The Relationship between Audit Committee Characteristics, Financial Statement Restatements, and Audit Fees: US evidence

SAMIRAH SALEH M ALMUTAIRI

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Abstract

This thesis aims to provide oversights about the impact of audit committee characteristics on constraining the occurrence of financial statement restatements. It also examines the impact of audit committee characteristics on audit fees following the incident of restatements. In addition, to increase the generalisability of the results of this study, it examines the impact of audit committee characteristics on mitigating the occurrence of restatements in family businesses. The study examines abovementioned issues, using 450 restatement announcements and matching them with a peer group of 450 control firms that are similar in size and industry. It covers the period of 2011-2016 using the U.S. context. The results reveal that larger audit committees, and audit committee tenure, are associated negatively with the incidence of restatements. Thus, regulators and policy makers should motivate companies to assign a large number of audit committee directors to increase their effectiveness. Work tenure also assists audit committee directors to be familiar with the firms and their operation and accounting systems. It therefore enables them to detect any accounting irregularities before issuing the financial statements. Regulators and policy makers also should established a code that force companies to keep their audit committee directors for a period of time and avoid changing them unless they show ineffective role. Moreover, busy directors are ineffective at constraining the likelihood of restatements, as they do not devote enough time and effort to monitoring the financial reporting process. Regulators and policy makers, therefore, should prohibit audit committee directors from serving in many boards at the same time. The study reports a significant result about the impact of audit committee characteristics on audit fees following the incident of restatements. Busy Audit committee directors demand extensive audit work to protect their reputational capital following restatements because they do not put enough time to oversight the external audit quality. This finding proves to regulators and policy makers that busy directors have also a negative impact not only on financial reporting process but also on external audit quality. Audit committee directors with greater stock ownership also exhibit a positive association with external audit quality. Thus, it is recommended to compensate audit committee directors with stock ownership to align the interests of directors and shareholders. In terms of the impact of audit committee characteristics on mitigating the occurrence of restatements in family businesses, the findings support the result and find that audit committee tenure, as well as audit committee stock ownership in family business, also has a positive impact and can mitigate the incidence of restatements. Thus, long work tenure and stock ownership should be adopted also in family business.

The Relationship between Audit Committee Characteristics, Financial Statement Restatements, Audit Fees. US evidence

by

Samirah Almutairi

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List of Abbreviations

Abbreviations	**Description**
BRC	Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees
FTSE	Financial Times Stock Exchange
GAAP	Generally Accepted Accounting Principles
GAO	Government Accountability Office
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
NYSE	New York Stock Exchange
NASD	National Association of Securities Dealers
NACB	National Association of Corporate Director
PCAOB	Public Company Accounting Oversight Board
SAS	Statements of Auditing Standards
SEC	Securities Exchange Commission
SOX	Sarbanes–Oxley Act

DECLARATION

I declare that this thesis is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person, except where due acknowledgment has been made in the test. I confirm that no part of the material presented in this thesis has previously been submitted by me or any other person for a degree in this or any other institution.

STATEMENT OF COPYRIGHT

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Dedication

This thesis is dedicated to my dad, who was the reason for achieving my goal. To my mom, who supports me with her prayers although she needs me to be next to her. To my husband Muhammed, the person who shares this dream with me.

CHAPTER One

Introduction and Overview

1.1 **Background and Motivation**

The growing number of financial statement restatements in recent years has attracted scholars, regulators and academics to shedding light on the negative consequences of restatements, in order to avoid them in the future (Liu *et al.*, 2009, Chan *et al.*, 2011, Archambeault *et al.*, 2008). Although researchers all over the world have extensively investigated the association between board characteristics and financial reporting quality, there is still a scarcity of research that focuses on the negative consequence of financial statement restatements, in particular for the board of directors (Srinivasan, 2005). Knowing the negative effects of restatements could encourage audit committees to work effectively at overseeing financial reporting quality. It would also assist corporations with avoiding future restatements. In addition, highlighting the negative results of restatements could force corporations to take corrective action and decrease the rate of management turnover among top managers (Srinivasan, 2005). Furthermore, corporations should work to increase financial reporting quality and increase the integrity of financial statements in order to restore trust. Corporate legitimacy would also be damaged if corporations did not adopt strategies that helped in such a financial crisis.

The Government Accountability Office (GAO) in the U.S. released a report containing a history of financial statement events from 2002 to 2006. The report indicates that financial statement restatement is an objective measure of failure of financial reporting quality. In addition, the GAO report shows an increase in financial restatements over this period of around 145%. Restatements also cost investors about $100 billion from 1992 to 2002. The Securities and Exchange Commission (SEC) provides further warnings and states that restatement is one of the major factors negatively affecting

investor confidence and market efficiency. Moreover, there were 1,876 restatements in 2006 compared to 452 in 2001 (Reilly, 2007). Thus, financial statement restatements are costly events that damage different parties including investors, shareholders and economies, and they also damage the reputation capital of the board of directors. Scholars, therefore, investigate the issue and enrich the literature with valuable results and findings that help companies to avoid future restatements.

1.2 Research Aims and Objectives

This research aims to provide an oversight about the impact of audit committee characteristics on the occurrence of restatements. Following research objectives would facilitate the achievement of this aim.

1. Examine the impact of audit committee characteristics on restatements frequency in chapter two.
2. Explore the impact of audit committee characteristics on audit fees following the incident of restatement in chapter three
3. Examine the impact of audit committee characteristics on restatements frequency in family business in chapter four.

Furthermore, because the main issue this research investigates is restatement, the researcher chose the U.S. context where there is a sufficient number of restatements incidents happened, which will increase the statistical power of the research model. In addition to this reason, the following section will provide a number of justifications that motivates the researchers to choose the U.S. context.

1.3 U.S. Context

Understanding corporate governance in the United States is essential to differentiate

between it and other countries in terms of best corporate governance practices. The U.S. is seen as shareholder-oriented model of corporate governance in terms of investor protection regulations, the governmental monitoring process, independent outside directors on the board, legal penalties, and enforcement actions taken against corporate failure (Jachson, 2010). Although the occurrence of accounting scandals such as those of Enron, WorldCom etc. reflect a weakness in the corporate governance code implementation, the SEC responded to these scandals by passing the Sarbanes-Oxley Act (SOX) in Congress in 2002. The SOX Act in 2002 added more responsibilities for audit committee directors in particular, and external auditors, in order to provide better governance practices and increase the quality of financial reporting. Different entities and regulations were formed in the U.S. to control the market, provide greater investor protection and increase the level of corporate disclosure. The market efficiency was developed by different actions such as:

- The Sarbanes-Oxley Act (SOX) in 2002.
- New listing requirements by The New York Stock Exchange (NYSE): forced enforcement action and costly penalties by The Securities and Exchange Commission (SEC) in 2002.
- Providing more recommendations by The Blue Ribbon Committee on improving corporate audit committees in 1999.
- Providing useful reports to help the Government Accountability Office (GAO) make a decision.
- Monitoring external auditors through the Public Company Accounting Oversight Board (PCAOB) inspection.

- Many other governance advocates such as The National Association of Securities Dealers (NASD), and the National Association of Corporate Directors (NACD) (Jackson, 2010).

1.4 The Negative Consequences of Restatements

Directors on the board gain many benefits from the directorship they hold. These benefits include reputation, expertise and networking (Fama and Jensen, 1983). Therefore, any failure the company might experience will affect the directors negatively and might cause them to lose their seats on the board. Effective directors can be rewarded by being appointed onto other boards, while inefficient directors might lose their positions as a result of low firm performance or low financial reporting quality. Support for these arguments comes from Srinivasan (2005). The researcher investigated the negative consequences of the announcement of financial statement restatements on board directors and focused on audit committee directors in particular. It compared restated and non-restated firms and it controlled for the firm's performance and other variables that could affect the board turnover, other than restatements. The results reveal that board directors suffer legal and reputational penalties when companies experience financial statement restatements. The findings show that 48.1% of outside directors lose their positions on the board of directors within three years following the announcement of restatements for their companies. The turnover is high for income-decreasing cases, and 27.8% for income-increasing cases, and 25% lose their additional directorships (Srinivasan, 2005). The possibilities of turnover or losing additional directorships are greater for audit committee directors than other directors because they are responsible for overseeing internal control and financial reporting quality. These types of penalties are considered as

negative reputation consequences in the labour market.

In addition, in the case of failures with financial reporting, the market points the finger towards the board of directors of the company. The turnover of directors and managers after corporate failure supports this argument (Gilson, 1990). Empirical studies also provide significant evidence regarding the effect of restatement announcements on directors' reputational capital. For instance, in 2006, researchers explored the reputational penalties for managers of restatement announcements. The study reported that 60% of at least one of the top managers turned over at the restated companies two years following the restatements (Desai *et al.*, 2006). Furthermore, analysis reveals that 70% of directors and audit committee members are more likely to leave their firms following a restatement announcement (Arthaud-Day *et al.*, 2006).

Not only is the board of directors affected negatively after the announcement of restatements; the firm also becomes affected. Palmrose *et al.* (2004) state that restatements indicate that a firm has not complied with the generally accepted accounting principles (GAAP). It also shows a weak internal control system, which leads to restating the financial statements (Kinney and McDaniel, 1989). Thus, firm valuation becomes affected negatively by financial statement restatements – a negative reaction of 9.2% to the announcement of restatements is experienced within two days of the announcement (Palmrose *et al.*, 2004). Further evidence supports the previous findings regarding the negative impact of restatement announcements on stock price. For example, Gondhalekar *et al.* (2012) examined the consequence of restatement announcements on the short-term and long-term share price reaction. The study reports a significant negative association between restatement announcements and the stock price (Gondhalekar *et al.*, 2012).

In a comparison between restated and non-restated companies, contenders such as Gleason, C.A, Jenkins, N.T. and Johnson, W. find that restatements cause a decline in the share price. The decline in the share price reflects the loss of confidence by investors and shows their concerns about the creditability of the company's financial reporting. The study also observes that investors start to be concerned about the stock price of peer firms with high earnings that have not restated their financial statements when they are audited by the same external auditor who audited the restated companies. This indicates that after the announcement of restatements, investors look back at the financial statements that have been released by non-restated companies as well (Gleason *et al.*, 2008). In addition, Wu (2002) reports a negative short-term market reaction after a restatement announcement. The study illustrates significant negative investor confidence in financial statements following the occurrence of restatements (Wu, 2002).

Hribar and Jenkins (2004) examine the effect of financial statement restatements on earnings revisions and the cost of capital. The study reveals that the incident of restatements is significantly and negatively associated with expected future earnings. Moreover, the cost of capital increases on an average of 7% to 19% in the month following restatement announcements (Hribar and Jenkins, 2004). The results of the study are consistent with the notion that restatements increase the investors' required rate of returns. It also decreases the earnings quality (Hribar and Jenkins, 2004). The results also confirm the findings of Dechow *et al.* (1996), who confirm that the cost of capital increases after an announcement of financial statement restatements (Dechow *et al.*, 1996).

Furthermore, scholars have found evidence that restatements damage

organisational legitimacy (Arthaud-Day *et al.*, 2006). In order to protect the organisational legitimacy of the firm, they put the blame on the management to use the management turnover as an attempt to protect the firm's legitimacy. Also, management turnover used to signal the market to restore the trust in the financial statements and its credibility. And send a signal to restore the investors' trust in the firm (Feldmann *et al.*, 2009). As cited in (Feldmann *et al.*, 2009), researchers define legitimacy as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman 1995, 574). Corporate legitimacy is a critical key and it has different advantages such as attracting high qualified managers, skilled emplyess, obtain governmental support and financial capital (Zimmerman and Zeitz, 2002). Findings of other researchers support the previous argument about the negative impact of restatement announcements on corporate legitimacy (Arthaud-Day *et al.*, 2006, Blankley *et al.*, 2012).

Shareholders and the SEC believe that restatements represent a failure in the external audit. In addition, shareholders are more likely to vote against the reappointment of the external auditors after restatement announcements, compared to firms that have not restated their financial statements (Liu *et al.*, 2009). From an external auditor perspective, the occurrence of financial statement restatements affects the relationship between auditors and their clients, as well as the audit fees (Blankley *et al.*, 2012). Furthermore, restatements do not only represent the firm's failure in financial reporting, but also reflect a weak audit effort that did not discover the accounting errors or irregularities (Blankley *et al.*, 2012). Also, the audit risk increases following restatements and external auditors

might face labour market penalties such as reputational market and legal liabilities (Blankley *et al.*, 2012).

1.5 Audit Committee Characteristics

The agency theory concerns the relationship between the principal (shareholders) and agent (management) (Fama and Jensen, 1983), particularly problems that may rise from this relationship. As cited in Habbash *et al*. (2014), Eisenhardt (1989) states that agency problems occur when there is a conflict of interest between shareholders and management. When shareholders cannot monitor management and detect any opportunistic behaviour, another agency problem arises. Furthermore, shareholders and management's attitudes towards risk sometimes differ; shareholders, therefore, must pay the cost of this difference, and this is called the agency cost in the literature (Eisenhardt, 1989, Habbash *et al*., 2014, Jensen and Meckling, 1979). Researchers all over the world have enriched accounting literature with studies focusing on the agency problems and how to mitigate agency costs. Specifically, researchers initially focus on the role of corporate governance in aligning the interests of shareholders and management. Then they focus more on audit committees, particularly as they are the safeguard of financial reporting and financial statements from the shareholders' perspective.

Abbott *et al*. (2004) found a significant negative association between audit committee characteristics – namely independence, meeting frequency and financial expertise – and the occurrence of restatements. By testing 88 annual restatements from the period of 1991–99, the findings of the study suggest that audit committees consisting entirely of independent directors, with at least one financial expert, can mitigate the incidence of restatements. The researchers argue that the frequency of audit committee

meetings can decrease the occurrence of restatements significantly. Audit committees that meet often can be updated with any accounting issues. Additionally, discussing such issues with internal and external auditors in a timely manner can assist directors to be proactive and address any accounting errors before the issuance of the financial statements.

Agrawal and Chadha (2005) find that that independent directors on the board, and independent directors in the audit committee who have financial expertise, are more effective in monitoring the financial reporting process and can decrease the occurrence of restatements. Furthermore, Lin *et al.* (2006) argue that Larger audit committees, however, were found to be more effective in overseeing the financial reporting process. This means that audit committee directors possess the ability to decrease any potential misstatements and therefore increase earnings quality. A greater number of directors provides more experience and specialities to the board, thus its effectiveness is greater. In addition, Sun *et al*. (2014) find a positive association between the number of directorships held by audit committee directors and real earnings activities. This indicates that audit committee busyness may jeopardise the monitoring process effectiveness and increase the likelihood of earnings manipulation. Bedard *et al*. (2004) drew attention to the influence of audit committee characteristics on earnings management. Namely, they tested the effect of audit committee independence, audit committee financial expertise and audit committee activities on earnings management. They measure earnings management by the level of income-increasing and income-decreasing abnormal accruals. The study finds that audit committee independence, financial expertise and governance expertise are negatively associated with the incidence of aggressive earnings management. According to Bedard

et al. (2004), audit committees with at least one financial expert can reduce the occurrence of aggressive earnings manipulation. Financial expertise allows directors to detect any misstatements or accounting errors before the issuance of the financial statements. Moreover, independent direcors were found to be more effective in challenging management and asking questions, increasing the integrity of the financial statements. Archambeault *et al*. (2008) found a significant positive relationship between audit committee short-term compensation and the likelihood of restatements. Surprisingly, the researchers observe a positive relationship between audit committee long-term compensation and restatements. These findings indicate that short-term compensation motivates audit committee directors to focus on short-term performance, and ignore long-term objectives, which is not in the interest of shareholders (Archambeault *et al*., 2008).

1.6 Research Questions

This research aims to answer three main questions. Each question will be answered in a separate chapter.

1. To what extent do audit committee characteristics constrain the occurrence of financial statement restatements?
2. What is the impact of audit committee characteristics on audit fees following the occurrence of financial statement restatements?
3. To what extent do audit committee characteristics constrain the occurrence of financial statement restatements in family businesses?

1.7 Research Motivations

There are a number of motivations that led the researcher to conduct this research, as

follows;

1. To the best of my knowledge, there are limited number of researches that examine the impact of audit committee characteristics, in particular on constraining the occurrence of restatements.
2. Most of the previous restatements studies focused on the negative consequences of restatements, but none of them, to the best of my knowledge, has examined its relationship with audit committee characteristics, audit fees, and family business.
3. To the best of the author's knowledge, most of the restatements studies were based on a small number of data which might affect the power of the statistical analysis.
4. There is no single published research, to the best of my knowledge, that investigates how audit fees get affected by the incident of restatements.
5. Family business is considered a key subject because most of the companies around the world are family firms. For example, 30% of the companies listed in Standard and Poor 500 (S&P500) are family businesses, and 252 industrial firms in the United States are also family businesses (Anderson and Reeb, 2004). In addition, most of the *Fortune 500* companies in the U.S. are owned by families (Wang, 2006). Thus, family firms can affect the economy if any accounting scandals occur within them.

Furthermore, there are strong incentives to examine the association between restatements and audit committees because, as previously mentioned, restatements can cause huge damage to different parties. These negative consequences will be explained in more detail in this chapter.

1.8 Significance of the Research and Expected Contribution

This research is expected to contribute empirically to the restatement literature, audit committee literature, auditing literature and family business literature. The novel contribution of the study will cover the unanswered questions regarding three main issues.

First, the number of observations collected for the study, to the best of my knowledge, is actually the largest number of restatements among restatement studies that investigate the association between audit committee characteristics and restatements. There is a scarcity of studies on the relationship between audit committee characteristics and restatements; in addition, most of these previous restatement studies have generalised their results based on an old and a very small number of restatements. The contribution of this study is to drive more accurate results based on the largest and recent number of restatement announcements. It will help to find more accurate results and increase the generalisability of the findings. In addition, to the author's best knowledge, this will be the first study to examine a comprehensive set of seven audit committee characteristics in one model in order to measure their effect on constraining the incidence of financial statement restatements. The audit committee characteristics considered include independence, size and expertise, meeting frequency, tenure, additional directorships and stock ownership. Furthermore, in addition to the comprehensive set of seven characteristics of audit committee directors used in one model, this study will be the first study to test the impact of audit committee tenure and audit committee multiple directorships on restatement frequency. Although some previous literature has shed light on the impact of audit committee financial expertise, independence and meeting

frequency (Abbott *et al.*, 2004, Lin *et al.*, 2006), this study will be different as it will use different measurements of the mentioned characteristics based on the SEC's definitions of these characteristics. Moreover, while some previous literature has examined the impact of audit committee managerial ownership on financial restatements (Archambeault *et al.*, 2008, Cullinan *et al.*, 2008), the current study will measure managerial ownership based on the common shares held by audit committee directors. This will enable the researcher to obtain more results about the impact of concentrated ownership by audit committee directors on restatements.

Second, no published research has examined the impact of audit committee characteristics on audit fees following the occurrence of restatements. According to previous studies, restatements reflect a low audit quality (Blankley *et al.*, 2012). Thus, it is expected that following restatements the audit fees will be affected. Audit committee characteristics in turn will influence the audit fees based on different assumptions. For example, busy directors might demand more audit work to be conducted to avoid future restatements. Other audit committee characteristics also have an impact on the audit fees. Details of this issue will be covered in Chapter Three of this thesis. Furthermore, the auditing literatures is rich with studies that test the nature of the relationship between audit committee characteristics and audit fees (Haniffa *et al.*, 2006, Chan *et al.*, 2013). Nevertheless, none of them have looked at the same relationship following the event of restatements. In addition, the association between audit committees with multiple directorships, audit committee stock ownership, and audit fees has been tested, but in isolation. This study, therefore, will shed light on these previous characteristics and other audit committee characteristics jointly, using one model to provide greater insights into

the issue. In a similar vein, most other audit quality studies have focused on board characteristics rather than on audit committee characteristics. This study, however, will concentrate on audit committees in particular as a response to the new changes made in the SOX (2002), which added more responsibilities for audit committee directors as they safeguard financial statements.

Third, this study will be the first study to investigate the impact of audit committee characteristics on constraining financial statement restatements in family businesses. This chapter will increase the generalisability of the results of the study, to provide more evidence about the influence of audit committee characteristics in all business contexts including family businesses. It will be the first study to examine this relationship following restatements to assess how family-concentrated ownership affects audit committee effectiveness following financial crises such as restatements.

1.9 Thesis Structure

Chapter two will concentrate on the impact of audit committee characteristics on financial statement restatement frequency. The results show a positive impact between audit committee size and audit committee tenure on restatements incidents. There is also a negative relationship between audit committee multiple directorships, audit committee meeting frequency and financial statements restatements.

Chapter Three will conduct more investigations into the relationship between audit committee characteristics and audit fees following the occurrence of restatements. The findings indicate that audit committee members with multiple directorships, and audit committee ownership required more audit investigations following the occurrence of restatement. Which will lead to an increase in audit fees.

Chapter Four will explore the impact of audit committee characteristics on financial statement restatement frequency in family businesses. Lastly, Chapter Five will summarise the study and provide the findings and implications of the study. It will also acknowledge the research limitations and open possible avenues for future researchers. The result of chapter four shows a negative relationship between audit committee tenure, audit committee ownership and restatement in family business.

Chapter Two

The Impact of Audit Committee Characteristics on Restatements Frequency

2.1 Introduction

The role of audit committees in monitoring the financial reporting process has received great attention from academics, regulators and investors following the collapse of Enron, WorldCom and HealthSouth (Turley and Zaman, 2004, Sun *et al*., 2014). Investors and shareholders have lost trust in the information provided in financial statements, and audit committees should enhance the integrity of financial statements to restore trust following the accounting scandals. In order to achieve this objective and enhance audit committee effectiveness, the US Congress passed the Sarbanes–Oxley Act (SOX) in 2002.

The SOX (2002) came with major changes in corporate governance regulations, with which all listed companies in the US market should comply. After the enactment of the SOX, listed firms are required to have an audit committee composed of solely independent directors and including at least one financial expert. Moreover, it requires that the number of directors in audit committees must be three directors or more (SOX, 2002). Each stock exchange has defined board independence and financial expertise differently.

In this study, therefore, the researcher will focus on the three specific requirements regarding audit committee characteristics (independence, financial expertise and audit committee size) in order to measure their impact on restatements frequency. The reason behind this selection is that even though the all listed companies complied with the SOX (2002) requirements, there is still a growing number of restatements. In addition to the formerly mentioned characteristics, there are many other factors that have been linked in the literature to the occurrence of restatements, namely audit committee meeting frequency, audit committee tenure, audit committee multiple directorship and

audit committee stock ownership. Thus, the study aims to explore the impact of all potential audit committee characteristics that may affect the occurrence of financial statement restatements, in order to provide evidence regarding the factors that could improve audit committees' effectiveness.

Examining the characteristics of audit committees that are responsible for overseeing financial reporting quality will provide more evidence regarding how to mitigate restatements or detect any accounting fraud before issuing financial statements. Regarding the negative consequences of financial restatements for outside directors, empirical studies have extensively investigated the association between the formation of the board of directors and financial reporting quality. There is, however, a scarcity of empirical studies focusing on the negative consequences of financial statement restatements for outside directors (Srinivasan, 2005). Based on the above information about the association between audit committees and financial statement restatements, this study will answer the following question: to what extent do audit committee characteristics influence the occurrence of financial restatements?

This study contributes to the audit committee effectiveness literature and the restatements literature for the following reasons. First, due to the scarcity of financial statement restatements literature (many examples of which are old and use small samples), this research will add more insight to the literature regarding the linkage between corporate governance and financial statement restatements. Second, most of the previous literature investigates the association between board characteristics and financial reporting quality; however, there are limited empirical studies that test the influence of audit committee characteristics, particularly on financial restatements. This study will fill

this gap and examine a comprehensive set of audit committee characteristics that have an influence on financial reporting quality, such as audit committee directors' tenure, audit committee multiple directorships, audit committee meeting frequency and audit committee managerial ownership. This contribution will help not only regulators, but also investors and shareholders by presenting what governance practices are best to maintain the quality of the information provided in financial statements. It will assist them to force companies to comply with all recommendations regarding their audit committee directors' characteristics to ensure that they will be more effective.

Furthermore, this study chose financial statement restatements because they are a direct measure of financial reporting quality failure (Abbott *et al*., 2004). Although there are negative consequences of restatements for both outside directors and for markets and firms, reviewing the literature reveals a scarcity in empirical studies investigating the issue of restatements (Kinney and McDaniel, 1989, Srinivasan, 2005). Moreover, a restatement is strong evidence that prior financial statements did not comply with the generally accepted accounting principles (GAAP) (Palmrose *et al*., 2004). Prior studies also document bad reactions in the market to restatement announcements (Dechow *et al*., 1996, Palmrose *et al*., 2004). Palmrose *et al*. (2004) tested market reactions following restatement announcements and found that their entire sample of 403 restatements had a significant negative relationship with stock price (Palmrose *et al*., 2004, Owers *et al*., 2011). The study also found evidence that restatements associated with fraud can decrease the firms' returns.

Two different views have been documented regarding the market reaction to restatements. First, the market is more concerned by management integrity than concerns

about technical accounting issues (Palmrose *et al*., 2004). This indicates that shareholders are concerned to some degree about technical accounting issues that can be fixed, but are more concerned about their long-term objectives, if the same management that restated the financial statement continue to work for the firm, with no integrity in their work. Conversely, another study believes that concerns related to technical accounting and irregularities issues are greater than those related to management integrity (Owers *et al*., 2011). The materiality of the restated accounts can also play a crucial role in the market reaction towards financial restatements. The greater the negative change in earnings or net income, the more negative the market reaction will be (Palmrose *et al*., 2004). This negative reaction of the market becomes more significant if the change in prior earnings led to loss. Restatements can also lead to a decrease in the revision of earnings forecasts and more negative returns (Palmrose *et al*., 2004). In addition to the previously stated negative consequences of restatements, an empirical study documented that the cost of capital increased significantly following restatement announcements (Hribar and Jenkins, 2004). Financial restatements can be also viewed as a signal of a weakness in internal control (Kinney and McDaniel, 1989). In addition, the SEC lists restatements as a factor that decreases confidence in the financial statements' integrity and market efficiency.

Srinivasan (2005) investigates the effects of restatements on independent directors with a focus on audit committee members, using 409 restatements. He finds that 48 percent of directors who resign after restatement announcements are audit committee directors. Outside directors also suffered market penalties in the three years following restatements. Furthermore, directors lost 25 percent of their memberships on other boards after the restatements. This loss was greater for audit committee directors. Srinivasan

(2005) argues that if directors are effective in their oversight of financial reporting quality, they will usually receive more appointments and benefits. Conversely, directors who exhibit low performance can lose their positions and any other related benefits from board membership. Board directors are responsible for corporate failures such as bankruptcy, and the increased percentage of director turnover following these events can be seen as an indication of this assumption (Gilson, 1990). Empirical studies have investigated CEO turnover after restatements and found that CEOs lose their positions after restatements and do not find similar positions in public-traded companies (Desai *et al.*, 2006). This study will explore the effect of audit committee characteristics in mitigating the occurrence of financial statement restatements.

The remainder of the study will be as follows. Section 2 contains the literature review. Section 3 will concern hypotheses development. The research methodology will be discussed in Section 4. Finally, the conclusion of the study will be found in Section 5.

2.3 Theoretical Framework

Although there is no consensus on a single theoretical framework that can be used as a base for all corporate governance researches, reviewing the literatures reveals that the agency theory is the most theory that have been used to explain and analyse the relationship between earnings management that resulted in restatements and both corporate governance and external audit (Xie *et al*., 2003, Habbash *et al*., 2014). Thus, in this thesis the researcher believes that only the agency theory can be applied as a theoretical framework for the three empirical chapters of this thesis. The agency theory can explain the relationship between audit committee, audit fees and restatements that resulted from earnings management.

The agency theory concerns about two types of conflicts; principle-agent conflict (Type I), and principle–principle conflict (Type II). In corporate governance, the principles are the shareholders, while managers are the agents (Jensen and Meckling, 1979). Managers can manipulate earnings that lead to financial statements restatements at the cost of shareholders and create type I of the agency costs. The agency theory supports the role of audit committee as the existence of audit committee can reduce the agency cost associated with earnings management because their role is based on oversight the financial reporting process (Collier and Gregory, 1999). Agency theory suggests that managers (agents) can utilize from the authorities they have to increase their own wealth at the cost of shareholders (principles). Thus, the separation between management and shareholders can create what calls (agency costs) (Jensen and Meckling, 1979). The agency theory, therefore, focused on aligning the interests between managers and shareholders.

There are many incentives that motivate managers to manipulate earnings. For example, increasing the managers' personal gain through meeting or beating earnings expectations. Such an action can create information asymmetry and produce misstating financial statements. Providing fake financial statements and hiding the correct earnings introduce earnings management as a type of agency costs (Davidson *et al*, 2004). Thus, companies that want to eliminate the incident of earnings management should adopt a strict monitoring system. The agency theory provides a basis for a various internal and external governance mechanisms. The existence of audit committee considered as the most effective internal governance mechanisms that can reduce the management's opportunistic behaviors.

2.2 Literature Review

Audit Committee Independence

Dellaportas *et al*. (2012) proposed an argument regarding board independence. The researchers suggest that audit committee independence and financial expertise are negatively related to restatements. Independent directors are motivated to be more effective by the external market, which places pressure on them if the firm restates financial statements. Financial experts can understand any sophisticated accounting issues, and take action to correct any mistakes before the issuance of the financial statements. The positive impact of board independence on financial reporting quality is supported by Klein (2002), who attempted to cover these variables and test them to explore how they can affect audit committee effectiveness. She found that independent directors on the board and audit committees can reduce the likelihood of earnings management. They are also associated with a decrease in abnormal accruals. The present study, however, differs from her study in the proxy of financial reporting quality; it will use restatements as a proxy of fnancial reporting failure. Additionally, Klein (2002) did not investigate the other audit committee characteristics, which the present study will examine.

Agrawal and Chadha (2005) added additional characteristics of audit committees to the previous study in order to examine the impact of governance characteristics on restatements. Their study was conducted in the US, using a sample of 159 restatements in 2005. The study believes that independent directors on the board, and independent directors in the audit committee who have financial expertise, are more effective in monitoring the financial reporting process and can decrease the occurrence of

restatements. One limitation was the number of firms used in the study to test such an important issue as restatements. Moreover, it would be better if the researchers had tested this topic over more than one year to identify whether there were any differences in implementing corporate governance rules.

Support of the previous study comes from Karamanou and Vafeas (2005), who tested board and audit committee independence and financial expertise, and explored their effects on management forecasts and voluntary disclosure. The study includes forecasts made by managers of 272 *Fortune 500 companes*. The paper provides evidence that effective corporate governance helps in reducing information asymmetry between shareholders and management. Effective boards and audit committees are also better with regard to forecast accuracy. In addition, the study examines the market reaction to management forecasts, showing that the market reacts positively to board independence. This is because those independent directors send a positive signal to the external market by working effectively in ensuring the integrity and quality of the financial statements. Additionally, the study exhibits a significant positive relationship between the market reaction and the announcement of appointing financial experts on the audit committee of a firm. Surprisingly, the market reacts negatively to board and audit committee sizes.

Another interesting argument was proposed in Australia by Contessotto and Moroney (2014). The researchers surveyed 129 audit partners and audit managers from the Australian offices of the *Big 4* and six mid-tier firms to determine what characteristics make audit committees effective in their role. External auditors consider some characteristics that are not required by regulations when assessing the effectiveness of audit committees. The main focus of the study is examining the association between audit

committee effectiveness and audit risk. In order to measure audit committee effectiveness, the researchers' study relies on their (audit-chosen list) to identify indicators that external auditors use when assessing audit committee effectiveness to reduce audit risk. The study shows a significant negative association between audit committee effectiveness and audit risk only when using the auditor-chosen list as a measure of audit committee effectiveness. One of the measurements of audit committee effectiveness included in the audit-chosen list is the time audit committee members commit to their duties. In addition, the quality of the information audit committee directors receive can be a useful tool in measuring how effective they are. Beside the previous measurements of audit committee effectiveness, the researchers found that it is important, when assessing audit risk, to know how powerful audit committee directors are when asking and challenging management. According to the study, complying with the recommendations of the regulators of audit committees is not sufficient, and does not have any effect on audit risk. The small sample of 129 partners used in the previous study represents a limitation. It is difficult to assume that the recommendations made by regulators all over the world are insufficient, and rely on the auditor-chosen list to measure audit committee effectiveness. Many empirical studies provide strong evidence of the impact of some audit committee characteristics recommended by regulation on the financial reporting quality. It is also difficult to generalise these results and ignore previous results based on a survey of 129 people, as there may be subjectivity involved, which affects the results in this case.

Audit Committee Size

Lin *et al*. (2006) denied the positive effect of some audit committee characteristics on financial reporting quality, namely independence, financial expertise, managerial ownership and meeting frequency. The study failed to find any evidence of their impact after investigating 212 annual restatements in 2000. Larger audit committees, however, were found to be more effective in overseeing the financial reporting process. This means that audit committee directors possess the ability to decrease any potential misstatements and therefore increase earnings quality. A greater number of directors provides more experience and specialities to the board, thus its effectiveness is greater. The study, however, did not clarify how it measured audit committee financial expertise. Furthermore, since the research was conducted in 2000, and before the implementation of SOX (2202), not many companies would have complied with the recommendations of the BRC; therefore, the results cannot be generalisable and cannot capture the effects of audit committee characteristics on financial reporting quality.

Audit Committee Tenure

Examining other audit committee characteristics shows interesting results. For example, in the US, Dhaliwal *et al*. (2010) found that financial experts in the audit committee can be more effective in enhancing the quality of the financial reporting process. They have knowledge and expertise that allows them to detect any accounting errors. The positive relationship between financial expertise and financial reporting quality is restricted only to those directors who are independent from management. The researchers also believe that holding additional directorships prevents audit committee members from focusing on one public firm. Due to their busy schedule, directors with

multiple memberships are less effective in increasing the integrity of financial reporting; the quality of financial statements decreases, and the occurrence of financial restatements increases. Moreover, the previous study indicates that directors with fewer work tenure commitments can be more effective in enhancing the integrity of financial statements. According to the researchers, serving in the same firm for many years can impair the directors' independence, because it allows them to build a strong relationship with managers. This can mitigate their concentration when evaluating the accounting system or the internal control. All independent variables in the study were dummy variables; recent studies in the area of audit committee characteristics prefer to avoid dummy variables as much as possible.

Audit Committee with Multiple Directorships

In a similar vein, Sharma and Kuang (2014) investigated the relationship between audit committee characteristics and aggressive earnings management in a sample of 194 firm-year observations from 2004–05. With regard to the influence of managerial ownership on aggressive earnings management, the study observes that directors who hold a great number of shares are associated with an increase in aggressive earnings management. Interestingly, the researchers examine other characteristics and believe that the existence of independent financial experts on the audit committee mitigates earnings management. Financial experts were found to be more effective in monitoring the financial reporting process, and have the ability to increase the strength of internal control. As financial experts are familiar with sophisticated accounting issues, they can discover any manipulation of earnings and advise management to take action before issuing financial statements. In addition to the effect of managerial ownership and

financial expertise, the study also documents that holding additional memberships can increase the effectiveness of the monitoring process of outside directors. Serving on different boards provides audit committee directors with more expertise, which helps in monitoring the accounting system and strengthening the internal auditing process. In addition, holding additional directorships places pressure on directors to protect their reputation and prove their governance expertise (Sharma and Iselin, 2012). The previous study uses earnings management as a proxy of low financial reporting quality. Using a different proxy of financial reporting failure might provide more insight about the significance of the effect of managerial ownership and holding of multiple directorships by independent audit committee directors on the occurrence of restatements. The agency theory believes that, to align the interests of audit committee members and shareholders, companies should increase the compensation of the directors to motivate them to act on behalf of shareholders (Archambeault *et al*., 2008).

In support of previous findings, Sun *et al*. (2014) found a positive association between the number of directorships held by audit committee directors and real earnings activities. This indicates that audit committee busyness may jeopardise the monitoring process effectiveness and increase the likelihood of earnings manipulation. Examining the influence of previous audit committee characteristics on restatements might provide more evidence about the effect of work tenure and multiple directorships on financial reporting quality. Support for the previous argument is provided by Beasley (1996).

Beasley (1996) investigates the association between board composition and financial statement fraud. Due to litigation and reputational pressure, independent directors are expending time and effort to monitor and review the internal controls of the

company, and evaluate the risk management system of the company. The number of outstanding shares held by board directors was found to be more effective in motivating directors, aligning the interests of directors and shareholders, and reducing the incidence of fraud. As supported by Dhaliwal *et al*. (2010), board directors obtained a good understanding of the firms' operations and their accounting systems, helping them to be familiar with such things. The study also shows that board busyness can hinder the ability of board directors to monitor the financial reporting process effectively. This study uses only 75 fraud cases to draw its conclusion, which could be regarded as one of its limitations. The literature requires further investigations that focus on audit committee directors when measuring the quality of the financial reporting process.

After the passage of SOX, the responsibilities of audit committees increased, and audit committee directors were required to assist the board in oversight of accounting and financial reporting quality, assist the board in ensuring the integrity of financial statements, and hire independent auditors. As a result of these responsibilities, testing the association between audit committee characteristics – such as directors' tenure, the number of multiple directorships and managerial ownership – and concentration on audit committee directors will provide a broader oversight of audit committee effectiveness in monitoring financial reporting quality.

Audit Committee Meeting Frequency and Financial Expertise

Abbott *et al*. (2000) examined 78 sanctioned firms for fraud or aggressive accounting and observed a negative relationship between independent directors in audit committees and the incidence of fraud. According to the study, independent directors are more effective in oversight of the financial reporting process, and can decrease the

likelihood of fraud. Furthermore, the study finds that meeting the minimum required number of audit committee meetings – which was, at that time, two – has a positive effect on ensuring the quality of the financial reporting process, and can assist in mitigating the occurrence of fraud. According to Abbott *et al*. (2000), prior studies focused on the presence of audit committees, but after the enactment of SOX in 2002, the three largest exchange markets in the US required all public-traded companies to have audit committees. In this view, it is important to examine the other characteristics of audit committees. The same researcher conducted further research in 2004, and examined more audit committee characteristics, testing their impact on restatements.

