0.009	0.007	-0.049	-1.227	0.220
2018.Date	-0.012	0.007	-0.070	-1.732	0.084
R^2	0.167				
$Adj.R^2$	0.150				
F-statistic	9.804*				

**p< 0.01 ;*p< 0.05 *a Dependent Variable: Accounting Conservatism (CON-ACC)

NOTE: BS=Board Size, BI=Board Independence, MEET=Board Meeting, BL=Board Leadership, FS=Firm size ,FL=Financial Leverage,CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwise

Table 4.8 The Impact of Accounting Conservatism on the Real Earnings Management

Variables	REM_CFO					REM_PROD				
	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value
Step 3	**Beta**	**Std.Error**	**Beta**			**Beta**	**Std.Error**	**Beta**		
(Constant)	-1.538	0.316		-4.873	0.000	0.059	0.517		0.115	0.908
CON-ACC	6.272	0.241	0.715	26.022	0.000	-0.539	0.395	-0.055	-1.367	0.172
FL	-0.942	0.085	-0.308	-11.125	0.000	0.351	0.139	0.103	2.532	0.012
FS	0.186	0.032	0.171	5.772	0.000	-0.038	0.053	-0.032	-0.728	0.467
2.Indcd	0.010	0.073	0.005	0.144	0.885	0.193	0.119	0.078	1.626	0.104
3.Indcd	-0.037	0.073	-0.016	-0.510	0.610	0.235	0.120	0.091	1.960	0.050
4.Indcd	0.031	0.065	0.016	0.484	0.629	0.093	0.106	0.044	0.880	0.379
5.Indcd	0.063	0.063	0.036	0.998	0.319	0.217	0.103	0.111	2.106	0.036
6.Indcd	-0.132	0.071	-0.061	-1.861	0.063	0.050	0.116	0.021	0.430	0.668
7.Indcd	0.074	0.073	0.034	1.018	0.309	-0.072	0.120	-0.029	-0.598	0.550
2017.Date	-0.103	0.045	-0.068	-2.304	0.022	0.130	0.073	0.077	1.780	0.076
2018.Date	-0.111	0.045	-0.073	-2.490	0.013	0.079	0.073	0.047	1.081	0.280
R^2	0.554					0.033				
$Adj.R^2$	0.546					0.018				
F-statistic	77.788*					2.156				

**p< 0.01 ;*p< 0.05 * a Dependent Variable: REM_CFO,REM_PROD,REM_DISEXP,REM_PROXY

NOTE: CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise2018.Date, = Dummy equal 1 if year 2018, 0 otherwise

Table 4.8 The Impact of Accounting Conservatism on the Real Earnings Management (Cont.)

Variables	REM_DISEXP					REM_PROXY				
	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value
Step 3	Beta	Std.Error	Beta			Beta	Std.Error	Beta		
(Constant)	1.134	0.623		1.820	0.069	-2.732	0.707		-3.862	0.000
CON-ACC	0.935	0.476	0.074	1.963	0.050	5.876	0.540	0.386	10.878	0.000
FL	0.137	0.167	0.031	0.817	0.414	-1.429	0.190	-0.269	-7.533	0.000
FS	-0.075	0.063	-0.048	-1.185	0.236	0.299	0.072	0.158	4.151	0.000
2.Indcd	-1.020	0.143	-0.317	-7.123	0.000	0.838	0.163	0.215	5.153	0.000
3.Indcd	-0.525	0.145	-0.158	-3.629	0.000	0.252	0.164	0.063	1.538	0.124
4.Indcd	-0.188	0.128	-0.069	-1.468	0.143	0.126	0.145	0.038	0.867	0.386
5.Indcd	-0.956	0.124	-0.379	-7.699	0.000	0.802	0.141	0.263	5.691	0.000
6.Indcd	-0.081	0.140	-0.026	-0.578	0.563	-0.101	0.159	-0.027	-0.635	0.526
7.Indcd	-0.597	0.144	-0.189	-4.132	0.000	0.743	0.164	0.194	4.532	0.000
2017.Date	0.064	0.088	0.029	0.726	0.468	-0.297	0.100	-0.113	-2.968	0.003
2018.Date	0.004	0.088	0.002	0.044	0.965	-0.194	0.100	-0.074	-1.939	0.053
R^2	0.156					0.256				
$Adj.R^2$	0.143					0.244				
F-statistic	11.592*					21.611*				

**p< 0.01 ;*p< 0.05 * a Dependent Variable: REM_CFO,REM_PROD,REM_DISEXP,REM_PROXY

NOTE: CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwise

Table 4.9 The Impact of Board Characteristics on each Aspects of the Real Earnings Management through Accounting Conservatism.

Variables	REM_CFO					REM_PROD				
	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value
	Beta	Std.Error	Beta			Beta	Std.Error	Beta		
Step 4										
(Constant)	-1.606	0.313		-5.125	0.00	0.028	0.519		0.055	0.956
BS	-0.007	0.009	-0.024	-0.73	0.465	-0.014	0.015	-0.045	-0.934	0.351
BI	0.013	0.019	0.023	0.682	0.495	-0.035	0.031	-0.056	-1.105	0.27
MEET	-0.026	0.006	-0.122	-4.515	0.00	0.005	0.01	0.02	0.504	0.614
BL	-0.025	0.039	-0.017	-0.65	0.516	-0.021	0.064	-0.013	-0.328	0.743
FL	-0.957	0.084	-0.313	-11.352	0.00	0.368	0.14	0.108	2.637	0.009
FS	0.213	0.034	0.196	6.357	0.00	-0.007	0.056	-0.006	-0.135	0.893
2.Indcd	0.047	0.074	0.021	0.635	0.526	0.186	0.123	0.075	1.511	0.131
3.Indcd	-0.006	0.074	-0.003	-0.084	0.933	0.182	0.123	0.071	1.483	0.139
4.Indcd	0.066	0.065	0.035	1.025	0.306	0.098	0.107	0.047	0.919	0.359
5.Indcd	0.064	0.063	0.037	1.03	0.303	0.2	0.104	0.103	1.936	0.053
6.Indcd	-0.074	0.072	-0.034	-1.029	0.304	0.031	0.12	0.013	0.26	0.795
7.Indcd	0.102	0.073	0.046	1.392	0.164	-0.098	0.121	-0.04	-0.804	0.422
2017.Date	-0.103	0.044	-0.068	-2.341	0.02	0.13	0.073	0.077	1.777	0.076
2018.Date	-0.108	0.044	-0.071	-2.428	0.015	0.072	0.073	0.043	0.982	0.326
CON-ACC	6.355	0.241	0.724	26.32	0	-0.486	0.4	-0.05	-1.215	0.225
R^2	0.567					0.04				
$Adj.R^2$	0.558					0.019				
F-statistic	59.883					1.912				

**p< 0.01 ;*p< 0.05 * a Dependent Variable: REM_CFO,REM_PROD,REM_DISEXP,REM_PROXY

NOTE:BS=Board Size, BI=Board Independence, MEET=Board Meeting, BL=Board Leadership, FS=Firm size ,FL=Financial Leverage,CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwise

Table 4.9 The Impact of Board Characteristics on each Aspects of the Real Earnings Management through Accounting Conservatism (Cont.)

