

THE UNIVERSITY OF HULL

The Role of Audit Committees among Publicly Listed Companies in
Thailand: Cases of Audit Committee Oversight of Enterprise Risk
Management

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Dej-anan Bungkilo

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ABSTRACT

This research focuses on the role of audit committees among publicly listed companies in Thailand, a non-Western context when overseeing their companies' enterprise risk management systems. A mixed methods research approach, including quantitative and qualitative methods was used to gather and analyse the research data. The results reveal that just above a quarter of the participants in the sample believe that companies in which they had worked as part of the audit committee have mature and robust risk management systems in place, while more than half of the survey audit committee chairs/members indicate that their companies have implemented risk management systems, but they require substantial work.

The findings demonstrate no significant impact of the perceived higher levels of oversight responsibility for enterprise risk management on audit committees' judgement competence. However, this study finds that audit committees who perceived higher levels of oversight responsibility of enterprise risk management have a strong positive impact on their perceptions of the quality of enterprise risk management. The findings also show that the audit committees' judgement competence mediates the association between the audit committees' activities in overseeing the internal and external audit functions and the audit committees' perceptions of the quality of enterprise risk management.

The qualitative interview results of this study uncover 11 processes that audit committees utilised to perform the risk oversight task: (1) scope of risk oversight, (2) risk oversight as a collective process, (3) understanding of business and risks, (4) scepticism, (5) focus on high-risk, high-impact, (6) challenging and forcing, (7) use of specialists, (8) give advice and recommendations, (9) provide support and assistance, (10) informal processes, and (11) follow-ups.

In addition, the findings show that all of interviewees perceived the risk oversight responsibility as important. Such positive perceptions of the risk oversight task influenced audit committee chairs/members of this study to get involve closer in the internal and external audit functions. The findings report that they made a holistic judgement based on two components: information and perception. However, in the last step of the decision-making process, they demonstrate a willingness to accept their decisions under unknown conditions.

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TABLE OF CONTENTS

ABSTRACT	i
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF FIGURES	vii
LIST OF TABLES	viii
LIST OF ABBREVIATIONS	x
CHAPTER 1 Introduction	1
1.1 Rationale of the study	1
1.2 Objectives, Questions and Hypotheses of the Study	6
1.3 Significance of the Research	8
1.4 Structure of the Thesis	10
CHAPTER 2 Literature Review	12
2.1 Introduction	12
2.2 Major Streams of Audit Committee Research	12
2.3 The Audit Committee Oversight Process	13
2.4 The Audit Committee Oversight of Enterprise Risk Management	19
2.4.1 Overview of Enterprise Risk Management	19
2.4.2 The Role of the Audit Committee in Overseeing Enterprise Risk Management	25
2.5 The Resource Component of Audit Committee Effectiveness	29
2.5.1 Internal Audit Function	31
2.5.2 External Audit Function	42
2.6 Audit Committee Judgements and Decisions	50
2.7 The Evolution of Corporate Governance and the Audit Committee in Thailand	55
2.8 Prior Research on Audit Committees in Thailand	63
2.9 The Research Gaps	65
2.10 Chapter Summary	69
CHAPTER 3 Theoretical Framework and Hypotheses Development	70
3.1 Introduction	70
3.2 Research Objectives, Research Questions and Hypotheses	70
3.3 Theoretical Framework for the Current Study	73
3.4 Hypotheses Development	81
3.5 Chapter Summary	90

CHAPTER 4 Research Methodology	92
4.1 Introduction	92
4.2 Research Philosophy and Approach	92
4.3 Choosing the Methods for the Present Study	96
4.4 Quantitative Research Design	99
4.4.1 Development of the Questionnaire	100
4.4.2 Cover Letter	105
4.4.3 Structure of the Questionnaire	106
4.4.4 Population and Sampling Frame	116
4.4.5 Administration of the Survey	116
4.4.6 Test for Non-response Bias	118
4.4.7 Data Analysis Techniques	120
4.5 Qualitative Research Design	130
4.5.1 Types of Interview	132
4.5.2 Interview Method Used in the Study	135
4.5.3 Development of the Interview Protocol	138
4.5.4 Recruitment of Participants	140
4.5.5 Conducting the Interviews	144
4.5.6 Interview Data Analysis Technique	148
4.6 Ethical Considerations	155
4.7 Chapter Summary	155
CHAPTER 5 Descriptive Data Analysis	157
5.1 Introduction	157
5.2 Respondents' Demographic Composition and Background Information on Their Companies	157
5.2.1 Respondents' Demographic Composition	158
5.2.2 Background Information of Respondents' Companies	161
5.3 The Audit Committee's Understanding of Its Company's Risk	172
5.4 Audit Committees' Perceptions of the Enterprise Risk Management Role	175
5.5 Audit Committee's Activities in Overseeing the Company's Enterprise Risk Management	177
5.6 Audit Committee's Competence	181
5.7 Audit Committee's Perception of the Quality of Enterprise Risk Management	183
5.8 Audit committee's effectiveness	186
5.9 Chapter Summary	190
CHAPTER 6 Hypotheses Testing	192
6.1 Introduction	192
6.2 Overview of Research Objective and Hypotheses	192
6.3 Common Method Bias	194
6.4 Measurement of Constructs and Assessing the Dimensionality	196
6.4.1 Perception of the Importance of Enterprise Risk Management	197
6.4.2 Audit Committees' Oversight Activities	199
6.4.3 Judgement Competence	206
6.4.4 Perception of the Quality of Enterprise Risk Management	208
6.5 Data Analysis via Structural Equation Modelling	209

6.5.1	Assessing the Measurement Model	210
6.5.1.1	Reliability Assessment—Individual Indicator Reliability	212
6.5.1.2	Reliability Assessment—Internal Consistency Reliability	213
6.5.1.3	Validity Assessment—Convergent Validity	215
6.5.1.4	Validity Assessment—Discriminant Validity	216
6.5.2	Assessing the Structural Model	219
6.5.2.1	The Explanatory Power of the Structural Model	220
6.5.2.2	Assessment of Significance of the Hypotheses	221
6.6	Hypotheses Testing	224
6.7	Discussion of Findings	226
6.8	Chapter Summary	234
CHAPTER 7 Qualitative Findings		235
7.1	Introduction	235
7.2	Interviewee Profile	236
7.3	What Process Do Thai Public Company Audit Committees Use to Fulfil Their Enterprise Risk Management Oversight Responsibility?	240
7.3.1	Scope of Risk Oversight	241
7.3.2	Risk Oversight as a Collective Process	245
7.3.3	Understanding of Business and Risks	249
7.3.4	Scepticism	253
7.3.5	Focus on High-Risk, High-Impact	255
7.3.6	Challenging and Forcing	257
7.3.7	Use of Specialists	261
7.3.8	Giving Advice and Recommendations	262
7.3.9	Providing Support and Assistance	264
7.3.10	Informal Processes	265
7.3.11	Follow-ups	268
7.4	How do Thai Audit committees make Judgements and Decisions when they carry out the Oversight of Enterprise Risk Management?	270
7.4.1	Perception	271
7.4.2	Audit Committees' Activities in Overseeing the Internal Audit	275
7.4.3	Audit Committees' Activities in Overseeing the External Audit	250
7.4.4	Judgement and Decision Processes	283
7.5	Chapter Summary	289
CHAPTER 8 Conclusion and Implications		291
8.1	Introduction	291
8.2	Conclusions Relating to the Research Objectives	291
8.3	Implications to Theory	304
8.4	Implications to Practice	306
8.5	Limitations and Suggestions for Future Research	308
REFERENCES		312
APPENDIX A: Cover Letter and Questionnaire Survey		334
APPENDIX B: The Interview Protocol		340
APPENDIX C: Common Method Bias Testing		347