Beasley et al. (2009) interviewed 42 audit committee directors serving in American listed companies. The researchers discussed the case of Hollinger International Inc., and found that the financial scandal occurred while the audit committee complied with the requirements of the SEC. Based on audit committee directors' testimonies, it appears that audit committee meetings lasted only a few minutes, despite discussing important issues. They also discovered that there were no meeting agendas established prior to the meetings, and if there was one, it would be prepared by management. The study revealed that the trust of management allowed executives to manipulate earnings and steal the profits of the company for seven years. Audit committee members should use their authority to monitor the internal and external audit work, having access to the required information, and spend time reviewing the financial reports (Beasley *et al*., 2009). The study provides evidence that implementing the rules of the SEC is not sufficient to mitigate opportunistic behaviour by managers. It might simply be a box-ticking exercise; therefore, this current study should explore other audit committee

characteristics that influence audit committee effectiveness, and increase the quality of the financial reporting process.

In spite of the previous study, other literature found that larger boards and audit committees can increase the quality of the financial reporting process. For example, Farber (2005) confirms the results of Nahar Abdullah *et al*. (2010) and Abbott *et al*. (2004), and shows evidence of a negative association between board independence and fraud. His study includes 87 firms identified by SEC as manipulating financial statements fraudulently. The study found that fraud firms were associated with fewer audit committee meetings. Audit committees that do not meet frequently cannot perform their duties effectively. Meeting frequently provides directors with updated issues that help them to be more proactive in avoiding any material issues. This also assists them to discover any misstatement in a timely manner. According to Farber (2005), the number of outside directors on the board can negatively affect financial reporting quality. The study discovered that firms that committed fraud have fewer independent directors than firms that did not commit fraud. Independent directors are willing to send the market a positive signal regarding their specialities and expertise by monitoring financial statements effectively and mitigating earnings manipulation. Therefore, they work efficiently to review internal controls, meet internal auditors and monitor the risk management system, hence decreasing accounting errors. Audit committee members with no financial expertise cannot understand or detect accounting issues. Therefore, the incidence of fraud is higher in firms that do not have financial experts. The study ignored the influence of additional memberships held by audit committee directors. This element

was found to have a positive association with real earnings management in other literature (Dhaliwal *et al*., 2010).

Recently, a study conducted in the UK confirmed that audit committee financial expertise improves audit quality, using audit fees as a measure of external audit quality (Ghafran and O'Sullivan, 2017). The study found that financial experts in audit committees are associated with higher audit fees, which indicates that financial expertise increases the effectiveness of audit committees.

Furthermore, Xie *et al*. (2003) investigated the influence of the board of directors, audit committee and the role of executive directors on the incidence of earnings management. From the S&P 500 index, the study selected 282 firm-year observations for 1992, 1994 and 1996. The frequency of board and audit committee meetings was used in this study as a measure of board activity; the findings suggested the following. First, board and audit committee directors with corporate or financial expertise are effective in reducing the occurrence of earnings management. The study shows that firms experience a smaller level of discretionary accruals when board and audit committee directors are financially literate. Second, audit committee directors can reduce the opportunistic behaviour of managers and constrain earnings managament when their meeting frequency is high. Thus, the composition of the board, and particularly the audit committee, can assist directors to perform oversight functions more effectively, and ensure a high-quality monitoring proccess. As previously mentioned, the study examined 282 firm-year observations from 1992, 1994 and 1996, and this small sample cannot provide universal results that can be relied upon by regulators, investors and shareholders.

Audit Committee Stock Ownership

Engel *et al*. (2010) investigate the association between audit committee compensation and the demand for higher financial reporting quality. Their study also highlights the difference between these variables before and after the passage of the SOX. It covers the period of 2000–04 using a sample of ExecuComp American listed companies. The findings indicate that audit committee compensation is positively related to the quality of the financial monitoring process. Total compensation and cash retainers can motivate audit committee directors to do their tasks effectively, and increase the quality of the financial reporting process. This can also align the interests of directors and shareholders, since directors will focus on long-term objectives and detect any opportunistic behaviour of managers. It would be more important to focus on compensating audit committee members with managerial ownership. The number of shares beneficially owned by board directors has a strong influence on their roles. Therefore, the present study will change the proxy of low financial reporting quality, and use restatements to check whether the results will remain the same. It will also focus on managerial ownership effectiveness.

As cited in Habbash *et al*. (2014), Warfield *et al*. (1995) believe that a high number of shares held by directors can reduce agency costs arising from information asymmetry. The argument of the impact of managerial ownership on audit committee effectiveness divides the literature into two groups. The agency theory suggests that stock ownership may motivate directors and executives to monitor the financial reporting process effectively by enhancing the disclosure of the firm's financial reports and challenging management over the poor financial reporting (Jensen, 1989, Shivdasani,

1993, Short and Keasey, 1999). The first group of literature supports the previous argument and documents a positive impact of managerial ownership on audit committee effectiveness, while the second group of literature regards the positive impact of managerial ownership as being restricted to independent directors only. Moreover, they also provide strong evidence that a high level of managerial ownership can impair audit committee independence, with the exception of independent directors (Sharma and Kuang, 2014).

Campbell *et al*. (2014) reported similar findings to the previous study about the effect of stock ownership on audit committee independence in 2014. Rather than testing all types of compensation, the researchers preferred to test only the effect of stock options. They justified their preference by arguing that stock option incentives are different from other forms of compensation due to their short-term nature. According to the study, short-term compensation may motivate directors to focus on short-term objectives rather than the long-term objectives of the company. Therefore, the interests of audit committee directors and the interests of shareholders, who are more concerned about the long-term objectives, may differ. Campbell *et al*. (2014) assumed that stock options would negatively affect financial reporting quality. The findings supported their hypothesis and exhibited a positive relationship between audit committee stock options and the incidence of meeting or beating analysts' forecasts. The study also observes that non-option incentives do not affect financial reporting quality (Campbell *et al*., 2014).

Similarly, there is considerable evidence to support the impact of stock ownership on financial reporting quality. For example, Cullinan *et al*. (2008) examined the association between board directors' compensation and financial reporting quality, and

supported the previous study. The study uses revenue misstatements as a proxy of low financial reporting quality. After examining 105 firms that misstate revenue in the US, the study suggests that directors' stock options jeopardise their independence and increase the occurrence of revenue misstatements (Cullinan *et al*., 2008). A number of limitations can be viewed in the previous studies. Firstly, it is difficult to focus on the effect of stock options and link it to low financial reporting quality while ignoring other characteristics, which other researchers proved have a positive impact on audit committee effectiveness. These characteristics include, but are not limited to, audit committee tenure, audit committee additional directorships and audit committee financial expertise. Secondly, focusing on stock options and neglecting other equity-based compensation, such as cash compensation or the number of common shares beneficially owned by audit committee directors, might provide less accurate results. The present study, therefore, will fill this gap and test other characteristics in addition to audit committee compensation. Finally, it argues that any deficiency in the monitoring process may provide opportunities to management to manipulate earnings.

According to the fraud triangle theory, fraud risk will increase because other individuals will utilise the weak performance monitoring system to engage in opportunistic behaviour (Cressey, 1973). Therefore, it is important to examine such an important topic using a direct measure of failure in financial reporting, such as restatements, to provide more evidence about the effect of the audit committee characteristics on financial reporting quality.

As mentioned earlier, the issue of restatements has received considerable attention not only in developed countries, but also overseas and in emerging markets. For example,

in Malaysia, Nahar Abdullah *et al*. (2010) examined the relationship between corporate governance and financial restatements. Their findings suggested that a nomination committee consists of fewer independent directors, and a high level of managerial ownership is positively related to restatements. The existence of independent directors on the board can enhance monitoring quality. In contrast, the more common shares held by board directors, the more likely this is to jeopardise their independence and increase the percentage of earnings restatements. Regarding the reasoning behind misstating financial statements, the results supported previous studies and revealed that the prime reason is the high level of debt. Surprisingly, the researchers also found independent audit committees to be positively associated with restatements, which contrasts with the findings of Abbott *et al*. (2004). The study makes its judgement based on 31 restatements only, which represents too small a sample. Thus, the present study will avoid this limitation and use 450 restatements, drawing a conclusion about this important topic based on a reasonable sample.

A further argument is offered by Peasnell *et al*. (2005), who examine whether outside directors influence abnormal accruals in the UK. This study used 1271 firm-year observations from listed companies in the UK market from 1996–99. The findings suggest that firms with a high proportion of outside directors experience less income-increasing earnings management. According to the study, outside directors play a crucial role in ensuring the integrity and credibility of the financial statement. The results, however, are restricted to firms with a low level of managerial share ownership held by outside directors. The presence of the audit committees does not show any effect on earnings management in spite of the findings of previous literature. The researcher

suggests that the reason for this might be related to the sample of the study, since all sample firms have audit committees; therefore, focusing on the quality of the audit committee might provide more accurate results in its relationship with financial reporting quality. Finally, the gaps in the literature were identified, with solutions suggested to bridge these gaps added at the end of each study.

2.4 Hypotheses Development

2.4.1 Audit Committee Independence

Outside directors are motivated to perform their tasks effectively in order to protect their reputational capital. Directorships are used by outside directors to send signals to the internal and external markets that they are experts in decision control, and they are able to work effectively with a decision control system (Fama and Jensen, 1983). There is no doubt that independent directors have a positive impact on financial reporting quality (Kryzanowski and Zhang, 2013). Accounting researchers have enriched the literature with different studies that investigate the role of board independence, and particularly audit committee independence, in firm performance and financial reporting quality.

There is strong evidence that independent directors are more effective in monitoring the financial reporting process and can decrease the incidence of fraud (Abbott *et al*., 2000, Farber, 2005, Beasley, 1996). Independent directors can positively impact financial reporting quality, since they are independent from management and their role is not affected by pressure. In support of previous findings, the existence of independent directors on an audit committee can also mitigate the occurrence of restatements (Abbott *et al*., 2004, Dellaportas *et al*., 2012, Kryzanowski and Zhang, 2013, Klein, 2002, Nahar Abdullah *et al*., 2010). Independent directors have the ability to

challenge and question management over poor performance and mitigate opportunistic behaviour. Researchers also find a positive relationship between audit committee independence and the assignment of *Big 4* audit companies, to ensure high quality audit (Al‐Shaer and Zaman, 2018).

In addition, the presence of independent directors on an audit committee can constrain aggressive earnings management (Sharma and Kuang, 2014, Bedard *et al.*, 2004). Furthermore, accrual quality increases with more independent directors on the board (Dhaliwal *et al.*, 2010); they are more effective in detecting and correcting any misstatements in the financial statement before its issuance. According to the agency theory, the existence of outside directors on the board will decrease agency problems, since the outside directors will be responsible for monitoring management and taking ownership of huge responsibilities that may cause agency problems (Fama and Jensen, 1983). Independent directors want to increase their human capital value by expressing to the market their understanding about the importance of decision control separation (Fama and Jensen, 1983). Consequently, these concerns about the external and internal markets can place pressure on outside directors, increase the quality of monitoring of financial reporting quality, and decrease the likelihood of restatements (Fama and Jensen, 1983). Therefore, this study will test the following hypothesis:

H1: There is a significant negative relationship between audit committee independence and financial statement restatements.

2.4.2 Audit Committee Financial Expertise

In its third recommendation, the Blue Ribbon Committee on Improving Audit Committee Effectiveness (BRC, 1999) recommends that an audit committee should not be composed

of fewer than three directors, each of whom should be financially literate, and at least one of whom should have accounting or financial expertise. Empirical studies suggest that the presence of independent directors with financial expertise is negatively related to the incidence of financial statement restatements. Financial experts are more effective in monitoring the financial reporting process, and can detect any accounting errors before the issuance of financial statements (Abbott *et al*., 2004, Dellaportas *et al*., 2012, Agrawal and Chadha, 2005). Aggressive earnings management decreases with the presence of financial experts on audit committees (Sharma and Kuang, 2014, Bedard *et al*., 2004, Xie *et al*., 2003).

Due to the importance of the presence of financial experts on audit committees, effective boards are more interested in appointing directors with financial expertise (Beasley and Salterio, 2001). Audit committees are considered to be a key internal monitoring technique used by boards of directors to mitigate agency costs (Fama and Jensen, 1983, Fama, 1980); therefore, the existence of financial experts on audit committees will enhance their effectiveness and decrease the occurrence of restatements. Thus, the hypothesis of this factor will be as follows:

H2: There is a significant negative relationship between audit committee financial expertise and financial statement restatements.

2.4.3 Audit Committee Size

Larger audit committees have greater opportunities to utilise the different knowledge and expertise possessed by directors. Therefore, the committee becomes more effective in monitoring the financial reporting process and decreases the occurrence of restatements (Lin *et al*., 2006). The more directors on boards, the greater the effort they expend in

reviewing the financial reporting process, strengthening internal control and reviewing the risk management system. Beasley (1996) investigates the impact of some of the audit committee characteristics on fraud in financial statements. Firms with a greater number of directors experience a lower occurrence of fraud. Furthermore, the number of directors serving on boards can negatively affect the incidence of earnings management; this relationship, however, is restricted to quarterly earnings management (Yang and Krishnan, 2005). Since the agency theory concerns the conflicts of interest arising from the separation of ownership and management, in particular, type I of the agency cost between management and shareholders, the presence of more directors on the audit committee will help to align interests and mitigate the issue of restatements.

Therefore, the hypothesis will be as follows:

H3: There is a significant negative relationship between audit committee size and financial statement restatements.

2.4.4 Audit Committee Meeting Frequency

Meeting frequency has been used in the literature as a measure of board diligence. The number of meetings of the audit committee can significantly affect the incidence of fraud in financial statements (Abbott *et al.*, 2000). The researchers observe that the number of audit committee meetings in fraud firms is lower than that of non-fraud firms (Abbott *et al.*, 2000). Farber (2005) investigates the impact of audit committee meetings on fraud, and supports previous findings. The researcher provides strong evidence about the negative relationship between these two variables. Audit committee directors who meet frequently can be more effective and proactive in monitoring the financial reporting process. They can detect any accounting errors and correct these in a timely manner.

Thus, they can mitigate the likelihood of restatements before the issuance of the financial statements (Abbott *et al*., 2004). Meeting frequently assists directors to be updated with any changes in the accounting system. It also helps them in monitoring and constraining the opportunistic behaviour of managers; this in turn will decrease the occurrence of earnings management (Xie *et al*., 2003). From the agency theory perspective, audit committee meeting frequency should increase audit committee effectiveness in constraining managers' opportunistic behaviour, thus decreasing the incidence of restatements. This study, however, is investigating firms that have already restated their financial statements. Therefore, it will be difficult to predict whether audit committee directors will meet frequently to solve internal accounting issues, or meet frequently in order to be updated and effective in reviewing the financial reporting system. Thus, this study will hypothesise the following:

H4: There is a significant negative relationship between audit committee meeting frequency and financial statement restatements.

2.4.5 Audit Committee Tenure

Long audit committee tenure can jeopardise its independence. Researchers found that board directors build relationships with managers if they work for the same firm for many years, which can result in compromising directors' independence (Vafeas, 2005). As a result of long tenure, audit committee directors were found to be negatively related to accrual quality, according to a prior study by (Dhaliwal *et al*., 2010). On the other hand, serving the same firm for many years increases the experience of the audit committee directors regarding the firm and its accounting and operation systems. They are, therefore, more able to oversee financial reporting quality and decrease the occurrence of

fraud (Beasley, 1996). Quarterly earnings management can also be constrained by directors, since they can detect and control managers' opportunistic behaviour (Yang and Krishnan, 2005). Long tenure will assist audit committee directors to become familiar with the firm and, therefore, allow them to discover any earnings manipulation, which will reduce the occurrence of restatements. Based on the above argument, this study sets the hypothesis as follows:

H5: There is a significant negative relationship between audit committee tenure and financial statement restatements.

2.4.6 Audit Committee Multiple Directorship

The literature is divided into two different groups regarding the influence of board directors holding additional directorships. The first group believes that serving on many boards provides directors with more experience, therefore enhancing their effectiveness in monitoring the financial reporting process. Directors with multiple directorships are more effective in constraining aggressive earnings management, according to (Sharma and Kuang, 2014). Additionally, another study in the US supports the previous findings, and suggests that holding multiple memberships enhances governance expertise and increases the specialities of audit committee directors; this, in turn, will increase accrual quality (Dhaliwal *et al*., 2010). Furthermore, researchers have identified a significant negative relationship between earnings quality and the holding of multiple directorships by audit committee members; this relationship, however, is restricted to quarterly earnings management. The researchers argue that this result might be different from the effect of directors who serve on many boards on annual earnings management (Yang and Krishnan, 2005). The second group of literature suggests that multiple directorships

damage directors' effectiveness, since this will make them too busy to complete their tasks effectively. Audit committees can be used as an internal mechanism that controls decisions made by management (Fama and Jensen, 1983, Fama, 1980). Therefore, directors should offer sufficient time and effort to be more efficient. Thus, holding additional directorships may damage directors' effectiveness by making them too busy and, consequently, increasing the likelihood of restatements. Thus, the hypothesis is set as follows:

H6: There is a significant positive relationship between audit committee multiple directorships and financial statement restatements.

2.4.7 Audit Committee Stock Ownership

Motivating audit committee directors with common shares gives them the power to challenge management over poor performance, and enhances their effectiveness in reviewing the financial reporting process (Sun *et al.*, 2014). Sharma and Kuang (2014) found that stock compensation motivates directors on audit committees, and aligns their interests with those of shareholders. This finding, however, is restricted to independent directors only. Non-independent directors can significantly increase the incidence of aggressive earnings management (Sharma and Kuang, 2014). Furthermore, researchers documented a significant negative relationship between audit committee directors, who are blockholders and real earnings activities. Beasley (1996) explored the positive influence of managerial ownership on earnings quality. The study found that board directors in non-fraud firms have a greater level of managerial ownership than directors in fraud firms. As a result, the researcher believed that holding common shares could increase the effectiveness of directors, and mitigate the likelihood of fraud (Beasley,

1996). In a comparative study between the US and Canada, researchers found that the percentage of shares held by board directors can increase audit committee effectiveness and decrease the incidence of restatements (Kryzanowski and Zhang, 2013). In the most admired companies in the US, low cash compensation and a high percentage of stock and options compensations were found to be effective for firm performance (Persons, 2015). From another point of view, researchers think the shares held by audit committee directors jeopardise audit committee independence. For instance, Yang and Krishnan (2005) documented a significant positive association between audit committee managerial ownership and the occurrence of quarterly earnings management. It has been argued that conflicts between management and shareholders can be aligned if managers are compensated with a greater ownership share. Then, they will have incentives to work to the same interests as shareholders. On the other hand, holding a larger amount of stock can affect the effectiveness of the audit committee: it might align the interests of audit committee directors and management against shareholders (Jensen and Meckling, 1979). Thus, the hypothesis will support the first argument, set as follows:

H7: There is a significant negative relationship between audit committee managerial ownership and financial statement restatements.

2.5 Research Methodology

2.5.1 Sample Selection

This study used LexisNexis, an online information service, to identify firms that announced financial statement restatements from 2011–2016. The firms included in this research are American listed companies in the NYSE and NASDAQ. Selected firms are from different industries, because the researcher is looking for firms that restated its financial statements regardless what industry they work in. The search started from 2016, moving back to 2011, after collecting a reasonable number of restatement announcements. This time period was selected to investigate the relationship between audit committee characteristics and audit fees following the gap between the previous financial crisis and the most up-to-date data. The researcher used the keywords 'earnings restatement', 'income restatements', 'restated financial statements' and their variations. Following that, the researcher screened the search results to find firms matching the criteria. The researcher also excluded restatements resulting from mergers and acquisitions, stock splits and changes to accounting principles. Following previous literature, the study examined annual financial statement restatements (Abbott *et al*., 2004, Archambeault *et al*., 2008, Lin *et al*., 2006). It only focused on firms that restated previous reported financial statements due to the violation of accounting standards, accounting errors or irregularities and fraud, ultimately gathering 450 restatements. The study followed a matched-pair approach and selected 450 control firms in order to run the model. To select the control firms, the researcher used the Bloomberg database to search for firms that are similar to the restated firms in terms of size and industry. Data about governance was gathered manually by assessing the proxy statements for each firm on

the SEC website. In addition, the researcher used DataStream to gather financial figures from the financial statements.

2.5.2 Model Specifications

We built the following logistic regression model to test our hypothesis:

First empirical model for Chapter Two:

RST= $\beta_0 + \beta_1 ACIND_t + \beta_2 ACEXP_t + \beta_3 ACSIZE_t + \beta_4 ACMEET_t + \beta_5 \text{ACTEN}_t +$

$\beta_6 ACSHIP_t + \beta_7 ACSHARE_t + \beta_8 CEODUAL_t + \beta_9 BDSIZE_t + + \beta_{10} BDIND_t +$

$\beta_{11} BDOWN_t + \beta_{12} COSIZE_t + \beta_{13} LEV_t + \beta_{14} LOSS_t + \beta_{15} LogROA_{t-1} + \varepsilon$

Independent Variables	**Measurements**
RST: Restatement	A dummy variable that takes the value of 1 if restated, and 0 otherwise.
Dependent Variables	
ACIND: Audit Committee Independence	Proportion of independent directors in the audit committee based on SEC definition
ACSIZE: Audit Committee Size	The number of directors serving in the audit committee
ACMEET: Audit Committee Meeting Frequency	The number of audit committee meetings during the financial year
ACEXP: Audit Committee Financial Expertise	The proportion of financial experts in the audit committee to the total number of AC members, based on the SEC definition of financial expertise
ACSHARE: Audit Committee Share Ownership	The percentage of common shares held by audit committee directors to the firm's total number of shares
ACDSHIP: Audit Committee Additional Directorships	The average number of other public directorships held by audit committee directors
ACTENURE: Audit Committee Tenure	The average tenure of audit committee directors
Control Variables	
CEODUAL: CEO Duality	A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise
BDSIZE: Board Size	Number of directors serving on the board
BDIND: Board Independence	The number of executives to the total number of directors on the board

BDOWN: Board Ownership	The percentage of common shares held by board directors to the firm's total number of shares
COSIZE: Corporate Size	The natural log of total assets
LEV: Leverage	Total debt to total assets
LOSS	A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and 0 otherwise
LogROA: Return on Assets	The natural logarithm of prior year return on assets: net income/ total assets
ε	Error term
β 0 =	Intercept
β1 - β15 =	Coefficients

2.5.3 Dependent Variable Measurements

Restatement is a dummy variable that takes the value of 1 if the firm restated financial statements and 0 otherwise. This study will follow prior literature that has investigated issues related to restatements by measuring restatements as a dummy variable. For example, Abbott *et al*. (2004) investigated the association between audit committee characteristics and the occurrence of restatements by testing 88 annual restatements from the period of 1991–99. Furthermore, Archambeault *et al*. (2008) examined the impact of an audit committee's short-term compensation and the likelihood of restatements. Similarly, Cullinan *et al*. (2008) examined the association between board directors' compensation and financial reporting quality. The researchers used revenue misstatements as a proxy of low financial reporting quality, testing 105 firms that misstated revenue in the US. All previous literature measured restatement incidence as a dummy variable. Thus, this study will assign a value of 1 if the company restated financial statements, and 0 otherwise.

2.5.4 Independent Variable Measurements

This research selects the most important factors affecting audit committee effectiveness based on previous literature. Following the passage of the Sarbanes–Oxley Act (SOX) in 2002, US listed companies are required to disclose information about audit committee directors in the proxy statement DEF-14. Thus, this study will utilise the disclosure of this information and conduct its investigation based on it. The characteristics that will be examined in this study as independent variables include: audit committee independence, audit committee size, audit committee financial expertise, audit committee meeting frequency, audit committee tenure, audit committee additional directorships and audit committee share ownership**.** The next section will describe the measurements of these independent variables.

2.5.4.1 Audit Committee Independence

Audit committee independence is measured as the proportion of independent directors on the audit committees, based on the SEC definition. It is a continuous variable and will be collected from the proxy statements (report DEF-14), as US listed companies are required to declare how many independent directors are present in their audit committee, based on the SOX definition of independence. This measurement has been selected following the investigation of other literature of the impact of audit committee independence on different issues (Abbott *et al*., 2004, Beasley, 1996, Peasnell *et al*., 2005). In order for audit committee directors to be considered independent directors, they must comply with the following requirements: firstly, they should not accept any counselling fees, advisory fees or other compensatory fees from the companies in which they serve. Secondly, audit

committee directors should not have any relationship with the company or any of its subsidiaries (SOX, 2002).

2.5.4.2 Audit Committee Size

In 1999 the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees (BRC) passed recommendations to stock market exchanges in the US. One recommendation stated that an audit committee should have a minimum number of three directors. Thus, audit committee size in this study will be used as a continuous variable, and will be measured as the number of directors serving in the audit committee, following prior literature (Abbott *et al*., 2004, Sun *et al*., 2014, Karamanou and Vafeas, 2005).

2.5.4.3Audit Committee Financial Expertise

Public companies in the US are required to disclose in their proxy statements whether or not they have at least one financial expert in the audit committee. Companies must also provide explanations if they failed to comply with this mandatory requirement (SOX, 2002). The definition of financial expertise, however, has been defined differently in the varies stock markets. The same case can be found in the literature, where researchers use different definitions when measuring financial expertise. For example, Abbott *et al.* (2004) use BRC's definition of financial expertise, while other researchers use the definition stated in the SEC rules (Dhaliwal *et al*., 2010). This study, therefore, will follow the previous literature and measure audit committee financial expertise as a continuous variable, using the SEC definition of financial expertise. The researcher will measure financial expertise as the proportion of financial experts in the audit committee to the total number of audit committee members, based on the SEC definition of financial

expertise. American listed companies are required to disclose how many financial experts they have in audit committees based on the SEC definition. Thus, there is no need to know in detail what criteria they need to meet, as it is shown clearly in the proxy statements.

2.5.4.4 Audit Committee Meeting Frequency

The number of audit committee meetings has been used in the literature as a measure of audit committee diligence (Abbott *et al*., 2004). A high number of audit committee meetings means that audit committee directors are active, and devote sufficient time and effort to complete their tasks effectively (Abbott *et al*., 2004, Abbott *et al*., 2000). This paper, therefore, will follow other literature and use the number of audit committee meetings as a continuous variable (Farber, 2005, Xie *et al*., 2003). Information about the number of audit committee meetings during the financial year will be collected manually from the proxy statement.

2.5.4.5 Audit Committee Tenure

Audit committee tenure is a continuous variable that represents the average tenure of audit committee directors. The number of years audit committee directors serve the same firm can affect their independence as well as their effectiveness (Dhaliwal *et al*., 2010, Sun *et al*., 2014, Persons, 2015). This study, consequently, will obtain information about audit committee tenure from the proxy statement of the listed company. The proxy statement declares when the directors were appointed, from which we can calculate how many years they have spent serving the same firm.

2.5.4.6 Audit Committee Additional Directorships

The board of directors is required to declare whether audit committee directors serve on more than three audit committees of listed companies (NYES). Moreover, it should explain that these directorships do not affect the ability of the directors to monitor and review the financial reporting process. This study will examine the additional directorships held by audit committee directors, which will be a continuous variable. Similarly to prior studies, the average of other public directorships held by audit committee directors will represent the measurement of this independent variable (Sharma and Kuang, 2014, Sun *et al.*, 2014, Yang and Krishnan, 2005).

2.5.4.7 Audit Committee Share Ownership

Following other literature, the percentage of common shares held by audit committee directors to the firm's total number of shares is the measurement of this independent variable (Sun *et al.*, 2014, Beasley, 1996, Yang and Krishnan, 2005). As share ownership may jeopardise audit committee independence, listed companies are required to declare the percentage of common shares held by its management and board of directors in the proxy statement.

2.5.5 The Definitions and Measurements of the Control Variable:

The next section describes the control variables' definitions and measurements. They are classified into two categories: governance and board characteristics, and firm characteristics.

2.5.5.1Board Size:

Board size is defined as the number of directors serving on the board. Prior literature investigated the impact of audit committee characteristics and restatements (Abbott *et al*., 2004). When using board size as a control variable, the researchers found that larger boards are associated with a higher incidence of financial statement restatements. Larger boards could also be less effective, and were found to be associated with real earnings management, according to Sun *et al*. (2014). This might happen because the directors of the boards have a free-rider issue (Sun *et al*., 2014). Furthermore, a positive relationship exists between board size and expectations management, which indicates that larger boards cannot be effective in monitoring the opportunistic behaviour of management. Researchers found that this relationship is not statistically significant (Liu *et al*., 2014). The information required to populate data is sourced manually from form DEF-14 (proxy statements).

2.5.5.2 CEO Duality

CEO duality means that the CEO holds the position of chairman of the board, along with his other position. This research will assign a value of 1 if the CEO is also the chairman of the board, and a value of 0 otherwise. Abbott *et al*. (2004) tested the impact of CEO duality and the occurrence of restatements. They found that holding these two positions can increase the level of restatements, but observe that this is not statistically significant or supported. Combining both positions (CEO and board chairman) can weaken internal governance practices due to the different roles and responsibilities of each position. The board chair is responsible for monitoring management, while the CEO is responsible for implementing the board's decisions (Nahar Abdullah *et al*., 2010). Board effectiveness

can be influenced by the power of the CEO, potentially preventing the directors of the board from challenging management and mitigating opportunistic behaviour; this influence, however, is also not statistically or economically significant (Agrawal and Chadha, 2005). Persons (2005) also believes that CEO duality increases the incidence of financial statement fraud. In a comparison of governance practices in reputable companies and less reputable companies, Persons (2015) failed to identify any difference between the two groups. This paper, as a result, will not predict any coefficient signs. The information required to populate data is sourced manually from form DEF-14 (proxy statements).

2.5.5.3 Board Independence

Independent directors are motivated to complete their tasks effectively in order to show the external market that they are experts in decision-making (Fama and Jensen, 1983). Xie *et al*. (2003) investigated the influence of the role of executive directors on the incidence of earnings management. The study selected 282 firm-year observations from the S&P 500 index for 1992, 1994 and 1996. The study found that the number of independent directors in the board can be associated with higher financial reporting quality. Independent directors are more effective in monitoring management and mitigating any opportunistic behaviour (Xie *et al*., 2003). Furthermore, Beasley (1996) investigates the association between board composition and financial statement fraud. Due to litigation and reputational pressure, independent directors are expending time and effort to monitor and review the internal control of the company, and evaluate the risk management system of the company. Thus, independent directors are significantly negatively related to the occurrence of fraud. Similarly, in the UK, Peasnell *et al*. (2005)

examined the relationship between outside directors and abnormal accruals. To conduct this study, 1271 firm-year observations from listed companies in the UK market were selected from 1996–99. The findings suggested that firms with a high proportion of outside directors have less income-increasing earnings management. Additionally, Klein (2002) found that independent directors on the board and audit committees can reduce the likelihood of earnings management. In the US, Agrawal and Chadha (2005) examined a sample of 159 restatements in 2005. The study believed that independent directors' presence on the board was more effective in monitoring the financial reporting process, and could decrease the occurrence of restatements. In support of this argument, Karamanou and Vafeas (2005) tested the impact of board independence on management forecasts and voluntary disclosure. Their study included forecasts made by the managers of 272 *Fortune 500 companies*. The paper provides evidence that effective corporate governance helps in reducing information asymmetry between shareholders and management. Effective boards are also better in terms of forecast accuracy. The study examined the market reaction to management forecasts and found that the market reacts positively to board independence. This is because those independent directors send positive indications to the external market by working effectively in ensuring the integrity and quality of the financial statements.

2.5.5.4 Board Ownership

Directors have more incentives to be effective and act on behalf of shareholders' interests if they are motivated with managerial ownership (Jensen and Meckling, 1979). For example, Cullinan *et al*. (2008) examined the association between board directors' compensation and financial reporting quality. They used revenue misstatements as a

proxy of low financial reporting quality. After examining 105 firms that misstated revenue in the US, the study suggested that directors' stock options jeopardise their independence and increase the occurrence of revenue misstatements. Other findings were highlighted by Kryzanowski and Zhang (2013), who investigated the association between the occurrence of restatements and governance characteristics. Their sample included 177 Canadian firms that restated financial statements from 1997–2006. This comparative study of US firms and Canadian firms shows that managerial ownership was found to be effective in increasing the quality of the financial reporting process. Finally, this research will assume that there is a negative relationship between board ownership and financial statement restatements. The information required to populate data is sourced manually from form DEF-14 (proxy statements).

2.5.5.5 Corporate Size

Firm size will be defined as the natural log of the total assets. (Yang and Krishnan, 2005) found that firm size affects earnings management negatively. Support for these findings is provided by Habbash *et al*. (2014). The researchers examined the relationship between independent directors and supervisory directors in constraining earnings management, suggesting that larger firms are less associated with earnings management activities (Habbash *et al*., 2014). Scholars believe that larger companies are more complex, which can increase the inherent audit risk. According to Contessotto and Moroney (2014), larger firms often comply with corporate governance rules. In addition, firm size can increase the likelihood of financial statement restatements. The researchers suggest that the importance of having financial experts on audit committees seems to be greater for small firms than larger firms, which already have financial experts on their board (Agrawal and

Chadha, 2005). Furthermore, there is a positive relationship between firm performance and firm size, and this relationship is statistically significant (Aldamen *et al*., 2012). Larger companies are also more motivated to establish strong corporate governance to enhance the role of the audit committee (Raghunandan *et al*., 2001).

2.5.5.6 Leverage

Leverage (LEV) is calculated by dividing total liabilities by total assets. Firms with high leverage find it easier to engage in earnings management activities to avoid debt covenant violations (Habbash *et al*., 2014). Bedard *et al*. (2004) and Sharma and Kuang (2014) both found that leverage is positively related to aggressive earnings management and this relationship is statistically significant. Leverage is significantly and negatively associated with quarterly earnings managament with the negative sign found only in the first quarter of the selected firms (Yang and Krishnan, 2005).

2.5.5.7 Loss

Loss takes a value of one if the firm reports negative income and a value of zero for positive income. Klein (2002) observes that negative income is related to audit committee independence and believes that the existence of independent directors on an audit committee can increase income. Similarly, Sharma and Kuang (2014) found a negative association between loss and aggressive earnings managament but this relationship is not significant. A negative net income is also associated negatively with meeting or beating earnings (Campbell *et al*., 2014).

2.5.5.8 Return on Assets

Return on assets (ROA) is defined as the ratio of net income to the total assets and is included in the model to control any change in a firm's performance. According to Sun *et al*. (2014), earnings management can decrease the ROA and this significant relationship is observed when measuring earnings management by an abnormal cash flow from operations. The information required to populate this data is collected from DataStream.

2.5.6 The Process of Data Analysis

This study will first provide descriptive statistics for the dependent variables, the independent variables and the control variables. Descriptive statistics include information about the number of observations, mean values, standard deviation and the minimum and maximum number of each variable. It also includes information about the kurtosis and skewness to explore the normality of the data. In addition, the descriptive analysis will perform a univariate analysis to explore differences in mean between companies that restated financial statements and the control companies. The univariate analysis has been performed in this study using an independent t-test and the Mann-Whitney U test, with the descriptive statistics followed by Spearman's correlation matrix. The bivariate analysis has been used to exhibit the association between variables. After these analytical tests, multivariate regression is used to examine the relationship between the dependent variable "restatements" and the explanatory variable "audit committee characteristics". The regression will also show the relationship between the dependent variables and the control variables. Sensitivity tests have been used to check previous statistical tests and the empirical analysis in this research has been run using STATA software.

As cited in Alghamdi and Ali (2012), in statistics there are two methods for analysing data: parametric tests and non-parametric tests. The nature of the sample data will determine what statistical tests should be used. Previous literature suggests that researchers should use parametric tests only if the data meets five assumptions (Gujarati, 1995). These assumptions are related to normality, multicollinearity, homogeneity, linearity and independence from errors. Each one of these assumptions needs a different test to identify whether it meets the requirement or not.

Firstly, to check whether the sample data is normally distributed the researcher will look at the kurtosis and skewness and determine the type of normality. Secondly, multicollinearity means that there are two independent variables that are highly correlated and to check this issue the researcher will run a variance inflation factor test (VIF). If this test reveals a value that is more than ten then there is a multicollinearity problem (Hair *et al*., 2006). If there are two variables in the correlation test that are correlated by more than 0.8, this also indicates the presence of a multicollinearity problem (Gujarati, 1995). Thirdly, homogeneity means that the standard deviation of the variables should be consistent. This type of information can be generated from the descriptive statistics table. Fourthly, sample data will meet linearity assumptions if the relationship between the dependent and independent variables is linear. Finally, the assumption of independence from errors can be achieved if there is no correlation between the error of one observation with the error of another observation (Gujarati, 1995).

Researchers are recommended to use non-parametric tests if the sample data did not meet the previous assumptions (Judge *et al*., 1985, Siegel, 1956) and the kurtosis and skewness showed that the sample data is not normally distributed. Thus, the measurement

of data on an interval scale is not required, the same way that meeting the previous assumptions is not required (Siegel, 1956, Judge *et al*., 1985). Therefore, this research will apply non-parametric tests.

Regarding heteroscedasticity, the researcher used the Breusch-Pagan/Cook-Weisberg test and found that the data is free from heteroscedasticity. As the normality situation has been violated, the use of OLS would not be effective as the standard errors could be biased and inconsistent, which would lead to biased statistical tests (Greene, 2007, Baltagi, 2008). To examine the sensitivity of the results to alternative specifications in this circumstance, Beaver (1998) suggests that using pooled regression would be an optimum solution. In addition, the important assumption of homoscedasticity and no serial correlation in pooled OLS is another reason for using GLS instead of OLS (Beaver, 1998).

Due to the previous justification, this research will use GLS with random effects over a four year period. Baltagi (2008) found that there are two methods that can be used to determine the relationship between variables. The first method is the lease square variable with fixed effect and the second is GLS with random effect. A fixed effect assumes that the individual constant is a group-specific constant term, while the random effect assumes that the individual constant is a group-specific disturbance, similar to the error term except for each group (Greene and Hensher, 2007). According to previous literature, the efficiency of the fixed effect and the random effect is similar (Greene and Hensher, 2007).

The Hausman test (1978) is a statistical test that can be used to determine which method is better to adopt, the random effect or fixed effect. The Hausman test

differentiates between random effect and fixed effect by clarifying the correlation between *x* variables and the individual random effect, εi, and is used to check for exogeneity. If there is no correlation found, then the random effect should be employed. The primary assumption of using the random-effect method is that there should not be any correlation between the independent variable and the unnoticed heterogeneity. After running the Hausman test, the result shows that the previous assumption is not violated.