Variables	REM_DISEXP					REM_PROXY				
	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value
Step 4	**Beta**	**Std.Error**	**Beta**			**Beta**	**Std.Error**	**Beta**		
(Constant)	1.154	0.627		1.841	0.066	-2.788	0.709		-3.934	0.000
BS	0.006	0.018	0.016	0.357	0.721	0.001	0.021	0.002	0.045	0.964
BI	0.002	0.038	0.002	0.051	0.959	0.045	0.043	0.047	1.065	0.287
MEET	-0.002	0.012	-0.005	-0.136	0.892	-0.03	0.013	-0.079	-2.245	0.025
BL	0.138	0.077	0.067	1.797	0.073	-0.143	0.087	-0.057	-1.636	0.102
FL	0.109	0.169	0.025	0.646	0.519	-1.434	0.191	-0.27	-7.521	0.000
FS	-0.091	0.067	-0.058	-1.352	0.177	0.311	0.076	0.165	4.105	0.000
2.Indcd	-0.978	0.149	-0.304	-6.564	0.000	0.839	0.169	0.216	4.979	0.000
3.Indcd	-0.49	0.148	-0.147	-3.308	0.001	0.302	0.0168	0.075	1.802	0.072
4.Indcd	-0.185	0.129	-0.068	-1.434	0.152	0.153	0.146	0.046	1.049	0.295
5.Indcd	-0.944	0.125	-0.374	-7.552	0.000	0.808	0.141	0.265	5.717	0.000
6.Indcd	-0.041	0.145	-0.013	-0.28	0.78	-0.065	0.164	-0.017	-0.397	0.691
7.Indcd	-0.563	0.147	-0.178	-3.84	0.000	0.763	0.166	0.199	4.600	0.000
2017.Date	0.063	0.088	0.029	0.716	0.474	-0.296	0.1	-0.112	-2.970	0.003
2018.Date	-0.008	0.089	-0.004	-0.086	0.931	-0.172	0.1	-0.065	-1.716	0.087
CON-ACC	0.808	0.483	0.064	1.673	0.095	6.032	0.546	0.396	11.046	0.000
R^2	0.16					0.265				
$Adj.R^2$	0.142					0.249				
F-statistic	8.731					16.516				

**p< 0.01 ;*p< 0.05 * a Dependent Variable: REM_CFO,REM_PROD,REM_DISEXP,REM_PROXY

NOTE : BS=Board Size, BI=Board Independence, MEET=Board Meeting, BL=Board Leadership, FS=Firm size ,FL=Financial Leverage,CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwise

Table 4.10 Summary of the Mediating effect of Accounting Conservatism on the elationship between Board Characteristics and each aspects of the Real Earnings Management.

Step	Independent Variable	Dependent variable	Standardized coefficients	Standard error	P-value	Interpretation	Total effect	Direct effect	Indirect effect
1. Board size									
1	Board size	REM_CFO	0.061	0.013	0.184				
2	Board size	Accounting conservatism	0.116**	0.001	0.009				
3	Accounting conservatism	REM_CFO	0.715**	0.241	0.000	Full Mediator	0.061	-0.024	0.085
4	Board size Accounting conservatism	REM_CFO	-0.024	0.009	0.465				
Step									
1	Board size	REM_proxy	0.048	0.022	0.292				
2	Board size	Accounting conservatism	0.116**	0.001	0.009				
3	Accounting conservatism	REM_proxy	0.386**	0.540	0.000	Full Mediator	0.048	0.002	0.046
4	Board size Accounting conservatism	REM_proxy	0.002	0.021	0.964				
2. Board Leadership									
Step									
1	Board leadership	REM_CFO	0.081*	0.054	0.032				
2	Board leadership	Accounting conservatism	0.136**	0.006	0.000				
3	Accounting conservatism	REM_CFO	0.715**	0.241	0.000	Full Mediator	0.081	-0.017	0.098
4	Board leadership Accounting conservatism	REM_CFO	-0.017	0.039	0.516				
Step									
1	Board leadership	REM_proxy	-0.003	0.094	0.927				
2	Board leadership	Accounting conservatism	0.136**	0.006	0.000				
3	Accounting conservatism	REM_proxy	0.386**	0.540	0.000	Full Mediator	-0.003	-0.057	0.054
4	Board leadership Accounting conservatism	REM_proxy	-0.057	0.087	0.102				

NOTE : REM_CFO = the real earnings management on operating cash flow, REM_PROD =the real earnings management on production, REM_DISEXP=the al earnings management on discretionary expenses, REM_PROXY= total real earnin

The model of mediator variable : Mediator of the relationship between the board size with real earnings management with accounting conservatism as mediator variable shown as follows:The examination of mediation, in step 1, The test of independent variable on the effect of the variable showed that the board size had no direct effect of the dependen variable variable of real earnings management on cash flow the insignificantly.Step 2 The test of independent variable passed to mediating variable showed that the board size had a direct effect of accounting conservatism was statistically significant at the 0.05 level and the regression coefficient ($\beta = 0.116$, P=0.009) of the mediator variable test results. Step 3 The test of mediating variable passed on to dependen variable showed that accounting conservatism had a direct effect of the mediating variable passed through the dependen variable on real earning management on cash flow with statistical significance at 0.05 level and the regression coefficient (β = -0.715 ,P=0.000) of the test of mediator variable. Step 4 The analysis was performed from board size, had a statistically nonsignificant relationship of real earnings management on cash flow on accounting conservatism was the variable passed the hypothesis test. It can be concluded that accounting conservatism was a variable that was not statistically significant resulting in full mediation between the number of board size and real earnings management on cash flow mediation of accounting conservatism.

The examination of mediation, The test of independent variable on the of the variable showed that the board size had direct of the independent variable on the dependen variable of total real earnings the nonregression coefficient of the test. Step 2 The test of independent variable passed to mediating variable showed that the board size had a direct of independent variable on the mediating variable on accounting conservatism was statistically significant at the 0.05 level and the regression coefficient (β = 0.116,P=0.009) of the mediator variable test results.Step 3 The test of mediating variable passed on to dependen variable showed that accounting conservatism had a direct of the mediating variable passed through the dependen variable on real earning management with no statistical significance and the regression coefficient (β=0.386,P0.000) of the mediator variable test.Step 4 The analysis was performed of board size, had a statistically nonsignificant relationship with total real earnings management. The accounting conservatism was the variable passed the hypothesis test.

It can be concluded that accounting conservatism was a variable that was not statistically significant resulting in full mediation between of board size and total real earnings management mediation of accounting conservatism

The test of independent variable on the variable showed that the board leadership had direct of real earnings management on cash flow with statistical significance at 0.05 level and the regression coefficient (β=.081,P0.032) of the test result.Step 2 The test of independent variable passed to mediating variable showed that the had the board leadership a direct on the mediating variable on accounting conservatism was statistically significant at 0.05 level and the regression coefficient (β=0.136,P0.000) of the mediator variable test results.Step 3 The test of mediating variable passed on to dependen variable showed that accounting conservatism had a direct of the mediating variable passed through the dependen variable on real earning management on cash flow with statistical significance at 0.05 level and the regression coefficient (β=-0.715,P=0.000) of the test mediator variable.Step 4 The analysis of board leadership, had a statistically significant relationship with real earnings management on cash flow. The accounting conservatism was the variable passed the hypothesis test. It can be concluded that accounting conservatism was a variable that was statistically significant resulting full mediation between the board leadership and real earnings management on cash flow mediation of accounting conservatism.

The examination of mediation, The test of independent variable on the variable showed that the board leadership had direct of the independent variable on the dependen variable of total real earnings management with nonstatistical significance of the test result of the mediator variable. Step 2 The test of independent variable passed to mediating variable showed that the had the board leadership a direct of independent variable on the mediating variable on accounting conservatism was statistically significant at 0.05 level and the regression coefficient (β=0.136,P=0.000) of the mediator variable test results. Step 3 The test of mediating variable passed on to dependen variable showed that accounting conservatism had a direct of the mediating variable passed through the dependen variable on total real earning management with nonstatistical significance and the regression coefficient (β=.386,P=0.000) of the mediator variable test. Step 4 The analysis of board leadership, had a statistically significant relationship with

total real earnings management. It can be concluded that accounting conservatism was a variable that was statistically significant resulting full mediation between the board leadership and tatal real earnings management mediation of accounting conservatism

The results of testing the influence of mediating variable according to the Baron & Kenny method concept (1986) revealed that the independent variable had influence on the dependent variable. The influence of mediator variable between the board leadershipand real earnings management on cash flow, Mediator variable influenced the dependent variable and revealed that the independent variable had no influence on the dependent variable.