LIST OF FIGURES

Figure 2.1: Determinants of Audit Committee Effectiveness (ACE)	30
Figure 2.2: Audit Committees and Dimension of Effectiveness	30
Figure 2.3: SET Index from 1975 to 2013	58
Figure 3.1: Individuals' Process Thinking and Decision-Making Diagram	74
Figure 3.2: Hypothesized Relationships	90
Figure 4.1: Scale Development Process	101
Figure 4.2: Interview Protocol Development Process	139
Figure 6.1: Hypothesized relationships	194
Figure 6.2: Rules of Thumb for Assessing Measurement Models	211
Figure 6.3: Results of Estimating PLS Regressions	227

LIST OF TABLES

Table 2.1: Traditional Risk Management versus Enterprise Risk Management	21
Table 2.2: Real GDP Growth in Thailand (1985-98)	57
Table 4.1: Tests of Non-response Bias for Respondents' Characteristics	119
Table 4.2: Tests of Non-response Bias for Constructs	120
Table 4.3: Covariance-Based versus Component-Based SEM versus Linear Regression	124
Table 4.4: Rules of Thumb for Assessing Reflective Measurement Models	129
Table 5.1: Survey Respondent Demographics	160
Table 5.2: Size of Respondents' Companies	161
Table 5.3: Industry of Responding Companies	163
Table 5.4: State of Enterprise Risk Management Maturity	163
Table 5.5: State of Enterprise Risk management Maturity by Industry	167
Table 5.6: State of Enterprise Risk management Maturity by Company Size	168
Table 5.7: Categories of Risk Audit Committees Have Primary Oversight Responsibility	169
Table 5.8: The Degree to which Audit Committees focus on the Oversight of Companies' Enterprise Risk Management System	170
Table 5.9: Respondents' Views regarding the Level of Financial Risk in Their Companies	171
Table 5.10: Number of Audit Committee Meetings	172
Table 5.11: Level of Respondents' Understanding of the Company's Risk (Responses, % of 88)	174
Table 5.12: Audit Committees' Perceptions of the Risk Oversight Responsibility (responses, % of 88)	176
Table 5.13: Audit Committee's Activities in Overseeing the Company's Enterprise Risk Management (Responses, % of 88)	178
Table 5.14: Audit Committee's Judgement Competence	182
Table 5.15: Audit Committees' Perceptions of the Quality of Enterprise Risk Management	185
Table 5.16: Effectiveness of Audit Committees	188

Table 6.1: Cronbach's Alpha and Factor Analysis of Perception of the Importance of Enterprise Risk Management Scales	198
Table 6.2: Factor Analysis of Audit Committees' Oversight Activities	203
Table 6.3: Cronbach's Alpha and Factor Analysis of Judgement Competence Scales	207
Table 6.4: Cronbach's Alpha and Factor Analysis of Perception of the Quality of Enterprise Risk Management Scales	209
Table 6.5: Outer Loadings of the Indicators	212
Table 6.6: Cronbach's Alpha and Composite Reliability	214
Table 6.7: Average Variance Extracted (AVE)	216
Table 6.8: Cross-Loadings for Measurement Indicators	218
Table 6.9: Inter-construct correlations and square root of average variance extracted statistics	218
Table 6.10: R^2 Values of the Dependent (Endogenous) Constructs	221
Table 6.11: PLS Structural Model Results	223
Table 7.1: Characteristics of Interviewed Participants	237
Table 7.2: Participant Industry	237
Table 7.3: Background Information on Interviewees	239

LIST OF ABBREVIATIONS

AAA	American Accounting Association
AC	Audit Committee
ACE	Audit Committee Effectiveness
ACGA	Asian Corporate Governance Association
AICPA	American Institute of Certified Public Accountants
AVE	Average Variance Extracted
BOT	Bank of Thailand
CEO	Chief Executive Officer
CFA	Chartered Financial Analyst
CFO	Chief Financial Officer
CG	Corporate Governance
CIA	Certified Internal Auditor
CICA	Canadian Institute of Chartered Accountants
CLSA	Credit Lyonnais Securities Asia Limited
CMB	Common Method Bias
CMV	Common Method Variance
COSO	Committee of Sponsoring Organisations of the Treadway Commission
CPA	Certified Public Accountants
CRO	Chief Risk Officer
EFA	Exploratory Factor Analysis
ERM	Enterprise Risk Management
EY	Ernst & Young LLP
FEI	Financial Executives International
FRC	Financial Reporting Council
GDP	Gross Domestic Product

HUBS	Hull University Business School
IAF	Internal Audit Function
IIA	Institute of Internal Auditors
IMA	Institute of Management Accountants
IMF	International Monetary Fund
IRM	Institute of Risk Management
ISO	International Standards Organisation
JDM	Judgement and Decision-Making
JUD	Judgement
KPMG	KPMG LLP
NPLs	Non-Performing Loans
NYSE	New York Stock Exchange
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares Regression
OVA	Oversight Activities
PCAOB	Public Company Accounting Oversight Board
PIE	Perception of the Importance of Enterprise Risk Management
PQE	Perception of the Quality of Enterprise Risk Management
PLS	Partial Least Squares Regression
PwC	PricewaterhouseCoopers LLP
RIMS	Risk and Insurance Management Society
S&P	Standard & Poor's Financial Services LLC
SEC	Securities and Exchange Commission
SEM	Structural Equation Modelling
SET	Stock Exchange of Thailand
SOX	Sarbanes-Oxley Act

UK	United Kingdom
US	United States

CHAPTER 1

Introduction

1.1 Rationale of the study

Over the past decade several major business failures, corporate frauds and financial crises, as well as the continuous change in business environments and technology, have affected the role and scope of work being done by audit committees. As a consequence, there has been an increasing interest in enterprise risk management surrounding this dynamic environment. Many companies have established enterprise risk management in order to respond to uncertain circumstances or crises in a timely manner. There is a widespread recognition that enterprise risk management should be viewed holistically in relation to risk management and should consider the integrated impact of risks such as financial, strategic, operational, compliance, regulatory, and reputational risk, among others (e.g. COSO, 2009b; Arena et al., 2010; Mikes, 2011; Mikes & Kaplan, 2014). To strengthen and upgrade the company's enterprise risk management program, corporate boards and senior management play a critical role in implementing best practices with respect to enterprise risk management, and the board's focus on effective risk oversight is critical to strengthen the company's enterprise risk management program (COSO, 2009a).

The term *oversight of risk* is often employed synonymously with review of risk, in the governance regulations (SET, 1999; NYSE, 2004; FRC, 2006), in professional guidelines (COSO, 2004, 2010) and in academic literature (Beasley et al., 2005a; Brown et al., 2009). While it is universally accepted that oversight of enterprise risk management is one of a board's functions, the responsibility of enterprise risk management oversight is often allocated to a board committee. Typically, the audit

committee is not responsible for preparing financial statements, outlining relevant disclosures, or maintaining the internal control system. Rather, the audit committee discharges their responsibilities through providing substantive oversight of the financial reporting process. In other words, audit committee oversight refers to the process employed by audit committees to monitor the financial reporting process asserting the integrity of a company's financial statements and disclosures (Beasley et al., 2009b; EY, 2012). As the audit committee is a subcommittee of the board of directors, in many cases it is delegated oversight of management's enterprise risk management processes by the board (Beasley et al., 2008).