2.6 Empirical Analysis and Results

2.6.1 Descriptive Statistics and Univariate Analysis

Table 2.1 represents the descriptive statistics of the independent variables, the dependent variables and the control variables. It also shows the univariate analysis to highlight the differences between the mean values for firms with restatements and the control firms, to explore the effect of audit committee characteristics on financial statement restatements. Separating the firms into two groups provides more insights into the impact of corporate governance on financial reporting quality and helps in identifying what the audit committee characteristics are that can constrain the occurrence of restatements. The following section will represent the univariate analysis along with descriptive statistics. Due to the normality violation in the sample data the researcher will employ a non-parametric test. The researcher uses the Mann-Whitney U test for univariate analysis, as well as the independent t-test, which provides a parametric analysis check for robustness.

Table 2.1 shows that the number of observations for firms that restated financial statements is similar to the number of observations for the control firms as this researcher followed a matched-pair approach similar to previous literature (Abbott *et al*., 2004, Archambeault *et al*., 2008, Lin *et al*., 2006, Nahar Abdullah *et al*., 2010, Agrawal and

Chadha, 2005, Kryzanowski and Zhang, 2013). Also, the dependent variable RST is a dummy variable that takes the value of one if it is restatement and zero otherwise. Thus, the mean of the restatements is one, while the mean of the control firms is zero. The univariate analysis using an independent t-test and the Mann-Whitney U test did not show any differences between the control firms and the firms with restatements. In terms of audit committee characteristics, some characteristics show strong influence on constraining the likelihood of restatements while the other makes no difference.

For example, the mean of ACIND for both restated and control firms is almost 100 percent, which indicates that restated and non-restated firms complied with the SOX requirement and appointed only independent directors on audit committees after the passage of the SOX (2002). Lin *et al* (2006) also conducted research in the US and reported similar findings. The researchers report that 86 percent of directors on audit committees are independent. The minimum percentage of independent directors on audit committees is 66 percent and the maximum percentage is 100 percent. The univariate analysis also did not exhibit any significant differences between the means of the two groups as they are all compliant with the SOX requirements on director independence.

The existence of financial experts on audit committees has been investigated in this research and table 2.1 shows that the mean of ACEXP for restated companies and control companies is almost the same. The mean proportion of financial experts on audit committees from the total number of audit committee directors is 0.42 for restated firms, while the mean of the control firms is 0.43. The results show no difference between the two groups. The US public companies complied with the SOX regarding appointing at least one financial expert to the audit committee, so the univariate analysis tests also did

not show any difference of means between the sample data. Previous literature reports similar results. For instance, Lin *et al* (2006) report a mean of 0.45 for restated companies and 0.50 for control firms, while Sun *et al* (2014), in their investigation of earnings management, found that the mean of financial experts on audit committees is 0.42. The proportion of financial experts has a minimum of 0.13 and a maximum of one, as shown in table 2.1.

The percentage of common shares held by audit committee directors has also been investigated in this research and the results show the following: the mean values of ACSHARE for control and restated firms are 0.0007 and 0.0009, respectively. The average of audit committee directors who own less than one percent of the total common share of the firm in restated firms is similar to non-restated firms. As previous literature mentions, director ownership may compromise a director's independence (Yang and Krishnan, 2005) and it may increase quarterly earnings management (Yang and Krishnan, 2005) or increase the abnormal accruals (Peasnell *et al*., 2005). This may explain the similarity in percentages between restated firms and control firms, as they may want to protect director's independence. As Table 2.1 shows, ACSHARE ranges from 0.0001 to 0.0009 of the total outstanding common shares. Lin *et al* (2006) report a higher percentage of ownership for restated and non-restated firms and the study shows a mean of 1.86 and 3.75, respectively. The independent t-test and the Mann-Whitney U test did not show any difference in means between control and restated firms.

Regarding the mean of ACSIZE, the average number of directors sat on audit committees is 3.49 for restated firms and 3.50 for control firms. The justification of the similar results for both groups is because of the requirement of the SOX (2002). The

Suburban-Oxley Act requires that the minimum number of directors on an audit committee should be three directors. Thus, most of the sample data complies with this rule and appoints three directors or more. This finding is like previous literature that investigated the impact of audit committee size on restatements. A study exhibits a mean of 3.282 and 3.305 for restated and control firms, respectively (Kryzanowski and Zhang, 2013). Similarly, Sun *et al* (2014) examined the association between audit committee size and real earnings activities and found that the average number of audit committee directors is 3.78. Table 2.1 shows that the minimum number on an audit committee is three and the maximum number is eight. The univariate analysis of an independent t-test and the Mann-Whitney U test also did not show any difference between firms that restated financial statements and firms that did not.

The mean of audit committee meetings (ACMEET) for restated firms is about 8.98 meetings and is higher than the mean of 6.90 for control firms. This may provide a signal that firms experiencing the problem of restatements meet more frequently. This also indicates that audit committee directors are aware of the problem they are facing and, therefore, meet frequently to fix the problems they have. These findings are higher than for the findings of other research in Canada. Kryzanowski and Zhang (2013) compared the number of audit committee meetings in both restated firms and control firms and the study reported an average of 5.467 and 4.644, respectively. Meanwhile, Yang and Krishnan (2005) found that the average number of audit committee meetings is 3.009 when investigating the impact of audit committee meetings on quarterly earnings management. In the US, Xie *et al* (2003) found that the mean of audit committee meetings is 3.87 when they examined audit committee and governance characteristics on

earnings management. Lin *et al* (2006) and other literature used a dummy variable that assumed a value of one if the audit committee met three times or more during the financial year and zero otherwise (Abbott *et al.*, 2004, Sun *et al.*, 2014). Thus, the results they have did not show the exact number of the audit committee meetings. In this research the results are more accurate and show the exact number of ACMEET in restated firms and control firms. Both the independent t-test and Mann-Whitney U test exhibited a significant difference between the number of audit committee meetings in restated companies and the number of audit committee meetings in control companies. This means that ACMEET in restated firms is higher than ACMEET in control firms at a statistical significance level of $P < 0.01$. The possible interpretation of this figure could be for the reason the researcher has mentioned previously; ACMEET is higher in restated firms than control firms because restated firms might have a problem that led to restate the annual financial statements, and audit committee directors, therefore, met frequently to solve the problem before the issuance in financial statements. Support for these findings comes from Lin *et al* (2006) who also found a statistical significant difference between the means of ACMEET in restated firms and control firms using the independent t-test. The minimum number of ACMEET is three meetings and one of the sample firms had 13 meetings during the financial year.

Audit committee tenure (ACTEN) is one of the most influential factors that can affect the audit committee effectiveness as well as the financial reporting quality. The mean of ACTEN in restated firms is 6.5 years, while in control firms audit committee directors spend about 7.5 years working for the same firms. Lin *et al* (2006) followed a matched-pair approach to investigate the differences between restated and control firms

in terms of the effect of corporate governance on both groups. The researchers found that, in restated firms, audit committee directors spend about 8.06 years in the firm, while in control firms audit committee directors spend an average of 8.09 years in the firm. In addition, Sun *et al* (2014) reported higher figures, finding that the average number of years an audit committee director spends at a firm is 8.80. This can mean that work tenure of audit committee directors has increased in recent years, with some scholars suggesting that this increase may jeopardise audit committee independence as directors build a good relationship with management (Dhaliwal *et al*., 2010). The independent t-test and Mann-Whitney U test exhibit a statistically significant difference in the means of restated firms and control firms at the level of $P < 0.05$. Interestingly, the univariate analysis of ACTEN supports the argument of the research. As mentioned in previous sections, audit committee tenure can impact the quality of the financial reporting process and constrain or increase the occurrence of restatements. The minimum number of ACTEN is zero in a couple of firms due to the new appointment of new audit committee directors, with a maximum of 23 in one of the older firms.

Another influential factor that can affect audit committee effectiveness is the number of additional directorships the audit committee directors hold. Table 1 shows that ACSHIP mean is 1.18 and 1.35 for control and restated firms, respectively, with audit committee directors holding an average of 1.18 additional seats in public firms and in control firms audit committee directors have an average of 1.35 memberships. In addition, Sun *et al*. (2014) reported a higher number of additional directorships at 0.90. The differences between previous findings can be explained by the different regulations in regions or periods. In the US, for instance, audit committee directors can serve on no

more than three public firms unless the board of directors disclose in the proxy statement that the additional directorships do not affect the effectiveness of the directors. The univariate analysis reveals that there is a significant difference between means of the ACSHIP in restated firms and the control firms, providing strong evidence that the number of additional directorships can affect the likelihood of restatement. Mann-Whitney U tests and independent t-tests have both shown the same significance at the level of $P < 0.05$. This level of significance also supports the research question regarding whether additional directorships affect the audit committee effectiveness or not. The difference in means shows that busy directors might not be as effective as directors with lower memberships. The time and effort each director puts into a firm affects the quality of the financial reporting process. As previous literature mentioned, ACSHIP can negatively affect the quality of the information provided in the financial statements and increase the incident of earnings management (Yang and Krishnan, 2005). The maximum number of ACSHIP, as shown in table 2.1, is 6.5 additional directorships in public firms, while the minimum is zero and the audit committee director sat on only one board.

In control variables, the results show that the mean of CEODUAL is 0.58, meaning that 58 percent of CEOs in restatement companies hold the position of chairman of the board, while control firms show about 55 percent of CEO duality. These findings are significantly smaller than the findings of Abbott *et al*. (2004). The previous literature reports an average of 78 percent of CEOs holding the chairman position in restated companies, and 70 percent of CEOs of the control firms holding the chairman position. The CEO duality can decrease the quality of the financial reporting process due to the conflict of the responsibilities of both positions (Nahar Abdullah *et al.,* 2010). The

univariate results, however, did not show any significant differences between the two groups as they all have similar results. Thus, the researcher cannot prove that CEODUAL has an impact on the occurrence of restatements.

Previous literature believes that the number of board of directors positively affects the financial reporting quality (Xie *et al*., 2003, Peasnell *et al*., 2005), and the Mann-Whitney U test and independent t-test did not show any differences between restated companies and control companies. The descriptive statistics show that the average size of BDSIZE is about 8.21 for pooled data. This is slightly higher than the findings of Abbott *et al*. (2004), who report an average BDSIZE of 6.98 and 7.37 for restated firms and control firms, respectively. The mean of BDIND is 0.61 and 0.63 for control firms and restated firms, respectively. Similarly, another paper conducted in Canada reports similar findings for board independence. It shows that the average of BDIND is 0.65, which means 65 percent of board directors are independent (Kryzanowski and Zhang, 2013). Meanwhile, in Malaysia, researchers report a smaller percentage of the average BDIND that is equal to 0.43 (Nahar Abdullah *et al*., 2010).

Table 2.1 shows that the BDOWN average is about 0.024 of the total common shares of the firms, which is less than the 0.086 that has been reported by Peasnell *et al*. (2005). The maximum percentage of BDOWN is about 0.53 while the minimum is less than one percent. The COSIZE represents the number of total assets in millions, with the average for control firms and restated firms reported as 2466.622 and 2402.467 (in millions), respectively. These figures are close to the sample size examined by Kryzanowski and Zhang (2013). The mean LEV for pooled data is 0.39, with the leverage representing the debt used to finance the firm's assets. A percentage of 39

percent of LEV means that sample firms are highly leveraged. Although the average LEV of this study is considered to be high, Yang and Krishnan (2005) and Peasnell *et al*. (2005) report higher levels of LEV of about 0.52.

The mean of loss for control firms and restated firms is 0.24 and 0.26, respectively, while Lin *et al*. (2006) exhibit a smaller result of 0.39. The average of ROA in the sample data is 0.42 for control firms and 0.37 for restated firms. For normality analysis, the researcher ran a skewness test to measure the symmetry of data distribution and a kurtosis test that measures the flatness of the distribution (Hair *et al*., 2006). The results show that some of the independent and control variables are not normally distributed, thus, the researcher should use non-parametric tests to analyse the sample data.

2.6.2 Correlation Matrix

Table 2.2 represents the Spearman's correlation coefficient between dependent and independent variables and control variables. The choice of using the Spearman's correlation coefficient instead of Pearson's correlation coefficient has been made because of the violation of normality. As the descriptive table shows, some variables are not normally distributed so the researcher employed the Spearman's correlation coefficient. Table 2.2 shows that RST is highly and positively correlated with ACSHIP at the level of $P < 0.05$, indicating that audit committee directors who sit on many public boards negatively affect the financial reporting quality as they do not put enough effort and time into one public firm because of their busy schedule. Thus, busy directors are not effective, despite the findings of previous literature (Sun *et al*., 2014, Beasley, 1996, Fich and Shivdasani, 2006, Ferris *et al*., 2003). Table 2 also illustrates that ACTEN

affects the incident of restatements. The significant negative correlation between RST and ACTEN at the level of P <0.05 can be explained by the argument investigated in literature about the influence of audit committee tenure on financial reporting quality. Scholars argue that long audit committee tenure assists directors to oversee the financial reporting system effectively (Yang and Krishnan, 2005, Persons, 2015, Beasley, 1996). Directors who serve on the same firm for many years become more familiar with the firm and its operation and accounting systems. Thus, the effectiveness of their role will be enhanced by the knowledge they gained from this experience. Surprisingly, there is a significant positive relationship between ACMEET and RST. Based on the data shown in table 2, ACMEET increased in restatement firms more than the control firms. The best interpretation for this association is that audit committee directors in restated firms are aware of the accounting issues the firm face and are trying to meet frequently to solve these issues and ensure the integrity of the financial statements. Furthermore, table 2 also shows significant cross-correlations between governance variables and these findings should be taken into consideration when investigating the impact of audit committee characteristics, independently or jointly. Prior literature states that the high level of correlation between variables can harm the findings of the multivariate regression analysis (Gujarati, 1995). The researcher believes that variables can be joined in one model as long as the correlation coefficient between them is less than 0.80 (Gujarati, 1995, Hair *et al*., 2006). As shown in Table 2.2, there are no variables that are correlated with each other at more than 0.8, which supports this study's model as it does not have multicollinearity issues (Gujarati, 1995). To further check that multicollinearity issues do not exist, the researcher uses variance inflation factors (VIF) for multicollinearity

diagnostics. Also, Table 2.3 illustrates the VIF for the independent variables and, as shown in the table, all independent variables are less than ten. Therefore, this confirms that multicollinearity problems do not appear in the restatements model.

Table 2.1: Descriptive Statistics										
VARIABLES		**Obs**	**Mean**	**Std. Dev.**	**Mean Diff**	**Mann-Whitney**	**Min**	**Max**	**Skewness**	**Kurtosis**
RST	CONTROL	450	0	0	-1	-	0	1	0	1
	RST	450	1	0						
	POOLED	900	.5	.5100						
ACIND	CONTROL	450	99.6547	3.0012	.3674	.156	66	100	-7.5637	59.3827
	RST	450	99.2873	4.7617						
	POOLED	900	99.4708	3.9830						
ACEXP	CONTROL	450	.4307	.2394	.0018	.795	.13	1	1.4755	3.9098
	RST	450	.4288	.2380						
	POOLED	900	.4298	.2386						
ACSIZE	CONTROL	450	3.5022	.9205	.0088	0.621	3	8	1.4853	6.4232
	RST	450	3.4933	.8368						
	POOLED	900	3.4977	.8792						
ACMEET	CONTROL	450	6.9011	3.1820	-1.0988	.001 ***	3	13	1.4287	6.6709
	RST	450	8.9875	4.3189						
	POOLED	900	7.4505	3.8308						
ACTEN	CONTROL	450	7.5590	4.4040	.9930	.001 ***	0	23	.9658	4.0428
	RST	450	6.5659	3.7298						
	POOLED	900	7.0647	4.1102						
ACSHIP	CONTROL	450	1.1840	1.0259	-.1665	.013 **	0	6.5	1.2583	5.0087
	RST	450	1.3505	1.1368						
	POOLED	900	1.2672	1.0853						
ACSHARE	CONTROL	450	.0007	.3805265	-.0002	.876	.0001	13.33	12.5642	176.2086
	RST	450	.0009	1.100482						
	POOLED	900	.0008	.8235761						
CEODUAL	CONTROL	450	.5501	.4980	-.0365	.572	0	1	-.2762	1.0763
	RST	450	.5866	.4929						
	POOLED	900	.5684	.4955						
BDSIZE	CONTROL	450	8.0890	2.4414	-.2575	.138	6	18	1.1343	2.2866
	RST	450	8.3466	2.4348						
	POOLED	900	8.2180	2.4402						

VARIABLES		Obs	Mean	Std. Dev.	Mean Diff	Mann-Whitney	Min	Max	Skewness	Kurtosis
BDIND	CONTROL	450	.6189	.2208	-.0157	.317	.14	.88	.9704	5.4997
	RST	450	.6346	.2217						
	POOLED	900	.6267	.2213						
BDOWN	CONTROL	450	.0288	.2123	-.0012	.049	.01	53.9	.0693	1.7763
	RST	450	.0300	.2306						
	POOLED	900	.0299	.2224						
COSIZE (in million)	CONTROL	450	2466.622	1480.743	64.155	.117	34.09	126745.76	.2166	2.024
	RST	450	2402.467	1314.914						
	POOLED	900	2434.544	1399.874						
LEV	CONTROL	450	.3955	.2287	.0025	.531	0.30	11.38	.0363	1.8164
	RST	450	.3930	.2301						
	POOLED	900	.3943	.2293						
LOSS	CONTROL	450	.2400	.4275	-.0266	-.0321	0	1	1.1343	2.2866
	RST	450	.2666	.4427						
	POOLED	900	.2533	.4351						
ROA	CONTROL	450	.2024	.1853	-.0193 **	.014 **	-10.66	1.09	.3906	1.7597
	RST	450	.2217	.1961						
	POOLED	900	.2120	.1909						

Where:

RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise.

Dependent Variables

ACIND: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition. **ACSIZE**: Audit Committee Size: The number of directors serves in the audit committee. **ACMEET**: Audit Committee Meeting Frequency: The number of audit committee meetings during the financial year. **ACEXP**: Audit Committee Financial Expertise: The proportion of financial experts in the audit committee to the total number of AC members based on SEC definition of financial expertise. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACDSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTENURE**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**; **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 2.2: Spearman Correlation Matrix

	RST	ACIND	ACSIZE	ACMEET	ACEXP	ACSHIP	ACTEN	ACSHARE	CEODUEL	BDSIZE	BDIND	BDown	LOSS	LEV	logROA	COSIZE
RST	1															
ACIND	-0.0269	1														
ACSIZE	-0.0066	0.0348	1													
ACMEET	0.0026***	-0.0125	-0.3616***	1												
ACEXP	0.1232	-0.006	0.0185***	0.2477	1											
ACSHIP	0.1064**	0.0687	-0.0915***	0.158***	-0.0266	1										
ACTEN	-0.0782**	-0.0007**	0.0428***	0.2001	0.1956**	-0.0885*	1									
ACSHARE	-0.0085	-0.0594	-0.0807**	-0.1267***	-0.2439**	0.0727***	-0.2007	1								
CEODUEL	0.0331	0.0444	-0.093**	0.0675**	-0.0606**	0.0587***	-0.0423	-0.0597*	1							
BDSIZE	0.0474	0.0158	-0.0741***	0.4571	0.2788***	0.1354**	0.2499***	-0.3494***	-0.0066	1						
BDIND	0.0341	-0.0033	0.0732***	-0.2641	-0.0541	-0.1319	-0.0977	0.0835**	-0.0276	-0.6323***	1					
BDown	0.0014	-0.0329	-0.0157***	-0.1646	-0.1596**	0.0204	-0.0716***	0.0553	-0.0443	-0.1688**	0.0733	1				
LOSS	-0.0077	-0.0789	0.0386	0.2204**	0.089**	0.0768*	0.1091	-0.2038***	0.0669**	0.3074**	-0.2867	-0.1691	1			
LEV	-0.0133	-0.0536	-0.0589	0.209***	0.1214***	0.0248	0.0905***	-0.0149	0.025	0.2604	-0.1803**	-0.0979	0.3029**	1		
logROA	0.0178	-0.0457	0.0461***	-0.1796**	-0.0652**	-0.1832**	-0.0534	0.1798**	-0.0946*	-0.1722***	0.0684	-0.0181	-0.043	0.0217**	1	
COSIZE	0.0435	0.0054*	-0.0673***	0.2109***	0.0799**	0.1349***	0.0602**	-0.0731***	0.0611	0.2094	-0.1044*	-0.0181	0.0997	0.2714	-0.0740	1

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Dependent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition. **ACSIZE**: Audit Committee Size: The number of directors serves in the audit committee. **ACMEET**: Audit Committee Meeting Frequency: The number of audit committee meetings during the financial year. **ACEXP**: Audit Committee Financial Expertise: The proportion of financial experts

in the audit committee to the total number of AC members based on SEC definition of financial expertise. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACDSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTENURE**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 2.3: Variance Inflation factors (VIF)

Variable	VIF	I/VIF
ACIND	2.11	0.473024
ACEXP	2.1	0.475464
ACSIZE	1.97	0.507609
ACMEET	1.57	0.63807
ACTEN	1.4	0.714898
ACSHIP	1.39	0.719085
ACSHARE	1.22	0.820617
CEODUEL	1.12	0.892829
BDSIZE	1.11	0.8982
BDIND	1.08	0.924128
BDown	1.07	0.934175
COSIZE	1.04	0.958401
LEV	1.04	0.96401
LOSS	1.02	0.976005
logROA	1.02	0.977783
Mean VIF	1.35	

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Dependent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition. **ACSIZE**: Audit Committee Size: The number of directors serves in the audit committee. **ACMEET**: Audit Committee Meeting Frequency: The number of audit committee meetings during the financial year. **ACEXP**: Audit Committee Financial Expertise: The proportion of financial experts in the audit committee to the total number of AC members based on SEC definition of financial expertise. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACDSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTENURE**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

2.6.3 Results and Discussion of Multivariate Analysis

Table 2.4 represents the analysis of the panel data regression with random effect. The adjusted coefficient of determination (Adj R^2) shows that the power of the explanation of the model is equal to 0.0603. It is similar to previous literature that reports Adj R^2 ranging from 0.01 to 0.09 (Habbash *et al*., 2014, Campbell *et al*., 2014, Yang and Krishnan, 2005, Dellaportas *et al*., 2012, Klein, 2002, Xie *et al*., 2003, Contessotto and Moroney, 2014). Even though the Adj R^2 might be considered low, the predictor variables still provide significant information about the response variable even though the data is not close to the fitted line of the model.

The results show that ACIND is negatively related to the occurrence of restatements, but this relationship is not statistically significant. This result is similar to previous literature that failed to find evidence about the positive impact of director's independence on financial reporting quality (Habbash *et al*., 2014, Lin *et al*., 2006, Sun *et al*., 2014, Yang and Krishnan, 2005). Interestingly, the analysis provides evidence that restatement is negatively associated with ACSIZE at the level of P <0.10. Therefore, this study accepts *H3*, predicted earlier, regarding the negative relationship between restatements and audit committee size. The results show that the size of an audit committee in firms that restate financial statements is higher than firms that did not restate financial statements. This means that the number of directors on an audit committee positively affects the financial reporting quality. The greater the number of directors, the better quality the firm can have in the financial reporting process.

The main responsibility of an audit committee is to oversee the financial reporting process to ensure the integrity of the information provided in the financial statements.

Thus, larger audit committees could be more efficient at performing this task effectively. Having more directors on a board provides more knowledge and expertise that will help them in constraining any opportunistic behaviour. Support for this finding comes from Lin *et al*. (2006). Researchers believe that larger audit committees decrease earnings management (Lin *et al*., 2006, Yang and Krishnan, 2005). Additionally, firms that experience fraud cases in financial statements have fewer numbers of directors than firms that do not commit fraud (Beasley, 1996).

The number of directors in most admired companies is greater than in companies that are less admired in the US market (Persons, 2015). The markets also react positively with the appointment of higher numbers of directors to the boards, meaning that outsiders believe that having many directors on a board can increase the quality of the firms performance (Karamanou and Vafeas, 2005). Another study found that effective boards tend to hire more directors to their audit committees to increase audit committee effectiveness (Beasley and Salterio, 2001).

Furthermore, ACTEN is also highly and negatively associated with financial statement restatement at the level of $P < 0.01$. The result shows that director's tenure on audit committees of firms that restated financial statements is less than their peers in control firms. The significant negative relationship between restatements and audit committee tenure provides strong evidence about the negative impact of audit committee tenure on financial reporting quality. The work tenure is a very important element that may affect audit committee independence, which will then affect audit committee effectiveness. Many studies have investigated the impact of audit committee tenure on financial reporting quality and reported similar findings that support the result of this

current research. Serving in the same firm for many years can negatively reduce the incident of quarterly earnings management (Yang and Krishnan, 2005). In addition, audit committee tenure increases the experience of its directors with the firm and its operation systems. It gives audit committee directors the knowledge they need to oversee the financial reporting process and decrease the occurrence of fraud (Beasley, 1996). As the audit committee directors become familiar with the firm due to the long work tenure, they become more efficient in mitigating any opportunistic behaviour from managers. The findings also provide an answer to the research question on the impact of audit committee tenure in financial reporting quality. Regulators, investors and other stakeholders provide attention to characteristics such as audit committee independence, while audit committee independence can be compromised by the number of years the director serves with the firm. Therefore, the findings of this study highlight the importance of the impact of audit committee tenure on financial reporting quality to mitigate a harmful problem, such as restatements.

Although holding additional directorships motivates directors to monitor their management effectively to avoid any litigation and reputational losses, this study confirms that serving on many boards can negatively affect an audit committee. The estimates coefficient of ACSHIP is P <0.05, which shows that the additional memberships held by audit committee directors is associated with a higher number of restatements. Directors who sit on many public boards at the same time do not put as much effort and time into reviewing the internal audit or internal control systems. As mentioned in a previous section, there are two different views regarding the impact of holding additional directorships on audit committee effectiveness. The first group

supports the idea that serving on many public boards provides audit committee directors with more expertise and knowledge. Thus, their existence on the board can constrain aggressive earnings management (Sharma and Kuang, 2014). In addition, researchers believe that holding additional directorships puts pressure on directors to protect their reputation in the market and avoid any litigation losses that may occur when companies manipulate earnings.

This research supports the second stream of literature that suggests a director's busy schedule can damage their effectiveness in monitoring the financial reporting process. Serving on many boards prevents directors from focusing on one public firm at a time. Thus, the integrity of the financial statements will be in doubt, as directors cannot put enough time and effort into ensuring high reporting quality (Dhaliwal *et al*., 2010).

Previous literature supports the findings of this research and found that busy directors are associated with real earnings activities (Sun *et al*., 2014). Furthermore, Beasley (1996) believes that additional memberships jeopardise audit committee effectiveness and increase the likelihood of fraud. Firm performance could also be negatively affected by the number of directorships held by individuals (Fich and Shivdasani, 2006). In 2005, a study was conducted to explore the impact of additional directorships held by board directors from a shareholder's prospective. The study found that shareholders react negatively towards the appointment of directors who serve on additional boards (Perry and Peyer, 2005). The result of the previous literature supports the significant positive association between ACSHIP and RST that has been predicted in this study. Firms that restate financial statements have shown a high number of audit committee directors who hold additional directorships. This finding provides strong

evidence for the negative impact of serving on many boards at the same time on financial reporting quality. Thus, regulators, academics, and investors should focus on these results when measuring audit committee effectiveness as it may harm the integrity of the financial statements. It is required by the American stock markets that public companies should disclose if their directors serve on more than three public firms. Public firms should also disclose in the proxy statement whether these additional directorships would compromise the director's effectiveness. As this study shows negative results, regulators should put more attention to the negative effects of the allowed number of additional memberships directors can hold.

This research hypothesised that there is a significant negative relationship between audit committee meeting frequency and restatements. This association, however, is in doubt due to the following justifications. First, the literature is filled with mixed results regarding the impact of audit committee meeting frequency on the incident of restatements. Second, this research does not investigate regular firms, instead the researcher focuses on firms that have already restated their financial statements. Thus, in this case the researcher expected that audit committee meetings would be increased to deal with internal issues related to the financial statements. If the research focuses on all firms with no specific criteria then the association between audit committee meeting frequency and restatements should be negative. As expected, and despite other papers, the results provide strong evidence that firms that restated financial statements meet frequently. This can be used as a signal of their acknowledgement and their awareness about the internal accounting issues. ACMEET is statistically significant at the level of $P < 0.01$ and positively associated with the occurrence of restatements.

Although the sign of prediction is as expected for hypotheses *H1*, *H2* and *H7*, the analysis, however, rejects them due to the low level of significance. The researchers failed to find evidence that ACIND, ACEXP and ACSHARE have a strong negative association with restatements as the probability of these variables were P <-0.003, P <-0.039, and P <0.025 respectively.

There are many justifications that can explain the insignificant association between them, for example, after passing the Surban-Oxley Act, many companies adopted the new roles and hired independent directors and financial experts to its audit committees. Therefore, it is very rare that researchers find differences between the restated companies and the control companies since they all hire independent directors who are financial experts and motivate them with common shares. Support for this argument comes from researchers who investigated audit committee characteristics and did not find evidence about their positive impact (Sun *et al*., 2014, Lin *et al*., 2006, Yang and Krishnan, 2005, Habbash *et al*., 2014). Regarding the control variables, BDIND and BDSIZE are positively significant with restatements at the level of P <0.05 and P <0.10, respectively. Loss and LogROA are also highly correlated with the occurrence of restatements.

Table 2.4: Regression Analysis (Panel data with Random Effect)

Variables	Predicated Sign	Coef
Independent Variables		
ACIND	-	-0.0039643
ACEXP	-	-0.0399588
ACSIZE	-	-0.0297129*
ACMEET	-	0.0158269***
ACTEN	-	-0.0133334***
ACSHIP	-	0.0291565**
ACSHARE	-	0.0251133
CONTROL VARIABLE		
CEODUAL	+	0.0641469
BDSIZE	-	0.0226797**
BDIND	-	0.1710629*
BDOWN	-	0.0001027
COSIZE	-	-0.0000382
LEV	-	-0.0001816
LOSS	+	0.1233325**
LogROA	-	0.0003755***
_cons		0.5673705
Prob > chi2	0.0000	
Adj R-squared	0.0603	

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Dependent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition. **ACSIZE**: Audit Committee Size: The number of directors serves in the audit committee. **ACMEET**: Audit Committee Meeting Frequency: The number of audit committee meetings during the financial year. **ACEXP**: Audit Committee Financial Expertise: The proportion of financial experts in the audit committee to the total number of AC members based on SEC definition of financial expertise. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACDSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTENURE**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

2.7 Robustness Tests

For sensitivity analysis the researcher performs different tests. First, the researcher runs a pooled data test and a panel data with fixed-effect test. Then, the researcher compares between the random-effect model and the fixed-effect model using the Hausman test. The test confirms that using random-effect models is better for explaining the data than the panel data with fixed effect. So, there was a need to run these tests in order to confirm which is test is better to explain the data. Furthermore, previous literature observes that pooled data also gives more flexibility in modelling differences in data specific behaviour (Greene, 2007), thus, the researcher performs a pooled data test. The pooled data test assumes that the sample data occurred at the same time. As shown in Table 2.5, the pooled data analysis shows similar results to the panel data analysis with random effects. The level of significance as well as the direction for each variable is like the previous findings. Third, to double-check the analysis, the researcher uses a Breusch and Pagan test to determine whether the random-effect test is better than the pooled data model. According to the Breusch and Pagan test, the probability of the Chi-squared test is more than 0.5, thus, random effects should be better applied to the research model. Finally, the dependent variable of the research model (restatements) is a dichotomous variable that takes the value of one if the firm restated its financial statement, and zero otherwise. Thus, the most appropriate regression test that can be used is logit regression following previous restatement literature (Lin *et al*., 2006, Abbott *et al.*, 2004, Kryzanowski and Zhang, 2013, Archambeault *et al.*, 2008, Dellaportas *et al*., 2012, Cullinan *et al*., 2008, Nahar Abdullah *et al*., 2010). Interestingly, the researcher runs Probit and Logit for robustness check, and find that the results of the logit analysis (Table 2.7), as well as the

result of the Probit analysis, are similar to the results of the panel data analysis with random effect. Regarding endogeneity problems, previous literature has mentioned that corporate governance variables might experience endogeneity issues (McKnight and Weir, 2009, Coles *et al*., 2008). The results of this research, however, are free from endogeneity issues, as shown in the previous analysis tests. In addition, the Durban Watson test, as well as the panel data analysis with robust standard errors, confirms the absence of the endogeneity issue in the data.

Table 2.5: Pooled Data Test

Variables	Predicated Sign	Coef
Independent Variables		
ACIND	-	-0.0039643
ACEXP	-	-0.0399588
ACSIZE	-	-0.0297129*
ACMEET	-	0.0158269***
ACTEN	-	-0.0133334***
ACSHIP	-	0.0291565**
ACSHARE	-	0.0251133
CONTROL VARIABLE		
CEODUAL	+	0.0641469
BDSIZE	-	0.0226797**
BDIND	-	0.1710629*
BDOWN	-	0.0001027
COSIZE	-	-0.0000382
LEV	-	-0.0001816
LOSS	+	0.1233325**
LogROA	-	0.0003755***
_cons		0.5673705
Hausman test	0.3376	
Breusch and Pagan (Bb-LM)	1.0000	
Prob > F	0.0000	
Adj R-sq	0.0440	

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Dependent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition. **ACSIZE**: Audit Committee Size: The number of directors serves in the audit committee. **ACMEET**: Audit Committee Meeting Frequency: The number of audit committee meetings during the financial year. **ACEXP**: Audit Committee Financial Expertise: The proportion of financial experts in the audit committee to the total number of AC members based on SEC definition of financial expertise. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACDSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTENURE**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 2.6: Regression Analysis (Panel data with fixed-Effect)

Variables	Predicated Sign	Coef
Independent Variables		
ACIND	-	-0.0038385
ACEXP	-	-0.0381902
ACSIZE	-	-0.0292159*
ACMEET	-	0.0166511***
ACTEN	-	-0.0134538***
ACSHIP	-	0.0288395**
ACSHARE	-	0.0258592
CONTROL VARIABLE		
CEODUAL	+	0.0622331
BDSIZE	-	0.022747**
BDIND	-	0.1697632*
BDOWN	-	0.0001015
COSIZE	-	-0.0000434
LEV	-	-0.0001765
LOSS	+	0.1260286***
LogROA	-	0.0003795***
_cons		0.5467318
Prob > F	0.0000	
Adj R2	0.0603	

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Dependent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition. **ACSIZE**: Audit Committee Size: The number of directors serves in the audit committee. **ACMEET**: Audit Committee Meeting Frequency: The number of audit committee meetings during the financial year. **ACEXP**: Audit Committee Financial Expertise: The proportion of financial experts in the audit committee to the total number of AC members based on SEC definition of financial expertise. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACDSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTENURE**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 2.7: Logit Regression Analysis

Variables	Predicated Sign	Coef
Independent Variables		
ACIND	-	-0.017775
ACEXP	-	-0.1670304
ACSIZE	-	-0.1266642*
ACMEET	-	0.0703356***
ACTEN	-	-0.0573968***
ACSHIP	-	0.1248232**
ACSHARE	-	0.1358048
CONTROL VARIABLE		
CEODUAL	+	0.2728505
BDSIZE	-	0.0985669**
BDIND	-	0.759023*
BDOWN	-	0.0004443
COSIZE	-	-0.0001918
LEV	-	-0.0007825
LOSS	+	0.5188324**
LogROA	-	0.0016131***
_cons		0.3287384
Wald chi2	55.50	
Prob > chi2	0.0000	
Pseudo R2	0.0455	

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Dependent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition. **ACSIZE**: Audit Committee Size: The number of directors serves in the audit committee. **ACMEET**: Audit Committee Meeting Frequency: The number of audit committee meetings during the financial year. **ACEXP**: Audit Committee Financial Expertise: The proportion of financial experts in the audit committee to the total number of AC members based on SEC definition of financial expertise. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACDSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTENURE**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 2.8: Probit Regression Analysis

Variables	Predicated Sign	Coef
Independent Variables		
ACIND	-	-0.0116022
ACEXP	-	-0.1059366
ACSIZE	-	-0.0798319*
ACMEET	-	0.0440869***
ACTEN	-	-0.035853***
ACSHIP	-	0.0785943**
ACSHARE	-	0.0857999
CONTROL VARIABLE		
CEODUAL	+	0.1702919
BDSIZE	-	0.0616522**
BDIND	-	0.4737551*
BDOWN	-	0.0002714
COSIZE	-	-0.0001231
LEV	-	-0.0004908
LOSS	+	0.3206062**
LogROA	-	0.0010036***
_cons		0.2613465
Prob > chi2	0.0000	
Pseudo R2	0.0460	

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Dependent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition. **ACSIZE**: Audit Committee Size: The number of directors serves in the audit committee. **ACMEET**: Audit Committee Meeting Frequency: The number of audit committee meetings during the financial year. **ACEXP**: Audit Committee Financial Expertise: The proportion of financial experts in the audit committee to the total number of AC members based on SEC definition of financial expertise. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACDSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTENURE**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 2.9: Panel Data Analysis with Random-Effect with Robust Standard Errors

Variables	Predicated Sign	Coef
Independent Variables		
ACIND	-	-.00464
ACEXP	-	-.06432
ACSIZE	-	-.03247**
ACMEET	-	.01458 ***
ACTEN	-	-.03765 **
ACSHIP	-	.08976 **
ACSHARE	-	.02457***
CONTROL VARIABLE		
CEODUAL	+	.03455
BDSIZE	-	.02167 ***
BDIND	-	.18763
BDOWN	-	.00045
COSIZE	-	-.00054
LEV	-	-.00026***
LOSS	+	.12765
LogROA	-	.00052 *
Durbin-Watson d-statistic	.136509	
Prob > F	0.0000	
Adj R2	0.0672	

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Dependent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition. **ACSIZE**: Audit Committee Size: The number of directors serves in the audit committee. **ACMEET**: Audit Committee Meeting Frequency: The number of audit committee meetings during the financial year. **ACEXP**: Audit Committee Financial Expertise: The proportion of financial experts in the audit committee to the total number of AC members based on SEC definition of financial expertise. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACDSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTENURE**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

2.8 Conclusion

The objective of the research is to find an answer for the research question: to what extent do audit committee characteristics influence the occurrence of financial statements restatements?. This research question has been answered through the results of this study. The research contributes to the audit committee literature and restatements literature due to its significant findings. The results document statistically significant associations between audit committee size and the likelihood of restatements. The negative relationship between the number of audit committee directors and financial statement restatements indicates that the more directors serving on the audit committee, the better the financial reporting quality will be. Researchers in the U.S. supports this finding and find that audit committee members bring specialties and expertise to the committee, thus, large audit committee can be proactive and mitigate the incident of restatements (Lin *et al.*, 2006). In addition, Beasley (1996) also provide further support for the result of this study and show a significant relationship between the size of audit committee and fraud. Yang and Krishnan (2005) support the argument of the positive impact of audit committee size on earnings management. The researcher provide a strong evidence and suggest that large audit committee can be more effective to constrain earnings management. Thus, it is recommended that regulators, investors and shareholders should encourage listed companies to increase the number of audit committee directors to enhance the quality of the financial statements.