Therefore, the influence of the mediating variable to be retested by Sobel Test, and the result clearly showed that mediator variables influenced the dependent variable act as full mediation as follows:

1. the influence of mediating variable between the board size members and real earnings management on cash flow.

2. the influence of mediating variable between the board size members and total real earnings management .

3. the influence of mediating variable between board leadership and total real earnings management.

The results indicated that there was a latent mediator variable in the analysis. Therefore, it is necessary to study further whether other mediator variables influenced independent and dependent variables within the research framework

Table 4.11 The Impact of Ownership Structure on Each Respects of the Real Earnings Management.

Variables	REM_CFO				REM_PROD				REM_DISEXP				REM_PROXY			
	Unstandardized Coefficients		t-test	p-value	Unstandardized Coefficients		t-test	p-value	Unstandardized Coefficients		t-test	p-value	Unstandardized Coefficients		t-test	p-value
	Beta	Std. Error			Beta	Std. Error			Beta	Std. Error			Beta	Std. Error		
Step 1																
(Constant)	-0.426	0.452	-0.943	0.346	-0.386	0.527	-0.731	0.465	1.798	0.366	2.838	0.005	-1.838	0.779	-2.361	0.019
HPS	0.003	0.001	2.212	0.027	0.002	0.002	0.926	0.355	-0.006	0.002	-3.039	0.002	0.008	0.003	3.128	0.002
PII	0.002	0.001	2.048	0.041	-0.004	0.001	-2.859	0.004	0.005	0.002	3.281	0.001	0.001	0.002	0.455	0.649
FL	-0.624	0.118	-5.270	0.000	0.275	0.138	1.993	0.047	0.243	0.166	1.467	0.143	-1.142	0.204	-5.599	0.000
FS	0.065	0.047	1.387	0.166	0.012	0.055	0.217	0.828	-0.133	0.066	-2.025	0.043	0.186	0.081	2.304	0.021
2.Indcd	0.172	0.101	1.698	0.090	0.189	0.118	1.599	0.110	-1.035	0.142	-7.277	0.000	1.018	0.175	5.822	0.000
3.Indcd	-0.006	0.103	-0.063	0.950	0.215	0.120	1.797	0.073	-0.517	0.144	-3.587	0.000	0.295	0.177	1.665	0.096
4.Indcd	0.227	0.090	2.518	0.012	0.102	0.105	0.969	0.333	-0.198	0.126	-1.565	0.118	0.323	0.155	2.078	0.038
5.Indcd	0.011	0.089	0.123	0.902	0.182	0.103	1.760	0.079	-0.915	0.124	-7.366	0.000	0.744	0.153	4.872	0.000
6.Indcd	-0.204	0.102	-1.992	0.047	0.131	0.119	1.097	0.273	-0.224	0.143	-1.564	0.118	-0.11	0.176	-0.626	0.531
7.Indcd	-0.302	0.101	-2.999	0.003	-0.038	0.118	-0.320	0.749	-0.698	0.141	-4.942	0.000	0.434	0.174	2.497	0.013
2017.Date	-0.158	0.062	-2.540	0.011	0.134	0.073	1.842	0.066	0.058	0.087	0.666	0.506	-0.350	0.107	-3.262	0.001
2018.Date	-0.182	0.062	-2.926	0.004	0.081	0.073	1.120	0.263	0.003	0.087	0.038	0.970	-0.267	0.107	-2.487	0.013
R^2	0.130				0.242				0.171				0.143			
$Adj.R^2$	0.115				0.250				0.156				0.128			
F-statistic	8.605*				2.522*				11.833*				9.555*			

**p< 0.01 ;*p< 0.05 *a Dependent Variable: REM_CFO,REM_PROD,REM_DISEXP,REM_PROXY

NOTE: HPS=,Highest Percentage of Shareholders, PII=Percentage of institutional investors FS=Firm size ,FL=Financial Leverage,CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwis

Table 4.12 The Impact of Ownership Structure on Accounting Conservatism.

Variables	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value
	Beta	Std.Error	Beta		
Step 2					
(Constant)	0.159	0.051		3.129	0.002
HPS	0.000	0.000	0.081	2.190	0.029
PII	0.000	0.000	0.053	1.310	0.191
FL	0.048	0.013	0.137	3.577	0.000
FS	-0.016	0.005	-0.130	-3.046	0.002
2.Indcd	0.025	0.011	0.097	2.176	0.030
3.Indcd	0.003	0.012	0.010	0.239	0.811
4.Indcd	0.032	0.010	0.149	3.190	0.001
5.Indcd	-0.011	0.010	-0.054	-1.083	0.279
6.Indcd	-0.009	0.011	-0.037	-0.786	0.432
7.Indcd	-0.063	0.011	-0.249	-5.525	0.000
2017.Date	-0.009	0.007	-0.051	-1.256	0.209
2018.Date	-0.011	0.007	-0.065	-1.604	0.109
R^2	0.153				
$Adj.R^2$	0.138				
F-statistic	10.363*				

**p< 0.01 ;*p< 0.05 *a Dependent Variable: Accounting Conservatism

NOTE :HPS=,Highest Percentage of Shareholders, PII=Percentage of institutional investors FS=Firm size ,FL=Financial Leverage,CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwise

Table 4.13. : The Impact of Accounting Conservatism on the Real Earnings Management.

Variables	REM_CFO					REM_PROD					REM_DISEXP					REM_PROXY				
	Unstandardized Coefficients		Standardized Coefficients		p-value	Unstandardized Coefficients		Standardized Coefficients		p-value	Unstandardized Coefficients		Standardized Coefficients		p-value	Unstandardized Coefficients		Standardized Coefficients		p-value
Step 3	Beta	Std. Error	Beta	t-test		Beta	Std. Error	Beta	t-test		Beta	Std. Error	Beta	t-test		Beta	Std. Error	Beta	t-test	
(Constant)	-1.538	0.316		-4.873	0.000	0.059	0.517		0.115	0.908	1.134	0.623		1.820	0.069	-2.732	0.707		-3.862	0.000
CON-ACC	6.272	0.241	0.715	26.022	0.000	-0.539	0.395	-0.055	-1.367	0.172	0.935	0.476	0.074	1.963	0.050	5.876	0.540	0.386	10.878	0.000
FL	-0.942	0.085	-0.308	-11.125	0.000	0.351	0.139	0.103	2.532	0.012	0.137	0.167	0.031	0.817	0.414	-1.429	0.190	-0.269	-7.533	0.000
FS	0.186	0.032	0.171	5.772	0.000	-0.038	0.053	-0.032	-0.728	0.467	-0.075	0.063	-0.048	-1.185	0.236	0.299	0.072	0.158	4.151	0.000
2.Indcd	0.010	0.073	0.005	0.144	0.885	0.193	0.119	0.078	1.626	0.104	-1.020	0.143	-0.317	-7.123	0.000	0.838	0.163	0.215	5.153	0.000
3.Indcd	-0.037	0.073	-0.016	-0.510	0.610	0.235	0.120	0.091	1.960	0.050	-0.525	0.145	-0.158	-3.629	0.000	0.252	0.164	0.063	1.538	0.124
4.Indcd	0.031	0.065	0.016	0.484	0.629	0.093	0.106	0.044	0.880	0.379	-0.188	0.128	-0.069	-1.468	0.143	0.126	0.145	0.038	0.867	0.386
5.Indcd	0.063	0.063	0.036	0.998	0.319	0.217	0.103	0.111	2.106	0.036	-0.956	0.124	-0.379	-7.699	0.000	0.802	0.141	0.263	5.691	0.000
6.Indcd	-0.132	0.071	-0.061	-1.861	0.063	0.050	0.116	0.021	0.430	0.668	-0.081	0.140	-0.026	-0.578	0.563	-0.101	0.159	-0.027	-0.635	0.526
7.Indcd	0.074	0.073	0.034	1.018	0.309	-0.072	0.120	-0.029	-0.598	0.550	-0.597	0.144	-0.189	-4.132	0.000	0.743	0.164	0.194	4.532	0.000
2017.Date	-0.103	0.045	-0.068	-2.304	0.022	0.130	0.073	0.077	1.780	0.076	0.064	0.088	0.029	0.726	0.468	-0.297	0.100	-0.113	-2.968	0.003
2018.Date	-0.111	0.045	-0.073	-2.490	0.013	0.079	0.073	0.047	1.081	0.280	0.004	0.088	0.002	0.044	0.965	-0.194	0.100	-0.074	-1.939	0.053
R^2	0.554					0.033					0.156					0.256				
$Adj.R^2$	0.546					0.018					0.143					0.244				
F-statistic	77.788*					2.156*					11.592*					21.611*				