This is consistent with regulatory requirements in the United Kingdom, United States and Thailand which dictate that while the top management of listed companies is responsible for risk management, audit committees are required to oversee the process by which risk management is undertaken (SET, 1999; NYSE, 2004; FRC, 2014). Under the New York Stock Exchange's 2004 *Final Corporate Governance Rules*, Section 303 A.07 Audit Committee Additional Requirements, an audit committee is required to discuss policies with respect to risk assessment and risk management, as follows:

While it is the job of the CEO and senior management to assess and manage the listed company's exposure to risk, the audit committee must discuss guidelines and policies to govern the process by which this is handled. The audit committee should discuss the listed company's major financial risk exposures and the steps management has taken to monitor and control such exposures. The audit committee is not required to be the sole body responsible for risk assessment and management, but, as stated above, the committee must discuss guidelines and policies to govern the process by which risk assessment and management is undertaken. Many companies, particularly financial companies, manage and assess their risk through mechanisms other than the audit committee. The processes these companies

have in place should be reviewed in a general manner by the audit committee, but they need not be replaced by the audit committee (NYSE, 2004:12).

Within the UK regulation, *the Combined Code on Corporate Governance 2014* sets out the audit committee's role in risk management as follow:

The board should establish formal and transparent arrangements for considering how they should apply the corporate reporting and risk management and internal control principles and for maintaining an appropriate relationship with the company's auditors.

The main role and responsibilities of the audit committee should be set out in written terms of reference and should include:

- to review the company's internal financial controls and, unless expressly addressed by a separate board risk committee composed of independent directors, or by the board itself, to review the company's internal control and risk management systems.

In Thailand, the Stock Exchange of Thailand (SET) issued Best Practice Guidelines for Audit Committee in 1999, which relates to Duties and Responsibilities of the Audit Committee, reads as follows:

To perform any other act as delegated by the Board of Directors and approved by the Audit Committee such as to review the financial management and risk management policies, to review of the compliance with the Code of Corporate Conducts, to review significant reports which must be disclosed to the public as required by law jointly with the management of the company e.g. the Management's Discussion and Analysis etc.

Clearly, the regulators have placed demands on audit committees for overseeing a company's enterprise risk management system. However, little is known about how audit committees carry out risk oversight tasks in practice. This gap has provided a research avenue to investigate the processes through which audit committees used in oversight of enterprise risk management for the present study.

Among accounting scholars, they have mostly investigated emphasis on the link between corporate governance mechanisms (e.g. boards and audit committee characteristics) and financial reporting outputs (e.g. earnings quality). Since audit committees assume an important role in corporate governance, research on audit committees published in academic accounting and finance journals has grown dramatically. More interestingly, research evidence on the audit committee operation is relatively limited. This is particularly true in the extant literature reviews on governance areas (DeZoort et al., 2002; Spira, 2002; Bédard et al., 2004; Cohen et al., 2004; Turley & Zaman, 2004; Gillan, 2006; Cohen et al., 2007; Brennan & Solomon, 2008; Bédard & Gendron, 2010).

With respect to the literature on the audit committee operation, prior studies have examined audit committee oversight processes in general (Beasley et al., 2009b), formal and informal processes of audit committee operation (Turley & Zaman, 2007), the process by which meanings concerning audit committee effectiveness are constructed and sustained (Gendron et al., 2004; Gendron & Bédard, 2006), and audit committees' interaction with management and auditors (Beattie et al., 2012), such studies have not directly investigated the risk oversight process operated by audit committees. Moreover, despite the oversight of risk management has increased a markedly pervasive professional literature (PriceWaterhouseCoopers, 2003; COSO, 2004; KPMG, 2006 ; COSO, 2010; McKinsey&Company, 2010; CICA, 2012; Ernst&Young, 2012; KPMG, 2012) and early research examines the nature of enterprise risk management and many contexts within the organisation (e.g. Beasley et al., 2005a; Aebi et al., 2012; Ahmad et al., 2014; Amaya et al., 2015), there has been little research into the nature of the oversight area in which audit committee members should perform.

In terms of the decision-making and process thinking of audit committees, although more recent research in audit committee judgements and decisions has grown

in many areas of audit committee research (e.g. Knapp, 1987; DeZoort, 1998; DeZoort & Salterio, 2001; Pomeroy, 2010; Persellin, 2013), the lack of attention to investigating the decision-making and process thinking of audit committees when discharging their enterprise risk management oversight responsibility, in essence, exhibits an important gap in the existing literature.

In relation specifically to Thai corporate governance, based on the 20 top emerging markets reported by Bloomberg Markets magazine, the Thai capital market was ranked third, behind China and South Korea (Bloomberg, 2013). In the ranking rated by Asian Corporate Governance Association and CLSA Asia-Pacific Markets, Thailand's scores on corporate governance improved to third among eleven capital markets in Asia, although corruption remains a major issue (ACGA-ASIA, 2012). More importantly, corporate governance research in terms of audit committees over the past decades has been widely studied in Western countries. To date, however, the literature on audit committees in Thailand is relatively scarce (Tengamnuay & Stapleton, 2009; Thoopsamut & Jaikengkit, 2009; Kiatapiwat, 2010).

More importantly, many researchers (e.g. DeZoort et al., 2002; Spira, 2002; Bédard et al., 2004; Cohen et al., 2004; Turley & Zaman, 2004; Gillan, 2006; Cohen et al., 2007; Brennan & Solomon, 2008; Bédard & Gendron, 2010) calls for using a variety of research methods and theories to enhance better understanding of audit committee process. Specifically, Beasley et al. (2009b:113) "encourage additional research on certain audit committee process areas". Thus, this study contributes to such calls by examining the complexities surrounding audit committees discharge their responsibility in terms of the oversight of enterprise risk management in the Thai context. Taken together, the current study particularly focuses on (1) a background of audit committee oversight of enterprise risk management practices within Thai public company audit committees, (2) how audit committee members' perceptions of the

oversight of enterprise risk management and oversight activities influence their judgement competence and perceptions of the quality of enterprise risk management system, (3) the processes of Thai audit committees in overseeing companies' enterprise risk management, and (4) the ways in which audit committees make judgements and decisions when they carry out the oversight of enterprise risk management.

1.2 Objectives, Questions and Hypotheses of the Study

In order to develop a better understanding of the action and thought processes discharged by the committees in overseeing Thai public companies' enterprise risk management, objectives, questions and hypotheses of the research are established as follows:

Research Objective 1: To understand the extent of a background of audit committee oversight of enterprise risk management practices within Thai public company audit committees.

To achieve this objective, the following research question is addressed.

Research Question: To what extent is there a background of audit committee oversight of enterprise risk management practices within Thai public company audit committees?

Research Objective 2: To examine how audit committee members' perceptions of the oversight of enterprise risk management and oversight activities influence their judgement competence and perceptions of the quality of enterprise risk management system.

To achieve this objective, the following hypotheses were investigated.

Hypothesis 1: Audit committee members' perceptions of the high importance of enterprise risk management oversight will be positively related to their judgement competence.

Hypothesis 2: Audit committee members' perceptions of the high importance of enterprise risk management oversight will be positively related to their perceptions of the high quality of enterprise risk management.

Hypothesis 3: Audit committee members' activities in evaluating the internal audit function will be positively related to their judgement competence.

Hypothesis 4: Audit committee members' activities in evaluating the external audit function will be positively related to their judgement competence.

Hypothesis 5: Audit committee members' judgment competence will be positively related to their perceptions of the quality of enterprise risk management.

Research Objective 3: To describe process elements used by Thai public company audit committees in performing the oversight of enterprise risk management.

To accomplish this objective, the following research question is addressed.

Research Question: What process do Thai public company audit committees use to fulfil their enterprise risk management oversight responsibility?

Research Objective 4: To explain the ways in which Thai public company audit committees make judgements and decisions when they carry out the oversight of enterprise risk management.

To achieve this objective, the following research question is addressed.

Research Question: How do Thai public company audit committees make judgements and decisions when they carry out the oversight of enterprise risk management?