Furthermore, the results show that audit committee tenure can affect the effectiveness of the audit committees positively. The number of years an audit committee director spends serving in the same firm is negatively related to restatements. Audit

committee directors who work for the same firm for many years are found to be more effective in increasing the quality of the financial reporting process. Support from for this argument comes from Yang and Krishnan (2005). According to the previous researchers, due to the knowledge and experience from the firm, audit committee directors become more familiar with the firm and its operations and accounting systems. Thus, they have the ability to detect any accounting errors and fix them in a timely manner. Furthermore, Beasley (1996) also finds that audit committee tenure is statistically and significantly constrains the occurrence of fraud. In order to link the findings of this research to previous literature, the research finds that Persons (2015) confirms the results of this research, and find that audit committee tenure in most admired companies in the US is higher than in less admired companies. Accordingly, this research provides strong evidence to regulators and investors that audit committee tenure positively affects financial reporting. Thus, listed companies should encourage audit committee directors to stay longer in the company to increase the level of effectiveness of the audit committee as they become familiar with the firm and its operation and accounting system.

The number of additional directorships held by audit committee directors shows a negative impact on financial reporting quality, and it increases the likelihood of restatements. Busy directors do not put sufficient time and effort into reviewing the financial reporting process. Due to their busy schedules, audit committee directors cannot focus on one firm at a time as they sit on many public boards. Beasley (1996) supports this finding and sends warning that busy directors are associated with the increase number of fraud incidents. Moreover, Sun *et al* (2014) also finds similar result. Holding additional directorship prevent audit committee directors from preventing management's

opportunistic behaviour (Sun *et al*., 2014). In support of the negative impact of busy audit committee directors Fich and Shivdasani (2006) finds that holding additional directorships by audit committee directors do not only affect financial reporting quality, but it also affect the firm performance negatively. Therefore, regulators and decision makers should pay more attention to the number of additional directorships held by audit committee directors. The number of memberships should be limited in order for the audit committee directors to devote more time and efforts to monitoring the quality of the financial reporting process.

Moreover, this research extends the audit committee literature and finds that audit committee meetings, despite previous literature, is associated with an increase in the financial statement restatements. The best justification for this surprising result could be that in restatement companies, audit committee directors are aware of the accounting issues they have in the company. Thus, the directors meet frequently in order to solve these issues.

While numerous studies focus on audit committee independence, audit committee financial expertise and audit committee stock ownership, this research is the first study that tests a comprehensive set of seven audit committee characteristics in relation to the likelihood of restatements. Although previous literature believes that audit committee independence, audit committee financial expertise and audit committee stock ownership has an impact on financial reporting quality (Abbott *et al*., 2004; Kryzanowski and Zhang, 2013; Dhaliwal *et al*., 2010), the results of this research failed to support previous findings. The insignificant relationship between audit committee independence, financial expertise and audit committee stock ownership indicates that there are other factors that

can influence audit committee effectiveness. Thus, the findings of this study add to the debate about the potential characteristics of audit committee directors that might affect the financial reporting quality. To restore the trust in the information provided in the financial statements, regulators, academics and investors should pay attention to these factors because they can affect the quality of the financial reporting as well as the integrity of the financial statements.

As this current chapter discuss how audit committee characteristics affect the information provided in financial statements, and how can they eliminate the occurrence of restatements, the following chapter will support this current chapter and discuss how audit committee characteristics can influence the external audit in order to provide an oversight about the impact of audit committee characteristics, and the role of audit committee directors from both internal and external side.

Chapter Three

The Impact of Audit Committee Characteristics and Restatements on Audit Fees

3.1 Introduction

The previous chapter investigates the impact of audit committee characteristics on the occurrence of restatements. It gives an answer for the question of; to what extent does audit committee characteristics influence restatements frequency. The findings of the previous chapter proved that some audit committee characteristics has a significant impact on eliminating the incident of restatements. This current chapter, however, will extend the previous investigations and will go in deep to find further evidence about the impact of audit committee characteristics as well as restatements on external audit. Because the role of audit committee is not only an internal role that oversight the financial reporting process, audit committee directors also have another role that ask them to overview the external audit quality. Thus, this study investigates the impact of audit committee characteristics and restatements on audit fees, following the occurrence of financial statement restatements. Financial statement restatements represent low-quality auditing, as auditors did not impose the correct application of GAAP when the financial statements were issued (Francis *et al*., 2013). The Sarbanes-Oxley Act (SOX) enforces strict rules to organise the responsibilities of the audit committees in order to ensure that audit committees increase the transparency of the financial reporting process (SOX, 2002). Audit committees' responsibilities have been increased following the passage of the SOX (2002). These responsibilities allow audit committee directors to be more effective in oversight of the financial reporting process, as well as oversight of the quality of the external audit. Based on the agency theory, the demand for a high-quality monitoring process by the audit committee creates a need for greater audit efforts to increase the audit scope. Expanding the audit scope will result in higher audit fees

(Turley and Zaman, 2004, Abbott *et al.*, 2003). Thus, it is worth investigating the impact of audit committee characteristics and restatements on audit fees, especially after the occurrence of financial statement restatements.

The role of an audit committee involves overseeing financial reporting quality, as well as overseeing external audit quality, to increase the integrity of the information provided in the financial statements. This thesis attempts to examine these two major responsibilities in depth. In the previous chapter, the researcher investigated the impact of audit committee characteristics on financial reporting quality using restatements as a proxy of low-quality financial reporting. In this study, the researcher will examine the impact of audit committee characteristics and restatements on audit fees, following the restatement occurrence. The objective is to provide a novel contribution to the accounting and auditing literature by examining how audit committee characteristics can increase their effectiveness in the oversight of financial reporting quality and external audit quality. The research question of this chapter is: to what extent do audit committee characteristics and restatements affect audit fees following restatements? The objective of this study is to answer the question, and discover how audit efforts (measured by audit fees) will respond to the occurrence of restatements. The study will examine the impact of audit committee characteristics, namely audit committee independence, size, multiple directorships and stock ownership, on audit fees. It will also investigate how restatements affect audit fees, post-restatement.

This study contributes to the auditing literature as well as restatements literature in the following aspects. First, to the author's knowledge, there is no piece of research that examines the impact of audit committee characteristics post-restatement, and the

impact of restatements on audit fees the year following the occurrence of financial statement restatements. Therefore, this study will attempt to fill this gap by using the difference between audit fees in the year of restatements and the year post-restatements, as a proxy of the change in audit efforts. Second, auditing literature is rich with studies that examined the impact of audit committee characteristics on audit fees (Chan *et al*., 2013, Haniffa *et al*., 2006), but none of them measured the impact of these characteristics after the occurrence of restatements. In addition, little research focuses on the influence of audit committee directors with multiple directorships and audit committee stock ownership on audit fees. Thus, this study will investigate the effect of a comprehensive set of audit committee characteristics (independence, size, multiple directorships and stock ownership) on audit fees the year following restatements. This research will explore the joint impact of these characteristics on audit fees using restatement evidence. Finally, the majority of audit quality literature focused on the characteristics of the board in general; this study, however, will concentrate on audit committees in particular, as they are the safeguard of the financial statements from the stakeholders' perspective.

The remainder of the paper will be as follows. Sections 2 and 3 will feature the literature review and hypotheses development. The research methodology will be discussed in section 4. Empirical results are detailed in section 5. Finally, the conclusion of the paper will be found in section 6.

3.3 Theoretical Framework

Fama and Jensen (1983) suggest that agency costs arise from the separation of management and control can be minimized by separate the decision management from decision control. Thus, the researchers believe that both, internal and external corporate

governance mechanisms can be a good system that constrains earnings managements that resulted in restatements. Support for previous arguments comes from McKnight and Weir (2009) who confirms that agency costs can be reduced by corporate governance. The various internal and external governance mechanisms produced from the agency theory that provides a basis for all corporate governance practices (Weir *et al*., 2002). The majority of researches that investigate the association between corporate governance and earnings management was based on the agency theory as a theoretical framework for their researches (Xie *et al*., 2003; Davidson *et al*, 2005; Benkel *et al*, 2006 and Goodwin *et al*, 2009).

Audit committee can be an effective internal mechanism that can reduce agency cost through oversight the financial reporting process (Fama and Jensen, 1983). Thus, both internal and external corporate governance mechanisms such as audit committee and external audit can be effective tools to minimize earnings management and financial statements restatements.

The agency theory confirms that external audit can reduce the agency costs associated from the conflict of interests between management and shareholders. Alternative studies provide evidence that support the previous argument and find that high quality external audit can constrain any opportunistic behaviours by management (Watts and Zimmerman, 1983). From agency theory perspective, earnings management that resulted in financial statements restatements can be an agency problem. Thus, and based on the previous argument. The researcher believes that external auditors increase the audit scope after restatements in order to increase audit quality. The expensive audit tests will lead to increase the audit fees following restatements. External auditors are

aware of the audit risk associated with the engagement with restated firms, thus, and to reduce the possibility of earnings management that may occur again, they will increase the auditing investigation. The agency problem that arise from restatements since managers manipulate earnings to increase their own wealth at the expense of shareholders will be reduced upon the costly and deep audit tests. On the other hand, audit committee role as an internal governance mechanism would be more effective. Audit committee directors are responsible of oversight the financial reporting process, and ensure a high quality of the financial statements. Thus, and following the restatement incident, they are expected to minimize the management's opportunistic behaviors that resulted in restatements. Type I of the agency costs that concern about the principle-agent costs occurred in restatements, and the agency theory provides a basis for governance tools that can resolve this agency costs. In the occurrence of restatements managers manipulate earnings for personal gain at the expense of shareholders. Thus, it is essential to use the agency theory as a best theoretical framework that can explain and analyze the relation between restatements, audit committee, and audit fees.

3.2 Literature Review

Researchers believe that the role of audit committees, as an internal governance mechanism, is complementary to the role of external auditors, as an external governance mechanism (O'sullivan, 2000). The work of the external audit will depend on the job that has been done internally by audit committees (Vafeas and Waegelein, 2007). Bedard and Johnstone (2004) also believe that auditors' pricing and planning depends on the risk associated with corporate governance and the risk of earnings manipulation. According to the study, if the roles of board and audit committee directors were ineffective, then this

will weaken the corporate governance practices and increase the risk associated with it, from a risk-based perspective. Another reason behind the increasing audit fees for these companies is the accounting firms needing to cover any potential future litigation (Bedard and Johnstone, 2004). Previous literature has investigated the impact of some audit committee characteristics on audit fees (Zaman *et al*., 2011, Chan *et al*., 2013, Haniffa *et al*., 2006). These studies have proved that there is a relationship between these characteristics and audit fees. However, there is still an interesting area worth investigating which none of the previous literature has studied: the effect of audit committee characteristics and restatements on audit fees following financial statement restatements.

Furthermore, to increase audit quality, the regulatory regime in the US has switched the oversight of audit quality from self-regulation to government regulation (DeFond, 2010). Government regulation is implemented through the Public Company Accounting Oversight Board inspection (PCAOB), which was created in section 104 of the Sarbanes-Oxley Act (hereafter SOX) in 2002 (Abbott *et al*., 2012). According to a PCAOB member, to restore trust in the financial statements, Congress authorised the board to conduct inspection of auditing firms to oversee the auditing profession (PCAOB, 2005). PCAOB apply pressure to auditors, as they have the right to notify the SEC if the inspections discover accounting and auditing violations (PCAOB, 2008). The costly penalties of the PCAOB, and the threat of reporting the violations of the auditing firms, will motivate external auditors to increase audit quality (DeFond, 2010). As a result of the new changes, external auditors are concerned about litigation and reputational damage regarding audit quality (DeFond, 2010). Thus, as the risk associated with a

restating company (a company that has issued restatements) is high, auditors tend to increase their audit efforts, leading to an increase in audit fees (DeFond, 2010). Audit risk, as cited in Lobo and Zhao (2013), is defined as the risk that auditors provide an inappropriate opinion when there is a material misstatement in the financial statements (Lobo and Zhao, 2013).

3.2.1 Audit Committee Independence and Audit Fees

In 2005, DeFond and Francis called for further investigation about the importance of the existence of the board and audit committee. This pertained to answering their concerns regarding whether the poor self-oversight of external auditors justified the dramatic changes made by regulators in the US, and the control of audit work becoming the responsibility of a governmental agency (DeFond and Francis, 2005). The researchers question whether the lack of audit quality caused the recent accounting scandals, and whether or not the new changes will increase audit quality (DeFond and Francis, 2005). In order to justify and provide evidence as to whether the new enforcement of the SOX, with a board and audit committee, has a positive impact on firms, DeFond and Francis (2005) recommended having non-independent directors on the audit committee. They argue that an audit committee composed of entirely independent directors is not necessarily related to good governance outcomes. A higher proportion of independent directors in an audit committee, however, might produce good outcomes for the firm, such as lower abnormal accruals or higher market value. It is noticeable that some empirical studies suffer endogeneity problems when deciding what variables affect the others; for instance, the existence of independent directors on audit committees is associated with an increase in stock value, or the good performance of managers hired by

independent directors to increase stock value. The study of DeFond and Francis was conducted in 2005, and from that time to the present, their concerns have been investigated in many papers. Recent empirical studies found that the presence of independent directors in audit committees can enhance the quality of the financial statements (Abbott *et al.*, 2004, Abbott *et al.*, 2000, Sharma and Kuang, 2014, Peasnell *et al.*, 2005).

Moreover, O'Sullivan (2000) showed that non-executive directors demand high audit quality and, thus, they are more concerned about audit quality than how much it costs, in spite of executives. The previous study documents that independent directors are willing to pay more for external auditors to conduct more costly investigations and increase the quality of the external audit (O'sullivan, 2000). Therefore, this study expects that independent audit committee directors would ask for more audit work as a response to the threat the company faces following restatements, regarding protecting their reputation.

It is important to point out that independent audit committees can also increase the quality of the external audit by protecting the external auditors from dismissal, which will strengthen the auditors' position when negotiating audit fees with management, as the threat of dismissal is reduced (Carcello and Neal, 2003). The researchers found that independent audit committee members are negatively related to auditor dismissal after issuing going-concern reports. It would be interesting to examine the effect of audit committee independence on audit fee negotiation following the occurrence of restatements. The negotiation of the cost of audit fees might lead to an increase, as the risk associated with the restating firm is considered high. Furthermore, detailed

examination of a sample of 780 listed firms in the US reveals that independent directors are willing to protect shareholders' wealth by increasing the credibility of the financial statements. Thus, they show concern over the quality of the external audit, and expand audit investigations (Lee and Mande, 2005). The previous study helps in providing insight about the influence of audit committee independence on audit fees, but the risk associated with the firm that announced restatements might change these results.

In Malaysia, Haniffa *et al*. (2006) provide more evidence of this argument. The researchers investigate the relationship between audit fees and audit committee independence. Using a sample of 736 Malaysian listed companies in 2003, the study observes that board independence increases audit fees significantly. The findings of the study do not support the risk-based perspective of audit services, which suggests that good corporate governance practices reduce audit fees. Conversely, it proves that good governance practices demand significant audit work, which will result in higher audit fees (Haniffa *et al*., 2006). Support for this argument comes from Australia, where Goodwin-Stewart and Kent (2006) examined the influence of independent audit committees on audit fees. The researchers observed that there is a high demand for high audit quality from independent directors. This demand increases the scope of the audit work, which will in turn increase the audit fees (Goodwin - Stewart and Kent, 2006).

Testing the association between audit committee characteristics and audit fees in a regulated market such as the US will enhance the generalisability of the findings. Additionally, the previous study selected 401 listed firms in Australia, where the adoption of audit committees is not mandatory, while in the US it is required that all listed companies should have an audit committee that is solely independent and consists of at

least three directors. This significant difference will provide more insight about the influence of audit committee independence on audit fees.

In addition, Vafeas and Waegelein (2007) believe that independent directors with expertise demand high audit quality. Thus, the cost of external auditing will be increased. According to the study, the work of the external audit will depend on the job that has been done internally by audit committees. The previous study limits the positive impact of independent audit committee directors to those possessing financial expertise. That means the positive effect of independent audit committee directors will depend on their financial expertise. Having independent directors who might not be financial experts may have a negative impact on the firm.

In the UK, Mangena and Tauringana (2008) observe that independent directors who have financial expertise are more effective in oversight of the financial reporting process. The quarterly engagement of external auditors provides evidence that independent audit committee directors demand high audit quality (Mangena and Tauringana, 2008). Thus, this study would expect an impact from audit committee independence on audit fees, especially after the occurrence of restatements. Moreover, Zaman *et al*. (2011) investigated the association between audit fees and audit committee independence. Their sample included 135 FTSE-350 companies, and 540 firm-year observations from the period of 2001–04. According to the study, independent directors demand high audit quality, which will in turn increase audit fees (Zaman *et al*., 2011). It is difficult to generalise the results of the study, as the sample is too small to measure the effect of audit committee independence on audit fees. Also, the previous studies conducted research in regular situations, whereas different evidence may emerge when a

company has a restatements problem. The restating firms will be under pressure, and the audit committee directors will have an impact on audit fees as a result. In addition, Hay (2013) used meta-analysis to analyse all audit fees research conducted in the last three decades, examining all potential factors affecting audit fees. He found strong evidence that independent audit committee directors and audit fees are correlated positively (Hay, 2013). In responding to previous research, this presented research will be extensive, and focus on the influence of audit committee characteristics, particularly on audit fees.

It is notable in previous literature that there are consistent results regarding the positive impact of audit committee independence on audit fees. None of them, however, investigated this impact on audit fees following the occurrence of financial statement restatements. Thus, this study will address this area and provide evidence on the reaction of independent audit committee directors towards audit fees following restatements.

3.2.2 Audit Committee Size and Audit Fees

A larger audit committee can enrich the board with more knowledge and expertise, creating a positive image of the firm in the external market (Lin *et al*., 2006, Beasley, 1996, Yang and Krishnan, 2005). Furthermore, DeFond and Francis (2005) suggested that focusing on audit committee size is crucial in providing more evidence about its relationship with governance outcomes. This suggestion comes from the lack of research taking this variable into consideration when assessing audit committee effectiveness, since audit committee size is not directly addressed in SOX. From the year of the previous study (2005) to the present, other elements affecting the effectiveness of the audit committee have been discovered, such as audit committee multiple directorships and audit committee managerial ownership. These characteristics, therefore, are worth

investigating to capture all possible factors affecting the role of audit committee directors, in order to ensure the integrity and credibility of the financial reporting process. This study will examine these factors and the impact of audit committee size on audit fees following restatements. As companies face threats after announcing financial statement restatements, larger audit committees will increase the scope of the external audit to avoid the risk of having future restatements.

Vafeas and Waegelein (2007) examined the *Fortune 500* from 2001–03. The study provides evidence about the positive relationship between audit committee size and audit fees. The results, however, are restricted to independent financial expert directors. In contrast, Boo and Sharma (2008) examined 469 large US listed companies in 2001 and found that when the number of independent directors is high, the need for extended audit work is low. Larger boards show greater effort and expertise, which allow them to monitor the financial reporting process effectively. Thus, audit fees will be lower. The previous study focused on board size in general, while this study prefers to focus on the number of audit committee members. Additionally, it will be differentiated from the other studies, as it will test the effect of the number of audit committee members on audit fees following restatements, to discover whether larger committees will ask for more audit work or not.

In the UK, Zaman *et al*. (2011) investigated the association between audit fees and audit committee size. The sample included 135 FTSE-350 companies and 540 firm-year observations from the period of 2001–04. According to the study, the number of directors who serve on audit committees is associated positively with high audit fees. As directors are aware of the problem of relying on one another in reviewing the financial

reporting process, they tend to request high external audit work to address this problem (Zaman *et al*., 2011). While in Australia, Aldamen *et al*. (2012) noticed that prior literature provided inconsistent findings, and argued that this inconsistency is the result of conducting research in companies' normal working conditions. They believe that if researchers wish to seek accurate results and measure firm performance, they should conduct research when firms are working in a financial crisis. Therefore, the researchers tested firms' performance during the global financial crisis and linked it to board and audit committee characteristics in order to identify which characteristics affected firm performance most significantly. The study compared the worst and best performance between the S&P 300 companies in Australia. The findings showed that larger audit committees consisting of financial experts can increase firm performance during a global financial crisis. The number of financial experts serving on the audit committee can enhance the effectiveness of the committee by providing much expertise and knowledge, which in turn assists in increasing the firm's market performance (Aldamen *et al.*, 2012). Studying firm performance during the global financial crisis may be important in re-examining audit committee characteristics that have been tested before in normal conditions; it is important to consider that corporates may work harder and differently during a financial crisis than in normal working conditions. Thus, what investors, shareholders, regulators, and other external and internal users of the financial statements want to know is how corporate governance can help to align the interests of management and shareholders, whether during a financial crisis or not. It is difficult to measure the performance of the board of directors while a company is going through a financial crisis, because this is a temporary situation 'from which the firm will emerge. Testing such

characteristics in normal conditions provides more accurate results regarding audit committees. The concerns of directors regarding firm performance provides insight about their concerns regarding their reputational capital. Thus, this research expects that audit committee size might affect the audit fees positively following restatements.

3.2.3 Audit Committee Multiple Directorships and Audit Fees

Sitting on many boards places pressure on audit committee directors to increase their monitoring efforts in order to avoid litigation and reputational damage (Vafeas, 2005). To discover answers regarding the impact of multiple directorships, Vafeas (2005) examined 252 *Fortune 500* US firms. The study aimed to explore the nature of the relationship between audit committee multiple directorships and earnings quality from 1994–2000. The researcher observed that holding additional directorships could enhance audit committee effectiveness in monitoring the financial reporting process (Vafeas, 2005). Meanwhile, it is important to mention that in order to measure audit committee effectiveness, researchers should increase the amount of data they use in their judgement. The sample of 252 firms is too small to discover what factors affect the quality of audit committees and their crucial role in monitoring the financial reporting process. Furthermore, previous findings provide evidence that audit committee multiple directorships are associated with high earnings quality; thus, the need for external auditing should be tested, as the researcher did not examine whether busy directors increase the external audit scope to ensure a high-quality audit, or due to their expertise do not require costly audit work (Vafeas, 2005).

With regard to the argument that multiple directorships held by board directors prevent them from focusing on their responsibilities due to their busy schedule, Ferris *et*

al. (2003) provide evidence that board directors with many memberships are associated with high firm performance. The researchers argue that there is no evidence of negative effects on firm performance when board directors serve on many additional boards (Ferris *et al*., 2003). Regulators and shareholder activists call for the prevention of directors holding more than two or three memberships. They argue that directors will not contribute sufficient time and effort to their responsibilities. This argument, however, has been rejected by Ferris *et al*. (2003), who observed abnormal returns following the announcement of appointing directors with multiple directorships. Their study compared committees comprising directors with many memberships with committees that did not include such directors. They found that board directors holding additional directorships were more committed to their roles, and attended committee meetings more often than the other group. In addition, the findings showed that no relationship exists between holding additional directorships and the occurrence of fraud. In the present study, the researcher will investigate whether holding additional directorships affects audit fees. This will answer the question of whether audit committee directors who serve on many boards are too busy to monitor management, and demand higher external audit quality, which may increase audit fees.

In addition, Aldamen *et al*. (2012) believe that holding additional directorships also helps audit committee directors to increase firm performance during a financial crisis. External memberships provide directors with expertise and specialities in governance implementation. Furthermore, directors with many memberships have the ability to review the quality of the financial reporting process, meet internal auditors, and provide recommendations based on comparison of the firm with other firms in the same

industry. It would be more interesting if there were an investigation about the influence of holding additional memberships on audit quality. Busy directors might not devote sufficient time and effort to prevent management from opportunistic behaviour. Thus, they may demand a high level of external auditing to avoid risk, especially following restatements. Furthermore, Boo and Sharma (2008) examined the influence of regulatory oversight on the association between internal corporate governance and external auditing. The study used 469 large US listed companies in 2001. The researchers found that in regulated companies directors on both the board and audit committee holding multiple directorships demanded greater audit work, which would in turn increase audit scope and audit fees. From the external auditors' perspective, when working on the audit plan, external auditors take potentially lower risk into consideration and limit the audit scope, resulting in lower audit fees. However, external auditors tend to increase audit tests, which will increase audit fees when it is observed that directors are busy with other boards, and do not devote sufficient time to complete their tasks effectively. Busy directors create a need for extensive, costly audit work. The results of the previous study are restricted to regulated companies; however, it would be more significant to test the association between audit fees and audit committee characteristics in both regulated and non-regulated companies. Additionally, the study was conducted before the issuance of the SOX, and it would be very interesting to discover whether the results would remain the same following its issuance, since the SOX includes more regulatory oversight across all industries.

Carcello *et al*. (2002) also investigated the association between board characteristics and audit fees. Their sample included *Fortune 1000* companies from

1992–93. The study exhibited a significant positive association between audit fees and the number of additional directorships held by directors. Directors who served on many boards showed interest in increasing the scope of the external audit to assist them in monitoring the financial reporting process effectively. In spite of other literature, the study used the number of additional directorships held by directors as a measure of their expertise. The study focused on boards with multiple memberships, while this study will investigate the impact of audit committee directors' memberships on audit fees in particular. Using up-to-date data and restatement evidence, this research will be differentiated from the previous studies, as the companies included in the sample have suffered as a result of the issuance of restatements. Financial statement restatements place pressure on audit committee members to repair the damage. Audit fees, as a result, are expected to be affected positively. Moreover, from early 2002 to the present, there have been many changes in terms of regulations or economic crises affecting the business of audit firms. The current study, therefore, will provide more insight regarding those variables which could affect audit fees.

3.2.4 Audit Committee Stock Ownership and Audit Fees

Although the agency theory predicts that shares can be one of the most important incentives to motivate non-executive directors to behave according to the same interests as shareholders (Fama and Jensen, 1983), Mangena and Pike (2005) found that audit committee directors holding a great number of shares can compromise their independence. The study showed a negative relationship between the number of shares held by audit committee directors and the level of interim disclosures. The researchers tested the impact of some audit committee characteristics on interim financial disclosure

using a sample of 262 UK listed companies from 2001–02. As cited in Mangena and Pike (2005), Lavelle (2002) believed that the number of shares held by audit committee members could compromise audit committee independence. Lavelle (2002) referred to the case of Enron, noting that audit committee directors owned a great number of common shares. Three of those directors sold 100,000 of their shares before the collapse of the company. This could mean that directors behave in their own interests, which do not align with shareholders' interests. As that study found a relationship between audit committee stock ownership and interim financial disclosure, this current study will attempt to discover whether audit committee stock ownership will affect audit fees following restatements, as directors who own shares in the same company want to protect their wealth by expanding the scope of audit work to increase audit quality.

Studies that examined the influence of stock ownership on audit fees are limited, and the topic requires more investigation, according to Hay (2013). Thus, this research will investigate the impact of stock ownership held by audit committee directors on audit fees, following the occurrence of financial statement restatements, as other researchers found a link between these two variables. Further evidence is provided by Engel *et al*. (2010): the researchers investigated the association between audit committee compensation and the demand for higher financial reporting quality. The study also highlighted the difference between these variables before and after the passage of the SOX. It covered the period of 2000–04 using a sample of listed companies in the US. Two OLS regressions were used, and the findings indicated that audit committee compensation is positively related to demands for financial reporting quality. Since audit committee stock compensation affects financial reporting quality, it is expected to affect

the quality of the external audit, because audit committee directors are also responsible for reviewing external audit quality. Thus, in the current study, audit fees will be used as a proxy of the demand for audit quality. Audit committee directors who gain higher stock compensation are more willing to protect themselves from losing their memberships and the benefits of being a board member. Therefore, they will increase the audit scope to oversee the monitoring process effectively (Engel *et al*., 2010).

In addition, O'Sullivan (2000) used audit fees as a proxy of audit quality, when examining the influence of board composition and ownership structure on audit quality in the UK. O'Sullivan (2000) justified audit fees being used as a proxy of audit quality, because a high-quality audit requires specialised staff and more audit hours, which will increase the audit fees. The study added that audit quality can be compromised by low audit fees, as external auditors will make less effort due to the low audit fees. The study provided evidence that managers who own a great amount of equity in the same firm do not require extensive audit testing, and therefore, reduce the cost of audit fees. From the external auditors' perspective, managers with managerial ownership are less motivated to manipulate earnings, thus there is no need to expand the audit scope. This in turn will decrease audit hours and audit fees.

Moreover, Vafeas and Waegelein (2007) believe that the role of audit committees as an internal governance mechanism is complementary to the role of external auditors as an external governance mechanism. According to the study, the work of the external audit will depend on the job that has been done internally by audit committees. The study found, concerning the effect of managerial ownership, there are two points of view regarding the influence of managerial compensation for board directors on audit fees. The

first point of view suggests that compensating directors with managerial ownership may motivate them to manipulate earnings to increase their own wealth, and therefore, external auditors must use more expensive auditing tests. The other point of view asserts that ownership compensation will align the interests of management and shareholders, which will discourage managers from engaging in any earnings manipulation; thus, the audit fees in this case would be lower. The study provided evidence to support the second point of view, observing that managerial ownership can reduce audit fees (Vafeas and Waegelein, 2007).

3.2.5 Restatements and Audit Fees

Audit fees relate to restatements in two ways: low audit fees could cause restatements, and audit fees could be increased as a consequence of the occurrence of restatements (Blankley *et al*., 2012). Blankley *et al*. (2012) believe that restatements are the result of a low level of audit effort provided by the external auditors; this could be a result of underestimating audit risks the year prior to restatement. They provided evidence that an increase in audit fees negatively affects any potential restatements the year following restatements. It is believed that audit fees affect restatements because low audit fees reveal low audit effort or services. Thus, the likelihood of restatements is increased. The study also found that audit committee directors tend to decrease audit fees to increase profitability. As a result, external auditors minimise audit efforts to make a profit from their involvement (Blankley *et al*., 2012). In addition, Feldmann *et al*. (2009) compared the audit fees between restating firms and a control group of companies, the year prior to restatements. The researchers provided evidence that post-audit fees in restating companies are higher than those of the other group. The results indicated that the increase

in audit fees reflected the audit risk associated with the restating companies. Moreover, it could be a result of the loss of organisational legitimacy (Feldmann *et al*., 2009). In addition, the effort involved in the audit work increases when external auditors find a high level of earnings manipulation in a firm. Thus, audit fees in turn will be increased (Bedard and Johnstone, 2004). Furthermore, audit fees are influenced negatively by the internal control of the firm (Hay *et al*., 2008).

Charles *et al*. (2010) argued that audit fees to *Big 4* auditors increased when there was a high level of financial reporting risk. Their study was conducted from 2000–03, which was a historic time as a result of the establishment of SOX'. Audit firms' business risk during this period was increased. The audit fees, in turn, were influenced positively. The results revealed that audit risk impacts audit fees positively, at a significant and statistical level. Audit business risk includes risks associated with litigation, reputation and regulation. Thus, audit fees responded to these changes and increased over the period of the study (Charles *et al*., 2010). Support for these findings was provided by Hay (2013), who conducted a meta-analysis of audit fees research, finding that audit fees are positively associated with audit risk at a statistical and significant level. Although some papers argue that abnormal audit fees can jeopardise auditors' independence and allow managers to manipulate earnings (DeAngelo, 1981), the situation in the US might be different, as the Sarbanes-Oxley Act in 2002 prohibits external auditors from combining audit services and non-audit services for the same clients. Thus, audit fees could reflect the audit efforts devoted to the engagement and influence audit quality. Eshleman and Guo (2013) observed a negative relationship between abnormal audit fees and the likelihood of "meet or beat" financial forecasts. The

researchers argued that high audit fees could increase audit quality, as auditors expend greater efforts in their audit work (Eshleman and Guo, 2013).

Thus, this study expects that high audit fees could constrain the occurrence of restatements (Choi *et al.*, 2010). Furthermore, while many papers use audit fees as a proxy of audit quality, Lobo and Zhao (2013) use the audit fees as a proxy of audit efforts, and investigate its impact on the occurrence of restatements. The researchers provide strong evidence regarding the negative relationship between audit fees and annual restatements. The negative association between the two variables reflects higher audit quality (Lobo and Zhao, 2013). This supports the definition of audit quality defined by (DeAngelo, 1981), who believes that high audit quality is obtained when auditors detect errors in the financial statement, and report the detected errors. The previous findings suggest that auditors have the ability to decrease the likelihood of restatements through their audit efforts during the engagement. Following previous literature, this study will expect a negative relationship between financial statement restatements and audit fees. Thus, the hypotheses will be as follows, in the next section.

3.4 Hypotheses Development

3.4.1 Audit Committee Independence and Size

Independent audit committee directors demand greater audit investigation, which will lead to an increase in audit fees (Vafeas, 2005, Haniffa *et al.*, 2006, Goodwin‐Stewart and Kent, 2006, Zaman *et al.*, 2011). There are consistent results in previous literature regarding the positive relationship between audit committee independence and audit fees (Zaman *et al.*, 2011, Goodwin‐Stewart and Kent, 2006, Haniffa *et al.*, 2006). The

agency theory suggests that independent directors are concerned about their reputational capital in the external market, as they wish to show that they are effective in monitoring the financial reporting process (Fama and Jensen, 1983). From the agency theory perspective, independent directors will have an influence on the audit fees to prevent future restatements. By demanding extensive audit investigation, independent audit committee directors can control management and prevent any opportunistic behaviour that might lead to restatements. Since the damage occurring to management is less severe than the damage to the company, its board of directors and its shareholders following restatements, managers might attempt to manipulate earnings again to increase their own wealth. Thus, it is expected that audit committee directors will keep this in mind and ask for extensive auditing investigation. In addition, audit committee directors are aware that management could also hide some information from them and the external auditors, creating information asymmetry, which could prevent directors from overseeing financial reporting quality effectively, and prevent external auditors from increasing the quality of the information provided in the financial statements. As a result, to align the interests of management and shareholders, and control management's behaviour, audit committee directors are expected to restore the trust that has been damaged following the occurrence of restatements. A restatement incident can damage the market reputation of the company and its stock price. The damage could also include litigation and penalties, which will affect the firm, its board of directors and shareholders.

In addition, as the oversight of financial reporting quality in the US has switched from self-regulation to government regulation, the PCAOB will investigate the auditing firms and report any concerns that auditors did not comply with the application of GAAP

(DeFond, 2010). These concerns will apply pressure to audit committee members as well as external auditors, especially following the occurrence of restatements, to increase audit efforts. Thus, this study, based on the demand and supply perspective, will expect a significant positive relationship between audit committee independence and audit fees. To repair the damage caused by restatements, independent audit committee directors will demand more extensive audit investigation to prevent future restatements and avoid any reputational damage and litigation that may occur.

Regarding the number of independent directors in audit committees, previous literature found that larger audit committees were associated positively with audit fees (Zaman *et al*., 2011). Other researchers supported these findings, but only when the directors are independent from management (Vafeas and Waegelein, 2007). Others limit the positive relationship between audit committee size and audit fees to independent directors who have financial expertise (Aldamen *et al.*, 2012). It is observable that the existence of audit committees overseeing financial reporting quality can mitigate management's opportunistic behaviour (Fama and Jensen, 1983). Corporate governance can constrain the manipulation of earnings that will result in financial statement restatements, as it includes internal and external mechanisms (Fama and Jensen, 1983). Following restatements, the number of audit committee directors could influence audit fees, as each director will be concerned about their reputational capital. Thus, the more audit committee directors the company possesses, the more extensive the audit efforts that will be requested, leading to an increase in audit fees. Consequently, this study expected that having a greater number of directors in the audit committee would lead to an increase in audit fees. Therefore, the hypothesis will be as follows:

H1: There is a significant positive relationship between the number of independent directors in audit committees and audit fees following restatements.

3.4.2 Audit Committee Multiple Directorships

Audit committee directors who serve on many boards in particular demand more audit work to increase the quality of the external audit (Boo and Sharma, 2008, Carcello *et al*., 2002). Thus, this research expects that audit committee directors who hold multiple directorships will require more extensive audit investigations to be conducted following the occurrence of restatements. Busy directors are expected to expend little time and effort to prevent management from engaging in opportunistic behaviour. Therefore, the demand to expand audit tests will be higher following restatements in order to avoid litigation and reputational damage. There are many advantages motivating audit committee directors to demand greater audit efforts following the occurrence of restatements. First of all, there are many benefits directors gain by being a member of the board, such as learning opportunities, reputation and networking (Fama and Jensen, 1983). Thus, these benefits can place pressure on audit committee directors following restatements, because they do not want to lose these benefits, and subsequently lose the trust of shareholders. Secondly, previous studies provide evidence that audit committee director turnover increases following restatements (Srinivasan, 2005). Additionally, the loss of board memberships following restatements was found to be greater for audit committee directors (Srinivasan, 2005). These negative consequences of restatements could damage the reputational capital of the audit committee directors and threaten their career. Therefore, the demand to increase the audit scope following the occurrence of restatements is highly expected. In addition, Srinivasan (2004) argues that directors who

perform their duties effectively are more likely to receive more appointments and benefits. Conversely, directors who exhibit low performance can lose their positions and any other related benefits from the board membership. Restatements, in this case, represent an event that could affect the directors negatively. Furthermore, board directors are responsible for corporate failures such as bankruptcy, and the increased percentage of director turnover following these events can be used as a signal for this assumption (Gilson, 1990). From an external auditor's perspective, auditors assess internal governance as being weak when they know that audit committee directors are busy with other boards (Boo and Sharma, 2008). Thus, external auditors will increase the audit work and audit fees as a result. Therefore, based on the previous argument the hypothesis will be as follows:

H2: There is a significant positive relationship between the number of additional directorships held by audit committee directors and audit fees following restatements.