**p< 0.01 ;*p< 0.05 *a Dependent Variable: REM_CFO,REM_PROD,REM_DISEXP,REM_PROXY

NOTE :HPS=,Highest Percentage of Shareholders, PII=Percentage of institutional investors FS=Firm size ,FL=Financial Leverage,CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwise

Table 4.14: The Impact of Ownership Structure on each aspects of the Real Earnings Management through Accounting Conservatism .

Variables	REM_CFO					REM_PROD					REM_DISEXP					REM_PROXY				
Step 4	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value
	Beta	Std. Error	Beta			Beta	Std. Error	Beta			Beta	Std. Error	Beta			Beta	Std. Error	Beta		
(Constant)	-1.415	0.325		-4.352	0.000	-0.306	0.531		-0.577	0.564	1.643	0.636		2.581	0.010	-2.751	0.727		-3.782	0.000
HPS	0.001	0.001	0.025	0.947	0.344	0.002	0.002	0.040	1.028	0.304	-0.007	0.002	-0.117	-3.207	0.001	0.006	0.002	0.085	2.479	0.013
PII	0.001	0.001	0.047	1.581	0.114	-0.004	0.001	-0.121	-2.793	0.005	0.005	0.002	0.128	3.182	0.002	0.000	0.002	-0.001	-0.039	0.969
FL	-0.920	0.085	-0.301	-10.776	0.000	0.299	0.139	0.088	2.146	0.032	0.197	0.167	0.045	1.179	0.239	-1.416	0.191	-0.267	-7.412	0.000
FS	0.165	0.034	0.152	4.890	0.000	0.004	0.055	0.003	0.070	0.944	-0.118	0.066	-0.075	-1.778	0.076	0.279	0.076	0.148	3.690	0.000
2.Indcd	0.018	0.073	0.008	0.244	0.807	0.202	0.119	0.081	1.699	0.090	-1.059	0.142	-0.329	-7.440	0.000	0.875	0.163	0.225	5.377	0.000
3.Indcd	-0.024	0.073	-0.010	-0.322	0.748	0.217	0.120	0.084	1.809	0.071	-0.519	0.144	-0.156	-3.614	0.000	0.279	0.164	0.069	1.698	0.090
4.Indcd	0.026	0.065	0.014	0.396	0.692	0.118	0.106	0.056	1.115	0.265	-0.230	0.127	-0.084	-1.806	0.071	0.137	0.145	0.042	0.944	0.346
5.Indcd	0.078	0.063	0.044	1.231	0.219	0.177	0.103	0.090	1.707	0.088	-0.905	0.124	-0.358	-7.292	0.000	0.806	0.142	0.264	5.684	0.000
6.Indcd	-0.147	0.073	-0.068	-2.017	0.044	0.126	0.119	0.052	1.059	0.290	-0.215	0.143	-0.069	-1.505	0.133	-0.058	0.164	-0.016	-0.357	0.721
7.Indcd	0.087	0.074	0.040	1.188	0.235	-0.069	0.120	-0.028	-0.574	0.566	-0.637	0.144	-0.201	-4.423	0.000	0.793	0.165	0.207	4.818	0.000
2017.Date	-0.103	0.045	-0.068	-2.321	0.021	0.130	0.073	0.077	1.780	0.075	0.067	0.087	0.031	0.765	0.444	-0.300	0.100	-0.114	-3.006	0.003
2018.Date	-0.112	0.045	-0.074	-2.519	0.012	0.076	0.073	0.045	1.041	0.298	0.014	0.087	0.007	0.164	0.870	-0.203	0.100	-0.077	-2.029	0.043
CON-ACCC	6.221	0.242	0.709	25.703	0.000	-0.500	0.395	-0.051	-1.265	0.206	0.977	0.474	0.078	2.062	0.040	5.745	0.542	0.377	10.605	0.000
R^2	0.556					0.440					0.176					0.263				
$Adj.R^2$	0.556					0.260					0.160					0.249				
F-statistic	66.366*					2.454*					11.301*					18.898*				

**p< 0.01 ;*p< 0.05 *a Dependent Variable: REM_CFO,REM_PROD,REM_DISEXP,REM_PROXY

NOTE:HPS=,Highest Percentage of Shareholders, PII=Percentage of institutional investors FS=Firm size ,FL=Financial Leverage,CON-ACC =Accounting Conservatism , 2.Indcd= Dummy equal 1 if resources group; 0 otherwise,, 3.Indcd= Dummy equal 1 if technology group:0 otherwise, 4.Indcd= Dummy equal 1 if service group; 0 otherwise, 5.Indcd= Dummy equal 1 if industrials group;0 otherwise, 6.Indcd= Dummy equal 1 if consumer products group; 0 otherwise, 7.Indcd= Dummy equal 1 if property and construction group; 0 otherwise, 2017.Date= Dummy equal 1 if year 2017; 0 otherwise, 2018.Date= Dummy equal 1 if year 2018, 0 otherwise

Table 4.15: Summary of the Mediating effect of Accounting Conservatism on the Relationship between Ownership Structure and each aspects of the Real Earnings Management.

The Highest Percentage of Shareholder

Step	Independent Variable	Dependent variable	Standardized coefficients	Standard error	P-value	Interpretation	Total effect	Direct effect	Indirect effect
1	The highest percentage of shareholder	REM_CFO	0.082*	0.001	0.027				
2	The highest percentage of shareholder	accounting conservatism	0.081*	0.000	0.029				
3	accounting conservatism	REM_CFO	0.715**	0.241	0.000	Full Mediator	0.082	0.025	0.057
4	The highest percentage of shareholder accounting conservatism	REM_CFO	0.025	0.001	0.344				
Step									
1	The highest percentage of shareholder	REM_DISEXP	-0.111**	0.002	0.002				
2	The highest percentage of shareholder	accounting conservatism	0.081*	0.000	0.029				
3	accounting conservatism	REM_DISEXP	0.074*	0.476	0.050	Partial Mediator	-0.111	-0.117	0.006
4	The highest percentage of shareholder accounting conservatism	REM_DISEXP	-0.117**	0.002	0.001				
Step									
1	The highest percentage of shareholder	REM_proxy	0.116**	0.003	0.002				
2	The highest percentage of shareholder	accounting conservatism	0.081*	0.000	0.029				
3	accounting conservatism	REM_proxy	0.386**	0.540	0.000	Partial Mediator	0.116	0.085	0.031
4	The highest percentage of shareholder accounting conservatism	REM_proxy	0.085*	0.002	0.013				