1.3 Significance of the Research

This study offers a number of implications insights into the existing knowledge of both academics and practitioners.

From a theoretical stance, in comparison to developed countries such as the UK and US, the research evidence on audit committee and governance in Thailand is rather limited. The current research on audit committees in the Thai stock market has provided valuable insights into the understanding of audit committee practices in terms of the audit committee oversight of enterprise risk management. Importantly, the extent to which the audit committee oversight process has not been widely examined in Thai listed companies. This study sheds light on the extent to which audit committee members have been held accountable as oversight of enterprise risk management in Thai firms.

In addition, this study adopts both a process thinking model (Rodgers, 1992; Foss & Rodgers, 2011) and psychological theories of information processing, perception, judgment and decision-making (Tushman & Nadler, 1978; Gibson, 1988; Luthans, 1998; Blanchette & Richards, 2009; Huczynski & Buchanan, 2013) as the theoretical foundation for the research framework, looking to predict and explain audit committee members' thought processes regarding the task of overseeing enterprise risk management. The findings of the study offer a better understanding of the value of action and thought processes of audit committees when they conduct the risk oversight of firms' enterprise risk management.

From a practical point of view, this research has implications for regulators, whereby providing significant evidence from field study regarding meaningful information on the action and thought processes carried out by Thai audit committee members in oversight area of risk management. Typically, regulators (e.g. SET and Thai SEC) have been concerned with the quality of work being done by audit committees. Therefore, they should be interested in the findings of this research, specifically where results represent the particular issues addressed in their requirements. A better understanding, through the findings can inform regulators in seeking ways in which they can promote the substance of the audit committee's oversight as well as future policy in relation to the role of audit committees. In addition, a better understanding of how audit committees oversee enterprise risk management are useful to investors, auditors, boards of directors, professional bodies, audit committee themselves, and other stakeholders. More importantly, the findings provide important implications for those who are concerned with audit committees' work, in which enhancing oversight of enterprise risk management would allow firms to minimise the consequences to the greatest extent possible of a negative occurrence affecting the welfare of stakeholders.

That is because whether audit committees make good or bad decisions has a very significant impact not only on firms and shareholders, but on all stakeholders.

1.4 Structure of the Thesis

This thesis is organised into eight chapters. Following this introductory chapter, Chapter 2 presents an extensive literature review on the operation of audit committees and their decision-making process. It begins with discussing major streams of the audit committee research and a critical review of the audit committee oversight process research. The review then focuses upon enterprise risk management and the role of the audit committee in overseeing enterprise risk management, as well as prior literature in relation to two resource components of audit committee effectiveness: the internal and external audit functions. The chapter also includes a literature review of audit committee judgements and decisions. The evolution of corporate governance and the audit committee in Thailand and prior research on audit committees in Thailand is provided. Finally, based on the literature review, gaps in the literature are identified and discussed in this chapter.

Chapter 3 deals with the theoretical framework and hypotheses development. It illustrates the objectives and hypotheses of the research. In this regard, the theoretical framework underlying grounded on psychological theories of information processing, perception, process thinking model for guiding the research is discussed. The final part of this chapter presents the development of the hypothesized relationship and causal mechanisms based on the theoretical framework.

Chapter 4 is concerned with the research methodology. The chapter outlines the methodology used to test the research hypotheses and to answer the research questions in order to achieve the research objectives. It provides a discussion of the philosophical assumptions that underpin research methodologies and the rationale to justify the use of

the mixed methods research approach for the present study. Finally, the chapter presents a detailed discussion of the research design of this study, including quantitative research design and qualitative research design.

Chapter 5 presents the results of the descriptive statistics of the study emphasising on answering the research question one: to what extent is there a background of audit committee oversight of enterprise risk management practices within Thai public company audit committees.

Chapter 6 explains all the steps undertaken in the measurement of constructs used for the study and presents the findings of the hypotheses testing. It discusses an assessment of common method bias. The measurement of constructs and assessing the dimensionality are described. The statistical methods used for testing the hypotheses and the findings are presented. Finally, the chapter provides a discussion of the findings.

Chapter 7 reports the qualitative findings. It starts with background information on the interviewees. The chapter then presents the findings for answering the last two research questions. First, the chapter concentrates upon detailed analyses of what processes Thai public company audit committees use to fulfil their enterprise risk management oversight responsibility. The chapter then moves to the presentation of how Thai audit committees make judgement and decision when they carry out the oversight of enterprise risk management.

Chapter 8 summarises the research conclusion and implications of the study. In this chapter, attention is given to the theoretical and managerial implications drawn from the research findings. In addition, an assessment of the research limitations and a guide for future research are provided.

CHAPTER 2

Literature Review

2.1 Introduction

As the emphasis of this study is on the operation of audit committees and their process thinking when overseeing enterprise risk management, the existing literature addressing these topics is reviewed. The first section presents an overview of the major streams of audit committee research. The second section provides a review of the research into audit committee oversight processes. In the third section, an overview of enterprise risk management is explored and prior research on the role of the audit committee in overseeing enterprise risk management is discussed. The fourth section reviews the prior literature with respect to two resource components of audit committee effectiveness: the internal and external audit functions, while the fifth discusses audit committee judgements and decisions. The sixth section looks at the evolution of corporate governance and the audit committee in Thailand and prior research on audit committees in Thailand is discussed in the seventh section. The gaps in the literature are discussed in the eighth section, and the final section presents the summary of this chapter.

2.2 Major Streams of Audit Committee Research

Corporate governance seems to be interdisciplinary, with issues relating to corporate governance having been examined by economics, finance, law, management, and accounting scholars (Sloan, 2001; Larcker et al., 2007; Bebchuk & Weisbach, 2010; Brickley & Zimmerman, 2010). Specifically, since audit committees assume an important role in corporate governance, the amount of research on audit committees published in academic accounting and finance journals has grown dramatically.

The prior excellent literature reviews on audit committee research have provided significant insights into the research frontier in that field, including DeZoort et al. (2002), Turley and Zaman (2004), Cohen et al. (2007), Pomeroy and Thornton (2008), Bédard and Gendron (2010), Ghafran and O'Sullivan (2013) and Malik (2014). Based on the reviews, studies of the impact of audit committee characteristics and effectiveness on financial reporting outputs (e.g. earnings quality) and shareholder value have dominated audit committee research among accounting and finance scholars. A number of studies show that the audit committee is one of the main corporate governance mechanisms that plays a significant role in order to enhance the quality of financial reporting and accounting functions, and have effects on firm value (e.g. Klein, 2002a, b; Abbott et al., 2003a; 2003b; Carcello & Neal, 2003; Xie et al., 2003; Bédard et al., 2004; Defond et al., 2005; Karamanou & Vafeas, 2005; Krishnan & Jong Eun, 2009). In addressing the limitations of the extant research and the importance of studying audit committees, those reviews suggest that little attention has been devoted to researching insight into the operation of the audit committee. Consequently, there has been a dearth of research evidence in the process used by audit committees when discharging their oversight responsibilities (Beasley et al., 2009b). Therefore, there is a need to broaden the research in the area of the audit committee oversight process.

2.3 The Audit Committee Oversight Process

One research area that has received recent attention in audit committee literature is the audit committee oversight process. As stated above, there is very little literature examining the processes used by audit committees. Thus, a number of researchers in the field of the audit committee specifically call for using a variety of research methods and theories to enhance better understanding of the audit committee process (DeZoort et al., 2002; Spira, 2002; Bédard et al., 2004; Cohen et al., 2004; Turley & Zaman, 2004; Gillan, 2006; Cohen et al., 2007; Brennan & Solomon, 2008; Bédard & Gendron, 2010)

in response to calls for broaden understanding of audit committee processes. As follows, many recent studies provide deeper, more current insights into the manner of audit committee operation and how its processes impact on governance outcomes.