3.4.3 Audit Committee Stock Ownership

It has been proven that shares held by audit committee directors affect their effectiveness. Some literature suggests shareholding has a positive effect on audit committees (O'sullivan, 2000, Vafeas and Waegelein, 2007), while other researchers believe that this effect could be negative, as it compromises audit committee independence (Mangena and Pike, 2005). In this study, however, the scenario will be different. The study will investigate the effect of audit committee shareholdings on audit fees following restatements. As a company suffers from financial statement restatements, audit committee directors who own a greater number of shares are expected to expand the scope of the auditing tests, and demand more audit work. The reasoning behind

expanding the audit tests is, firstly, to protect audit committee members' wealth, and also to protect other shareholders' wealth. Furthermore, audit committee directors will face pressure from shareholders that will force them to increase the quality of the audit work. As a result, extensive audit work will be in place to increase audit quality, which will lead to an increase in the audit fees. There are no consistent results concerning the effect of stock ownership on audit fees. According to the agency theory, stock compensation can increase the effectiveness of the audit committee directors, as it will align their interests with those of the shareholders (Jensen and Meckling, 1979). Thus, due to the similarity of interests, audit committee directors are expected to demand more auditing tests to address the issue of restatements. In addition, the stock price of the company will be affected by the occurrence of restatements; thus, audit committee directors will be concerned about their own wealth if they hold a great amount of stock. This means they will ask external auditors for extensive audit investigation, leading to an increase in the audit fees. Furthermore, shareholders, investors and other stakeholders will lose trust in the company and its board of directors following the occurrence of restatements. Therefore, the reputational capital of the audit committee directors in particular will be affected negatively. As a result, audit committee directors, to restore the trust of the shareholders, will be willing to pay extra audit fees to prevent future restatements. The hypothesis, therefore, will be set as follows:

H3: There is a significant positive relationship between audit committee stock ownership and audit fees following restatements.

3.4.4 Audit Fees and Restatements

As a consequence of financial statement restatements, audit fees will be higher post-

restatement (Blankley *et al*., 2012). The risk associated with restating companies forces external auditors to increase audit efforts (Feldmann *et al*., 2009, Charles *et al*., 2010), and audit fees will increase in turn. In addition, audit fees and audit risk are correlated positively and statistically, due to the reputational and litigation risk external auditors may face following restatements (Charles *et al*., 2010). Moreover, the inspection conducted by the PCAOB will help in overseeing financial reporting quality, as its main objective is to oversee the auditing profession (PCAOB, 2005). Due to pressure from government regulation on auditors, auditors are expected to increase their audit efforts when they work with restating companies. Additionally, in a comparison study between audit fees in restating firms and control firms, the researchers found that audit fees the year following restatements are higher than those of the control firms for the same year (Feldmann *et al*., 2009). This indicates that audit fees respond positively to the likelihood of restatements. The reasons behind the increase could include the following. First, and as previously mentioned, the risk associated with the external auditors' engagement with a restating company is higher. Second, the external auditors will evaluate the corporate governance as weak, since the audit committee could not do their duties effectively to mitigate opportunistic behaviour by managers. The audit committee directors also failed in ensuring the high quality of the financial reporting process, since the issue of restatements has occurred. Third, external auditors need to expand the audit scope, resulting in costly auditing investigations, to avoid future restatements. In addition, to protect their reputation in the market, the external auditors will take into consideration the ineffective role of the internal audit and internal control of the restating company, which will result in increased audit efforts.

Additionally, following previous literature, this study expects that audit fees post-restatement will be higher in restating companies than control companies, and this hypothesis will be tested using a t-test and Mann-Whitney test to compare the difference between the means of restating companies and control companies. Therefore, the hypotheses will be as follows:

H4a: The audit fees post-restatement are higher in restating companies than control companies.

H4b: There is a significant positive relationship between audit fees post-restatement and financial statement restatements.

3.5. Research Methodology

3.5.1 Sample Selection

This study uses LexisNexis, an online information service, to find firms that announced financial statement restatements from 2011–16. The firms included in this research are American listed companies in the NYSE and NASDAQ. Selected firms are from different industries, because the researcher is looking for firms that restated its financial statements regardless what industry they work in. This time period has been selected to investigate the relationship between audit committee characteristics and audit fees, following the gap between the previous financial crisis and the most recent data. The researcher selected data regarding audit committee characteristics and audit fees pre- and post-restatement. In addition, the researcher uses the keywords “earnings restatement”, “income restatements”, “restated financial statements” and their variations. The search results were then screened to identify firms matching the criteria. The study excludes restatements resulting from mergers and acquisitions, stock splits, and changes in

accounting principles. Following previous literature, the study examines annual financial statement restatements (Abbott *et al*., 2004, Archambeault *et al*., 2008, Lin *et al*., 2006). It only focuses on firms that restated previously reported financial statements due to violations in accounting standards, accounting errors or irregularities, and fraud, resulting in the gathering of 450 restatements. The study focuses only on restating companies to measure the difference in audit fees pre- and post-restatement. Data regarding governance post-restatement was gathered manually by assessing the proxy statements for each firm on the website of the Security and Exchange Commission (SEC). The researcher also uses DataStream to gather financial figures from the financial statements. The researcher collected data about the audit fees for each company pre- and post-restatement to measure the changes in audit fees.

3.5.2 Model Specifications

We built the following logistic regression model to test our hypothesis:

First empirical model for Chapter Three:

$$\mathbf{AF} = \beta_0 + \beta_1 ACIND_{t+1} + \beta_2 ACSIZE_{t+1} + \beta_3 ACSHIP_{t+1} + \beta_4 ACSHARE_{t+1} + \beta_5 CEODUAL_{t+1} + \beta_6 BDSIZE_{t+1} + \beta_7 COSIZE_{t+1} + \beta_8 LEV_{t+1} + \beta_9 LOSS + \beta_{10} LogROA_{t-1} + \varepsilon$$

Dependent Variables	**Measurements**
AF: Audit Fees difference	Difference between the natural log of the audit fees pre and post restatements
Independent Variables	
ACIND: Audit Committee Independence Post Restatements	Proportion of independent directors on the audit committee based on SEC definition post restatements
ACSIZE: Audit Committee Size Post Restatements	The number of directors serve in the audit committee post restatements
ACDSHIP: Audit Committee Additional	The average of other public directorships

Directorships Post Restatements	held by audit committee directors post restatements
ACSHARE: Audit Committee Share Ownership Post Restatements	The percentage of common shares held by audit committee directors to the firm total number of shares post restatements
Control Variables	
CEODUAL: CEO Duality Post Restatements	A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise post restatements
BDSIZE: Board Size Post Restatements	Number of directors serve on the board post restatements
COSIZE: Corporate Size Post Restatements	The natural log of total assets post restatements
LEV: Leverage Post Restatements	Total debt to total asset post restatements
LogROA: Return on Assets	The natural log of prior year return on assets: Net income/ total assets
LOSS Post Restatements	A dummy variable that takes the value of 1 if the company reports losses during the financial year, and 0 otherwise post restatements
ε	Error term
β 0 =	Intercept
$\beta 1 - \beta 10$ =	Coefficients

3.5.3 Dependent Variables Measurements

Audit Fees

Following previous literature (Blankley *et al*., 2012), this study will use a single equation to test the audit hypotheses built in the previous section. Prior literature has used the difference in the natural logarithm of the audit fees, during and post-restatement, as a measure of audit fees (Blankley *et al*., 2012, Choi *et al*., 2010, Charles *et al*., 2010)

3.5.4 The Definitions and Measurements of the Control Variable:

Corporate size: the natural logarithm of total assets has been used in previous literature to measure corporate size (Carcello *et al*., 2002, Abbott *et al*., 2003, Lee and Mande, 2005, Goodwin‐Stewart and Kent, 2006). Prior studies have found that corporate size affects audit fees significantly and positively (Carcello *et al*., 2002). Due to the complexity of large firms, audit fees are higher, as external auditors need to expand the audit scope. Researchers who found a significant positive association between audit fees and corporate size have proved the previous assumption (Lee and Mande, 2005, Zaman *et al*., 2011).

LOSS: Carcello *et al*. (2002) used the value of 1 if the firm had suffered a loss in the financial year, and 0 otherwise. The researchers observed a significant positive relationship between loss and audit fees at a statistical level. Companies suffering losses are expected to expand external audit scope, as they are aware of the internal control problem and need to fix it (Zaman *et al*., 2011). Another paper suggested that LOSS should be controlled when examining audit fees and audit committee characteristics, and it is assigned a value of 1 if the firm reported a loss in the financial statements, and 0 otherwise (Lee and Mande, 2005, Zaman *et al*., 2011). Loss and audit fees are associated significantly and positively, as suffering a loss increases audit risk, which will result in higher audit fees based on the risk-assessment argument (Boo and Sharma, 2008).

Leverage: the ratio of long-term debt to total assets measures the leverage of the firm. This study will follow prior literature and control the leverage of the firm when investigating the impact of audit committee characteristics on audit fees (Abbott *et al*., 2003). Zaman *et al*. (2011) observed that leverage and audit fees have a negative relationship.

ROA: defined as the percentage of operating income to total assets (Lee and Mande, 2005, Goodwin‐Stewart and Kent, 2006). Prior studies (Boo and Sharma, 2008, Lee and Mande, 2005, Goodwin‐Stewart and Kent, 2006) include return on assets and loss as they are proxies of audit risk.

CEODUAL: consistent with prior studies, CEO duality will be measured as a dummy variable that takes the value of 1 if the CEO holds the position of chair of the board, and 0 otherwise (Zaman *et al*., 2011). Holding the two positions can affect audit fees significantly and negatively, especially for large clients (Zaman *et al*., 2011). When examining the influence of audit committee characteristics on audit fees, prior studies control board characteristic variables such as board independence and board size, as they are highly correlated with audit fees (Zaman *et al*., 2011, Goodwin‐Stewart and Kent, 2006).

3.6 Empirical Analysis and Results

3.6.1 Descriptive Statistics

Table 3.1 represents the descriptive analysis of the data as well as the univariate analysis. The univariate analysis helps in identifying the difference between the means of the two selected groups: the restating companies and the control companies. First of all, the table shows that the data is not normally distributed. The skewness and kurtosis tests confirm the violation of normality. Thus, the researcher will employ non-parametric tests to analyse the data of the study.

In a comparison of audit fees post-restatement (AF) between restating firms and control firms, the results, shown in Table 1, indicate that the mean of the audit fees post-restatement in control companies is approximately 333,844.4, which is less than the mean of AF in restating companies, which is 435,315.6. An independent t-test and a Mann-Whitney test confirm that the difference between the means of the two groups is significant. This result supports *H4*, which has predicted similar results. In response to the restatement, audit fees post-restatement increased (Blankley *et al*., 2012). Support of this result is provided by previous literature, where researchers compared the audit fees in restating companies and control companies (Feldmann *et al*., 2009). There are many reasons that can justify the difference between the two groups. The audit risk associated with restating companies is one of the main reasons behind increasing the audit fees post-restatement. External auditors are concerned about their reputation and litigation costs when working with restating companies. In addition, the loss of organisational legitimacy can also justify the increase in audit fees post-restatement, as expected by previous literature (Feldmann *et al*., 2009). Charles *et al*. (2010) also supported the argument and found that audit fees increased when there was financial reporting risk.

ACIND in the two groups of companies was almost 100 percent, as it is required for the board of directors to be independent from management. Thus, the t-test and Mann-Whitney test did not observe any significant difference between the means of the two groups.

The mean size of the control firms ACSIZE is 3.46, while it is 3.25 for restating firms. The findings are similar to previous literature, which observed a mean of 3.26 for audit committee size (Zaman *et al*., 2011). While the previous literature was conducted in

the UK and the current study in the US, the results are similar. This similarity in ACSIZE is due to the minimum number of three members required for audit committees by the regulations in both countries. The t-test and Mann-Whitney test failed to find any significant difference between the two groups, as they are similar. The average number of additional directorships held by audit committee directors (ACSHIP) in control companies is 1.21, while it is 1.41 in restating companies. This indicates that directors in restating companies are more busy, and the t-test and Mann-Whitney test confirm the significant difference between the two groups. The figure is lower than the average number of additional directorships held by audit committee directors reported in previous literature, which is 2.09 (Carcello *et al.*, 2002). The decrease of the mean of ACSHIP from 2002 to the present could be due to the call from regulators to minimise the number of additional directorships held by audit committee directors. This call was due to the time and effort audit committee directors must expend to oversee the financial reporting process effectively.

The mean of ACSHARE in the control variables is higher than its pair in the restating companies. It is 0.0007 in the control firms and 0.0006 in the restating firms. The figures are smaller than those of other researchers, who reported a mean of 0.01 for ACSHARE (Mangena and Tauringana, 2008). The regions and regulations sometimes cause these differences, as this current study is conducted in the US, while the previous study was conducted in the UK. There is a significant difference between the two means according to the independent t-test and Mann-Whitney test. This result indicates that companies whose audit committee directors own shares in the company can be more motivated to prevent management from opportunistic behaviour. Support for this

argument is provided by the agency theory, which suggests that stock ownership can motivate directors to behave in the same interests as shareholders (Fama and Jensen, 1983).

The mean of the CEODUL for control companies is .48, while it is .53 in restating companies. Holding the position of CEO and chairman of the board at the same time could affect audit fees significantly and negatively, according to previous literature (Zaman *et al*., 2011). The average number of board of directors (BDSIZE) in the control firms is 8.14, while it is 8.35 in restating companies. These figures are smaller than the average of 11.39 reported in a previous study (Vafeas and Waegelein, 2007). These differences in the size of the board are due to the size of the company and its complexity, which affect the number of directors on the board. The size of the two groups of companies (COSIZE) is not similar; the t-test and Mann-Whitney test show a significant difference in the means. Restating companies experienced more LOSS in the restating year than the control companies. There is a significant difference based on the results of the t-test and Mann-Whitney test. The means of LEV and ROA for the two groups of companies are similar to each other, and the tests did not show any significant differences between them.

3.6.2 Univariate Analysis: Spearman's Correlation

Table 3.2 represents the Spearman's Correlation Coefficient for the dependent, independent and control variables. The descriptive analysis in the previous section shows the skewness and kurtosis results of each variable. The two normality tests indicate that the variables of the study are not normally distributed. Thus, the researcher employed the

Spearman's Correlation Coefficient, as it is more effective in explaining the relationships between the variables.

The table shows that AF post-restatement is positively and significantly correlated with ACSHIP. Busy directors, following restatements, become more concerned about the integrity of the financial statements. At the same time, busy directors who serve on other public boards cannot devote more time or effort to monitoring management and constraining earnings management. Thus, they demand more extensive auditing tests from the external auditors to increase the quality of the financial statements. Audit fees increase in turn, due to the costly audit investigation. Previous literature supports this relationship, finding that busy directors demand more audit work (Carcello *et al*., 2002, Boo and Sharma, 2008). Furthermore, since directors serve on many other boards, and because of the benefits they gain from serving on public boards, audit committee directors will increase the integrity of the financial statements by asking for an increase in the scope of the auditing tests. The reason for this is that those directors do not want to lose their seats on the boards of other companies. Another study found that the board of directors lose their positions when restatement occurs (Srinivasan, 2005). The result of the relationship between the two variables supports the hypothesis discussed in the previous section, *H2*, and provides evidence that holding additional directorships is positively and significantly related to audit fees post-restatement.

Audit committee directors who hold a greater number of shares (ACSHARE) also have a positive and significant relationship with audit fees post-restatement, at a statistical level of $P < 0.05$. Holding a greater number of shares could align the interests of shareholders and audit committee directors, according to the agency theory (Fama and

Jensen, 1983). The alignment of the two parties motivates audit committee directors to monitor management and prevent any opportunistic behaviour. Thus, after the occurrence of restatements, which is a direct measure of earnings manipulation, audit committee directors will lose trust in management, and will request expansion of the audit work. The expensive auditing tests will help audit committee directors to increase the quality of the financial reporting process, and restore trust in the financial statements. These expensive auditing tests will increase the audit fees, especially following restatements. Furthermore, the number of shares held by audit committee directors places pressure on them to protect their reputational capital on the market following restatements. Additionally, as restatements will affect the stock price negatively, audit committee directors will be concerned about their own wealth, which adds another justification for the positive relationship between audit committee director stock ownership and audit fees post-restatement. This also supports *H3* of this study.

The table also shows that RST and AF are positively and significantly associated at a statistical level of $P < 0.01$. Audit fees post-restatement increased, as expected in the hypothesis development section *H5*. The result of this relationship supports the findings of previous literature (Blankley *et al*., 2012). The increase in audit fees can be justified for many reasons; first of all, restatements increase the risk associated with the auditing engagement, thus auditors tend to increase auditing tests, leading to an increase in audit fees. Similar results were produced by previous researchers, who believe that audit fees are positively and significantly related to the occurrence of restatements (Charles *et al*., 2010, Feldmann *et al*., 2009). Secondly, there is pressure on external auditors when working with restating companies. This pressure motivates external auditors to expand

the audit scope to prevent any future restatements. The occurrence of more restatements would damage the reputational capital of the auditors, and increase the risk of litigation. Last but not least, restatements indicate that the company has experienced weak corporate governance practices. Thus, when external auditors evaluate the corporate governance practices as being weak, the audit investigation will be higher; audit fees in turn will increase.

ACIND and ACSIZE were positively related to audit fees post-restatement, as expected in *H1*. This relationship, however, is not significantly supported. CEODUL and BDSIZE also have a positive relationship with audit fees, but not at any significant statistical level. There are different variables that can increase the audit fees post-restatement; for instance, the size of the company (COSIZE) following restatements affects the audit fees positively, as the risk with large restating companies becomes higher. The leverage (LEV) of the company could also affect audit fees post-restatement, but negatively. Debt, relative to the assets of the company, can affect the fees paid to the external auditor. The restating company will not be able to increase audit fees even when restatement occurs, due to the total debt they have. When companies suffer from loss (LOSS), the fees paid to the auditor increase, and the best justification could be that the company was aware of the problem they had when restatement occurred, which motivated them to ask the external auditor to identify a solution for this issue. When the return on assets (ROA) increases, the fees paid to the external auditors increase as well. The concern about ROA following restatement motivates the company to increase auditing tests to protect its financial value.

In corporate governance studies, the issue of multicollinearity might exist. Thus, to check for a potential multicollinearity problem, the researcher used the Variance Inflation Factors (VIF) test. The results shown in Table 3.3 provide evidence that no multicollinearity issue exists, as all independent and control variables are less than 10. In addition, the results of the VIF have been confirmed in Table 3.2, the Spearman's Correlation results, as there are no two variables correlated with each other at more than a 0.80 level. Thus, the variables in this study can be joined in one model with no multicollinearity problem.

3.6.3 Results and Discussion of Multivariate Analysis

Table 3.4 shows the results of multivariate panel data with fixed effect. The choice of panel data with fixed effects has been made because the Hausman test confirms that this is more effective in explaining the data. The adjusted coefficient of determination (Adj R2) is used to represent the power of the explanation of the model. In this current study, the Adj R2 explains about 0.512 of the data; it is similar to the Adj R2 of previous literature (Mangena and Tauringana, 2008, Krishnan and Visvanathan, 2009).

Table 3.4 provides evidence about the positive association between ACSHIP and AF. The positive relationship between the two variables is significant at a statistical level of $P < 0.05$. Audit committee directors who hold additional directorships are considered to be busy directors, who do not offer time or effort to increase the quality of the financial statements. From the external auditors' perspective, the risk associated with restating companies increases when they know that audit committee directors have additional directorships. Support for this argument is provided in past research which produced similar results (Boo and Sharma, 2008). Busy directors cannot be effective in oversight of the financial reporting process, hence they demand more extensive audit investigation to address this issue. Following restatements, audit committee directors who sit on other public boards are more concerned about reputation and litigation consequences as a result of restatements. Therefore, they tend to request more audit tests to prevent future restatements. Similar results were produced by previous literature (Carcello *et al*., 2002). In addition, serving on public boards provides directors with many benefits, such as networking, reputation and learning opportunities (Fama and Jensen, 1983). Thus, to decrease the possibility of turnover following restatements, and losing these benefits,

audit committee directors will increase their role in monitoring management, and increase the scope of audit work. This in turn will lead to an increase in audit fees, as external auditors will conduct extra investigation and increase the audit hours. Srinivasan (2005) observes that board directors lost about one-third of their other seats when restatements occurred. Thus, as expected in *H2*, busy directors significantly increase the audit fees post-restatement.

ACSHARE also affects audit fees post-restatement, positively and significantly at a statistical level of $P < 0.10$, and supports *H3*. The agency theory previously predicted that stock ownership can align the interests of shareholders and directors (Fama and Jensen, 1983). The results of this current study support this argument and find that shareholding motivates audit committee directors to increase the quality of the financial statements by asking for more extensive audit investigation. The increase in audit fees can be justified by the following: due to the number of shares held by audit committee directors, they are concerned not only about shareholders' wealth, but also their own wealth. The stock price is affected negatively following the announcement of restatements. Thus, audit committee directors do not want to lose their money due to earnings manipulation by management. Therefore, they will demand more extensive auditing investigation after losing trust in management, and to prevent future restatements.

ACIND and ACSIZE were positively but not significantly associated with audit fees, as expected in H1, thus the results do not support the hypothesis. CEODUL and BDSIZE also have a positive relationship with audit fees post-restatement. COSIZE, LOSS and ROA show a significant and positive relationship with audit fees following

restatements. The size of the company forces the need for more auditing work following restatements, as well as the LOSS, which motivates management to increase the audit scope. As management is aware of the problem of previous restatements causing a loss, they will ask for greater audit investigation.

3.7 Robustness Tests:

The researcher used two different analysis tests for sensitivity analysis. The tests include panel data with fixed effect, and panel data with random effect. The Hausman test confirms that using panel data with fixed effect is more effective in explaining the data. Then, the researcher used a pooled data test to compare against the panel data with fixed effect test. The results in both tests are similar in significance and direction. The Breusch and Pagan test, however, confirms that using panel data with fixed effect is better, as the probability of Chi Square is more than 0.5. Table 3.5 and Table 3.6 represent the two different tests that have been employed for robustness checks.

3.8 Conclusion

This research investigates the impact of audit committee characteristics, namely independence, size, stock ownership and additional directorships, on audit fees following restatements. The objective of the research is to answer the research question: to what extent do audit committee characteristics affect audit fees following restatements?

There was a gap in the literature regarding this issue, due to the limited number of restatement studies. This study, therefore, attempted to fill this gap by providing significant evidence about the impact of audit committee characteristics on audit fees post-restatement. The results of the study have answered the research questions and produced some significant results.

The study has investigated two arguments. First, it argues that audit committee directors should increase external audit quality following restatements. Audit committee directors are motivated to increase the integrity of the information provided in the financial statements by expanding audit work following restatements. Audit committee members will demand more audit work to avoid any future restatements. Thus, the audit fees in turn will be increased. The second argument of this study explains the reasoning behind increasing audit fees following restatements, from the external auditors' perspective. Audit risk increases when working with restating companies; auditors, therefore, tend to conduct more expensive audit tests to ensure that financial statements are clear from fraud or mistakes.

The results indicate that some audit committee characteristics affect audit fees more than others. For example, audit committee directors who hold additional directorships affect the audit fees post-restatement positively and significantly. Directors who sit on other public boards become concerned about their reputational capital following restatements, hence they demand more extensive audit investigation to prevent future restatements. In addition, the litigation costs that can affect audit committee directors represent one of the main reasons motivating directors not to trust management, and to expand the audit work. Similar results in previous literature support these findings and suggest that holding additional directorships increases the quality of the financial statements (Carcello *et al.*, 2002) Furthermore, there is evidence regarding the negative consequences of financial statement restatements for directors, as this might lead to losing their positions on other boards (Srinivasan, 2005). Thus, there is pressure on them to ask for more extensive auditing investigation, which will lead to an increase in audit

fees. In the U.S., where this research conducted, Boo and Sharma (2008) has also show a positive relationship between busy directors and audit fees regardless whether the company restated its financial statements or not. Thus, due to the positive impact of audit committee directors holding additional directorships on audit fees, it is recommended that regulators and decision makers encourage companies to hire audit committee directors who serve on other public boards. The results show that they are motivated to oversee external audit quality effectively to protect their reputational capital, as well as protect their positions on boards following restatements.

Moreover, audit committee directors who hold a greater number of shares are associated positively and significantly with audit fees. The agency theory previously suggested that stock ownership enhances the effectiveness of the board of directors, as it aligns the interests of shareholders and directors (Fama and Jensen, 1983). The findings of this research support this argument. There is strong evidence that shareholding motivates audit committee directors to expand the audit scope and increase the quality of the financial statements following the occurrence of restatements. Engel et al (2010) find similar result, and report that stock ownership held by audit committee directors affects audit fees positively. This result shows the concern of audit committee directors, and their demand for extensive audit work to protect their wealth. This is also reflects the alignment of interests between audit committee directors and shareholders.

There is also evidence that the occurrence of restatements affects the stock price negatively, and audit committee directors, therefore, will be concerned about their own wealth following restatements. Thus, they will attempt to repair the damage that has occurred, and restore the trust of the market by expanding the audit scope, increasing the

integrity in the information provided in the financial statements. The findings of this study contribute not only to scholars and the academic field, but also to regulators and governments. Regarding justifications that have been mentioned previously, regulators, government and investors should encourage companies to increase the percentage of shares held by audit committee directors, due to the advantages of owning shares in the same company. Meanwhile, some regulators discourage directors from holding additional directorships, encouraging focus on one public company. The results of this study, however, provide strong evidence about the positive impact of holding additional directorships on audit quality. It helps in increasing the effectiveness of the audit committee directors, due to the pressure they face in holding additional directorships.

The following chapter will go further, and extend the investigation of this chapter and the previous chapter to concentrate on family business. It will explore whether the findings of this chapter and the previous chapter can be applied in all contexts including family business, or not. It will provide a significant evidence if the findings of this thesis can be generalised to all business contexts, or the recommendations will be limited to family business only.

Table 3.1: Descriptive Statistics

VARIABLES		Obs	Mean	Std. Dev.	Mean Diff	Mann-Whitney	Min	Max	Skewness	Kurtosis
AF	CONTROL	450	333,844.4	20.49392	-101.47	.000 ***	15,500	13,400,000	.0061	1.801
	RST	450	435,315.6	23.07465						
	POOLED	900	384,580	22.3933						
ACIND (%)	CONTROL	450	99.49	3.507	-.0722	.176	75	100	-7.015	51.21
	RST	450	99.57	3.453						
	POOLED	900	99.53	3.478						
ACSIZE	CONTROL	450	3.466	.8929	.2088	.725	2	7	1.841	9.376
	RST	450	3.257	.5382						
	POOLED	900	3.362	.7442						
ACSHIP	CONTROL	450	1.213	1.019	-.2095	.0130 **	0	5.33	1.227	5.102
	RST	450	1.422	1.105						
	POOLED	900	1.318	1.068						
ACSHARE	CONTROL	450	.00072	.3712	.0009	.050 *	0.0001	.0265	18.612	414.24
	RST	450	.00063	.6131						
	POOLED	900	.00068	.5065						
CEODUAL	CONTROL	450	.4888	.5004	-.0488	.210	0	1	-.0350	1.001
	RST	450	.5377	.4991						
	POOLED	900	.5133	.5001						
BDSIZE	CONTROL	450	8.140	2.373	-.2133	.398	6	14	.7267	3.772
	RST	450	8.353	2.325						
	POOLED	900	8.246	2.351						
COSIZE (in million)	CONTROL	450	2466.044	1479.865	63.577	.054 *	34.09	126745.76	.1782	1.991
	RST	450	2402.467	1314.914						
	POOLED	900	2434.256	1399.404						
LEV	CONTROL	450	.3938	228.6859	.0008	.519	.21	4.32	.0011	1.8017
	RST	450	.3930	230.1927						
	POOLED	900	.3934	229.3132						
LOSS	CONTROL	450	.2866	.4527	-.0066	.570 *	0	1	.8599	1.7394
	RST	450	.2933	.4557						
	POOLED	900	.29	.4540						

ROA	CONTROL	450	.2022	.1853	-.0199	.487	.103	.631	.3712	1.719
	RST	450	.2221	.1960						
	POOLED	900	.2121	.19095						

Where:

AF: Difference between the natural log of the audit fees during and post restatements

Independent Variables

ACIND: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition

ACSIZE: Audit Committee Size: The number of directors serves in the audit committee

ACSHARE: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares

ACDSHIP: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors.

Control Variables

CEODUAL: CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise

BDSIZE: Board Size: Number of directors serve on the board

COSIZE: Corporate Size: The natural log of total assets.

LEV: Leverage: Total debt to total assets

LOSS: A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise

ROA: Prior year return on assets: Net income/ total assets

Table 3.2: Spearman's Rank Correlation Matrix

	AFDIFF	ACIND	ACSIZE	ACSHIP	ACSHARE	CEODUEL	BDSIZE	COSIZE	LEV	LOSS	LogROA
AFDIFF	1										
ACIND	0.0458	1									
ACSIZE	0.0132	0.041	1								
ACSHIP	0.0084 **	0.0634 *	0.1176 *	1							
ACSHARE	0.0602 *	-0.0301	-0.0979 *	-0.1264	1						
CEODUL	0.0141	0.0525	0.3299	0.1982 *	-0.2643	1					
BDSIZE	-0.0797	-0.0534	0.1522 *	0.1198 *	-0.1585 *	0.3073	1				
COSIZE	-0.092 *	-0.0277	0.1679 *	0.0873 *	0.0293 **	0.264	0.2915 *	1			
LEV	-0.1279 *	-0.0251	-0.1392 **	-0.0426 **	0.1252	-0.1173	-0.0404 **	0.0394 *	1		
LOSS	0.0065 **	0.0146	0.1681 *	0.0364	0.0016 *	0.1942	0.1014 *	0.2631 *	-0.6723	1	
LogROA	0.0513 *	0.0039	0.0316 *	-0.0556	-0.0418	0.0386	0.0016 *	0.0318 *	0.0221 *	0.0264 *	1

Where:
AF: Difference between the natural log of the audit fees during and post restatements
Independent Variables
ACIND: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition
ACSIZE: Audit Committee Size: The number of directors serves in the audit committee
ACSHARE: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares
ACDSHIP: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors.

Control Variables
CEODUAL: CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise
BDSIZE: Board Size: Number of directors serve on the board
COSIZE: Corporate Size: The natural log of total assets.
LEV: Leverage: Total debt to total assets
LOSS: A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise
ROA: Prior year return on assets: Net income/ total assets

Table 3.3: Variance Inflation Factor (VIF)

Variable	VIF	1/VIF
LogROA	1.81	0.552111
LOSS	1.65	0.604488
LEV	1.35	0.741382
BDSIZE	1.32	0.759343
COSIZE	1.18	0.849657
ACSIZE	1.16	0.861181
ACSHIP	1.06	0.941062
ACSHARE	1.02	0.976057
ACIND	1.02	0.983329
CEODUAL	1.02	0.983527
Mean VIF	1.26	

Where:
AF: Difference between the natural log of the audit fees during and post restatements
Independent Variables
ACIND: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition
ACSIZE: Audit Committee Size: The number of directors serves in the audit committee
ACSHARE: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares
ACDSHIP: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors.
Control Variables
CEODUAL: CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise
BDSIZE: Board Size: Number of directors serve on the board
COSIZE: Corporate Size: The natural log of total assets.
LEV: Leverage: Total debt to total assets
LOSS: A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise
ROA: Prior year return on assets: Net income/ total assets

Table 3.4: Multivariate Regression (Panel Data with Fixed Effect)

AF	Predicated Sign	Coef.
ACIND	+	-0.6135
ACSIZE	+	-4.719
ACSHIP	+	7.323**
ACSHARE	+	1.915*
CEODUL	+	9.931
BDSIZE	+	4.477
COSIZE	+	-0.1665*
LEV	+	-0.0237
LOSS	+	-.7411***
LogROA	+	-0.1038**
Adj R-sq:		0.3830
Prob > F		0.0000

Where:
AF: Difference between the natural log of the audit fees during and post restatements
Independent Variables
ACIND: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition
ACSIZE: Audit Committee Size: The number of directors serves in the audit committee
ACSHARE: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares
ACDSHIP: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors.
Control Variables
CEODUAL: CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise
BDSIZE: Board Size: Number of directors serve on the board
COSIZE: Corporate Size: The natural log of total assets.
LEV: Leverage: Total debt to total assets
LOSS: A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise
ROA: Prior year return on assets: Net income/ total assets

Table 3.5: Multivariate Regression (Panel Data with Random Effect)

AFDIFF	Predicated Sign	Coef.
ACIND	+	1.6031
ACSIZE	+	-5.1656
ACSHIP	+	4.9703**
ACSHARE	+	0.8402*
CEODUL	+	25.3801
BDSIZE	+	3.2105
COSIZE	+	-0.1412*
LEV	+	-0.0306
LOSS	+	-.9409***
LogROA	+	-0.1397**
Wald chi2(10)		38.93
Prob > chi2		0.000
Adj R-Seq		0.4210
Hausman test		0.6983

Where:
AF: Difference between the natural log of the audit fees during and post restatements
Independent Variables
ACIND: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition
ACSIZE: Audit Committee Size: The number of directors serves in the audit committee
ACSHARE: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares
ACDSHIP: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors.
Control Variables
CEODUAL: CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise
BDSIZE: Board Size: Number of directors serve on the board
COSIZE: Corporate Size: The natural log of total assets.
LEV: Leverage: Total debt to total assets
LOSS: A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise
ROA: Prior year return on assets: Net income/ total assets

Table 3.6: Multivariate Regression (Pooled Data)

AFDIFF	Predicated Sign	Coef.
ACIND	+	2.1984
ACSIZE	+	-4.7287
ACSHIP	+	4.2416**
ACSHARE	+	0.6665*
CEODUL	+	23.517
BDSIZE	+	3.1488
COSIZE	+	-0.1380*
LEV	+	-0.0306
LOSS	+	-.9271***
LogROA	+	-0.1335*
Breusch and Pagan (Bb-LM)		1.0000
Prob > F		0.0000
Adj R-sq		0.3060

Where:
AF: Difference between the natural log of the audit fees during and post restatements
Independent Variables
ACIND: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition
ACSIZE: Audit Committee Size: The number of directors serves in the audit committee
ACSHARE: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares
ACDSHIP: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors.
Control Variables
CEODUAL: CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise
BDSIZE: Board Size: Number of directors serve on the board
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise.
COSIZE: Corporate Size: The natural log of total assets.
LEV: Leverage: Total debt to total assets
LOSS: A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise
ROA: Prior year return on assets: Net income/ total assets

Chapter Four

The Impact of Audit Committee Characteristics on Restatements Frequency in Family Business

4.1 Introduction

In Chapter Two, the researcher found very important results about the nature of the relationship between audit committee characteristics and restatements. The results indicate that audit committee directors can mitigate the occurrence of restatements if they possess specific characteristics. For example, when audit committee directors serve in the firm for many years, this can allow them to be more effective in detecting any accounting errors before the issuance of the financial statements. Furthermore, shareholdings also motivate audit committee directors to act in the interests of shareholders and mitigate any opportunistic behaviour (Jensen and Meckling, 1979). In addition, the study provides evidence about the negative impact of busy audit committee directors on financial restatements. Thus, and to generalise the results of the previous study in all contexts, this study will focus on the impact of audit committee characteristics on financial statement restatements in the family business context. The research question for this chapter is: to what extent do audit committee characteristics mitigate the occurrence of restatements in family businesses? The objective of this current study is to examine the impact of audit committee characteristics, namely independence, tenure, multiple directorships and stock ownership, on mitigating the incidence of restatements in family businesses only.

Family firms can be an interesting setting in which to test the role of family business in mitigating the occurrence of restatements. Family businesses can be considered a key subject because most of the companies around the world are family firms. For example, 30% of the companies listed in Standard and Poor 500 (S&P500) are family businesses, and 252 industrial firms in the United States are also family businesses (Anderson and Reeb, 2004). In addition, most of the *Fortune 500* companies in the U.S.

are owned by families (Wang, 2006). Thus, family firms can affect the economy if any accounting scandals occur within them. It is therefore essential to examine in depth the impact of family businesses on restatement frequency through the agency theory or financial behaviour theory, in order to provide greater insights and empirical results about this relationship. This study will therefore contribute to the accounting literature as well as to the family business literature because it will be the first one, to the author's best knowledge, to investigate the impact of audit committee characteristics on financial reporting quality using restatement evidence in family concentrated ownership.

The separation between control and ownership creates agency problems (Fama and Jensen, 1983). According to the agency theory, there are two types of agency problems; type I (manager-principal) concerns the conflict of interest between management and shareholders, while type II (principal-principal) concerns the conflict of interests between majority-minority shareholders (Fama and Jensen, 1983). Family firms do not suffer from type I agency problems as the family members can monitor the managers' behaviour (Anderson and Reeb, 2004). Instead, they might experience type II agency problems due to the high concentration of ownership among family members (Chi *et al.*, 2015). In this study, therefore, the focus will be on the type II agency problems.

In addition, a growing amount of literature sheds light on the nature of the association between concentrated family ownership and financial reporting quality (Anderson and Reeb, 2004, Wang, 2006, Tong, 2007, Razzaque *et al.*, 2016, Chen *et al.*, 2016, Chi *et al.*, 2015). These prior studies use different proxies of financial reporting quality when examining the impact of family ownership on financial reporting quality

such as financial statement restatements (Tong, 2007, Chen *et al*., 2015), abnormal accruals and earnings informativeness (Wang, 2006) earning management (Chi *et al*., 2015, Anderson *et al*., 2003, Cascino *et al*., 2010), and financial disclosure (Wan-Hussin, 2009, Fan and Wong, 2002). Although researchers all over the world enrich accounting and family business literature with extensive studies about this relationship, there is still a limited number of studies that test the impact of audit committee characteristics (where there is family concentrated ownership) on constraining the occurrence of financial statement restatements. Moreover, empirical studies have yielded inconsistent results, which necessitate further investigation of the issue. Family businesses have their own characteristics, which differentiate them from other business contexts. Thus, it is interesting to investigate in detail the effect of audit committee characteristics, in particular on restatement frequencies. This type of investigation will be informative and it will allow regulators to focus on corporate governance practices in family businesses, along with their relationship with restatements. As mentioned earlier, restatements are a direct measure of failure in financial reporting quality; therefore, examining this incident and how to mitigate it in family businesses will help to increase the quality of financial reporting. Also, it will provide significant implications that will help regulators, shareholders and investors to evaluate and make corrective decisions when dealing with family businesses.