NOTE : REM_CFO = the real earnings management on operating cash flow, REM_PROD =the real earnings management on production, REM_DISEXP=the al earnings management on discretionary expenses, REM_PROXY= total real earnings management

The examination of mediation, in step 1, The test of independent variable on the influence of the variable showed that the highest percentage of shareholders with had direct influence of the independent variable on the dependent variable of real earnings management on cash flow with statistical significance at 0.05 level and the regression coefficient (β=-0.082,P0.027) of the test result of the mediator variable.Step 2 The test of independent variable passed to mediating variable showed that the had the highest percentage of shareholders a direct influence of independent variable on the mediating variable on accounting conservatism was statistically significant at 0.05 level and the regression coefficient (β=0.081,P0.029) of the mediator variable test results.Step 3 The test of mediating variable passed on to showed that accounting conservatism had a direct of the variable M passed through the dependent variable on real earning management on cash flow was statistically significant at 0.05 level and the regression coefficient (β=0.715,P=0.000) of the mediator variable test.Step 4 The analysis of highest percentage of shareholders, had a statistically significant relationship with real earnings management on cash flow. The accounting conservatism was the variable mediation the hypothesis test.It can be concluded that accounting conservatism was a variable that was statistically significant resulting partial mediation between the highest percentage of shareholders and real earnings management on cash flow mediation of accounting conservatism.

The examination of mediation, the influence test of independent variable on the influence of the variable showed that the highest percentage of shareholders with had direct influence of the independent variable on the dependent variable of real earnings management on discretionary expenses with statistical significance at 0.05 level and the regression coefficient (β=0.116,P=0.002) of the test result of the mediator variable.Step 2 The test of independent variable passed to mediating variable showed that the had the highest percentage of shareholders a direct of independent variable on the mediating variable on accounting conservatism was statistically significant at 0.05 level and the regression coefficient (β=0.081,P=0.029) of the mediator variable test results.Step 3 The influence test of mediating variable passed on to dependent variable showed that accounting conservatism had a direct influence of the mediating variable passed through the dependent variable on real earning management on production costs was statistically

significant at 0.05 level and the regression coefficient (β=0.386,P0.050) of the mediator variable test.Step 4 The analysis of highest percentage of shareholders, had a statistically significant relationship with real earnings management on discretionary expenses. The accounting conservatism was the variable mediator of indirect the hypothesis test. It can be concluded that accounting conservatism was a variable that was statistically significant resulting partial mediation between the highest percentage of shareholders and real earnings management on discretionary expenses mediation of accounting conservatism.

Mediator of the relationship between the highest percentage of shareholders with total real earnings management with accounting conservatism as mediator variable shown as examination of mediation, in step 1, The influence test of independent variable on the influence of the variable showed that the highest percentage of shareholders with had direct influence of the independent variable on the dependent variable of total real earnings management with statistical significance at 0.05 level and the regression coefficient (β=-0.116,P=0.002) the test of the mediator variable.Step 2 The test of independent variable passed to mediating variable showed that the had the highest percentage of shareholders a direct influence of independent variable on the mediating variable on accounting conservatism was statistically significant at 0.05 level and the regression coefficient (β=0.081,P=0.029) of the mediator variable test results Step 3 The influence test of mediating variable passed on to dependent variable showed that accounting conservatism had a direct influence of the mediating variable passed through the dependent variable on real earning management was statistically significant at 0.05 level and the regression coefficient (β=0.386,P=0.000) of the mediator variable test.Step 4 The analysis of highest percentage of shareholders, had a statistically significant relationship with total real earnings management. The accounting conservatism was the variable passed the hypothesis test. It can be concluded that accounting conservatism was a variable that was statistically significant resulting partial mediation between the highest percentage of shareholders and real earnings management mediation of accounting conservatism.

The results of testing the influence of mediator variable according to the Baron & Kenny method concept (1986) revealed that the independent variable had influence on

the dependent variable. There is a mediation effect of accounting conservatism on the relationship between highest percentage of shareholders and real earnings management. The results show that the highest percentage of shareholders indirectly influences the real earnings management on cash flows. Real earnings management on discretionary expenses and total real earnings management mean the highest percentage of shareholders apply low accounting conservatism or unconditional accounting conservatism. This leads the highest percentage of shareholders to support earnings management activities at their discretion to determine policy regarding earnings management for the interests of the shareholders.

Then hypotheses were conducted to respond to those research questions. The hypotheses and the results of hypotheses testing were summarized in Table 4.16 as below.

Table 4.16 Summary of Research Questions, Results of Hypotheses Testing

Research questions	**Hypothesis**	**Results**
RQ1 : Do the board characteristics and ownership structure effects on accounting conservatism?	H_{1a}: There is a significantly positive effect of board size on accounting conservatism.	Accepted
	H_{1b}: There is a significantly negative effect of board independence on accounting conservatism.	Rejected
	H_{1c}: There is a significantly negative effect of number of board meetings on accounting conservatism.	Rejected
	H_{1d}: There is a significantly positive effect of board leadership on accounting conservatism.	Accepted
	H_{2a}: There is a significantly positive effect of the highest percentage of shareholders on accounting conservatism.	Accepted
	H_{2b}: There is a significantly negative effect of the percentage of institutional shareholders on accounting conservatism.	Rejected

Table 4.16 Summary of Research Questions, Results of Hypotheses Testing (Cont.)

Research questions	Hypothesis	Results
RQ2 : Does accounting conservatism effects on real earning management?	H_{3a}: There is a significantly positive effect of accounting conservatism on real earnings management of cash flow.	Accepted
	H_{3b}: There is a significantly negative effect of accounting conservatism on real earnings management of production costs.	Rejected
	H_{3c}: There is a significantly negative effect of accounting conservatism on real earnings management of discretionary expenses.	Rejected
	H_{3d}: There is a significantly positive effect of accounting conservatism on real earnings management of real earnings management .	Accepted
RQ3; Do accounting conservatism play a mediating role in the relationship among board characteristics, ownership structure and real earning management ?	H_{4a}:There is a mediating effect of accounting conservatism on the relationship between board size and real earnings management.	Accepted
	H_{4b}: There is a mediating effect of accounting conservatism on the relationship between board independence and real earnings management.	Rejected
	H_{4c}: There is a mediating effect of accounting conservatism on the relationship between board meetings and real earnings management.	Rejected
	H_{4d}: There is a mediating effect of accounting conservatism on the relationship between board leadership and real earnings management.	Accepted

Table 4.16 Summary of Research Questions, Results of Hypotheses Testing (Cont.)

Research questions	Hypothesis	Results
	H_{5a}: There is a mediating effect of accounting conservatism on the relationship between the highest percentage of shareholders and real earnings management.	Accepted
	H_{5b}: There is a mediating effect of accounting conservatism on the relationship between the percentage of institutional shareholders and real earnings management.	Rejected

CHAPTER 5
CONCLUSION AND RECOMMENDATIONS

This chapter presents the conclusion and recommendation of the thesis, including conclusion and discussion of major findings in Section 5.1 and 5.2 respectively. Then, the contributions of the study are addressed in Section 5.3. Finally, Section 5.4 identifies research limitations and suggestions for future research. The details of each sections are provided as follows.

5.1 Conclusion

In regard to good governance, the board of governors of the SET adopted good governance principles of the Organization for Economic Co-operation and Development (OECD) as a core guideline for Thai listed companies. Thus, the study focuses on investigating the mediating effects of accounting conservatism on the relationship among board characteristics, ownership structure, and real earnings management of Thai listed companies. The corporate governance in terms of board characteristics and ownership structure are independent variables in this study. The board characteristics includes board size, board independence, board meeting, and board leadership while the ownership structure includes the highest percentage of shareholders and institutional investors. Concurrently, accounting conservatism plays a mediating role for the study. Finally, real earnings management is a dependent variable in four aspects: real earnings management on operating cash flow, real earnings management on production, real earnings management on discretionary expenses, and earnings management on total real earnings management.