Spira (1999a) explores the way in which audit committee perform in the UK through the lens of actor-network theory. The author interviews 21 participants' accounts of audit committee, including audit committee chairs and members, finance directors, and external and internal auditors in large UK public companies during 1994-1996. The findings show that the audit committee is itself a network. Audit committee members who are independent (non-executive) members are actors representing shareholders. Audit committee members are tied together into networks built and maintained in order to accomplish a specific goal, for example, accomplishing audit committee effectiveness. The audit committee generates its own strength from the experience and skills of its members and from the authoritative support of related laws and regulations. The audit committee meeting is a ceremonial performance and may be seen as a 'centre of translation.' The ceremonial components of audit committee operation consist of meeting documentation, logistics, conventions of behaviour and the process of questioning. The audit committee performs its meetings for both external and internal audiences. The meeting process is used by an internal audience for deterring and protecting fraud, inappropriate behaviour and incompetence within the company. For an external company audience, the public report of the existence of audit committee activities supports symbolic nature of its operations used by companies for strengthening their network, and thereby assisting companies to illustrate an image regarding their quality of the statutory audit and financial reporting to a public audience. Specifically, reports in relation to audit committee are used to demonstrate that a company is concerned about complying with laws and regulations by establishing high standards of corporate governance in this respect. The asking of questions and receipt of

a response is an important part of audit committees' operations. The questioning process allows audit committee members to demonstrate their independence. While asking the right question and interpreting the answers appropriately depends upon the experience and knowledge of the non-executive directors, skill in questioning is seen as a main quality in an effective non-executive director. Based on actor-network theory, the process of questioning that takes place within the meeting and the performance of the private meeting between the audit committee and the external auditor strengthens the audit committee as a network, which is considered to be good practice. Therefore, the significant role of the audit committee operation is a demonstration of good practice. The existence of an audit committee is designed to deter and protect from both fraud and incompetence within a company, while the symbolic nature of those good practices illustrates to the public audience that a company is 'doing the right thing,' by means of complying with the recommendations of related governance laws and regulations.

Studies of Gendron et al. (2004) and Gendron and Bédard (2006) extend our knowledge of the process with respect to audit committee effectiveness. Gendron et al. (2004) study insights into practices carried out by audit committee members in meetings, including the parts of members' meetings in private session with auditors. A field study was conducted by semi-structured interview with 22 individuals (audit committee members, top management, internal auditors, and external auditors) in three large Canadian public corporations. Their results suggest that audit committee members pay attention to issues of financial statement accuracy, appropriateness of the wording used in financial reports, corporate control effectiveness, and audit quality. According to Pentland (1993), the notion of comfort plays a key role for auditors in conducting audit engagements. The author argues that it is also a key role of the work carried out by audit committee members. Deriving comfort from reviews and tough questions are more likely to be a key aspect of the approach in which various parties confer trust to the

financial reporting process. The findings indicate that management and auditors need to demonstrate that they are trustworthy in order to audit committee members. Moreover, the findings also show that audit committee members seek to pose challenging questions to managers and auditors in order to assess trustworthiness. This also provides members' legitimacy in the eyes of managers and auditors.

Gendron and Bédard (2006) supplement the data from Gendron et al. (2004) and employ a social constructivist approach to examine the role of symbols and actors' reflectivity in constructing meanings of audit committee effectiveness. Semi-structured interviews were conducted in a second round to allow interviewees to describe the role performed by their firm's audit committee and to evaluate the extent to which the committee fulfils this role. The results show that participants develop their sense of audit committee effectiveness through four types of processes: (1) audit committee member backgrounds (independence and expertise); (2) ceremonial features of audit committee meetings; (3) substantive practices and activities that take place within audit committee meetings; and (4) informal actions outside of audit committee meetings.

Recent study provides new insights into how the individual power of audit committee members and informal processes influence power relationships between other governance participants in organisations. Turley and Zaman (2007) adopt a case study approach to enhance understanding of the processes that the audit committee carry out within a UK public company at a particular point in time. Specifically, they focus on the informal processes affecting the operation and potential effectiveness of audit committees. Based on interviews with nine individuals (the audit committee chair, management, internal auditors and external auditors), the findings show that informal processes through interaction between the audit committee, individuals from financial reporting process, internal audit system and the external auditors seem to have influence over audit committee effectiveness, rather than the formal processes that are codified in

governance codes; this is consistent with Gendron and Bédard (2006). This does not argue that formal processes are irrelevant. Indeed, a standardised governance practice provides only a partial guide to audit committee activity and effectiveness. Furthermore, the committee has significant influence on power relations between other governance participants. The authors also identify the three roles of the audit committee, including a threat, an arbiter, or an ally.

Interestingly, it appears that above studies have explored the audit committee operation outside the United States (i.e. in the United Kingdom and Canada). Accordingly, Beasley et al. (2009b) study the process carried out by audit committees as a whole and obtained data through interviews with 42 individual audit committee members in the US. They find that the members are quite committed to providing effective monitoring of financial reporting and they try to avoid being described as ceremonial. However, it appears that some audit committee members have encountered management teams with ceremonial action of governance. Many audit committee members were selected for committee service due to their relationship with management or other directors. Despite this Turley and Zaman (2007) suggest that informal processes may be consistent with effectiveness of audit committees, as their study shows that the audit committee's efforts include much more emphasis around formal meetings and, thus, may be more ceremonial. Most of the audit committee members rely on their efforts to monitor the financial reporting process. Nevertheless, in some cases, the audit committee is not responsible for some responsibilities such as the review of the risk of fraudulent financial reporting. Audit committee members seem to act centred more on overseeing the external audit than the internal audit functions.

Additionally, consistent with Gendron et al. (2004), asking good questions¹ seems to be the most important thing in the perception of many committee members.

Finally, Beattie et al. (2012) study the relative levels of engagement of the audit committee and auditors on audit planning, audit performance and audit finalisation. Using survey approaches (i.e. questionnaires and interviews) they obtained data from audit committee chairs, audit partners and chief financial officers (CFOs) for the top 250 UK-listed companies, which were surveyed in June 2007. They document that between 70 percent and 90 percent of six out of seven responsibilities (recommendation to board for appointment of auditors, agreeing terms of engagement, overseeing auditor independence, overseeing auditor effectiveness, agreeing audit fee, and agreeing non-audit services to be purchased from the auditor) are undertaken by the audit committee. For the remaining one, only 57 percent of the audit committee is engaged in agreeing non-audit service fees to be paid to the auditor. They argue that the audit committee delegates some responsibilities to the CFO, even though the final decision may remain with the audit committee. Interestingly, only 50 percent of 16 mainstream audit issues² relating to audit planning, audit performance and audit finalisation are routinely discussed each year by the parties concerned. Most of the 16 audit-related issues are reported by management and the auditors to the audit committee and this limits need for discussion. The results suggest that the audit committee are more likely to involve the audit matters through communication rather than discussion. They also find that factors

¹ According to Gendron et al. (2004), good questions refer to “relevant” questions—not the “generic” ones found in checklists distributed by audit committee members’ own accounting firm or questions about the “basics of financial statements and internal controls.” In addition, good questions are related to members’ ability to ask challenging and tough questions which is a key dimension of audit committee effectiveness in the eyes of managers and auditors.

² The 16 audit-related issues consists of (1) scope of group audit coverage, (2) quality of company’s internal financial controls, (3) materiality level adopted by auditors, (4) audit timetable, (5) scope of subsidiaries and branches audit, (6) auditors’ attitude to risk, (7) extent of external auditor’s reliance on internal audit, (8) directors’ attitude to risk, (9) content of management letters, (10) technical competence of audit team, (11) personal qualities of audit team, (12) extent of referral to audit firm’s technical department, (13) attempts to renegotiate audit fees by auditor, (14) wording of the audit report, (15) failure to meet agreed timetable by company, and (16) failure to meet agreed timetable by auditor.

affecting the parties involved in the audit-related issue discussions consist of the nature of the audit-related issue, company size, audit firm size, and audit committee characteristics.