The influence of family concentrated ownership on financial reporting quality will be affected by three different factors: the entrenchment factor, the alignment factor (Wang, 2006) ,and the socioemotional wealth factor (Gomez-Mejia *et al*., 2014). These factors will also affect the occurrence of financial statement restatements in family

businesses. Thus, it is important to investigate the impact of audit committee characteristics on financial statement restatements in family businesses by looking in depth at all the potential factors that affect businesses, and which in turn will affect the likelihood of restatements.

First, the entrenchment factor motivates the family members to engage in opportunistic behaviours to obtain private benefits (Wang, 2006). Family members will take advantage of the authority they have, if they hold a position in the firm, or they will take advantage of the connections with management to maximise their own wealth at the expense of small shareholders. Furthermore, family members can manipulate earnings because of the information asymmetry that is more often found in family firms than in non-family firms. These types of activities provide low-quality financial reporting. Family members who own a greater number of voting rights or serve in a management position have the ability to hide some accounting information and are motivated to engage in earnings management activities (Fan and Wong, 2002). Empirical studies provide further evidence to support this argument (the entrenchment argument). For instance, researchers find that managers are motivated to capitalise the cost of R&D if they get closer to the covenant based on profitability to avoid debt cancellation or renegotiation (Anderson *et al*., 2003). The concern over the long-term relationship with lenders in order to achieve trust and better financing in future is another main incentive of earnings management (Prencipe *et al*., 2008). Researchers reveal that the likelihood of financial statement restatements in family businesses increases when the financial statements are not audited by the *Big 4* accounting firms (Chen *et al*., 2016).

Furthermore, family members will manage earnings to meet their interests rather than the minority interests (Fama and Jensen, 1983). Their seats on the board will allow them to manipulate earnings and put pressure on other directors since they have the authority to appoint or reappoint directors. This will compromise board independence and decrease the earnings' quality. The presence of family members on the board can weaken the governance practices of the firm and increase earnings management (Chi *et al*., 2015, Wan-Hussin, 2009). Stockmans *et al*. (2010) think that family firms are more likely to engage in upward earnings management in certain conditions – if the performance of the firm is poor and the firm is owned by the first generation. Also, this applies when a member of the founding family manages the firm. Finally, there are many incentives for the family business to decrease the earnings quality by decreasing the level of earnings informativeness, such as weak investor protection regulations, governance practices and legal environment (Machuga and Teitel, 2009).

The second factor that might affect the influence of family concentrated ownership on financial reporting quality is the alignment factor. From the alignment argument perspective, with highly concentrated family ownership, firms are not motivated to manipulate earnings because their interests are aligned with the small shareholders' interests (Anderson *et al*., 2003, Wang, 2006). The concern in family firms is more about the long-term objectives of the company, and the reputation of the company as well as the reputation of the family (Wang, 2006, Anderson *et al*., 2003, Tong, 2007). Wang (2006) states that the positive association between family firms and earnings quality is to the pressure family firms face from small shareholders. External users and shareholders are aware of the type II agency problem. Thus, they demand

higher financial reporting quality, which can be provided by family firms (Wang, 2006). From the stewardship theory perspective, one of the family members holding the position of CEO can also align the interests of majority and minority shareholders (Anderson *et al*., 2003, Davis *et al*., 1997). Moreover, Jiraporn and DaDalt (2009) suggest that the wealth of the founding family is linked to the firm's performance. Thus, they are motivated to monitor management and mitigate their opportunistic behaviours. The previous study also provides some justification to support the alignment argument. It says that one of the factors that leads to earnings management is the failure to monitor financial sophistication (Xie *et al*., 2003). As one of the characteristics of the founding family is their long tenure with the firm, this gives them a competitive advantage as they are familiar with the firm and its sophisticated operation system (Jiraporn and DaDalt, 2009, Ali *et al*., 2007).

Lastly, the third factor that affects the influence of family concentrated ownership on financial reporting quality is the socioemotional wealth factor. The socioemotional wealth theory is concerned with the non-financial aspects that link the founding family to their business such as identity, culture and values (Gómez-Mejía *et al*., 2007). Many studies provide significant evidence for the positive impact of family business on financial reporting quality (Tong, 2007, Wang, 2006, Cascino *et al*., 2010, Achleitner *et al*., 2014, Chen *et al*., 2015). These research studies explain this positive impact by the absence of conflict of interests between managers and shareholders. The alignment of interests could be one of the reasons; however, none of these empirical studies have examined the impact of audit committee characteristics on restatements in family firms to provide more oversight into audit committee effectiveness in family firms, and how it can

mitigate the incidence of restatements. Thus, this current study will fill this gap and be the first empirical study to investigate the impact of audit committee characteristics on financial statement restatements in family firms.

The remainder of this chapter will be as follows: section 1 will cover the literature review. Section 2 will present the hypothesis development. Sections 3 and 4 will discuss the research methodology and data analysis. Section 5 will discuss the results followed by a conclusion in section 6.

4.3 Theoretical Framework

In chapter two and chapter three, the researcher noticed that type I of the agency problems might appear as a consequence of the separation between management and shareholders. In this chapter, however, the situation is different as it is focuses on family firms. As mentioned earlier, the separation of ownership and management in corporates creates two types of the agency costs. Type I concerns about the conflict of interests between principles (owners), and agents (managers). While type II concerns about the conflict of interests between principles – principles (majority-minority) of shareholders (Fama and Jensen, 1983). It has been argued that the concentrated ownership motivates large shareholders (families) to utilise from the authorities they have to gain more returns at the cost of smaller shareholders (Fama and Jensen, 1983).

Yang (2010) finds that family firms are associated with earning management due to the increase of information asymmetry. Highly concentrated ownership in family firms motivates family members to manage earnings at the expense of smaller shareholders. Thus, the conflict of interest between majority and minority shareholders will be increased, which in turn will cause type II of the agency theory (Yang, 2010). Thus, in

this chapter, and since it focuses on family firms, type II of the agency costs might appear. In addition, the existence of audit committee as an internal governance mechanism should minimize the agency cost associated with the conflict of interest between majority-minority shareholders, and therefore, minimize the incident of restatements in family firms. Thus, it is expected that any audit committee characteristics that has a positive impact on financial reporting quality in empirical studies, would have the same impact in family firms as well.

4.2 Literature Review

4.2.1 Family Business and Financial Reporting Quality (gaining credibility after restatements)

The agency theory predicts that concentrated ownership helps blockholders such as families to manipulate earnings to gain private profits against small holders (Fama and Jensen, 1983). Other researchers believe that large shareholders such as families will show high-quality financial reporting practices as they focus on the long-term objectives of the firm (Stein, 1988). Based on the previous argument, the researcher believes that since family concentrated ownership affects the credibility of the information provided in the financial statements, it is important to examine this effect following the restatement incident. Using an internal governance tool such as audit committee characteristics in family business (as audit committees are responsible for ensuring the quality of the financial statements), will help to identify how audit committee react to restatements. Furthermore, the researcher notes that most of the family business literature focuses on different measures of financial reporting quality; none of them, however, use restatements as a direct measure of failure in financial reporting. Thus, the researcher will

use the existing literature and build on it an argument that will prove how audit committees in family businesses affect the credibility of the information provided in the financial statements.

Tong (2007) investigates the differences between the financial reporting practices in family firms and non-family firms. The study provides evidence for the fact that earnings management in family firms is less than in non-family firms. Furthermore, the researcher believes that financial statement restatements are lower in family firms than in non-family firms. Also, small positive earnings surprises and higher earnings informativeness were found to be positively associated with family firms compared to non-family firms. Therefore, the provided evidence proves that the financial reporting practices in businesses controlled by families are better than those of non-family businesses. Thus, this means that family businesses are more concerned about the long-term objectives and the reputation of the firm than non-family firms (Tong, 2007).

Recently, Chen *et al* (2016) investigated some independent factors that affect the likelihood of financial statement restatements. One of these factors is the influence of firms controlled by family. The study was conducted in Taiwan and collected data from 2002 to 2011 using a qualitative comparative method. The researchers observed that the chance of restating financial statements in family businesses was higher than in non-family businesses only when the financial statements were not audited by one of the *Big 4* (Chen *et al*., 2016). The results of this previous study might be different to those of the current study as the market and the regime in the U.S. are different to those in other countries. Thus, it is interesting to see how the fact that the family controls the firm influences financial statement restatements. In addition, Wang (2006) used data from

S&P 500 from 1994 to 2002 to examine the effect of founding family ownership and earnings quality. The researcher observed that earnings quality in family firms is higher than in non-family firms, using different proxies of earnings quality such as abnormal accruals, earnings informativeness, and persistence of transitory loss components in earnings. There is consistent evidence that family businesses are associated negatively with abnormal accruals and the persistence of transitory loss components in earnings, and positively with earnings informativeness (Wang, 2006). However, the study did not provide evidence for whether or not high-quality earnings are a result of the demand for financial statements by external users, or whether they are a positive consequence of the alignment of interests between the majority and minority shareholders. The results also might suffer from endogeneity problems as it was not clear whether the family firms would choose to sell the stock if the firm had performance problems.

The literature has been divided into two different groups regarding the effect of family ownership control or appointing family members on corporate boards on earnings quality. The first stream of literature believes that the existence of family members on the board or the existence of family ownership control by holding a large number of stocks will help to monitor the financial reporting quality and therefore mitigate the earnings management (Wang, 2006, Tong, 2007). With family members on the board, managers do not have incentives to manipulate earnings to achieve short-term objectives, since the founding family will monitor their behaviours. Instead, managers will focus on long-term objectives. In this case, any conflicts of interests will be aligned (Jiraporn and DaDalt, 2009). The second group argues that family-controlling ownership will manage earnings to meet their own interests, which are opposite to the minority interests (Fama and

Jensen, 1983). Their seats on the board will allow them to manipulate earnings and put pressure on other directors since they have the authority to appoint or reappoint directors. This will compromise board independence and decrease the earnings quality. By implication, Jaggi *et al*. (2009) examined the association between board independence, family control and earnings management. Using a sample of 309 firm-year observations from 1999 to 2000, the study documents a positive association between board independence and earnings quality. However, the effectiveness of the independent directors decreases with the presence of a controlling family on the board. Similarly, and focusing on audit committees rather than on the board of directors, Jaggi and Leung (2007) studied the monitoring of earnings management by audit committees when family members are on the board of directors. The existence of the founding family on the board of directors weakens the effectiveness of audit committees, and therefore reduces the ability to constrain earnings management (Jaggi and Leung, 2007). The study examined 523 observations between 1999 and 2000 in Hong Kong firms and suggested that board independence can be compromised when family members dominate the board. Examining the impact of a founding family on the monitoring of financial reporting quality needs more investigation. Thus, this current study will differ from previous work as it will focus on the impact of family ownership on constraining the occurrence of restatements using stock ownership as a measure of family ownership, rather than the dummy variable that has been used in previous studies.

In Taiwan, (Chi *et al*., 2015) examined the nature of the relationship betwee family business and earnings management. The sample included 379 listed companies in the industry of high technology. The results show that family firms are engaged in

earnings management more than non-family firms. The researchers justify the positive relationship between family business and earnings management by stating that it is due to weak governance practices and the absence of an investors' protection system in Taiwan. Due to the differences in ownership concentration and institutional environments, and weak corporate governance, this study, conducted in Taiwan, generated different results to those found by the current study, which used US data. The study also focused on high-technology firms rather than family firms cross all industries. Also, the researchers suggest that the existence of audit committees might decrease the level of earnings management in family firms. Thus, as the existence of audit committees in the U.S. is mandatory, this study will be able to answer the question of whether or not audit committee directors can increase earnings quality. Furthermore, this study will use restatements as a proxy of failure in financial reporting rather than earnings management, which is extensively researched. Researchers observe that family firms are more likely to engage in earnings management to avoid debt-covenant violations. The nature of the relationship between family controlled businesses and lenders, and the desire to protect the reputation of the firm, motivate families to manage earnings (Anderson *et al*., 2003). Another justification could be that managers are motivated to capitalise the cost of R&D if they get closer to the covenant based on profitability, in order to avoid debt cancellation or renegotiation (Prencipe *et al*., 2008).

Concern over the long-term relationship with lenders and the ability to achieve trust and better financing in the future is the main incentive for earnings management in family businesses, more than in non-family businesses. Also, the results of the previous study reveal that it is unlikely that family firms will manipulate earnings for the purpose

of earnings smoothing. Although the previous study of Prencipe *et al* (2008) provides important results regarding the role of family businesses in mitigating the occurrence of earnings management, the accounting regulations for R&D costs vary from one country to another. Thus, it is unlikely that their results will be consistent with those from a country like the U.S. where the regulation of the treatment of R&D capitalisation is very restricted. Also, one of the limitations of the previous study of Prencipe *et al* (2008) is the small number of the sample – 129 firm-year observations. The small sample enabled the researcher to conduct more sophisticated statistical tests. Moreover, the study used only two proxies of earnings management (R&D cost capitalisation and debt covenant) but there are many other proxies that can be used. Thus, it is difficult to generalise the results of the study.

Jiraporn and DaDalt (2009) present a different argument. They believe that family firms are less likely to engage in earnings management. According to their study, the wealth of the founding family is linked to the firm's performance. Thus, they are very motivated to monitor management and mitigate any opportunistic behaviours. Furthermore, family controlled businesses focus on long-term objectives more than other shareholders. The focus on long-term objectives demotivates management from manipulating earnings (Jiraporn and DaDalt, 2009). In addition, one of the factors that lead to earnings management is the failure to monitor financial sophistication (Xie *et al*., 2003). As one of the characteristics of the founding family is the long tenure with the firm, they have a competitive advantage as they are familiar with the firm and its sophisticated operation system (Jiraporn and DaDalt, 2009). This current study will differ from the previous study in the proxy of financial reporting quality. In Italy, Cascino *et al.*

(2010) investigated the association between family ownership and financial reporting quality. The study analysed 778 firm-year observations and compared family and non-family firms listed on the Italian Stock Exchange between 1998 and 2004. The results show that family firms provide higher quality financial reporting than non-family firms. When accounting information is of high quality, the transparency of the accounting information will increase and information asymmetry will decrease (Cascino *et al*., 2010). The researchers refer the quality of the accounting information to the level of disclosure, the level of compliance with GAAP, and the informativeness of the information provided in the financial statements. The current study will differ from this study in terms of the proxy of the financial reporting quality. Its results may therefore be different as it will use restatements as a proxy of financial reporting failure in relation to family controlled businesses.

In a similar vein, Fan and Wong (2002) collected data from seven East Asian countries to examine the relationship between ownership structure and earnings informativeness. The study provides significant statistical evidence for the negative impact of high concentrated ownership and earnings informativeness. The prediction of the relationship between ownership concentration and earnings informativeness was based on two arguments – the entrenchment argument and the alignment argument. The entrenchment argument believes that highly concentrated ownership will weaken the earnings informativeness, while the alignment argument suggests that highly concentrated ownership can align the interests of majority and minority shareholders, and thus increase the level of earnings informativeness (Fan and Wong, 2002). According to the study, a higher level of controlling ownership motivates insiders to decrease the

accounting informativeness. Thus, there is an opportunity to manipulate earnings increases, based on the entrenchment effect. The results of Fan and Wong's (2002) study are significant as they cover seven Asian countries. When examining the impact of ownership concentration on accounting information, it would be more interesting to focus on family firm ownership rather than focusing on any ownership structure, regardless of whether it is a family business or not.

Most of the previous research has focused on agency problems when investigating the relationship between family ownership and financial reporting quality. On the other hand, Stockmans *et al*. (2010) shift the argument and use the behavioural financial theory to explain why family firms could engage in earnings manipulation. The study focused on private family firms as the agency problems were fewer here than in public firms. Stockmans *et al*. (2010) believe that family firms are more likely to engage in upward earnings management in certain conditions, if the performance of the firm is poor and the firm is owned by the first generation. This also applies when a member of the founding family manages the firm. The results are restricted to private family firms only. The researchers observe that the motivation for earnings management in private family firms is the fear of losing the socioemotional wealth of the family. As cited in Stockmans *et al*. (2010) and based on the behavioural theory (Gómez-Mejía *et al*., 2007), socioemotional wealth refers to non-financial aspects of the firm's ability to meet the family's needs, such as the ability to exercise family influence, identity and the continuation of the family success (Stockmans *et al*., 2010). Stockmans *et al*. (2010) investigated the impact of family ownership on earnings management using private family firms, while this current study will use listed firms in the U.S. market where there are more strict regulations and

governmental monitoring in place. Although the previous findings give an insight into the behavioural effect of family ownership on earnings management, the case will be different when focusing on public firms where agency costs are involved. Also, this current study will differ from the previous one in its research methodology. The previous study was based on survey distribution, while this study will use secondary data available on financial databases.

Researchers also argue that poor governance practices, the legal environment and weak investor protection regulations motivate management and family members to manipulate earnings (Machuga and Teitel, 2009). The study of Machuga and Teitel (2009) examined the impact of board characteristics, including family concentrated ownership, on earnings quality and showed that highly concentrated family ownership is associated negatively with earnings quality (Machuga and Teitel, 2009). The results of this previous study cannot be generalised for a couple of reasons; first, the sample includes only 62 companies. Moreover, 34 companies of the 62 disclosed lacked information about board characteristics. Thus, the number of the firms is quite small compared to other family firm studies and this reduces the power of the statistical tests. Second, examining the influence of family concentrated ownership in most regulated countries like the U.S. will provide more important and accurate results due to the strong legal environment, the efficient market and the effective governance practices. Thus, the current study will use U.S. data and consider restatements as a proxy of financial reporting failure rather than earnings management.

Furthermore, agency problems in family firms are less common than in non-family firms in the U.S. due to the separation between management and ownership. Also,

while the conflict between management and shareholders decreases in family firms, the conflict between majority-minority increases, representing type II of the agency problem (Ali *et al*., 2007). The differences between the two agency problems were investigated in a comparison between family and non-family controlled businesses in the U.S. The study focused on the quality of earnings and other disclosure proxies. The reason behind the rise in majority-minority conflicts might be the ability of family firms to hide information from smaller shareholders. Furthermore, the reason could be the involvement of family members in key positions in the firms, which give them the authority to manipulate earnings. In addition, family firms are associated with less voluntary disclosure about corporate governance practices. Compared to non-family firms, family firms are motivated to hide some information from other shareholders in order to be able to assign some of the family members to the board of directors. Also, family firms report better earnings than non-family firms. According to the study, family businesses have the power and the authority to monitor management and detect any opportunistic behaviour. Moreover, as the founding family has a long tenure with the firm they have extensive knowledge about the firm and its operation, which allows them to mitigate the likelihood of earnings management (Ali *et al*., 2007). Ali *et al*. measured earnings quality by the level of discretionary accruals in earnings, while this current study will measure failure in financial reporting using financial statement restatements.

There are two types of earnings management according to Siregar and Utama (2008): opportunistic earnings manegement and efficient earnings manegement. Efficient earnings management works to improve earnings informativeness, while opportunistic earnings management tends to manipulate earnings to increase someone else's wealth

(Siregar and Utama, 2008). Siregar and Utama investegated the effect of family ownership on the type of earnings management in Indonesian companies listed on the Jakarta Stock Exchange (JSE). Family firms in Indonesia are more effective in earnings informativeness than other companies. There is a significant relationship between family ownership and efficient earnings management. This study confirms that family firms do not harm minority shareholders. Conducting research in developing countries will yield different results to research conducted in a developed country such as the U.S. The regulations, business environment and strict rules in the U.S. market can provide more accurate results about the impact of family ownership on financial reporting quality. Moreover, in Malaysia, researchers use the proportion of family members on the board as a proxy of family controlled companies. The researchers investigated the possible problem of type II agency costs. Type II issues are concerned with "owner opportunism" that can be created at the expense of minority shareholders. The concentrated ownership of family members through cooperation with managers can allow managers and family owners to engage in earnings manapulation to maximise their own wealth and damage shareholders' wealth (Wan-Hussin, 2009). Wan-Hussin (2009) find that family controlled firms are significantly and positively associated with firms' transparency. Family firms show a greater disclosure among other types of companies. Support for this result comes from previous literature (Wang, 2006, Ali *et al*., 2007). Although this previous study provides significant results about the relationship between family firms and financial disclsure, the study only focused on the primary segment items to measure disclosure. Thus, the results cannot be generalised, and further more the study was also conducted

before the disclosure of primary segment items was made mandatory in the Malaysian market.

In Germany, Achleitner *et al*. (2014) compared 436 non-family firms and 402 family firms from 1998 to 2008. The researchers wanted to examine the relationship between family firms and two types of earnings management. The study used socioemotional theory as a theoretical framework. From a socioemotional theory perspective, family firms are less likely to engage in real earnings management to protect the firm's value for future generations (Achleitner *et al*., 2014). Family members are aware of the negative future implications of earnings management. Thus, they are less motivated to manipulate earnings in order to retain the firm's value for future generations. This study limited its findings to listed companies in Germany; the results might not hold for other countries where there are different regulations and restrictions. Support for these findings comes from Japan. Chen *et al*. (2015) argue that family firms are more concerned about the long-term value appreciation than non-family firms. Also, based on the socioemotional theory, family firms are not motivated to manipulate earnings to protect the reputation of the firm. Family firms are also not concerned about earnings performance in the short run and some of them become more conservative with earnings dividends with regard to preserving profits for future growth, in order to maintain the family wealth (Chen *et al*., 2015). Although it is argued that family firms may hide some bad news about the firm in order to protect the reputation of the company, Chen *et al*. (2015) provide significant results about the negative association between family firms and two types of earnings management: acrrual-based earnings management

and real earnings management. Family firms show a lower level of earnings management than non-family firms.

Despite the results of previous studies showing the negative association between family ownership and earnings management, the results in an emerging economy such as Bangladesh are different. Due to the weak investor protection environment, family firms engage in real earnings management activities more than non-family firms (Razzaque *et al*., 2016). The results of Razzaque *et al*. support the argument of type II agency costs, which predicts that controlling shareholders will utilise their authority to maximise their own wealth at the cost of minority shareholders. The results of the study are not consistent with previous studies. The reason could be the weak investor protection regime that facilitates cooperation between management and family members, enabling them to manipulate earnings. Furthermore, the Bangladesh Securities Exchange Commission (BSEC) requires directors to hold 30% of the total shares of the firm. This will provide higher concentration of ownership that might negatively affect the financial reporting quality. From another perspective, and to examine the agency problems rising from the conflict between majority-minority shareholders (type II agency costs), Kang (2014) investigated the impact of family ownership on the selection of industry-specialist auditors. The examination of S&P 1500 firms shows that family firms tend to appoint a specialised auditor more often than non-family firms (Kang, 2014). This indicates that family firms are signalling to the external market that they care about the quality of their financial statements. Prior literature suggests that specialist auditors are able to detect any misrepresentation or errors in the financial statements (Simunic and Stein, 1987). Family firms, therefore, want to enhance the integrity of the information provided in the financial

statements by appointing a specialised auditor. This study would therefore expect that the occurrence of restatements would be less in family firms as family firms show an interest in increasing the quality of their financial statements by appointing a specialised auditor. Moreover, analysis of 4,415 firm-year observations from the S&P 1500 Index reveals the following findings: family firms show lower earnings forecasts and conference calls than non-family firms. In addition, the study finds that family firms exhibit more earnings warnings. Better monitoring of management and less information asymmetry between management and owners are associated with family firms, more so than with their peers (Chen *et al*., 2008). The high level of earnings warnings associated with family firms reflects the concern of the family members with potential litigation and reputational costs. The results of the previous study indicate the positive impact of family firms on the firm, leading to an expectation about the positive impact of family firms on financial reporting quality as well.

From an external auditor's perspective, the prior literature finds that auditors charge family firms lower audit fees than non-family firms. The study of Chen *et al* (2008) suggests that auditors assess the audit risk of family companies as lower than that of non-family firms; thus, there will be no need for expensive auditing investigations. The high quality of the financial reporting in family firms decreases the audit efforts and the audit fees in turn. Auditors believe that family members have the ability to monitor management, which increases the firm's integrity. In addition, auditors expect that in family firms there will be lower operating risks and fewer accounting errors. These previous reasons justify the lower audit fees associated with family businesses (Ghosh and Tang, 2015). Ghosh and Tang used different econometric specifications to measure

audit risk and this provides significant results about the negative relationship between audit risk and family ownership. Prior studies use socioemotional wealth theory as a theoretical framework when examining the financial reporting quality in family firms (Stockmans *et al*., 2010, Gomez-Mejia *et al*., 2014). Pazzaglia *et al*. (2013), however, use the same theory with a different approch. The researchers argue that the impact of the socioemotional theory on earnings quality is affected by the way the family obtains the firm. The researchers also believe that the creation of the business links the business to the founder and the subsequent generations emotionally, giving them a higher level of identification than businesses obtained through acquisition. According to Pazzaglia *et al*. (2013), acquired family firms show lower levels of earnings quality than non-acquired family firms. Acquired family businesses deal with the company they have purchased as an asset that can be sold in the future, while non-acquired family businesses have a greater socioemotional connection with the firms. The founding families value the culture, reputation and the value of the company as they represent the family's culture and reputation. That is why the earnings quality in non-acquired family firms is higher – the founders want to protect the firm's value and reputation in order to protect the reputation of the founding family. In terms of complying with governance codes, researchers believe that family owners create their own governance mechanisms in order to strengthen their power. Family firms comply with governance codes more than non-family firms in order to protect the firm's and the family's reputation. The strong influence of family ownership would be reflected in good governance practices in the firm (Kabbach de Castro *et al*., 2016). The compliance with governance codes also indicates that family firms are concerned about the firm's performance as well as the

financial reporting quality. Thus, it is expected that family firms would make an effort to mitigate any accounting errors and constrain financial statement restatements.

4.2.2 Family Businesses and Audit Committee Characteristics

In Chapter Two the researcher investigated the impact of audit committee characteristics on constraining the occurrence of financial statement restatements. The findings show that some of the audit committee characteristics and restatements have a significant impact. Thus, this current study expects that the role of audit committee members in family firms in particular will be significant. Scholars have extensively investigated the relationship between family firms and financial reporting quality, and it is interesting to explore the role of audit committee members in family firms in reducing the rate of restatement incidents. Support for the previous arguments comes from prior studies which report that audit committee members have the power and ability to mitigate the occurrence of restatements. For example, Yang and Krishnan (2005) investigated the association between audit committee characteristics and quarterly earnings management. The research suggests that serving on many boards can provide directors with the knowledge and expertise they need to comply with governance rules. It also puts pressure on them to fulfil their tasks effectively in order to protect their image in the market and avoid any litigation losses. The percentage of stock ownership can also have a negative impact on audit committee directors' roles and increase earnings management. Similar to previous studies, Yang and Krishnan (2005) found that the work tenure enhances the monitoring effectiveness. Therefore, the average tenure of audit committee directors is negatively related to quarterly earnings management. Finally, the study suggests that larger audit committees are associated with lower earnings management. Thus, it is

expected that in family firms, audit committee directors will be more willing to monitor financial reporting quality effectively, due to the absence of the agency conflict between the majority and minority shareholders. In addition, many papers have extended prior studies and investigated the area of governance characteristics and financial reporting quality. Habbash *et al*. (2014) investigated the association between corporate governance and the role of independent directors and supervisory directors in mitigating earnings management. The sample of the study included 6,882 firm-year observations from 2005 to 2010 using Chinese listed companies. The researchers assumed that having more independent and supervisor directors on the board with financial or accounting expertise can constrain earnings manipulation. The study reported that outside directors can monitor the financial reporting process effectively and decrease the likelihood of earnings management when two conditions are met. First, outside directors should have incentives to fulfil their tasks such as social incentives, economic incentives or legal incentives. Second, outside directors should have the minimum knowledge required to understand financial statements and be aware of earnings management techniques and how to detect them. The findings relating to independent directors would be more accurate and useful if the research had been focused on audit committee directors rather than on the whole board of directors. This is because audit committees are directly responsible for monitoring financial reporting quality, and any failure in financial reporting can be linked to the weak performance of the audit committee members. It is also important to test additional characteristics rather than focusing only on directors' independence. This will give a broad oversight of the efficiency of governance mechanisms. In family firms, the situation might be different because the role of independent and financial expert members

of the audit committee will be affected by the presence of family members on the board. This study, therefore, will be different to previous studies, as it will focus only on family firms. Support for the significant role of the presence of independent directors and financial experts on audit committees comes from Kryzanowski and Zhang (2013). The researchers investigated the association between the occurrence of restatements and governance characteristics. The sample included 177 Canadian firms that had restated financial statements from 1997 to 2006. The comparative study between U.S. firms and Canadian firms shows that no relationship exists between CEO duality and restatements. The existence of block holders on the board or financial experts on the audit committee can reduce the likelihood of restatements, according to Kryzanowski and Zhang (2013). Managerial ownership and outside block holders are found to be effective in increasing the quality of the financial reporting process. The positive impact of block holders shows that in family firms where family members could hold a greater number of shares, the financial reporting quality could be higher.

Liu *et al*. (2014) investigated the relationship between the existence of financial experts on audit committees and the incidence and magnitude of expectations management, using a sample of 19,752 firm-quarter observations from 1997 to 2008. The study finds that managers' incentives to engage in expectations management in order to avoid negative earnings surprises are less when financial experts serve on the audit committee. Also, it observes that non-negative earnings surprises are also reduced with the existence of financial expertise on audit committees. The findings of the study, however, are limited to interim quarters. In terms of the limitations of this study, a couple of points are worth mentioning here. First, it would have been better if the study had

focused on annual financial statements rather than quarterly ones, because according to Brown and Pinello (2007), the incidence of downward revision becomes greater in the fourth quarter. Secondly, many empirical studies suggest that financial expertise can increase the quality of the financial reporting process, but only when this expertise was held by independent directors. Therefore, it would have been interesting if this study had tested audit committee independence along with audit committee financial expertise. Finally, using a direct measure of financial reporting failure such as restatements would be more interesting and provide more accurate results.

Focusing on family firms in particular could also support the results to provide greatere insight into the relationship between audit committees and restatements in all contexts.

In 2015, Persons investigated the most admired companies in order to discover their most common corporate governance characteristics. They study matched these ten companies with another ten companies that were not admired but were similar in size and industry. The data used in this study is for the year of 2009. When selecting the most admired companies the researcher relied on the article published in *Fortune* written by Bernasek (2010). The article shows that the most admired companies are those who performed well during the 2007-2009 recession (Bernasek, 2010). The study documents significant results regarding corporate governance characteristics. It shows that independent directors in admired companies have a low percentage of cash compensations and high percentage of stock and options compensations compared to firms that are not admired. According to the study, in admired companies there is a low ownership concentration and directors have a longer tenure; these companies tended to be founding-family firms. Furthermore, the presence of female directors on the board is

noticeable in admired companies. The number of independent directors in admired companies is higher than in their matched-pair companies. Also, directors in admired companies receive higher total compensations that can align the interests between them and shareholders and decrease the agency cost (Persons, 2015). Previous study of Persons (2015) lends weight to the argument that board characteristics have a relationship with the performance of admired companies. As a result, it is important to measure the direct effects of audit committee characteristics on financial reporting quality. The firm's performance will rely on its accounting and financial reporting systems, so it would be interesting to consider the characteristics of the audit committee members to see how effective they are in increasing the quality of the financial statements and creating a good reputation about the firm's performance. Moreover, some of the admired companies in the U.S. are family businesses, and it is interesting to know more about this type of ownership structure and restatements.

Furthermore, the role of audit committee directors is affected by an unending number of characteristics. One of them is the additional directorships held by audit committee members. Fich and Shivdasani (2006) examine the association between holding additional directorships, corporate governance and firm performance. The study suggests that holding three or more directorships can have a negative impact on firm performance. It is also observed that busy directors can decrease the level of profitability and the sensitivity of the CEO turnover to firm performance. Independent busy directors are also associated with weak corporate governance. In a similar vein, the study finds that abnormal returns increase with the announcement of the departure of busy directors. Fich and Shivdasan (2006) argue that the number of additional directorships held by

independent directors should not be restrained for two reasons. First, serving on many boards can build the reputational capital of independent directors. It sends the external market positive signals about the director's expertise and speciality. This in turn will place pressure on directors and motivate them to monitor the financial reporting process effectively. Secondly, the firms receive some benefits when their excutives serve on other boards, such as networking, reputation and more (Fich and Shivdasani, 2006). It would have been more interesting if the study had examined the impact of additional memberships held by audit committee directors on the financial reporting quality since they play a critical role in corporate governance mechanisms. Also, it is interesting to know if additional memberships held by family members in family businesses would make them more able to manage their business, or if they would be too busy with other boards.

Since the board of directors has the authority to appoint directors on audit committees and control their performance, Beasley and Salterio (2001) investigated 627 publicly traded companies in Canada to examine the association between board characteristics and audit committees. They examined whether the board would enhance the quality of the audit committee by appointing outside directors beyond the mandated level, and appointing outside directors with financial expertise. The study namely tested board independence, CEO duality and board size. The researchers found that larger boards, boards that segregate between the CEO position and chairperson position, and boards with a great number of outside directors, can increase the number of outside directors serving on the audit committee. Also, these boards are more willing to appoint financial experts on the audit committee (Beasley and Salterio, 2001). The study assumed

that increasing the number of outsiders and financial experts on the audit committee would mean increasing the effectiveness of this committee. The study shows how board characteristics affect the appointment of audit committee directors, but it failed to mention the relationship between hiring more outsider directors than the number required by law and audit committee effectiveness

Further support of the previous findings comes from Perry and Peyer (2005). The researchers studied the effect of executives holding additional directorships on firm performance from the shareholders' perspective. According to the researchers, shareholders react negatively to the announcement of CEOs accepting other board seats. Shareholders argue that holding many directorships can decrease the time and effort that executives put in to the firm and they become too busy to be effective. As cited in Perry and Peyer (2005), some researchers have found that holding additional directorships has a positive impact for the sending firms. For instance, serving on many boards enhances the knowledge and expertise of executives about different management styles or strategies. It also assists the sending firms to build connections with other firms. Researchers have also reported strong evidence to show the positive association between holding additional directorships and the quality of the directors or executives (Bacon and Brown, 1974, Booth and Deli, 1996, Carpenter and Westphal, 2001). The study focused on executives rather than on independent directors who sit on the board. Since the current study focuses on audit committee characteristics, it will be important to examine the effect of audit committee directors holding additional directorships on financial reporting quality. Testing additional factors of audit committees, besides multiple directorships, can enhance the results of the study and provide greater insight into factors affecting audit

committee effectiveness in monitoring the financial reporting process and mitigating any potential opportunistic behaviour by managers. Investigating this issue in family firms can enhance the generalisability of the study, because Chapter Two of this thesis focused on the relationship between audit committee additional directorships and restatements in all companies, while this chapter focuses on family firms only.

4.4 Hypotheses Development

4.4.1 Audit Committee Independence

The accounting literature sheds light on the crucial role of audit committee independence in financial reporting quality. For example, in 2010, Peasnell *et al.* showed that abnormal accruals decrease when independent directors exist. Independent directors put time and effort into avoiding any litigation or reputational damage they may receive when firms manipulate earnings. Another paper provides direct support for the importance of board independence in earnings quality (Agrawal and Chadha, 2005). The market also reacts positively to the announcement of independent directors on the board (Karamanou and Vafeas, 2005). In 2015, Persons found that the number of independent directors in most admired firms is more than in less admired firms (Persons, 2015). This supports the argument of this study and provides evidence for the positive impact of audit committee independence in particular. If audit committee independence affects financial reporting quality positively, it is expected that similar results will be found when examining the relationship between the two variables in family firms. This expectation arises because of the alignment of interests between family shareholders and the independent directors. Both will focus on the long-term objectives. In addition, both parties are willing to monitor management to mitigate any opportunistic behaviour.

The hypothesis would therefore be as follows:

H1: There is a significant negative relationship between audit committee independence and financial statement restatements in family firms.

4.4.2 Audit Committee Tenure

Although audit committee tenure can compromise directors' independence (Dhaliwal *et al*., 2010), prior literature shows that in most admired companies in the U.S., directors' tenure was longer than that in less admired companies (Persons, 2015). This indicates that audit committee directors who serve in the same firms for many years become more familiar with the firm, its operation and accounting systems. Thus, they are expected to detect any accounting irregularities before the issuance of the financial statements. In family firms, the relationship between the two variables is also expected to be negative. This is because when audit committee members work for the same firm for many years, this could signal that the interests of family members on the board or on the management team and audit committee directors are aligned. The hypothesis, therefore, would be as follows:

H2: There is a significant negative relationship between audit committee tenure and financial statement restatements in family firms.

4.4.3 Audit Committee Multiple Directorships

Busy directors do not put enough time and effort into monitoring management because they are serving on more than one board. Many empirical studies support this argument. For example, Sun *et al.* (2014) investigated 100 firms in the U.S. and found that directors with more than three directorships were positively associated with the occurrence of real earnings management. In addition, Beasley (1996) found similar results and discovered

that directors in firms that have committed fraud in their financial statements hold more directorships than their pairs in non-fraudulent firms. Thus, these results support the argument that multiple directorships prevent directors from focusing on one public firm, and prevent directors from putting in enough time and effort for each firm they serve in order to oversee the financial reporting process. Also, researchers find that additional memberships held by board directors affect firm performance negatively (Fich and Shivdasani, 2006). Furthermore, Perry and Peyer (2005) examined shareholders' reaction to the announcement of new appointments to the board. They observed a significant negative relationship between shareholders' reactions and newly appointed directors who held multiple directorships (Perry and Peyer, 2005). In family firms, the results might remain the same, as busy directors in general are not effective, regardless of whether or not they work in family firms. Thus, this study would expect an increase in the likelihood of restatements in family firms if the audit committee consists of busy directors.