The sample consisted of Thai listed companies on the Stock Exchange of Thailand (SET); however, the companies in financial sector with unavailable data were excluded.

The research questions are as follows:

Research question 1: do the board characteristics and ownership structure have an impact on accounting conservatism?

In response to research question 1, the results show that board characteristics in terms of board size and board leadership (CEO duality) have a positive and significant impact on accounting conservatism. Ownership structure in terms of the highest percentage of shareholder also provides a positive and significant effect on accounting conservatism. The evidence confirms that corporate governance significantly affects accounting conservatism. Thus, it can be implied that corporate governance is a key tool for good governance in accordance with the SET aims and also maintains accounting standards.

Research question 2: does accounting conservatism impact on real earnings management?

In response to research question 2, the major findings are the significant impact of accounting conservatism on real earnings management on operating cash flow and on total real earnings management. These findings reflect accounting conservatism as a tool for CEOs to manipulate real earnings on cash flow, and total real earnings by increasing sale, employing discretionary expenses and increasing production.

Research Question 3: do the board characteristics and ownership structure have an impact on real earnings management through accounting conservatism?

In response to research question 3, the study employed accounting conservatism as a mediating variable to investigate the mediating effects on the relationship among board characteristics, ownership structure and real earnings management. In particular, this research question is to fulfill research gap in regard to the mediating effect of accounting conservatism investigation. Three major aspects from the results are shown as follows:

Firstly, accounting conservatism plays a full mediation role between board leadership (or CEO duality) and real earnings management on cash flow, and between the highest percentage of shareholders and real earnings management on cash flow.

Secondly, accounting conservatism gives partial effect on the relationship between the highest percentage of shareholders and total real earnings management.

Thirdly, accounting conservatism provides a full mediating effect without direct effect of corporate governance variables on real earnings management.

The study applied the Sobel Test (1982) to recheck the significant effect of accounting conservatism on real earnings management. The results completely confirm mediating effect of accounting conservatism on the relationship between corporate governance and real earnings management in three particular aspects: 1) the relationship between board size and real earnings management on cash flow, 2) the relationship between board size and total real earnings management, and 3) the relationship between board leadership (CEO duality) and total real earnings management. Interestingly, the findings revealed that there were other unknown mediating variables apart from accounting conservatism.

5.2 Discussion

Research discussion in regard to research questions and hypotheses testing is shown as follows.

5.2.1. Discussion of Research Question 1

According to the first research question which aims to investigate whether board characteristics and ownership structure have an impact on accounting conservatism, the result reveals that two factors of board characteristics: board size, and board leadership have a significant impact on accounting conservatism. In regard to the ownership structure, the highest percentage of shareholders has a significant impact on discretionary accrual. The details of the effects of these factors are as follows.

5.2.1.1 The Effect of Board Size on Accounting Conservatism

The result of the study on the board size and its impact on accounting conservatism reveals that the board size is significantly and positively correlated with accounting conservatism at 0.01. Thus, hypothesis H1a is accepted. The result also indicates that if the board size is large, it is more required that the company must strictly comply with generally accepted accounting standards.

The board of directors may not possibly have a profound level of accounting knowledge; therefore, accounting conservatism or safety principles of recording transactions are commonly applied in accordance with generally accepted accounting standards. Compliance with accounting standards is beneficial for the company and its shareholders since financial reports are certified and generally accepted.

Moreover, financial credibility of the company will be well established according to stewardship theory that primarily aims to protect the interests of shareholders. Sahra and Pearce (1989) and Rahimah, M. Y. (2011) also found that the board size had a significant positive correlation with accounting conservatism and represents good corporate governance.

In contrast, Joo (2009) found that a large board size might lead to less application of accounting conservatism. This might be due to the fact that several directors have executive work experience and deep accounting knowledge. In addition, accounting conservatism can be exercised by the management's power and discretion to manage the earnings to be greater or less than its real earnings (Li, 2018).

5.2.1.2 The Effect of Board Leadership on Accounting Conservatism

The study on the board characteristics whether CEO duality affects accounting conservatism reveals that CEO duality is significantly and positively correlated with accounting conservatism at 0.01. Therefore, hypothesis H1d is accepted. The result also indicates that CEO duality greatly reflects the use of accounting conservatism. Since the CEO and chairman is the same person, he solely has the power to manage and make operational decisions which is in line with Daghsni, (2016), who found that CEO duality could lead to great decision-making power and organizational influence. As a result, the management can exercise discretionary conservatism more which is in accordance with Zhu (2009), Anderson, Deli & Gillan (2003); Yasser &, Mamun (2015); Omoye & Eriki (2014).

Unlike Chtorou, Bedard & Courteau (2001) and Bradbury, it was suggested by Mak & Tan (2006) that CEO duality had no influence on accounting conservatism with regard to discretionary accruals. In addition, Lara, Osma & Penalva (2009) also found that the application of accounting conservatism by the organization increased if the board minimally participated in decision-making.

5.2.1.3 The effect of the highest percentage of shareholders on accounting conservatism

The study reveals that the highest percentage of shareholders is significantly positive correlated with accounting conservatism at 0.01. Thus, hypothesis

H2a is accepted. The result also indicates that accounting conservatism is applied more if the proportion of majority shareholders is high, which corresponds with Ding, Zhang, and Zhang (2007). In addition, Teshima and Shuto (2008) found that there was a correlation with accounting conservatism if a major shareholder who was considered as the real owner of the business held high proportion of the shares. Thus, the major shareholder prefers not to record his earnings higher than he has actually made. This is in line with Sarkar, Sarkar, and Sen (2008) who found that there was a correlation with accounting conservatism if the shareholder also controlled the business as an executive director on the board. Yunos (2011) examined the impact of substantial shareholders by dividing insider substantial shareholders (the shares held by the management) from outsider substantial shareholders, and revealed that outsider substantial shareholders had a significantly positive effect on accounting conservatism while insider substantial shareholders had a significantly negative effect on accounting conservatism. The result of this study is consistent with Yunos (2011) regarding outsider substantial shareholders. It can be implied that the interest of substantial shareholders is based on the compliance with generally accepted accounting standards.

However, the results of this research are in contrary to the studies of Jaggi & Leung, (2007); Liu & Lu,(2007); Massa, Zhang, &Zhang (2015), who found that the highest shareholder percentage decreased accounting conservatism. They also discussed that accounting conservatism might be employed under managerial discretion which provided the management an opportunity to exploit for personal interests. Similarly, Yang et.al, (2008) found that the proportion of shareholders in the management and the board is related to accounting conservatism. Moreover, the highest shareholder percentage decreases earnings management, but increases accounting conservatism.

5.2.2 Discussion of Research Question 2

The results of the second research question "does accounting conservatism impact on real earning management?" revealed the significance of real earnings management of cash flow and total real earnings management as follows:

5. 2. 2. 1 The Effect of Accounting Conservatism on Real Earnings Management of Operating Cash Flow

The study on the impact of accounting conservatism on real earnings management of operating cash flow reveals that accounting conservatism is positively correlated with real earnings management of cash flow at 0.01. Thus, hypothesis H3a is accepted. The result indicates that if accounting conservatism is greatly applied, the level of real earnings management of operating cash flow will also be high.

According to Graham et al. (2005), the executives or CEOs believed that shareholders and stakeholders prefered smooth earnings or the short-term earnings target; therefore, the CEOs might employ accounting conservatism in regard to discretionary accruals as a tool to manipulate real earnings, and report financial information based on the generally accepted accounting standards. Roychwdhury (2006) and Cohen (2008) indicated three manipulating methods of real earnings management which included sales manipulation for real earning management of operating cash flow, employing discretionary expenses, and increasing production.