2.4 The Audit Committee Oversight of Enterprise Risk Management

2.4.1 Overview of Enterprise Risk Management

It is universally acknowledged that risk is an intrinsic part of everyday business and organizational strategy. As the risks facing corporations have become increasingly complex over the last decade, managing risk has become a central challenge and is important in the running of today's modern corporate world. In the present global business vocabulary, 'enterprise risk management' has become one of the most frequently used phrases. Yet, the idea of enterprise risk management is relatively new, while the theory of corporate risk management is well established in academic finance and financial economic. A number of academic studies have established the theoretical underpinning for risk management, explaining that effective risk management can reduce taxes, reduce transaction costs and improve investment decisions (e.g. Modigliani & Merton, 1958; Mayers & Smith, 1982; Smith & Stulz, 1985; Froot et al., 1993). Nowadays, there is an extensive literature in the field of finance that covers several aspects of corporate risk management and the richness of studies examining: why does a corporation manage risk and more important for the present study, what is the effect of risk management on firm value? (Eckles et al., 2014). Many different types of risk faced by corporations, including financial risks, strategic risks, compliance risks, reporting risks and operational risks. However, each firm experiences a different risk profile, and their prioritization of these risks is likely different. Importantly, even though risk is to be managed by corporations, it should not be eliminated.

Indeed, risk management is a dynamic concept that has grown and transformed in several varied ways for many years. The phenomenal growth of interest in risk management started in the mid-1990s (Power, 2009; Arena et al., 2010). Radically, the concept of risk management is based on the foundation that organizations want to achieve their organizational goals. It is management's responsibility to manage uncertainty events, including negative effects (risks), positive effects (opportunities), or a mix of both risk and opportunity that affects the execution of organizations' strategies and the achievement of organizations' objectives. From a risk management perspective, the way in which the management of the business manage the risk-return trade-off is critical and that affects the entire organization (Nocco & Stulz, 2006).

Although management has often implemented some form of risk management, in the past, risk management has not implemented based on an integrated approach. It is apparent that, traditionally, a "silo" or "stovepipe" approach is used by organisation when managing their risks. Within traditional risk management approach, risks are frequently managed in isolation (Kleffner et al., 2003; Liebenberg & Hoyt, 2003; Banham, 2004). Several types of risk are managed by heads of the business unit with minimal monitoring or communication of how certain risk management responses might have an effect on other risk aspects of the organisation, including strategic risks (Beasley & Frigo, 2010). Thus, risk handling using the traditional approach is generally rather weak and defensive, thereby emphasising the protection of the corporation against adverse financial scenarios and managing risks on an ad hoc basis or informally. There had been considerable debate as a hot topic for a number of years over increasing demands for a better risk management approach. Recently, however, risk management has moved beyond individual functions and departments to become a holistic, coordinated and integrated approach which manages risk across the organisation (Beasley et al., 2005a; Beasley et al., 2009a; Arena et al., 2010). This integrated process

has become known as enterprise risk management (ERM), which means the elimination of traditional departmental, divisional, functional or cultural barriers (KPMG, 2001). By adopting enterprise risk management, organizations can strengthen their ability to carry out their strategies and business plans (Nocco & Stulz, 2006). The essential differences between enterprise risk management and more traditional approaches of managing risk are shown in Table 2.1.

Table 2.1: Traditional Risk Management versus Enterprise Risk Management

Traditional risk management	Enterprise Risk Management
Risk as individual hazards	Risk in the context of business strategy
Risk identification and assessment	Risk portfolio development
Focus on discrete risks	Focus on critical risks
Risk mitigation	Risk optimization
Risk limits	Risk strategy
Risks with no owners	Defined risk responsibilities
Haphazard risk quantification	Monitoring and measuring of risks
Risk is not my responsibility	“Risk is everyone’s responsibility

Source: KPMG (2001:10)

Several organisations have developed standards, guides, procedures and codes of practice of enterprise risk management over time in order to meet the needs of a wide range of stakeholders for ensuring that risk is effectively managed within the organisation as a whole. As a result, many organisations have taken the liberty of defining enterprise risk management on the basis of their organisational viewpoint or industry perspective. A definition provided by the Committee of Sponsoring Organisations of the Treadway Commission (COSO), is relatively the most well-known, among others. COSO comprises representatives from the AAA (American Accounting Association), AICPA (American Institute of Certified Public Accountants), IMA (the Institute of Management Accountants), IIA (the Institute of Internal Auditors) and FEI

(Financial Executives International). In 2001, COSO engaged PricewaterhouseCoopers to launch a project for developing a framework that would be readily usable by management to assess and enhance their organisations' enterprise risk management. As a result of this project, *Enterprise Risk Management—Integrated Framework* was released in 2004. That framework defines enterprise risk management as follows:

Enterprise risk management is a process, effected by an entity's board of directors, management, and other personnel, applied in a strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.

According to page 5 of the framework, embedded in the definition are seven underlying concepts, which attest that enterprise risk management:

- A process, on-going and flowing through an entity
- Effected by people at every level of an organisation
- Applied in a strategy setting
- Applied across the enterprise, at every level and unit, and includes taking an entity-level portfolio view of risk
- Designed to identify potential events that, if they occur, will affect the entity, and to manage risk within its risk appetite
- Able to provide reasonable assurance to an entity's management and board of directors
- Geared to achievement of objectives in one or more separate but overlapping categories

However, there is no single, universally accepted definition, and the definition by COSO is just one of a number of definitions provided for enterprise risk management. There are differences in definition according to which organisation is considered. Other definitions/frameworks include those of the Joint Australian/New Zealand Committee OB-007 (AS/NZ), Institute of Risk Management (IRM),

International Standards Organisation (ISO), Institute of Internal Auditors (IIA) and the Risk and Insurance Management Society (RIMS). The many ways of defining the subject are presented as follows:

Risk management is the culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects.

Joint Standards Australia/Standards New Zealand Committee OB-007,
AS/NZS 4360:1995 Risk management

Risk management is a central part of any organisation's strategic management. It is the process whereby organisation methodically address the risks attaching to their activities with the goal of achieving sustained benefit within each activity and across the portfolio of all activities.

Institute of Risk Management (IRM), (2002)

Risk management is coordinated activities to direct and control on organisation with regard to risk.

International Standards Organisation (ISO), (2009)

Enterprise-wide risk management is a structured, consistent and continuous process across the whole organisation for identifying, assessing, deciding on responses to and reporting on opportunities and threats that affect the achievement of its objectives.

Institute of Internal Auditors (IIA), (2009)

Enterprise risk management is a strategic business discipline that supports the achievement of an organisation's objectives by addressing the full spectrum of its risks and managing the combined impact of those risks as an interrelated risk portfolio.