The hypothesis, therefore, would be as follows:

H3: There is a significant positive relationship between audit committees with multiple directorships and financial statement restatements in family firms.

4.4.4 Audit Committee Stock Ownership

The agency theory suggests that motivating directors with stock ownership would motivate them to monitor management effectively (Fama and Jensen, 1983). It also aligns the interests of directors and shareholders, as they are both concerned about the long-term objectives of the firm. In family firms, audit committee directors who hold a greater number of shares are expected to increase the quality of the financial statements and decrease the frequency of restatements. They will also be concerned about the integrity of

the information provided in these financial statements. In addition, audit committee directors are motivated to mitigate any manipulation of earnings in order to protect their own wealth. In family businesses, the interests of audit committee directors and family members will be similar, as both parties hold common shares and want to protect this wealth. Thus it is expected that there will be a negative relationship between audit committee stock ownership and restatements in family firms. The hypothesis, therefore, would be as follows:

H4: There is a significant negative relationship between audit committee stock ownership and financial statement restatements in family firms.

4.5 Research Methodology

4.5.1 Sample Selection

This study uses LexisNexis, an online information service to find firms that announced financial statement restatements between 2011 and 2016. The firms included in this research are American listed companies in the NYSE and NASDAQ. Selected firms are from different industries, because the researcher is looking for firms that restated its financial statements regardless what industry they work in. the time period has been selected to cover the gap between the previous financial crisis and the most updated data. The researcher selected data about audit committee characteristics and audit fees pre and post restatements. For the search, the researcher used the keywords of ‘earnings restatement’, ‘income restatements’, ‘restated financial statements’ and their variations. The study then screened the search results to find firms that matched the criteria. The study also excluded restatements that resulted from mergers and acquisitions, stock splits,

and changes in accounting principles. Following previous studies, this study examined annual financial statement restatements (Abbott *et al*., 2004, Archambeault *et al*., 2008, Lin *et al*., 2006). It only focused on firms that restated previously reported financial statements due to violating accounting standards, accounting errors or irregularities, and fraud. This resulted in 450 restatements. The study followed the matched-pair approach and selected control firms to run the model. To select the control firms, the researcher used the Bloomberg database to search for firms that were similar to the restated firms in terms of size and industry.

The researcher then filtered the sample data and selected family firms only for this chapter, based on certain criteria. Data about the governance of post restatements were gathered manually by looking at the proxy statements for each firm on the website of the Security and Exchange Commission (SEC). The researcher also used DataStream to gather financial figures from the financial statements. The researcher found 263 family businesses from the control firms group, and 175 family businesses from the restated companies.

4.5.2 Model Specifications

We built the following logistic regression model to test our hypothesis:

First empirical model for Chapter Four:

RST= $\beta_0 + \beta_1 ACIND_t + \beta_2 \text{ACTEN}_t + \beta_3 ACSHIP_t + \beta_4 ACSHARE_t + \beta_5 CEODUAL_t +$

$\beta_6 BDSIZE_t + + \beta_7 BDIND_t + \beta_8 BDOWN_t + \beta_9 COSIZE_t + \beta_{10} LEV_t + \beta_{11} LOSS_t +$

$\beta_{12} ROA_{t-1} + \varepsilon$

Independent Variables	**Measurements**
RST: Restatement	A dummy variable that takes the value of 1 if restated, and 0 otherwise

Dependent Variables	
ACIND: Audit Committee Independence	Proportion of independent directors on the audit committee based on SEC definition
ACSHARE: Audit Committee Share Ownership	The percentage of common shares held by audit committee directors to the firm total number of shares
ACDSHIP: Audit Committee Additional Directorships	The average of other public directorships held by audit committee directors
ACTENURE: Audit Committee Tenure	The average tenure of audit committee directors
Control Variables	
CEODUAL: CEO Duality	A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise
BDSIZE: Board Size	Number of directors serve on the board
BDIND: Board Independence	The number of executives to the total number of directors on the board
BDOWN: Board Ownership	The percentage of common shares held by board directors to the firm total number of shares
COSIZE: Corporate Size	The natural log of total assets
LEV: Leverage	Total debt to total assets
LOSS	A dummy variable that takes the value of 1 if The firm reported loss for the fiscal year, and "0" otherwise
LogROA: Return on Assets	The natural log of prior year return on assets: Net income/ total assets
ε	Error term
β_0 =	Intercept
β1 - β12 =	Coefficients

Family Business Measurements (FB)

There are many definitions of family firms and many measurements that have been used in previous studies to define family business (Anderson and Reeb, 2004, Wang, 2006, Achleitner *et al*., 2014). In this current study, family businesses will take a value of 1 if at least one of the family members either holds a managerial position such as a board position or management position, or holds 25% of the voting rights, and 0 otherwise

(Anderson and Reeb, 2004, Achleitner *et al.*, 2014, Jiraporn and DaDalt, 2009). The measurements of audit committee characteristics were mentioned earlier in Chapter Two.

4.5.3 Dependent Variable Measurements

RST: Concentrated ownership in family firms has the ability to decrease the occurrence of financial statement restatements (Tong, 2007). Following previous literature, financial statement restatements will take a value of 1 if the company restated its financial statements, and 0 otherwise (Tong, 2007, Chen *et al*., 2015). Furthermore, Lin *et al*. (2006) selected 212 annual restatements in 2000 to investigate the impact of audit committees on financial reporting quality.

In Malaysia, Nahar Abdullah *et al*. (2010) examined the relationship between corporate governance and financial restatements. The study used 31 restatements from 2002 to 2005. In Australia, Dellaportas *et al*. (2012) suggested that audit committee independence and financial expertise were negatively related to restatements after investigating 180 restatements from 2004 to 2009. Agrawal and Chadha (2005) also used restatements and conducted their study in the U.S. using a sample of 159 restatements in 2005. Finally, Kryzanowski and Zhang (2013) investigated the association between the occurrence of restatements and governance characteristics. The sample included 177 Canadian firms that restated financial statements from 1997 to 2006. Thus, since all prior studies used a dummy variable to measure restatement, this research will do the same and give a value of "1" if the firm has restated its annual financial statements, and "0" otherwise.

Independent Variable Measurements

The measurements of audit committee characteristics have been explained earlier in Chapter Two.

The Definitions and Measurements of the Control Variables
Board Size

Xie *et al*. (2003) believe that larger boards can bring a range of experiences that mitigates the occurrence of restatements. Larger boards tend to bring more financial experts and independent directors onto the board (Xie *et al*., 2003). In contrast, Beasly (1996) suggested that small boards can be more effective and more focused on the firm's operations and functions. Supporting previous findings, in Australia, researchers have documented a significant positive relationship between board size and earnings quality (Baxter and Cotter, 2009). The information required to populate data was sourced manually from form DEF-14 (proxy statements).

CEO Duality

Firms that combine CEOs and board chair positions are more likely to experience fraud (Farber, 2005). The boards tend to be ineffective when the CEO serves as the chairman of the board. CEOs might take the opportunity of holding the two positions to manipulate earnings and, therefore, decrease the quality of the accruals (Dhaliwal *et al*., 2010). CEOs who also hold the position of the board's chair are less likely to hire audit committee directors with financial expertise (Beasley and Salterio, 2001). Beasley (1996) argues that CEO duality can reduce the monitoring effectiveness of the boards of directors. It also creates a conflict of interest between shareholders and management since the CEO will use the power and authority he has been given as a CEO to manipulate earnings (Beasley, 1996). (Dechow *et al*., 1996) investigated the impact of CEO duality and provided strong evidence that firms associated with earnings management are more likely to have a CEO who is also the board chair. According to Person (2015), CEO duality can provide CEOs with opportunities to organise board meeting agendas, control the flow of information to

the directors, and hire directors who can support them and do not challenge them (Persons, 2015). This research will allocate a value of 1 if the CEO holds the chairman position, and 0 otherwise. The information required to populate the data was sourced manually from form DEF-14 (proxy statements).

Board Independence

Board independence will be measured as the number of executives to the total number of directors on the board. Farber (2005) investigated the influence of board independence on the incidence of fraud. The study included 87 firms identified by SEC as manipulating financial statements fraudulently. The study found that the number of outside directors on the board can negatively affect the financial reporting quality. It further discovered that firms that have committed fraud have fewer independent directors than firms that have not committed fraud. Another argument built by Bedard *et al* (2004) is that board independence is negatively associated with the incidence of aggressive earnings management. In Canada, Kryzanowski and Zhang (2013) investigated the association between the occurrence of restatements and independent directors. The sample included 177 Canadian firms that had restated financial statements between 1997 and 2006. The comparative study between U.S. firms and Canadian firms shows that independent directors have a significant negative relationship with restatements. Recently, Persons (2015) has investigated the most admired companies in order to discover the corporate governance characteristics they have in common. The study observed that the number of independent directors in admired companies was higher than in matched-pair companies. Finally, this research will assume that there is a negative relationship between board

independence and financial statement restatements. The information required to populate the data was sourced manually from form DEF-14 (proxy statements).

Board Ownership

Board ownership will be measured as the percentage of common shares held by board directors to the firm's total number of shares. Nahar Abdullah *et al*. (2010) examined the relationship between corporate governance and financial restatements. The findings suggest that nomination committees with a high level of managerial ownership are positively related to restatements. Despite previous findings, Beasley (1996) investigated the association between board composition and financial statement fraud. The result shows that the number of outstanding shares held by board directors is effective in motivating directors and aligning the interests of directors and shareholders, thus reducing the incidence of fraud. In support of previous findings, Yang and Krishnan (2005) investigated the association between board managerial ownership and quarterly earnings management. The study finds that the percentage of stock ownership can have a negative impact on audit committee directors' roles, increasing earnings management. In the UK, Peasnell *et al*. (2005) examined whether outside directors influence abnormal accruals in the UK. 1,271 firm-year observations from listed companies in the UK market were selected for this study from 1996 to 1999. Outside directors play a crucial role in ensuring the integrity and credibility of the financial statement. The results, however, are restricted to firms with a low level of managerial share ownership held by outside directors. The information required to populate the data was sourced manually from form DEF-14 (proxy statements).

Loss

When examining the relationship between family firms and financial statement restatements, Tong (2007) observed a significant negative association between earnings informativeness and losses in family firms. This indicates that family firms perform better in terms of accounting performance, and experience fewer losses than non-family firms. Also, firms with negative income are associated with greater abnormal accruals (Wang, 2006). Following previous literature, loss will take a value of 1 if the company has reported negative income and 0 otherwise (Tong, 2007, Wang, 2006, Jaggi and Leung, 2007, Stockmans *et al*., 2010, Achleitner *et al*., 2014). While Beasley (1996) and Bedard *et al*. (2004) suggested that loss is related to financial misreporting, negative income is also associated with low-quality financial statements and increases in restatements (Lin *et al*., 2006). Furthermore, accrual quality decreases when companies report negative earnings (Dhaliwal *et al*., 2010). (Vafeas, 2005) found that loss is negatively related to small earnings increases. The information required to populate the data was collected from DataStream. Loss will be measured as a dummy variable that takes the value of 1 if the firm reported losses for the fiscal year and "0" otherwise.

Leverage (LEV)

Following prior literature, leverage measures the total debt to total assets (Chen *et al*., 2016, Chi *et al*., 2015, Wang, 2006). Wang (2006) reported a significant negative relationship between a firm's leverage and abnormal accruals. This indicates that higher leverage can increase the quality of financial reporting. Furthermore, researchers find that greater leverage increases accrual quality (Cascino *et al*., 2010). Further researchers have reported a significant negative association between earnings management and the level of

leverage when comparing family and non-family firms (Razzaque *et al*., 2016). In addition, researchers observe that companies that want to have external finance at a low cost are more willing to manipulate earnings (Agrawal and Chadha, 2005). Support for previous findings comes from Kryzanowski and Zhang (2013), who confirmed that the liklihood of restatements is higher when firms' leverage is high. Also, debtholders can be a control mechanism that helps to mitigate any opportunistic behaviours (DeFond and Jiambalvo, 1991). Leverage has a negative impact on firms' market return (Aldamen *et al*., 2012). The information required to populate the data was collected from DataStream.

Return on Assets (ROA)

Return on assets (ROA) is the net income divided by the total assets. This study will include ROA to control the effect of performance on reporting discretion, following previous studies (Wang, 2006, Prencipe *et al*., 2008, Achleitner *et al*., 2014). Previous literature finds that family firms perform better than non-family firms at a statistical significance level (Tong, 2007). Moreover, ROA was found to be positively associated with earnings in family firms (Razzaque *et al*., 2016). Also, another paper provides strong evidence for the negative relationship between ROA and earnings management (Baxter and Cotter, 2009). These researchers also suggest that a change in firm performance will lead to a change in earnings quality. Furthermore, researchers argue that ROA is positively related to the incidences of earnings manipulation due to income smoothing or tax purposes (Habbash *et al*., 2014). Financial statement restatements are fewer in firms with high ROA (Kryzanowski and Zhang, 2013). Agrawal and Chadha (2005) think that the desire to improve firm performance might push management to

manipulate earnings. The information required to populate the data was collected from DataStream.

Corporate Size (COSIZE)

Following the prior literature, corporate size will be measured as the natural log of total assets (Chen *et al*., 2016, Wang, 2006, Chen *et al*., 2015, Achleitner *et al*., 2014). Prior studies report that larger family firms engage less in earnings management (Chi *et al*., 2015). Larger firms also show lower abnormal accruals (Wang, 2006). In addition, the level of accrual quality increases in larger family firms compared to non-family firms (Cascino *et al*., 2010). The corporate size has also a positive impact on earnings as it decreases the occurrence of earnings management (Razzaque *et al*., 2016).

It is believed that the firm size can positively impact the market-to-book ratio and increase firms' performance (Fich and Shivdasani, 2006). Another study provided strong evidence that firm size can significantly increase returns (Karamanou and Vafeas, 2005). Klein (2002) finds that the activities related to manipulating earnings are less in larger companies. Firm size is also found to be positively related to negative earnings avoidance (Vafeas, 2005). Larger companies are also associated negatively and significantly with discretionary current accruals (Xie *et al*., 2003). Moreover, meeting or beating earnings benchmarks is lower in larger firms (Campbell *et al*., 2014). Accruals quality is also higher in larger firms (Dhaliwal *et al*., 2010). Furthermore, earnings management can be significantly and positively correlated with firm size when using abnormal cash flows from operations as a measure of earnings manipulations (Sun *et al*., 2014). The information required to populate the data was collected from DataStream.

Growth

Growth and abnormal accruals are positively associated (Wang, 2006). Therefore, this research will include growth in the model to measure its impact on financial statement restatements when comparing family and non-family firms. Following previous literature, the level of growth will be measured as the sales growth rate the year after the restatements (Chi *et al*., 2015, Wang, 2006, Achleitner *et al*., 2014).

4.5.4. Discussion and Analysis

4.5.4.1 Descriptive Statistics

Table 4.1 represents the descriptive statistics for the dependent variable of the research model as well as the descriptive statistics for the independent and control variables. The research also includes the univariate analysis tests such as the t-independent test and the Mann-Whitney test. The univariate analysis implies comparing the differences in means between the restated companies and the control companies. In addition, the table includes information about the skewness and kurtosis of the variables to measure the normality of the distribution.

First, the table shows the number of family firms that restated their financial statements and the family firms that did not restate financial statements (RST). It indicates that among the sample data there are 175 family restated firms and 263 family controlled firms. When comparing the means of the two groups, the Mann-Whitney test shows a significant difference between them. The result supports the argument for a negative relationship between family concentrated ownership and financial statement restatements. The existence of family members on the board or in management may constrain any opportunistic behaviours to manipulate earnings. Thus, the conflict of interests between management and shareholders is aligned in family firms.

ACIND in family restated firms and family control firms is similar. The audit committee members in both groups are almost 100% independent from management. This is because all listed companies in the U.S. are required to assign only independent directors to their audit committee (SOX, 2002). Thus, the audit committees in family restated and family controlled firms are 100% independent. As a result, the Mann-Whitney test and t-independent tests did not show any significant difference between the means of the two groups. Previous literature using U.S. data reported a lower mean for audit committee independence (81%) (Yang and Krishnan, 2005). Thus, the researcher included this variable in the research model for a couple of reasons: first, to examine whether or the not the listed companies complied with the rules; and secondly, to measure the effect of audit committee independence along with other audit committee characteristics on restatements in family firms. Some characteristics affect audit committee independence such as audit committee tenure and audit committee stock ownership. The skewness and kurtosis show that the data of this variable is not normally distributed.

ACTEN from the table represents the descriptive statistics about audit committee tenure. In family restated firms the mean of audit committee tenure is 6.37, while it is equal to 7.74 in family controlled firms. That means that audit committee directors in family controlled firms have worked for the same firm longer than in family restated firms. A similar result was found by Yang and Krishnan (2005). The researchers investigated the issue of quarterly earnings management and found that audit committees had spent on average 7.84 years with the sample firms. Work tenure is one of the most influential factors for the role of the audit committee, according to previous literature

(Yang and Krishnan, 2005, Beasley, 1996). It allows audit committee members to be more familiar with the firm and then effective in mitigating the number of restatements, especially in family firms. The Mann-Whitney test shows a significant difference between family restated firms and control firms. This can justify the previous argument that audit committee tenure in family controlled firms can decrease the incidence of restatements. Skewness and kurtosis show that the data of ACTEN is not normally distributed.

ACSHIP represents the average number of additional public directorships held by audit committee directors. In family restated firms the mean of ACSHIP is equal to 1.43, while it is equal to 1.56 in family controlled firms. Similar results were found by Yang and Krishnan (2005), who found that 1.34 additional public memberships were held on average by audit committee directors. The univariate analysis of ACSHIP did not show any significant difference between the two groups, and skewness and kurtosis reveal that the data is not normally distributed.

ACSHARE represents the average number of common shares held by audit committee directors. In family restated firms, ACSHARE is around 0.0007. This means that audit committee directors in family restated firms own less than 1% of the total common shares of the company. On the other hand, ACSHARE in family controlled firms is equal to 0.0051. Yang and Krishnan (2005) support this research and find a mean of 0.008 for directors' ownership. The Mann-Whitney test shows a significant difference between the means of the two groups. According to the agency theory, directors can be motivated by the level of shares they hold (Fama and Jensen, 1983). It helps to align the interest between them and the shareholders. In contrast, some scholars believe that

shareholding can compromise audit committee independence and affect financial reporting quality negatively (Cullinan *et al*., 2008, Archambeault *et al*., 2008). Thus, it was important to include the ACSHARE in the research model in order to examine its effect on family firms. As expected, the significant differences in the means of restated and family controlled firms prove that stock ownership can improve the quality of the financial statements and decrease the likelihood of restatements.

CEODUAL takes a value of 1 if the CEO is the chairman of the board, and 0 otherwise. The table shows that 0.46 of the CEOs of family controlled firms hold the position of chairman of the board for the same firm, while this is 0.42 in family restated firms. Beasley (1996) argues that holding the two positions at the same time affects the monitoring process as it creates a conflict between management and shareholders. BDSIZE is 7.54 in family controlled firms and higher than the number of BDZISE in family restated firms, which was equal to 7.12. The Mann-Whitney test shows a significant difference between the means of the two groups. BDIND shows that around 71% of boards of directors are independent from management in family controlled firms and 69% in restated firms. On the other hand, BDOWN in restated firms is 0.0098 and 0.0045 in family controlled firms. As both of the two variables are similar in the two groups, the univariate analysis test did not show any significant differences in their means. The mean of the COSIZE in family controlled firms is higher than in family restated firms, creating a significant difference according to the univariate analysis tests. LEV in family controlled firms is equal to 0.32 and 0.31 in family restated firms. It is smaller than the level of leverage in a previous study that reported it as around 0.71 (Razzaque *et al*., 2016). 0.25 of the family controlled firms reported losses while 0.27 of

the restated firms reported losses during the restatement year. The ROA in control firms and restated firms is equal to 0.25 and 0.21 respectively.

Spearman's Correlation Matrix

Table 4.2 shows the nature of the correlation between dependent variables, independent variables and control variables. It analyses the relationship between the occurrence of restatements and audit committee characteristics in family businesses; namely, audit committee independence, audit committee tenure, audit committee with multiple directorships and audit committee stock ownership. The correlation level among variables did not exceed 0.8, and this confirms the absence of the multicollinearity issue (Gujarati, 1995). Spearman's correlation was chosen due to the violation of normality. The skewness and kurtosis values in Table 4.1 provide evidence that the data is not normally distributed. The analysis shows some significant results among the variables. First, ACTEN is correlated negatively and significantly with RST in family firms. Audit committee directors with a long tenure can decrease the occurrence of restatements. The table also shows that ACSHARE is correlated negatively with RST at a statistically significant level. Audit committee stock ownership can decrease the incidence of RST in family firms. Although *H1* expected a negative association between ACIND and RST, the correlation metrics did not support this hypothesis. *H3* also predicted that ACSHIP could have a negative impact on RST. The table supports this hypothesis, but the result is not statistically supported. The table also shows the correlation between other corporate governance variables and RST, such as CEODUAL, BDIND, BDOWN, and BDSIZE but none of them show any impact on RST. Table 4.3 shows the variance inflation factor

(VIF) to examine the multicollinearity issue between variables. None of the variables are above 10, and this confirms that the multicollinearity issue does not exist.

4.6 Results and Discussion of Multivariate Analysis

Table 4.4 represents the result of the panel data with the random effects of the research model. The adjusted coefficient of determination (Adj R_2) is equal to 0.19. This is similar to the Adj R_2 reported in previous literature (Razzaque *et al*., 2016), and higher than the Adj R2 in Wang (2006) who reported that the research model used in his study explained about 13% of the data. This means that about 19% of the data was explained by the model. Although the adjusted coefficient of determination might be considered low, the predictor variables still provide significant information about the response variable, although the data is not close to the fitted line of the model.

The multivariate regression model provides some significant relationships between the dependent variable RST and audit committee characteristics. First, the result shows that ACTEN is negatively and significantly associated with RST in family firms at a level of P <0.01. Support for this finding comes from Persons (2015), who compared the most admired companies in the U.S. with the least admired companies. The study provides a statistically significant result that shows that work tenure for board directors in the most admired companies is longer than their peers in companies that are not admired. Thus, previous literature provides support and explains the nature of the negative relationship between audit committee tenure and financial reporting quality.

Audit committee directors who serve in the same firm for many years become more familiar with the firm and its accounting systems. Audit committee members,

therefore, can detect any accounting error before the issuance of the financial statements. The results are similar to the results found in Chapter Two of this thesis, where the researcher investigated the impact of audit committee tenure on mitigating the occurrence of restatements. This indicates that audit committee tenure can decrease the likelihood of restatements in firms in all contexts, including the family business context. In family firms, it is noticeable that the family members on the board or in management are interested in extending the contract with the same audit committee members as a sign of the alignment of interests between them. Family firms from the sample selected support the previous argument and provide evidence that if audit committee tenures were long, the incidence of restatements would be decreased. As a result of the previous findings, regulators and decision makers should encourage public firms to keep their audit committee members as long as possible, and avoid changing directors frequently unless their performance on the audit committee was ineffective. Previous literature provides similar results and supports this finding (Yang and Krishnan, 2005).

Secondly, the agency theory predicts that stock ownership can align the interests of directors and shareholders (Fama and Jensen, 1983). Chapter Two of this thesis supports this argument. The analysis of this chapter also supports the agency theory and finds that in family businesses there is a significant negative relationship between ACSHARE and RST at a significance level of P <0.05. Audit committee directors are motivated to monitor management in order to mitigate any opportunistic behaviour when they hold a greater number of shares. This is not only because it is their duty, but also because they wish to protect their own wealth. According to previous literature, restatements have negative consequences on board directors as well as on stock price, due

to the negative reaction of the market when the company announces restatements (Srinivasan, 2005). Moreover, due to the previous justifications, firms with family concentrated ownerships motivate audit committee directors with a greater number of shares to protect the company from any fraud or manipulation of earnings. Regulators and stock market decision makers should also encourage companies to compensate their audit committee members with more shares to increase the quality and integrity of the information provided in the financial statements. Previous studies have reported similar results and have found that stock ownership and financial reporting quality are positively associated (Sun *et al*., 2014).

The study also expected a negative association between ACIND and RST. The results support this expectation, but it is not statistically significant. There might be many reasons for this unexpected result, one of which is the enforcement of the SOX (2002), which requires all listed companies in the U.S. to hire only independent directors on the audit committee, whether they are family businesses or not. Moreover, based on the positive relationship between ACSHIP and RST in the previous chapter, the researcher expected the same result in family businesses. Busy directors cannot focus on one firm and monitor management as they are too busy. Thus, there is a lack of oversight of the financial reporting process, which increases the probability of manipulating earnings and restatements. Lastly, the control variables of the model – CEODUAL, BDIND, BDSIZE and BDOWN – did not show any significant effect on RST.

4.7 Sensitivity Analysis

The researcher ran different analysis tests to examine the data. First, panel data regression with random effects was applied to test the data. Then, the study performed a panel data

with fixed effects. A Hausman test, however, confirmed that panel data with random effects is better to explain the data. For further robustness checks, the researcher applied a pooled data analysis test. Previous researchers have claimed that pooled data provides more flexibility in modelling differences among the data (Greene, 2007). The results of the pooled analysis test confirmed the findings of the panel data with random effects. Both analysis tests were similar in terms of direction and the significance level. Furthermore, previous restatement studies use logit regression when measuring restatements as a dependent variable since it is a dichotomous variable. Thus, logit regression has been used, and the results were similar to the results from the panel data with the random effects test. Regarding endogeneity issues that may occur between corporate governance variables, the researcher used the Durban Watson test as well as the panel data analysis with robust standard errors to check for this issue. The results of the two tests confirmed the absence of the endogeneity issue in the data

4.8 Conclusion

In Chapter Two of this thesis the researcher focused on the impact of audit committee characteristics on financial statement restatements. The findings show that some characteristics have a positive impact, while others affect the quality of financial reporting negatively, for example busy audit committee directors who hold multiple directorships. Then, also in Chapter two, the researcher examined the impact of these audit committee characteristics on audit fees following the occurrence of restatements. In this chapter, the researcher wanted to discover whether or not the findings of Chapter One could be generalised to all business contexts, including family businesses. The focus was on family business in order to find an answer to the research question: to what extent

do audit committee characteristics mitigate the occurrence of restatements in family businesses? The researcher collected a sample of family businesses from the study sample to examine the relationship between the variables only in family businesses. The sample included restated and family controlled firms. The result of the analysis test is as follows: audit committee tenure affects the incidence of restatements negatively at a statistically significant level. Audit committee directors who work with the same family firm for many years are motivated to increase the quality of the financial statements. Thus, they have the desire to mitigate the incidence of restatements (Beasley, 1996, Yang and Krishnan, 2005). Changing audit committee directors, therefore, has no benefit for the company. In the U.S., Dhaliwal *et al* (2010) report similar result about the positive association between audit committee tenure, and financial reporting quality. According to the previous study, long tenure can help audit committee directors to increase accruals quality (Dhaliwal *et al*., 2010). Thus, based on the findings of this study, it is recommended that audit committee directors are encouraged to work on the same firm and they should not be changed unless they are ineffective, or they want to resign from their position.

Secondly, shareholdings were also found to be more effective in minimising the occurrence of restatements in family firms. Audit committee members who hold a large number of shares are concerned about the quality of the financial reporting. There are many justifications that can explain the negative association between audit committee stock ownership and financial statement restatements. The interests between audit committee directors and shareholders are aligned because both parties want to protect their own wealth. Thus, audit committee directors work effectively to monitor

management behaviour and prevent the manipulation of earnings. In the U.S., Sun *et al* (2014) support this argument and finds that stock ownership motivates audit committee directors to mitigate the occurrence of restatements. The same result has been appeared in this research when applying this research on family business. In 2013, Kryzanowski and Zhang reports also similar results and prove that stock ownership held by audit committee directors has a positive impact on constraining the likelihood of restatements. Regulators and decision makers, therefore, should encourage companies to compensate their audit committee directors with more shares in order to carry out their tasks effectively. This will decrease the likelihood of restatements, especially in family firms.

In Chapter Two of this thesis, the research found that audit committee independence and audit committees with multiple directorships had a significant impact. This chapter, however, failed to find any significant relationships between these two characteristics and the likelihood of restatements in family businesses. The amount of data might be a reason for not reaching a statistically significant level, as it was low compared to the amount of data in the first chapter. Finally, and based on the findings of this study, the researcher can confirm that audit committee characteristics can affect financial reporting quality and decrease the incidence of financial statement restatements in all business settings, including family businesses.

Table 4.1: Descriptive Statistics										
VARIABLES		**Obs**	**Mean**	**Std. Dev.**	**Mean Diff**	**Mann-Whitney**	**Min**	**Max**	**Skewness**	**Kurtosis**
RST	CONTROL	263	0	0	-93.31	.001 **	0	1	.0042	1.146
	RST	175	1	0						
	POOLED	438	.5000	.5087						
ACIND (%)	CONTROL	263	99.32	3.430	-.0675	.181	75	100	-8.873	12.87
	RST	175	99.28	3.335						
	POOLED	438	99.54	3.398						
ACTEN	CONTROL	263	6.741	.7860	.1972	.0110**	2	7	1.761	10.762
	RST	175	5.376	.5329						
	POOLED	438	5.465	.6549						
ACSHIP	CONTROL	263	1.564	1.763	-.1076	.172	0	5	1.137	4.872
	RST	175	1.432	1.871						
	POOLED	438	1.513	1.651						
ACSHARE	CONTROL	263	.0051	.3650	.0021	.050 *	0.0001	.0049	9.679	34.86
	RST	175	.0007	.4589						
	POOLED	438	.0009	.4781						
CEODUAL	CONTROL	263	.4687	.5098	-.0276	.198	0	1	-.0746	1.625
	RST	175	.4278	.4987						
	POOLED	438	.4378	.4998						
BDSIZE	CONTROL	263	7.542	2.654	-.173	.076*	6	8	.8790	3.9823
	RST	175	7.129	2.785						
	POOLED	438	7.275	2.701						
BDIND	CONTROL	263	.7135	.1987	.0415	.1834	.20	.69	1.657	12.98
	RST	175	.6987	.1798						
	POOLED	438	.7098	.1876						
BDOWN	CONTROL	263	.0045	.6541	.1293	.236	.0008	.0346	1.05	7.82
	RST	175	.0098	.4328						
	POOLED	438	.0071	.5448						
COSIZE (in million)	CONTROL	263	2428.071	1428.761	48.61	.050 *	51.87	98651.75	.3918	1.673
	RST	175	2398.765	1399.651						
	POOLED	438	2408.651	1413.761						
LEV	CONTROL	263	.3287	212.736	.172	.284	.09	2.87	.6389	1.1520
	RST	175	.3193	225.746						

	POOLED	438	.3283	218.647						
LOSS	CONTROL	263	.2583	.4657	-.1637	.384	0	1	.5364	1.645
	RST	175	.2791	.3987						
	POOLED	438	.2689	.4583						
ROA	CONTROL	263	.2598	.1698	0.873	.537	.098	.5190	.6370	1.092
	RST	175	.2198	.1883						
	POOLED	438	.2100	.1783						

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Independent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition.. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTEN**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 4.2: Spearman's Correlation Matrix

	RST	ACIND	ACTEN	ACSHIP	ACSHARE	CEODUEL	BDSIZE	BDIND	BDOWN	COSIZE	LEV	LOSS	LogROA
RST	1												
ACIND	0.0326	1											
ACTEN	0.0145**	0.0501	1										
ACSHIP	0.0062	0.0425 *	0.1269 *	1									
ACSHARE	0.0092 *	-0.0463	-0.0611 *	-0.1151	1								
CEODUL	0.0150	0.0525	0.2874	0.1672 *	-0.2182	1							
BDSIZE	-0.0543	-0.0478	0.1430	0.1086 *	-0.1144 *	0.2730	1						
BDIND	0.3810	0.2817	0.0018	0.1827	0.2918	0.1102	0.0346	1					
BDOWN	0.2830	0.1872**	0.1620	0.2918	0.1827	0.2873	0.4827	0.2730	1				
COSIZE	-0.0172 *	-0.0391	0.1582	0.0644 *	0.0156 **	0.0183*	0.1927 *	0.0541	0.0873	1			
LEV	-0.2157	-0.0215	-0.1360	-0.0390 **	0.1190	-0.1082	-0.0201	0.06598**	0.1872*	0.0271	1		
LOSS	0.0183 *	0.0280*	0.1494 *	0.0225	0.0009 *	0.1529**	0.0725 *	0.17629	0.0076	0.0183*	-0.5294	1	
LogROA	0.0520 **	0.0071**	0.0145 *	-0.0394	-0.0276	0.0109	0.0011 *	0.2066	0.1872*	0.0692	0.0182	0.0301*	1

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Independent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition.. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTEN**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 4.3: Variance Inflation Factor		
Variable	**VIF**	**1/VIF**
LogROA	1.75	0.5714
LOSS	1.55	0.6451
LEV	1.71	0.5847
BDSIZE	1.91	0.5235
COSIZE	1.46	0.6849
BDIND	1.02	0.9803
ACTEN	1.09	0.9174
ACSHIP	1.03	0.9708
ACSHARE	1.01	0.9900
ACIND	1.07	0.9345
BDOWN	1.06	0.9433
CEODUAL	1.05	0.9523
Mean VIF	1.80	

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Independent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition.. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTEN**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 4.4: Multivariate Regression (Panel Data with Random Effect)

RST	Predicated Sign	Coef.
ACIND	-	.4619
ACTEN	-	-.5490***
ACSHIP	+	.6827
ACSHARE	-	-.3281**
CONTROL VARIABLE		
CEODUL	+	.8725
BDSIZE	+	.2874*
BDIND	-	.0652
BDOWN	-	.5421
COSIZE	+	.1572
LEV	+	-0.0387
LOSS	+	.0351***
LogROA	+	.1489**
Wald chi2(10)		23.79
Prob > chi2		0.0006
Adj R-Seq		.1982
Hausman test		0.5381

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Independent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition.. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTEN**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 4.5: Multivariate Regression (Panel Data with Fixed Effect)

Variables	Predicated Sign	Coef
Independent Variables		
ACIND	-	-0.0176
ACTEN	-	-.0133***
ACSHIP	+	.0265
ACSHARE	-	-.0229**
CONTROL VARIABLE		
CEODUAL	+	.0471
BDSIZE	-	.0174**
BDIND	-	.1582
BDOWN	-	.000032
COSIZE	-	-.00004
LEV	-	-.00011
LOSS	+	.1390***
LogROA	-	.00021***
Prob > F	0.0000	
Adj R2	0.2035	

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Independent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition.. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTEN**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 4.6: Multivariate Regression (Pooled Data)

RST	Predicated Sign	Coef.
ACIND	+	.0652
ACTEN	+	-.0439***
ACSHIP	+	.1139
ACSHARE	+	-.2710**
CONTROL VARIABLE		
CEODUL	+	.8562
BDSIZE	+	.1690*
BDIND	-	.0763
BDOWN	-	.0543
COSIZE	+	.1011*
LEV	+	-.0182
LOSS	+	.3593***
LogROA	+	.1200*
Breusch and Pagan (Bb-LM)		1.0000
Prob > F		0.0000
Adj R-sq		0.1876

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Independent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition.. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTEN**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Table 4.7: Logit Regression

Variables	Predicated Sign	Coef
Independent Variables		
ACIND	-	-0.0265
ACTEN	-	-0.0492***
ACSHIP	-	0.1387
ACSHARE	-	-0.1534**
CONTROL VARIABLE		
CEODUAL	+	0.3041
BDSIZE	-	0.0739**
BDIND	-	0.6347*
BDOWN	-	0.0837
COSIZE	-	-0.0819
LEV	-	-0.0761
LOSS	+	0.4972**
LogROA	-	0.0169***
Wald chi2	50.43	
Prob > chi2	0.0000	
Pseudo R2	0.1709	

Where:
RST: Restatement: A dummy variable that takes the value of 1 if restated, and 0 otherwise. **Independent Variables**: **ACIND**: Audit Committee Independence: Proportion of independent directors on the audit committee based on SEC definition.. **ACSHARE**: Audit Committee Managerial Ownership: The percentage of common shares held by audit committee directors to the firm total number of shares. **ACSHIP**: Audit Committee Additional Directorships: The average of other public directorships held by audit committee directors. **ACTEN**: Audit Committee Tenure: The average tenure of audit committee directors. **Control Variables**: **CEODUAL:** CEO Duality: A dummy variable that takes the value of 1 if the CEO is holding the chairman position, and 0 otherwise. **BDSIZE**: Board Size: Number of directors serve on the board. **BDIND**: Board Independence: The number of executives to the total number of directors on the board. **BDOWN**: Board Ownership: The percentage of common shares held by board directors to the firm total number of shares. **COSIZE**: Corporate Size: The natural log of total assets. **LEV**: Leverage: Total debt to total assets. **LOSS:** A dummy variable that takes the value of 1 if the firm reported loss for the fiscal year, and "0" otherwise. **ROA**: Prior year return on assets: Net income/ total assets

Chapter Five

Conclusion

5.1 Introduction

This thesis aims to provide greater oversight of three different issues. These are the impact of audit committee characteristics on restatement frequency, the impact of audit committee characteristics and the occurrence of restatements on audit fees, and the impact of audit committee characteristics on restatement frequency in family businesses.

The study examined 450 restatements and matched them with a control group of 450 firms that did not restate their financial statements. Both groups were similar in size and industry. The research covers the period of 2011 to 2016 using U.S. listed companies. The research methods were chosen based on previous studies (Abbott *et al*., 2004, Lin *et al.*, 2006). The first empirical study aims to answer the question: to what extent do audit committee characteristics constrain the occurrence of financial statement restatements?

The first empirical study investigates the nature of the relationship between audit committee characteristics and restatements frequency. It examines seven audit committee characteristics, namely; independence, financial expertise, size, meeting frequency, tenure, and stock ownership. The investigations will help to answer the first research questions that is; to what extent audit committee characteristics affect the occurrence of restatements?. The results of the investigations confirm the significant relationship between some audit committee characteristics and restatements.