The findings show that Thai listed companies offer large discount percentages or extend credit term as sales manipulation to increase real earnings. This is in accordance with Li (2018) who also found that accounting conservatism is positively correlated with real earnings management of operating cash flow while discretionary conservatism affects real earnings management of cash flow unusually. Guidry, F. et al., (1999), and Burgstahler and Dichev (1997) also suggested that the management often avoided reporting loss or decline in performance by employing discretionary conservatism. However, the findings of Nera & Murwaningsari (2017) and Mulford. C. W. & Comiskey, E. E., (1996) showed that accounting conservatism is negatively correlated with real earnings management of operating cash flow.

5.2.2.2 The Effect of Accounting Conservatism on Total Real Earnings Management

The study reveals that accounting conservatism is significantly and positively correlated with real earnings management at 0.01. Thus, hypothesis H3d is accepted. The result indicates that more accounting conservatism leads to an increase in total real earnings management. In short, accounting conservatism supports earnings management on the three activities: operating cash flow, production costs, and discretionary expenses.

According to the three earning manipulations which include sales manipulation, discretionary expenses and overproduction, Cohen (2008) identified that the management normally prefer upwards earnings; thus, the operating cash flow and discretionary expenses should be less than the normal level. In contrast, the production cost should be higher than the normal amount to reduce cost of goods sold which considered as total real earning management. For discretionary expenses, research and development cost was a popular item for the management to employ as discretionary expenses to delay the expense recognition.

The findings show that accounting conservatism significantly affects total real earnings management which can be implied that the companies employed accounting conservatism regarding three activities: sales stimulation, discretionary accruals, and overproduction to manipulate real earning management. This is in line with Demski (2004), Ewert and Wagenhofer (2005), who found that accounting conservatism would encourage the management to apply discretionary earnings management rather than normal accrual-based earnings management. This finding is also supported by Alarlooq et al. (2014) who suggested that unconditional accounting conservatism is significantly correlated with the discretionary earnings management. Similarly, Lara et al (2012), who studied US sample during 1910-2010, claimed that accounting conservatism is positively correlated with earnings management.

5.2.3 Discussion of Research Question 3

The results of the third research question " do board characteristics and ownership structure have an impact on real earning management through accounting conservatism?" show three major aspects as shown in Section 5.1. This section provides more details of the mediating effects of accounting conservatism on the relationship among corporate governance and real earnings management as follows:

Full mediation: accounting conservatism played a complete mediating role in two aspects: the full mediating effects on the relationship between board leadership and real earning management on operating cash flow, and the mediating effects on the relationship between the highest percentage of shareholders and real earning management on operating cash flow. The details of each aspect are explained in Section 5.2.3.1 and 5.2.3.2 respectively.

1) Partial mediation: accounting conservatism played a partial mediating role on the relationship between the highest percentage of shareholders and total real earnings management. The details of the aspect were discussed in Section 5.2.3.3.

2) Full mediation without direct effect of corporate governance variables on real earnings management: accounting conservatism played a complete mediating role in the relationship between board size and real earning management on operating cash flow, the relationship between board size and total real earning management, and the relationship between board leadership and total real earning management. The details of the aspects are in Section 5.2.3.4.

5.2.3.1 The Complete Mediating Effects of Accounting Conservatism Between Board Leadership and Real Earnings Management on Operating Cash Flow

The model shows that board leadership (CEO duality) has a significantly positive impact on both accounting conservatism and real earnings management on operating cash flow. Concurrently, accounting conservatism also gives a significant positive effect on real earnings management on operating cash flow.

The results also indicate that both direct effect and indirect effect exist. Importantly, accounting conservatism, as a mediating variable, reduces the direct impact of board leadership on real earnings management. This evidence confirms that accounting conservatism is a complete mediator between board leadership and real earnings management on operating cash flow based on Baron & Kenny model (1986). Therefore, companies have employed accounting conservatism as a tool to manipulate real earnings management on cash flow.

Meanwhile, CEO duality enables companies to apply accounting conservatism on real earnings management on cash flow. This corresponds with Li (2018), who indicated that accounting conservatism was positively correlated with real earnings management on operating cash flow based on unconditional accounting conservatism in compliance with accounting standards. Sarkar, Sarkar & Sen (2008) also pointed that CEO duality was interested in manipulating earnings rather than smoothing them. Furthermore, Rahman & Haniffa (2002) stated that CEO duality of the companies in Malaysia employed management power to reduce the board efficiency and manipulate companies' earnings leading to poor firm performance. Real earnings management on

operating cash flow indicates companies' performances; however, accounting conservatism is an accounting policy to develop real earnings to accrual-earnings to smooth earnings in accordance with the accounting principle. The gap of real earnings management on operating cash flow may lead to exploitation by certain groups related to the companies.

5.2.3.2 The Complete Mediating Effects of Accounting Conservatism Between the Highest Percentage of Shareholders and Real Earning Management on Operating Cash Flow

Similar to subsection 5.2.3.1 above, the model revealed that the highest percentage of shareholders provided a significantly positive impact on both accounting conservatism and real earnings management on operating cash flow. Concurrently, accounting conservatism also gives a significant positive effect on real earnings management on operating cash flow.

The results of the analysis on the causal relationship between the highest percentage of shareholders and real earnings management on operating cash flow through accounting conservatism, as a mediating variable, reveal that accounting conservatism also plays a key mediating role by declining the impact of the highest percentage of shareholders on real earnings management on cash flow. This evidence confirms that accounting conservatism is a complete mediator on the relationship between the highest percentage of shareholders and real earnings management on operating cash flow. It can be implied that the highest percentage of shareholders employ accounting conservatism as a tool to manipulate real earnings management on cash flow.

Therefore, accounting conservatism provides completely mediating on the relationship between the highest percentages of shareholders on real earnings management on cash flow. Similar to CEO duality, it indicates that the companies employ accounting conservatism to manipulate real earnings management on operating cash flow, such as offering discount and promotions to increase sales at the end of the year. Consequently, accounting conservatism is employed to manipulate real earnings management to accrual earnings management (Li, 2018). Guidry, F. et al., (1999) and Burgstahler and Dichev (1997) found that the management avoided reporting their losses

or their decrease in performance by applying real earnings management on cash flow, and changes in working capital.

5. 2. 3. 3 The Partial Mediating Effects of Accounting Conservatism Between the Highest Percentage of Shareholders and Total Real Earning Management

The model shows that the highest percentage of shareholders provides a significantly positive impact on accounting conservatism and total real earnings management. In addition, accounting conservatism also gives a significant positive effect on total real earnings management.

After employing accounting conservatism as a mediating variable, the model reveals an indirect effect of the highest percentage of shareholders on total real earnings management through accounting conservatism, as well as a direct effect of the highest percentage of shareholders on total real earnings management. It can be implied that accounting conservatism partially mediated the relationship between the highest percentage of shareholders and total real earnings management.

The results indicate that both direct effect and indirect effect exist, and accounting conservatism and the highest percentage of shareholders are the major factors affecting total real earning management. On the other hand, accounting conservatism partially supports the highest percentage of shareholders to manage total real earnings. Three methods which consist of stimulating sales, discretionary expenses, and overproduction are used to manipulate total real earnings (Roychwdhury, 2006). Discount strategy is a key method to increase sales while accrual-based earnings management on discretionary expenses is supported by accounting conservatism to manage earnings. Such methods, particularly research and development cost, and overproduction which causes high inventories and a decrease in the cost of goods sold, are applied to manipulate real earnings, and accrual earning through accounting conservatism.