Risk and Insurance Management Society (RIMS), (2011)

When put into context, the common and exceptional concepts are well put by Standard & Poor's Rating Services (S&P); the rating agency currently focuses on the use of the fundamental structure of its analysis incorporated with an enterprise risk

management into regular credit reviews for each company. S&P views enterprise risk management as:

- An approach to assure the firm is attending to all risks
- A set of expectations among management, shareholders, and the board about which risks the firm will and will not take
- A set of methods for avoiding situations that might result in losses that would be outside the firm's tolerance
- A method to shift focus from 'cost/benefit' to 'risk/reward'
- A way to help fulfil a fundamental responsibility of a company's board and senior management
- A toolkit for trimming excess risks and a system for intelligently selecting which risks need trimming
- A language for communicating the firm's efforts to maintain a manageable risk profile

In summary, there is quite a range of ways in which the scope of enterprise risk management is invoked and defined. However, the definitions of enterprise risk management found in several organisations tend to share particular characteristics. Instead of managing risks individually, enterprise risk management proposes a process that presents as a comprehensive and holistic approach for organisations in managing risk across the organisation as a whole (Mikes, 2009; Arena et al., 2010; Hayne & Free, 2014). Difference in terminology, methodology and measures indicate that enterprise risk management in practice will differ across organisations and industries. What is essential for implementing enterprise risk management to be effective is that an organisation's interpretation and use of enterprise risk management terminology, and methodology measures are in accordance with their organisation. To underscore the importance of enterprise risk management, Nocco and Stulz (2006:20) argue that "while one outcome of effective ERM should be a better estimate of expected value and better understanding of unexpected losses, ERM does not eliminate risk. Thus, extreme

negative outcomes are still a possibility, and the effectiveness of ERM cannot be judged on whether such outcomes materialize. The role of ERM is to limit the probability of such outcomes to an agreed-upon, value-maximizing, level.”

2.4.2 The Role of the Audit Committee in Overseeing Enterprise Risk Management

Although increasing attention is being paid to the issue of enterprise risk management oversight within practice of audit committees, the evidence on the audit committee oversight of risk management indicates that it is relatively limited. Early research examines the nature of enterprise risk management and many contexts within the organisation, but there is little empirical study in terms of audit committees.

It is widely accepted that internal audit functions play a fundamental role in supporting enterprise risk management (COSO, 2004, 2011). Beasley et al. (2005b) empirically investigate internal auditing’s involvement in enterprise risk management. Using an online survey in spring 2004, they report that the respondents indicated a wide range of enterprise risk management development in their organizations. Eleven percent in the survey say that have a complete enterprise risk management implement in place, 37 percent have adopted a partial enterprise risk management framework, and 17 percent report no plans to implement enterprise risk management. They also report the existence of a formal designation of chief risk officer (CRO) or equivalent. Thirty-three percent of surveyed organizations have a formal designation of chief risk officer or equivalent, and the majority of formally designed CROs report to the chief executive officer or chief financial officer; more interestingly, some report to the board or audit committee. The results show the effect of enterprise risk management on internal auditing that: (1) enterprise risk management has affected internal auditing’s planning and testing, as well as causing internal auditing to have a better understanding of corporation risks; (2) enterprise risk management has resulted in internal auditing’s

position within the corporation; and (3) enterprise risk management has affected internal auditing with an increased work load. However, the respondents indicated that enterprise risk management has had a moderate effect on internal auditing activities.

Kleffner et al. (2003) examine whether corporate governance guidelines have played a part in the decision to implement enterprise risk management within Canadian companies. Using a mail survey and telephone interview approach, they show that 31 per cent of surveyed companies have implemented enterprise risk management; and give reasons for implementing enterprise risk management. These consist of the influence of the risk manager (61 percent), the board of directors' encouragement to implement (51 percent), and compliance with the regulator guidelines (37 percent). The major deterrents to the adoption of enterprise risk management were an organisational structure or culture that discourages enterprise risk management (48 percent) and an overall resistance to change (42 percent). The authors focused on the experience of risk managers in their organisations about the involvement in risk management in the last three years. They document that company-wide guidelines for risk management had been developed (45 percent) and their sense of responsibility to provide information to top management or committees of the board had increased (59 percent). In addition, the findings indicate that Canadian companies are moving toward an enterprise risk management view. However, they find no difference between companies that are listed on the Toronto Stock Exchange and those that are not in terms of the propensity to use enterprise risk management. More interestingly, 37 percent of companies noted that their decision to implement enterprise risk management had been affected by the regulator guidelines. They argue that enterprise risk management is still not widely adopted within Canadian companies. However, those companies will be forced by the regulator to take a more integrated approach to risk management than in the past.

In a recent professional article, Beasley et al. (2008:44) discuss the rising expectations for the audit committee with the overseeing company's risk management in that "in many companies, boards are assigning the additional task of risk oversight to the audit committee, despite the audit committees already lengthy list of responsibilities related to financial reporting and the internal/external audit function. Not only are audit committees being charged with overseeing management's risk policies and guidelines, they are also being asked to discuss with management the enterprise's key risk exposures—including those beyond financial reporting related risks." Interestingly, even though many of Beasley's articles (Beasley & Hermanson, 2004; Beasley et al., 2008, 2009a) stress the importance for audit committee oversight of risk management activities, little research has examined this issue.

Beasley et al. (2015) have provided significant evidence of the current state of enterprise risk management oversight in the US, for which they conducted an annual survey from 2008 to 2014. The survey was conducted incorporated with the American Institute of Certified Public Accountants' (AICPA) Business, Industry and Government Team. Data was collected by using an online survey instrument electronically sent to chief financial officers or equivalent senior executives who were members of the AICPA's Business and Industry group. According to the 2015 report on the current state of enterprise risk management oversight, Beasley et al. (2015) demonstrate the key findings that 59 percent of respondents perceive the volume and complexity of risks have changed "extensively" or "mostly" over the last five years. One third believe their organisations have a "complete formal enterprise risk management process in place," and that finding does not differ from the previous year, indicating that no significant strides in risk maturity were made over that time. In terms of enterprise risk management oversight, 68 percent report that the board of directors is asking "somewhat" to "extensively" for increased senior executive involvement in risk

oversight and 70 percent of the boards of directors of the largest organisations and public firms have formally assigned risk oversight responsibilities to a board committee. More importantly, 59 percent of those organisations that have delegated oversight responsibility to a board committee assign responsibility to the audit committee while 29 percent assign responsibility to a risk committee.

In a comparison between US and global organisations, Beasley et al. (2010) find that more than 60 percent of US respondents indicated that the volume and complexity of risks have increased ‘extensively’ or ‘a great deal’, similarly nearly 75 percent of executives of global organisations felt the same way. With respect to enterprise risk management oversight, over 54 percent of boards of global organisations are assigning formal responsibility for overseeing the organisations’ risk management to one or more of the board’s committees. By contrast, only 33 percent of US organisation boards are making these delegations to one of their committees. When comparing US and global responses in assigning enterprise risk management oversight responsibility, it is interesting to observe that 65 percent of US organisations formally assigns risk oversight responsibility to the audit committee at higher rates than the global organisations. Just 57 percent of audit committees of global firms are being assigned risk oversight responsibilities.

A part of the study by Beattie et al. (2012) investigates audit committee oversight process regarding enterprise risk management in the UK setting. They examine the engagement of the UK audit committee with auditors and chief financial officers on enterprise risk management. The findings show that the level of discussion on enterprise risk management issues is less than 60 percent across three groups, and ‘lower’ in ranking (between 7 and 12 out of 16 audit-related issues³) than would have

³ The percent indicating discussion took place (rank) of auditors’ attitude to risk issue for the audit committee chair, audit partner and finance director groups is 58.50 percent (rank 7), 48.40 percent (rank 11) and 55.70 percent (rank 9), respectively. The percent indicating discussion took place (rank) of

been expected. They argue that enterprise risk management issues may be discussed by the board of directors or by a separate risk committee (board sub-committee).