The second empirical study investigates the impact of audit committee characteristics and restatements on audit fees. Audit fees were used as a proxy of the audit efforts following restatements, and the results provide more insights about the consequences of restatements. The focus of this study is to find an answer about; to what extent do audit committee characteristics and restatements affect the audit fees. The researcher wants to examine how

audit fees become affected following the incident of restatements. The researcher also wants to explore how audit committee directors will react toward the occurrence of restatements. The investigations also provide an answer for the previous concerns and the details of the finding will be explained in the next chapter.

The third empirical study examines the impact of audit committee characteristics on restatement frequency in family businesses. The motivation for conducting this investigation is to generalise the results found in Chapter Two of this thesis. Chapter Two examined the impact of audit committee characteristics on restatement frequency. The researcher wanted to explore whether these results could be applied to all business contexts, including family businesses. Thus, the researchers extracted from the sample data only family firms in order to employ the model and run the analysis test.

Finally, this chapter will provide a summary for the findings of this thesis. It will also discuss the implications of the study on all related stakeholders and researchers. Avenues for future research and the limitation of the study will be also discussed at the end of this chapter.

5.2 Synopsis and Findings

This thesis provides three empirical studies that concentrate on the following subjects. The first empirical study in Chapter Two talks about the impact of audit committee characteristics on constraining the occurrence of financial statements restatements. The findings of the study exhibit the following results. First, the number of audit committee members affects the incidence of restatements negatively at a statistically significant level. Having a larger number of directors on the audit committee can increase the quality of the financial reporting process, as they bring more knowledge and expertise to the board. This also helps the audit committee to be more effective in overseeing the financial reporting process. Support for this

finding comes from scholars who have found similar results (Abbott *et al*., 2004, Lin *et al*., 2006, Yang and Krishnan, 2005, Beasley, 1996). Second, audit committee tenure also shows a significant negative association with restatement frequency. The longer audit committee members spend with the firm, the more effective they are in monitoring financial reporting quality. By working with the firm for many years, audit committee members become familiar with the firm, in particular its operation and accounting system. Thus, it becomes easier for audit committee members to be proactive in terms of correcting any accounting errors before issuing the financial statements. Prior studies have reported similar results about the negative association between audit committee tenure and financial reporting quality (Beasley, 1996, Yang and Krishnan, 2005). In 2015, Persons compared the most and the least admired companies in the U.S. and observed a high level of audit committee tenure in the most admired companies compared to their less admired counterparts (Persons, 2015).

Despite the argument that suggests that additional directorships can increase the effectiveness of the directors due to the expertise and reputation they give to the holder, the findings of this research show the opposite. Audit committee directors with multiple directorships are associated with an increase in the incidence of restatements. Busy directors are ineffective in their role of overseeing financial reporting quality, as they are busy with other boards. They do not devote enough time or effort to ensuring a high level of financial reporting quality (Sun *et al*., 2014). The study expected a negative relationship between the frequency of audit committee meetings and the likelihood of restatements. The expectation was based on the assumption that the more they met, the more updated they would be about any accounting problems. The results, however, show that the number of audit committee meetings during the financial year is associated positively with restatements. The explanation

for this could be that audit committee directors are aware of the accounting irregularities within the company, and therefore they meet frequently in order to solve the problem.

The second empirical study of this thesis focuses on the impact of audit committee characteristic and restatements on audit fees following restatements. The study uses audit fees to measure audit efforts following restatements. The research explores the nature of the relationship between audit committee stock ownership and audit fees following restatements. Audit committee members who own a greater number of shares are concerned about the integrity of the financial statements, as are other shareholders. Previous studies find that restatements are negatively associated with stock price (Palmrose *et al.*, 2004). Thus, audit committee directors will no longer trust management, and will ask the external auditor to conduct more auditing tests to protect their own wealth. Furthermore, the results of the study provide further support for the agency theory. The agency theory argues that stock ownership can align the interests of audit committee directors and other shareholders (Fama and Jensen, 1983). As a result of expanding the audit scope, the audit fees will increase to reflect the high level of auditing efforts following restatements to increase the quality of the external audit. Regarding the effect of holding additional directorships on audit fees following restatement, the results confirm the positive association between multiple directorships held by audit committee members and audit fees. The positive relationship between the two variables reflects the desire of audit committee directors to increase audit quality. The pressure on audit committee directors from the external market motivates directors to demand higher audit quality in order to protect their reputational capital. In order to restore trust in the financial statements and increase the investors' confidence in the firm, audit committee members with multiple memberships are willing to pay higher audit fees to external auditors in order to

avoid future restatements. Support for this finding comes from previous research (Carcello *et al*., 2002). Finally, the study shows a significant difference in the audit fees of restated and non-restated companies. The difference represents the audit risk associated with the restated companies. It also reflects the external auditors' concerns about the potential reputational and litigation damage that may occur if restatements occurred again. Also, the difference in audit fees between restated and non-restated firms provides significant evidence for the need to increase audit efforts with restated companies in order to prevent further restatement events.

The third empirical study extends the investigation conducted in Chapter Two, and examines the impact of audit committee characteristics on restatement frequency in family businesses. According to prior literature, families are linked to their firms emotionally (Stockmans *et al*., 2010). Family founders find that the firms reflect the value, cultures and identity of the family. As a result of this relationship, audit committee directors who are independent from management are more effective in terms of overseeing financial reporting quality. This is because family members do not affect the role of the audit committee negatively. On the contrary, audit committee directors who work with the same family firms for many years, and who have a good relationship with the family business are effective in detecting any accounting irregularities before the issuance of the financial statements. Thus, audit committee tenure in family firms affects the incidence of restatements negatively at a statistically significant level. In addition, audit committee directors with a greater number of common shares in family firms are negatively associated with restatement frequency. In Chapter Three, it is shown that there is a positive relationship between audit committee directors' stock ownership and audit fees. This indicates the concerns of audit committee members regarding the quality of the financial statements. In this chapter, the results support

the previous argument and confirm that audit committee directors with stock ownership have a positive impact on financial reporting quality by decreasing the frequency of restatements in family businesses as well. The findings also support the previous argument that stock ownership aligns the interests of directors and shareholders (Fama and Jensen, 1983).

To sum up the findings of the three empirical studies presented in this thesis, the researcher would like to link these findings jointly in the following text; examining the relationship between financial statements restatements and audit committee characteristics provides a number of significant relationships among the examined variables. The findings show that audit committee tenure in all contexts including family business has a positive impact on financial reporting quality. Serving in the same firm as an audit committee director for many years assist directors in being more effective. The long tenure allows audit committee directors to be proactive and make corrective actions before the issuance of the financial statements. Because audit committee members become familiar with the firm and its operations and accounting systems, they have the ability to mitigate restatements and discover any accounting errors in a timely manner. In addition to the previous findings, holding multiple directorships by audit committee members has a negative impact on financial reporting quality, as it is associated with an increase in restatements incident. Busy directors do not put enough time and efforts to monitor the process of financial reporting quality, and this, motivates management to manipulate earnings and increase the likelihood of restatements. In order to go over this problem, "being too busy to monitor", busy directors demand more extensive audit investigations to take their rule in protecting the integrity and the credibly of the information provided in the financial statements. Stock ownership shows also a positive impact on financial reporting quality, this thesis provides evidence that

common stocks held by audit committee directors align the interest between audit committee directors and shareholders. This argument has been supported in the second and third empirical studies in this thesis. First, the findings show a positive relationship between audit committee stock ownership and audit fees, which confirms the alignment of interest between shareholders and audit committee directors. This positive relationship provides evidence that holding stock ownership by audit committee directors motivates them to demand more audit investigations in order to mitigate any opportunistic behaviours by management. Working as an audit committee directors in family business as well shows a similar result that confirms the positive impact of stock ownership held by audit committee directors and mitigating the occurrence of restatements. Furthermore, larger audit committee increase the effectiveness of the audit committee role in oversight the financial reporting quality. The founded negative association between audit committee size and financial statements restatements has proved this positive impact on financial reporting quality. This relationship might justify why larger audit committee do not require more audit fees as expected in the second empirical study of this thesis. Support for the positive impact of large audit committee on financial reporting quality comes from Malaysia, where researchers provide a strong evidence about the negative relationship between audit committee size and restatements (Wan Mohammad *et al*., 2018).

5.3 Implications of the Study

The findings of this thesis could help different parties including investors, shareholders, regulators, academics and scholars. First, the study shows a significant negative association between the number of audit committee directors and the incidence of restatements. Thus, it is recommended that regulators encourage public companies to increase the number of audit committee members in order to increase the quality of the financial statements. By adopting

these recommendations, companies will start to attract audit committee members who bring more knowledge and expertise to the board. Second, regulators and investors should pay more attention to the positive impact of audit committee tenure and its role in increasing the quality of the financial reporting process. It is recommended that audit committee members serve in the same firms for a reasonable number of years. Serving in the same firms for many years allows them to be more familiar with firms and their operational and accounting systems. This familiarity with the firm gives audit committee directors the chance to detect any accounting errors, and to be proactive about taking corrective actions before the issuance of the financial statements. Third, there should be more restrictions on the additional memberships held by the audit committee members. Regulators should minimise the number of additional directorships held by audit committee members regardless of whether these memberships are with public or private firms. The reason for this is that multiple directorships make directors too busy to effectively monitor the financial reporting process, which would increase the quality of the external audit. Thus, it is better to hold as few directorships as possible. This will help audit committee directors to focus on the firm, and to put sufficient time and effort into overseeing the financial reporting process. By doing so, audit committee directors will be more effective and will increase the integrity of the financial statements, and constrain management opportunistic behaviours. Previous studies have reported that the number of meetings represents the diligence of the audit committee (Abbott *et al.*, 2004), but this study suggests that meeting frequency can be a signal of a potential issue within the company. When the audit committee meets frequently, this might be an indication that there is an accounting issue inside the company.

The second empirical study of this thesis investigates the impact of audit committee characteristics on audit fees following financial statement restatements. The findings of the study will benefit regulators, investors and shareholders in different aspects. First, the positive relationship between audit committee directors' stock ownership and audit fees provides evidence for the desire of audit committee members who own a greater number of shares to increase external audit quality. Thus, it is recommended that companies compensate audit committee directors with more common shares in order to motivate them to increase their effectiveness in overseeing the external audit. Second, appointing audit committee members who sit on other boards can impact the external audit quality positively. Audit committee members who hold additional directorships have incentives to monitor the external audit quality in order to protect their reputational capital in the market. Multiple directorships provide audit committee directors with many advantages and benefits. Thus, any restatement issues would damage audit committee members, making them lose these benefits and advantages. Thus, sitting on many boards forces audit committee directors to demand extensive auditing tests following restatements in order to avoid any future accounting problems. Therefore, regulators, shareholders and boards of directors are encouraged to appoint audit committee directors who have multiple directorships, to increase their effectiveness in overseeing the financial reporting process. For the market, audit fees reflect the audit efforts taken by the external auditors. Thus, it is better to pay higher audit fees in order to obtain a better quality audit.

The third empirical study of this thesis highlights the impact of audit committee characteristics on restatement frequency in family businesses. The study wished to explore whether or not the findings of Chapter Two could be generalised to all business contexts,

including family businesses. Previous research has reported that family firms and financial reporting quality are associated negatively (Chi *et al*., 2015, Yang, 2010, Razzaque *et al*., 2016). These authors argue that due to the entrenchment factor, family firms utilise their authority and their relationship with management to manipulate earnings at the cost of small shareholders, thus affecting the role of the audit committee negatively. The results of this study, however, support the alignment argument and the socioemotional wealth theory; they demonstrate a negative relationship between audit committee characteristics in family businesses and the incidence of restatements. These findings send a positive signal to external markets. They show that audit committee tenure in family businesses can constrain the likelihood of restatements. Thus, family businesses are encouraged to reappoint audit committee members to serve on the committee for many years. This will allow audit committee members to utilise the expertise they have gained with the firm to prevent any future restatements. In addition, family businesses are encouraged to motivate their audit committee directors with more common stock to align their interests with the firm and its shareholders' interests. There should be no concerns about the conflict of interest between majority-minority shareholders as the agency theory predicts (Fama and Jensen, 1983). Their interests would be aligned due to the socioemotional wealth concerns about the firm's reputation, which motivates the family business to monitor the firm's performance and management, and to mitigate any opportunistic behaviour.

To sum up the recommendations of this research, regulators and policy decision makers should consider the following recommendations, first, increase the number of audit committee directors would assist audit committee to be more effective in monitoring financial reporting quality, as well as mitigating the incident of financial statements restatements.

Secondly, companies are encouraged to keep their audit committee directors for a longer time to utilise from their experience about the firm and its accounting and operation systems. Thus, this long work tenure will be reflected in a high quality financial reporting, and an increase in the integrity of the information provided in the financial statements. In addition, policy decision makers and regulators should prevent audit committee directors from holding additional directorships due to the negative impact of it. Busy directors are less effective in terms of oversight of the financial reporting quality. Finally, motivating audit committee directors would help in aligning the interests between audit committee members and shareholders. This recommendation is because audit committee directors in this study shows a concern about their wealth as well as shareholders' wealth against management opportunistic behaviour.

5.4 Limitations and Future Research

Although this thesis was conducted under the supervision of qualified supervisors, and although this thesis also achieved its objectives and answered its questions, there are some limitations that could be avoided in future research. The time period and sample size were two issues faced by the researcher. The non-random sample was time consuming; the researcher looked at the database in order to collect the restatement announcements of American listed companies. Furthermore, the researcher had to filter the results and read through the announcements to obtain information about the type of restatements and eliminate some announcements that were not relative to the focus of the study. In addition, although the number of restatements was considered small, the reader should take into account the fact that restatements are occasional events that might not occur in all listed companies unless a manipulation of earnings was involved. Thus, the sample size, compared

to prior restatement studies, is the largest. Secondly, the researcher noticed that some governance variables were either missing in the database or different to the financial statements of the firms on the Securities and Exchange Commission (SEC) website. Thus, the researcher chose to collect the governance data manually. There is a debate about the best proxies to measure financial reporting quality. The levels of quality are divided into high, medium, or low quality. This thesis, however, used restatements as a proxy for low-quality financial reporting. Although some scholars argue that there are many factors that could affect the restatement frequency, the focus of this study was to examine the association between restatements and audit committee characteristics, restatements and audit fees, and restatements in family businesses. Moreover, in corporate governance studies causality was one of the issues, but further statistical analysis has been undertaken in order to ensure that there were no causality issues. The study tried to control for board and firm variables, but it could not control the whole potential variables that might be involved in the investigation for a couple of reasons; first, due to data unavailability, some governance and regulative data that has an impact on restatements could not be added to the research model. Second, endogeneity issue has forced the researcher to eliminate some of the macro governance and regulative data from the model. Finally, the researcher will consider some of theses variables in the future researches.

The study focused on the U.S. market; conducting the study in other regions might provide different findings due to the differences in litigation, environmental, and cultural environments. Audit fees were also used in the second empirical study as a proxy of audit efforts, while other researchers may choose other proxies of audit efforts such as audit hours.

Future research could be conducted in different countries to provide further evidence about the factors that affect restatement frequency, external audits and family businesses. In addition, further research could focus on the impact of risk management committees on financial statement restatements. Finally, future research could investigate the impact of chief financial officer (CFO) characteristics on restatement frequency.

References:

ABBOTT, L. J., GUNNY, K. A. & ZHANG, T. C. 2012. When the PCAOB talks, who listens? Evidence from stakeholder reaction to GAAP-deficient PCAOB inspection reports of small auditors. *Auditing: A Journal of Practice & Theory,* 32**,** 1-31.

ABBOTT, L. J., PARK, Y. & PARKER, S. 2000. The effects of audit committee activity and independence on corporate fraud. *Managerial Finance,* 26**,** 55-68.

ABBOTT, L. J., PARKER, S. & PETERS, G. F. 2004. Audit committee characteristics and restatements. *Auditing: A Journal of Practice & Theory,* 23**,** 69-87.

ABBOTT, L. J., PARKER, S., PETERS, G. F. & RAGHUNANDAN, K. 2003. The association between audit committee characteristics and audit fees. *Auditing: A Journal of Practice & Theory,* 22**,** 17-32.

ACHLEITNER, A.-K., GÜNTHER, N., KASERER, C. & SICILIANO, G. 2014. Real earnings management and accrual-based earnings management in family firms. *European Accounting Review,* 23**,** 431-461.

AGRAWAL, A. & CHADHA, S. 2005. Corporate governance and accounting scandals*. *Journal of law and economics,* 48**,** 371-406.

AL‐SHAER, H. & ZAMAN, M. 2018. Credibility of sustainability reports: The contribution of audit committees. *Business Strategy and the Environment*.

ALDAMEN, H., DUNCAN, K., KELLY, S., MCNAMARA, R. & NAGEL, S. 2012. Audit committee characteristics and firm performance during the global financial crisis. *Accounting & Finance,* 52**,** 971-1000.

ALI, A., CHEN, T.-Y. & RADHAKRISHNAN, S. 2007. Corporate disclosures by family firms. *Journal of accounting and economics,* 44**,** 238-286.

ANDERSON, R. C., MANSI, S. A. & REEB, D. M. 2003. Founding family ownership and the agency cost of debt. *Journal of Financial economics,* 68**,** 263-285.

ANDERSON, R. C. & REEB, D. M. 2004. Board composition: Balancing family influence in S&P 500 firms. *Administrative Science Quarterly,* 49**,** 209-237.

ARCHAMBEAULT, D. S., DEZOORT, F. T. & HERMANSON, D. R. 2008. Audit Committee Incentive Compensation and Accounting Restatements*. *Contemporary Accounting Research,* 25**,** 965-992.

ARTHAUD-DAY, M. L., CERTO, S. T., DALTON, C. M. & DALTON, D. R. 2006. A changing of the guard: Executive and director turnover following corporate financial restatements. *Academy of Management Journal,* 49**,** 1119-1136.

BALTAGI, B. 2008. *Econometric analysis of panel data*, John Wiley & Sons.

BAXTER, P. & COTTER, J. 2009. Audit committees and earnings quality. *Accounting & Finance,* 49**,** 267-290.

BEASLEY, M. S. 1996. An empirical analysis of the relation between the board of director composition and financial statement fraud. *Accounting Review***,** 443-465.

BEASLEY, M. S., CARCELLO, J. V., HERMANSON, D. R. & NEAL, T. L. 2009. The Audit Committee Oversight Process*. *Contemporary Accounting Research,* 26**,** 65-122.

BEASLEY, M. S. & SALTERIO, S. E. 2001. The relationship between board characteristics and voluntary improvements in audit committee composition and experience*. *Contemporary Accounting Research,* 18**,** 539-570.

BEAVER, W. 1998. Financial Reporting: An Accounting Revolution. 3th Prentice Hall International. Inc.
BEDARD, J., CHTOUROU, S. M. & COURTEAU, L. 2004. The effect of audit committee expertise, independence, and activity on aggressive earnings management. *Auditing: A Journal of Practice & Theory,* 23**,** 13-35.
BEDARD, J. C. & JOHNSTONE, K. M. 2004. Earnings manipulation risk, corporate governance risk, and auditors' planning and pricing decisions. *The Accounting Review,* 79**,** 277-304.
BERNASEK, A. 2010. The world's most admired companies. *Fortune,* 161**,** 121-+.
BLANKLEY, A. I., HURTT, D. N. & MACGREGOR, J. E. 2012. Abnormal audit fees and restatements. *Auditing: A Journal of Practice & Theory,* 31**,** 79-96.
BOO, E. F. & SHARMA, D. 2008. Effect of regulatory oversight on the association between internal governance characteristics and audit fees. *Accounting & Finance,* 48**,** 51-71.
CAMPBELL, J. L., HANSEN, J., SIMON, C. A. & SMITH, J. L. 2014. Audit Committee Stock Options and Financial Reporting Quality after the Sarbanes-Oxley Act of 2002. *Auditing: A Journal of Practice and Theory*.
CARCELLO, J. V., HERMANSON, D. R., NEAL, T. L. & RILEY, R. A. 2002. Board Characteristics and Audit Fees*. *Contemporary Accounting Research,* 19**,** 365-384.
CARCELLO, J. V. & NEAL, T. L. 2003. Audit committee characteristics and auditor dismissals following "new" going-concern reports. *The Accounting Review,* 78**,** 95-117.
CASCINO, S., PUGLIESE, A., MUSSOLINO, D. & SANSONE, C. 2010. The influence of family ownership on the quality of accounting information. *Family Business Review*.
CHAN, A. M. Y., LIU, G. & SUN, J. 2013. Independent audit committee members' board tenure and audit fees. *Accounting & Finance,* 53**,** 1129-1147.
CHAN, K. C., FARRELL, B. R. & LEE, P. 2011. Trends Of Accounting Restatements During The Period 2000-2007 And Big Four/Five Auditors. *Journal of Business & Economics Research (JBER),* 7.
CHARLES, S. L., GLOVER, S. M. & SHARP, N. Y. 2010. The association between financial reporting risk and audit fees before and after the historic events surrounding SOX. *Auditing: A Journal of Practice & Theory,* 29**,** 15-39.
CHEN, K.-L., CHANG, S.-H. & WANG, T.-S. 2016. Do Personnel Stability, Family Business and Auditor Influence Financial Restatement? *International Journal of Economics and Financial Issues,* 6.
CHEN, S., CHEN, X. & CHENG, Q. 2008. Do family firms provide more or less voluntary disclosure? *Journal of accounting research,* 46**,** 499-536.
CHEN, T.-Y., GU, Z., KUBOTA, K. & TAKEHARA, H. 2015. Accrual-based and real activities based earnings management behavior of family firms in Japan. *The Japanese Accounting Review,* 5**,** 21-47.
CHI, C. W., HUNG, K., CHENG, H. W. & LIEU, P. T. 2015. Family firms and earnings management in Taiwan: Influence of corporate governance. *International Review of Economics & Finance,* 36**,** 88-98.
CHOI, J.-H., KIM, J.-B. & ZANG, Y. 2010. Do abnormally high audit fees impair audit quality? *Auditing: A Journal of Practice & Theory,* 29**,** 115-140.

COLES, J. L., DANIEL, N. D. & NAVEEN, L. 2008. Boards: Does one size fit all? *Journal of financial economics,* 87**,** 329-356.
CONTESSOTTO, C. & MORONEY, R. 2014. The association between audit committee effectiveness and audit risk. *Accounting & Finance,* 54**,** 393-418.
CRESSEY, D. 1973. Other People's Money,(reprinted) New Jersey. Patterson Smith Publishing.
CULLINAN, C. P., DU, H. & WRIGHT, G. B. 2008. Is there an association between director option compensation and the likelihood of misstatement? *Advances in Accounting,* 24**,** 16-23.
DAVIS, J. H., SCHOORMAN, F. D. & DONALDSON, L. 1997. Toward a stewardship theory of management. *Academy of Management review,* 22**,** 20-47.
DEANGELO, L. E. 1981. Auditor independence,'low balling', and disclosure regulation. *Journal of accounting and Economics,* 3**,** 113-127.
DECHOW, P. M., SLOAN, R. G. & SWEENEY, A. P. 1996. Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the sec*. *Contemporary accounting research,* 13**,** 1-36.
DEFOND, M. L. 2010. How should the auditors be audited? Comparing the PCAOB inspections with the AICPA peer reviews. *Journal of Accounting and Economics,* 49**,** 104-108.
DEFOND, M. L. & FRANCIS, J. R. 2005. Audit research after sarbanes-oxley. *Auditing: A Journal of Practice & Theory,* 24**,** 5-30.
DEFOND, M. L. & JIAMBALVO, J. 1991. Incidence and circumstances of accounting errors. *Accounting review***,** 643-655.
DELLAPORTAS, S., LEUNG, P., COOPER, B. J., LARY, A. M. & TAYLOR, D. W. 2012. Governance characteristics and role effectiveness of audit committees. *Managerial Auditing Journal,* 27**,** 336-354.
DESAI, H., HOGAN, C. E. & WILKINS, M. S. 2006. The reputational penalty for aggressive accounting: Earnings restatements and management turnover. *The Accounting Review,* 81**,** 83-112.
DHALIWAL, D., NAIKER, V. & NAVISSI, F. 2010. The Association Between Accruals Quality and the Characteristics of Accounting Experts and Mix of Expertise on Audit Committees*. *Contemporary Accounting Research,* 27**,** 787-827.
EISENHARDT, K. M. 1989. Agency theory: An assessment and review. *Academy of management review,* 14**,** 57-74.
ENGEL, E., HAYES, R. M. & WANG, X. 2010. Audit committee compensation and the demand for monitoring of the financial reporting process. *Journal of Accounting and Economics,* 49**,** 136-154.
ESHLEMAN, J. D. & GUO, P. 2013. Abnormal audit fees and audit quality: The importance of considering managerial incentives in tests of earnings management. *Auditing: A Journal of Practice & Theory,* 33**,** 117-138.
FAMA, E. F. 1980. Agency Problems and the Theory of the Firm. *The journal of political economy***,** 288-307.
FAMA, E. F. & JENSEN, M. C. 1983. Separation of ownership and control. *Journal of law and economics***,** 301-325.

FAN, J. P. & WONG, T. J. 2002. Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of accounting and economics,* 33**,** 401-425.
FARBER, D. B. 2005. Restoring trust after fraud: Does corporate governance matter? *The Accounting Review,* 80**,** 539-561.
FELDMANN, D. A., READ, W. J. & ABDOLMOHAMMADI, M. J. 2009. Financial restatements, audit fees, and the moderating effect of CFO turnover. *Auditing: A Journal of Practice & Theory,* 28**,** 205-223.
FERRIS, S. P., JAGANNATHAN, M. & PRITCHARD, A. C. 2003. Too busy to mind the business? Monitoring by directors with multiple board appointments. *The Journal of Finance,* 58**,** 1087-1112.
FICH, E. M. & SHIVDASANI, A. 2006. Are busy boards effective monitors? *The Journal of finance,* 61**,** 689-724.
FRANCIS, J. R., MICHAS, P. N. & YU, M. D. 2013. Office size of Big 4 auditors and client restatements. *Contemporary Accounting Research,* 30**,** 1626-1661.
GHAFRAN, C. & O'SULLIVAN, N. 2017. The impact of audit committee expertise on audit quality: Evidence from UK audit fees. *The British Accounting Review,* 49**,** 578-593.
GHOSH, A. A. & TANG, C. Y. 2015. Assessing financial reporting quality of family firms: The auditors′ perspective. *Journal of Accounting and Economics,* 60**,** 95-116.
GILSON, S. C. 1990. Bankruptcy, boards, banks, and blockholders: Evidence on changes in corporate ownership and control when firms default. *Journal of Financial Economics,* 27**,** 355-387.
GLEASON, C. A., JENKINS, N. T. & JOHNSON, W. B. 2008. The contagion effects of accounting restatements. *The Accounting Review,* 83**,** 83-110.
GOMEZ-MEJIA, L., CRUZ, C. & IMPERATORE, C. 2014. Financial reporting and the protection of socioemotional wealth in family-controlled firms. *European Accounting Review,* 23**,** 387-402.
GÓMEZ-MEJÍA, L. R., HAYNES, K. T., NÚÑEZ-NICKEL, M., JACOBSON, K. J. & MOYANO-FUENTES, J. 2007. Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills. *Administrative science quarterly,* 52**,** 106-137.
GONDHALEKAR, V., JOSHI, M. & MCKENDALL, M. 2012. Short-and Long-Term Share Price Reaction to Announcements of Financial Restatements. *Advances in Financial Economics.* Emerald Group Publishing Limited.
GOODWIN‐STEWART, J. & KENT, P. 2006. Relation between external audit fees, audit committee characteristics and internal audit. *Accounting & Finance,* 46**,** 387-404.
GREENE, W. H. 2007. Fixed and random effects models for count data.
GREENE, W. H. & HENSHER, D. A. 2007. Heteroscedastic control for random coefficients and error components in mixed logit. *Transportation Research Part E: Logistics and Transportation Review,* 43**,** 610-623.
GUJARATI, D. N. 1995. Basic econometrics, 3rd. *Mc Graw-Hills Int eds*.
HABBASH, M., XIAO, L., SALAMA, A. & DIXON, R. 2014. Are Independent Directors and Supervisory Directors Effective in Constraining Earnings Management? *Journal of Finance, Accounting & Management,* 5.

HAIR, J. F., BLACK, W. C., BABIN, B. J., ANDERSON, R. E. & TATHAM, R. L. 2006. *Multivariate data analysis*, Pearson Prentice Hall Upper Saddle River, NJ.

HANIFFA, R., YATIM, P., KENT, P. & CLARKSON, P. 2006. Governance structures, ethnicity, and audit fees of Malaysian listed firms. *Managerial Auditing Journal,* 21**,** 757-782.

HAY, D. 2013. Further Evidence from Meta‐Analysis of Audit Fee Research. *International Journal of Auditing,* 17**,** 162-176.

HAY, D., KNECHEL, W. R. & LING, H. 2008. Evidence on the impact of internal control and corporate governance on audit fees. *International Journal of Auditing,* 12**,** 9-24.

HRIBAR, P. & JENKINS, N. T. 2004. The effect of accounting restatements on earnings revisions and the estimated cost of capital. *Review of accounting studies,* 9**,** 337-356.

JACKSON, G. 2010. *Understanding Corporate Governance in the United States*, Hans-Böckler-Stiftung.

JAGGI, B. & LEUNG, S. 2007. Impact of family dominance on monitoring of earnings management by audit committees: Evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation,* 16**,** 27-50.

JENSEN, M. C. & MECKLING, W. H. 1979. *Theory of the firm: Managerial behavior, agency costs, and ownership structure*, Springer.

JIRAPORN, P. & DADALT, P. J. 2009. Does founding family control affect earnings management? *Applied Economics Letters,* 16**,** 113-119.

JUDGE, G. G., GRIFFITHS, W. E., HILL, R. C., LUTKEPOHL, H. & LEE, T.-C. 1985. The theory andpractice of econometrics. *New York: JohnWiley and Sons. JudgeThe Theory and Practice of Econometrics1985*.

KABBACH DE CASTRO, L. R., AGUILERA, R. V. & CRESPÍ-CLADERA, R. 2016. Family Firms and Compliance: Reconciling the Conflicting Predictions Within the Socioemotional Wealth Perspective. *Family Business Review***,** 0894486516685239.

KANG, F. 2014. Founding family ownership and the selection of industry specialist auditors. *Accounting Horizons,* 28**,** 261-276.

KARAMANOU, I. & VAFEAS, N. 2005. The association between corporate boards, audit committees, and management earnings forecasts: An empirical analysis. *Journal of Accounting research,* 43**,** 453-486.

KINNEY, W. R. & MCDANIEL, L. S. 1989. Characteristics of firms correcting previously reported quarterly earnings. *Journal of accounting and economics,* 11**,** 71-93.

KLEIN, A. 2002. Audit committee, board of director characteristics, and earnings management. *Journal of accounting and economics,* 33**,** 375-400.

KRISHNAN, G. & VISVANATHAN, G. 2009. Do auditors price audit committee's expertise? The case of accounting versus nonaccounting financial experts. *Journal of Accounting, Auditing & Finance,* 24**,** 115-144.

KRYZANOWSKI, L. & ZHANG, Y. 2013. Financial restatements and Sarbanes–Oxley: Impact on Canadian firm governance and management turnover. *Journal of Corporate Finance,* 21**,** 87-105.

LEE, H. Y. & MANDE, V. 2005. The relationship of audit committee characteristics with endogenously determined audit and non-audit fees. *Quarterly Journal of Business and Economics*, 93-112.
LIN, J. W., LI, J. F. & YANG, J. S. 2006. The effect of audit committee performance on earnings quality. *Managerial Auditing Journal,* 21, 921-933.
LIU, L.-L., RAGHUNANDAN, K. & RAMA, D. 2009. Financial restatements and shareholder ratifications of the auditor. *Auditing: A Journal of Practice & Theory,* 28, 225-240.
LIU, M. C., TIRAS, S. L. & ZHUANG, Z. 2014. Audit committee accounting expertise, expectations management, and nonnegative earnings surprises. *Journal of Accounting and Public Policy,* 33, 145-166.
LOBO, G. J. & ZHAO, Y. 2013. Relation between audit effort and financial report misstatements: Evidence from quarterly and annual restatements. *The Accounting Review,* 88, 1385-1412.
MACHUGA, S. & TEITEL, K. 2009. Board of director characteristics and earnings quality surrounding implementation of a corporate governance code in Mexico. *Journal of International Accounting, Auditing and Taxation,* 18, 1-13.
MANGENA, M. & PIKE, R. 2005. The effect of audit committee shareholding, financial expertise and size on interim financial disclosures. *Accounting and Business Research,* 35, 327-349.
MANGENA, M. & TAURINGANA, V. 2008. Audit committees and voluntary external auditor involvement in UK interim reporting. *International Journal of Auditing,* 12, 45-63.
MCKNIGHT, P. J. & WEIR, C. 2009. Agency costs, corporate governance mechanisms and ownership structure in large UK publicly quoted companies: A panel data analysis. *The Quarterly Review of Economics and Finance,* 49, 139-158.
NAHAR ABDULLAH, S., ZALINA MOHAMAD YUSOF, N. & NAIMI MOHAMAD NOR, M. 2010. Financial restatements and corporate governance among Malaysian listed companies. *Managerial Auditing Journal,* 25, 526-552.
O'SULLIVAN, N. 2000. The impact of board composition and ownership on audit quality: Evidence from large UK companies. *The British Accounting Review,* 32, 397-414.
OWERS, J. E., LIN, C.-M. & ROGERS, R. C. 2011. The informational content and valuation ramifications of earnings restatements. *International Business & Economics Research Journal (IBER),* 1.
PALMROSE, Z.-V., RICHARDSON, V. J. & SCHOLZ, S. 2004. Determinants of market reactions to restatement announcements. *Journal of accounting and economics,* 37, 59-89.
PEASNELL, K. V., POPE, P. F. & YOUNG, S. 2005. Board monitoring and earnings management: do outside directors influence abnormal accruals? *Journal of Business Finance & Accounting,* 32, 1311-1346.
PERRY, T. & PEYER, U. 2005. Board seat accumulation by executives: A shareholder's perspective. *The Journal of Finance,* 60, 2083-2123.
PERSONS, O. S. 2015. Corporate Governance Characteristics of Most Admired Companies. *International Journal of Business and Social Science,* 6.
PRENCIPE, A., MARKARIAN, G. & POZZA, L. 2008. Earnings management in family firms: Evidence from R&D cost capitalization in Italy. *Family Business Review,* 21, 71-88.

RAGHUNANDAN, K., RAMA, D. V. & READ, W. J. 2001. Audit committee composition,"gray directors," and interaction with internal auditing. *Accounting Horizons,* 15**,** 105-118.
RAZZAQUE, R. M. R., ALI, M. J. & MATHER, P. R. 2016. Real earnings management in family firms: Evidence from an emerging economy. *Pacific-Basin Finance Journal,* 40**,** 237-250.
REILLY, D. 2007. Restatements still bedevil firms—Overall total hits a record as big companies improve; backdating's messy wake. *Wall Street Journal (February 12) C,* 7.
SHARMA, V. D. & KUANG, C. 2014. Voluntary audit committee characteristics, incentives, and aggressive earnings management: Evidence from New Zealand. *International Journal of Auditing,* 18**,** 76-89.
SIEGEL, S. 1956. Nonparametric statistics for the behavioral sciences.
SIMUNIC, D. A. & STEIN, M. On the economics of product differentiation in auditing. Proceedings of the 1986 Touche Ross/University of Kansas Symposium on auditing problems, 1987. 69-99.
SIREGAR, S. V. & UTAMA, S. 2008. Type of earnings management and the effect of ownership structure, firm size, and corporate-governance practices: Evidence from Indonesia. *The international journal of accounting,* 43**,** 1-27.
SRINIVASAN, S. 2005. Consequences of financial reporting failure for outside directors: Evidence from accounting restatements and audit committee members. *Journal of Accounting Research,* 43**,** 291-334.
STEIN, J. C. 1988. Takeover threats and managerial myopia. *The Journal of Political Economy***,** 61-80.
STOCKMANS, A., LYBAERT, N. & VOORDECKERS, W. 2010. Socioemotional wealth and earnings management in private family firms. *Family Business Review,* 23**,** 280-294.
SUN, J., LAN, G. & LIU, G. 2014. Independent audit committee characteristics and real earnings management. *Managerial Auditing Journal,* 29**,** 153-172.
TONG, Y. H. 2007. Financial reporting practices of family firms. *Advances in Accounting,* 23**,** 231-261.
TURLEY, S. & ZAMAN, M. 2004. The corporate governance effects of audit committees. *Journal of management and governance,* 8**,** 305-332.
VAFEAS, N. 2005. Audit committees, boards, and the quality of reported earnings*. *Contemporary accounting research,* 22**,** 1093-1122.
VAFEAS, N. & WAEGELEIN, J. F. 2007. The association between audit committees, compensation incentives, and corporate audit fees. *Review of Quantitative Finance and Accounting,* 28**,** 241-255.
WAN MOHAMMAD, W. M., WASIUZZAMAN, S., MORSALI, S. S. & ZAINI, R. M. 2018. The effect of audit committee characteristics on financial restatements in Malaysia. *Journal of Asia-Pacific Business,* 19**,** 4-22.
WAN-HUSSIN, W. N. 2009. The impact of family-firm structure and board composition on corporate transparency: Evidence based on segment disclosures in Malaysia. *The International Journal of Accounting,* 44**,** 313-333.
WANG, D. 2006. Founding family ownership and earnings quality. *Journal of accounting research,* 44**,** 619-656.

WU, M. 2002. Earnings restatements: A capital market perspective.
XIE, B., DAVIDSON, W. N. & DADALT, P. J. 2003. Earnings management and corporate governance: the role of the board and the audit committee. *Journal of corporate finance,* 9**,** 295-316.
YANG, J. S. & KRISHNAN, J. 2005. Audit committees and quarterly earnings management. *International Journal of Auditing,* 9**,** 201-219.
YANG, M.-L. 2010. The impact of controlling families and family CEOs on earnings management. *Family Business Review,* 23**,** 266-279.
ZAMAN, M., HUDAIB, M. & HANIFFA, R. 2011. Corporate governance quality, audit fees and Non‐Audit services fees. *Journal of Business Finance & Accounting,* 38**,** 165-197.
ZIMMERMAN, M. A. & ZEITZ, G. J. 2002. Beyond survival: Achieving new venture growth by building legitimacy. *Academy of management review,* 27**,** 414-431.