The power of the highest percentage of shareholders and accounting conservatism may be a concern of the companies since the highest percentage of shareholders support earnings management activities at their discretion to determine policy regarding earnings management for the interests of the shareholders. This corresponds with Demski (2004), Ewert and Wegenhofer (2005), who found that an increase in accounting conservatism supported discretionary earnings management rather

than normal accrual-based earnings management. Alarlooq et al (2014) also revealed that unconditional accounting conservatism was significantly correlated with discretionary earnings management. In addition, Bao & Lewellyn (2017) suggested that the highest percentage of shareholders had control over the business in order to maximize shareholders' wealth, and also demanded higher returns on their investment leading to more accounting conservatism and more earnings.

5.2.3.4 The Full Mediating Effects of Accounting Conservatism Without Direct Effect of Corporate Governance Variables

The Sobel Test confirms that accounting conservatism plays a complete mediation role in three aspects as follows:

1) The complete mediating effect on the relationship between the number of board members and real earnings management on operating cash flow,

2) The complete mediating effect on the relationship between the number of board members and total real earnings management,

3) The complete mediating effect on the relationship between board leadership and total real earnings management.

It is interesting that the complete mediating effects of accounting conservatism on the three relationships aforementioned exist without any direct effects of independent variables. It can be implied that there might be other mediating variables or unknown latent mediating variables besides accounting conservatism. Therefore, it is necessary to study further whether other mediating variables influence independent and dependent variables within the research framework.

According to the findings, it is recommended that the elements of corporate governance in Thailand, especially CEO duality which employed accounting conservatism to manipulate earnings to meet the short-term targets rather than the long-term economic value or maximize shareholder's wealth, should be strengthen. Saleh, Iskander & Rahmat (2005) also suggested that in Malaysia, chairman and CEO roles should be separated to avoid manipulating companies' earnings.

Although accounting conservatism obviously plays a complete mediation on the relationship among board size, real earning management on cash flow, and total real earnings management, it is clear that board size, not real earnings management, is a

key factor of accounting conservatism. However, there are still unknown mediating variables, which should be further studied. Even though accounting conservatism is an accounting policy of accounting standards that are generally accepted, the fact that it allows discretionary accrual-based earnings management which the management may exploit for their personal interests rather than for shareholders' becomes its disadvantage.

5.3 Contributions of the Study

This research which focuses on the application of accounting policies regarding accounting conservatism is useful to the shareholders, the management, and the stakeholders. Due to discretionary conservatism which allows the management to exercise their discretion, they might manage earnings for their personal interests rather than for shareholders'. The research also reveals how good governance in terms of board characteristics and ownership structure can be applied in order to achieve good corporate governance. Thus, this research gives both academic and practical benefits as follows.

5.3.1. Theoretical Contribution

The results of the research confirm the relevant theories and prior research as follows:

Firstly, the results confirm the agency theory since discretionary conservatism affects real earnings management on operating cash flow and total real earnings management, which is contrary to transparency as a principle of good governance. The conduct constitutes a conflict between the management and the shareholders since financial reports do not reflect the real earnings of the companies, which would affect the quality of the earnings and the market price of the shares according to Daranarch (2016). Thus, accounting conservatism as an accounting policy should focus on the power of the management to employ discretionary accruals for the optimum benefit of shareholders rather than for their personal interests. This may reduce conflicts of interests between the management and shareholders.

Secondly, the results support the stewardship theory. The larger size of the board provides more accounting conservatism. It can be implied that the board of directors have confidence in accounting standard and quality of financial information

which can lead to more creditworthiness for companies and more benefits for shareholders.

Thirdly, the results reveal executive ethics which is an important issue since it provides a large impact on shareholders and stakeholders. CEO duality, in particular, can be considered as moral hazard if the management lack ethics and apply discretionary conservatism for their own interests.

Fourthly, the results support good governance of the Organization for Economic Co-operation and Development (OECD). Board characteristics and ownership structure are the key factors to protect the benefits of shareholders. However, the board of directors should gain more accounting knowledge to be aware of the management's actions, especially discretionary accruals to manipulate real earnings management.

5.3.2 Managerial Implications / Practical Contributions

The results of this research are useful to several related parties as follows:

Firstly, shareholders, as owners of the business, with the management acting as their representative of the company must be aware of discretionary conservatism since it may be used for the management's personal interests rather than the company's. This research proves that the use of discretionary conservatism for real earnings management on cash flow, and total real earnings management may also reduce profit quality and stock prices. Moreover, shareholders must be aware that patronage system still impacts the appointment of independent directors in Thailand, and causes a lack of true independence. Therefore, the performance of such independent directors is not proper enough to truly protect the interests of shareholders. The majority of the board of directors remain confident in accounting conservatism. However, they must have a solid understanding of how the management's discretion is allowed in accounting management. Lack of such knowledge leads to an inadequate management audit. It is suggested that there should be a committee with clear knowledge in order to balance the management's discretion. Additionally, the frequent board meetings which review operations can reduce the chance of management's exploitation.

Secondly, the board should understand accounting policies regarding discretionary conservatism, and the gap that allows the management to seek interests for

their own. With the board's understanding, it helps the audit department operate more efficiently.

Thirdly, ownership structure regarding the proportion of shareholders emphasizes accounting conservatism, as well as the board of directors. However, understanding of applying accounting conservatism is necessary since accounting conservatism may distort the financial statements, affect the profit quality, and reduce common stock prices.

Fourthly, for general investors, the company's financial statements are inadequate for data analysis due to the gap in accounting conservatism which allows earnings management. Thus, it is necessary for the investors to look for more information rather than financial statements prior to making any investment decisions.

Fifthly, the Stock Exchange of Thailand that stipulates good corporate governance rules for listed companies should review the appointment and the qualifications of independent committees. Since the committees must have knowledge and understanding of discretionary accrual, training sessions should be organized to advance the knowledge of relevant parties.

Sixthly, scholars should conduct more in-depth studies on all dimensions of good corporate governance affecting accounting conservatism. Their findings would help protect shareholders' and stakeholders' interests.

5.4 Limitation of the Study

The limitations of this study are as follows:

Firstly, companies in financial industry were excluded in this research since their financial statements are classified differently from other industry groups. Therefore, the results do not include all industries in the Stock Exchange of Thailand.

Secondly, a number of the samples were excluded due to insufficient data, and the time frame of this study that did not cover certain companies. Moreover, some industries with a small number of companies were unable to parse into one industry group.

Thirdly, this quantitative research lacks relationship insights between the highest percentage of shareholders and the management which can explain and reveal more research findings in another dimension.

Fourthly, this research lacks an indirect correlation of the number of committees as an independent variable, real earnings management on operating cash flow and total real earnings management as dependent variables, and accounting conservatism as a mediating variable. Moreover, board leadership (CEO duality) as the independent variable, accounting conservatism as a mediating variable, and real earnings management on operating cash flow as a dependent variable could not be clearly investigated by the analytical framework of Baron Kenny (1986). This is due to the fact that only one mediating variable was analyzed; however, the research result reveals that there are also other mediating variables which were not included in the research framework. Thus, the results are inaccurate.

5.4.1 Future Research

Firstly, the data collection period in this study was three years. The data collection period in future study should be extended to determine whether the results change to gain more major factors affecting dependent variables under new situations.

Secondly, this research found that there is more than one mediating variable that influences the number of board members and earnings management, and between the board leadership and earnings management. Therefore, it is necessary to find other mediating variables to gain more mediating variable affecting the relationship between corporate governance and real earnings management.

Thirdly, the research model should be used to study financial business group in particular, and examine the impact of good governance on real earnings management through accounting conservatism to ensure financial information and real earnings management.

Fourthly, external factors should be applied in future research. The effect of external factors on accounting conservatism and real earnings management might lead to changes in external circumstances affecting on discretionary accruals.

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(Miss Phimpaka Jaimuk)