2.5 The Resource Component of Audit Committee Effectiveness

Since audit committees have primary responsibility to oversee matters with respect to financial reporting, auditing and corporate governance in general to ensure the quality of firms' financial information and governance, they obtain information from management and additionally from internal and external audits as part of the oversight process in fulfilling their roles and responsibilities. A review of the practitioner and academic literature generally supports the proposition that internal and external audit functions can significantly assist audit committees in order to be held accountable as monitor mechanism of firms' accounting, auditing and other corporate governance activities in an effort to protect stakeholders and to maintain/strengthen investors' confidence in financial markets. To achieve effective oversight, DeZoort et al. (2002:41) propose that:

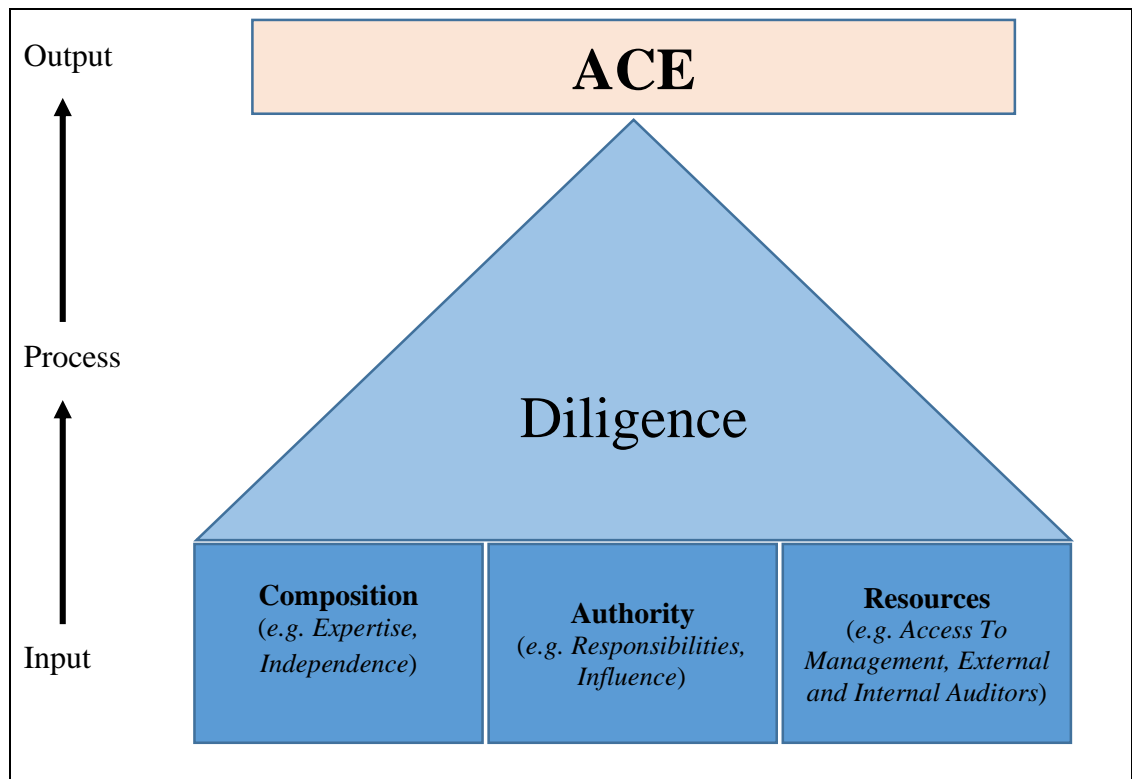
“An effective audit committee has qualified members with the authority and resources to protect stakeholder interests by ensuring reliable financial reporting, internal controls, and risk management through its diligent oversight efforts.”

Bédard and Gendron also review existing academic literature regarding the effectiveness of audit committees, the authors (2010:177) argue that:

“The AC can improve the quality of information directly, by overseeing the financial reporting process, and indirectly through the oversight of internal control and external auditing, in the end, improved information quality as well as strengthened controls may result in investors being more confident about the quality of financial reporting and the functioning of financial markets.”

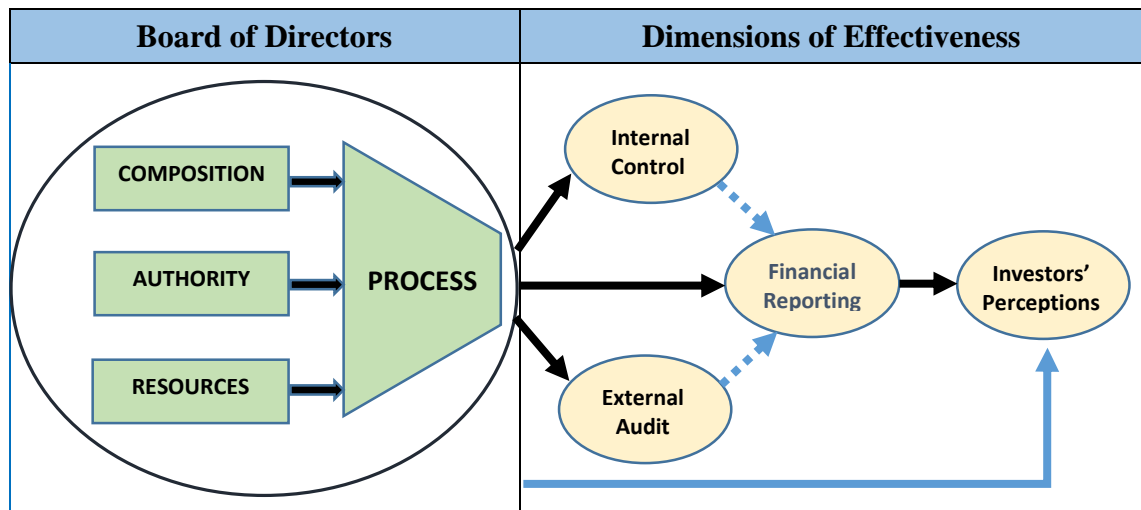
directors' attitude to risk issue for the audit committee chair, audit partner and finance director groups are 54.60 percent (rank 10), 48.90 percent (rank 10) and 49.70 percent (rank 12), respectively.

Figure 2.1: Determinants of Audit Committee Effectiveness (ACE)



Source: DeZoort et al. (2002:43)

Figure 2.2: Audit Committees and Dimension of Effectiveness



Source: Bédard and Gendron (2010:176)

Figures 2.1 and 2.2 demonstrate audit committee composition (having the ‘right people’ as audit committee members), authority (providing them with solid responsibilities) and resources (strong quality of internal and external audit functions,

adequate number of audit committee members, and access to management) are the fundamental inputs needed to accomplish effectiveness.

The current study focuses on two resource components of audit committee effectiveness: the internal and external audit functions, because one of the primary responsibilities of the audit committee is to oversee the internal and external audit functions. Much of the audit committee literature to date, therefore, provides concrete evidence that effective audit committee oversight is expected to strengthen ‘internal and external audit quality’ and both internal and external audit functions can in turn be critical resources to the audit committee when fulfilling its responsibilities. The next two sections highlight the importance of the internal and external audit functions in pursuing audit committee effectiveness. Section 2.5.1 reviews the extent research on the relationship between the audit committee and the internal audit function and Section 2.5.2 reviews the extent research on the relationship between the audit committee and the external audit function.

2.5.1 Internal Audit Function

A strong internal audit function is a key resource of the audit committee in helping fulfil its oversight responsibility (Cohen et al., 2007) and a strong internal audit function also plays an important role in strengthening internal controls and is a significant component of the control environment of an organisation as a whole (Read & Rama, 2003). It is not surprising, for that reason, that many studies deepen our understanding of the link between the audit committee oversight and the internal audit function in recent years.

Audit Committee Characteristics and Internal Audit Function

Scarborough et al. (1998) survey chief internal auditors of Canadian manufacturing companies, examining audit committee composition and interaction with the internal

audit function. Based on a survey of 72 companies, they provide evidence that 66 percent of responding companies have solely outsiders on the audit committee and 77 percent of this group indicated that audit committees review the audit planning and the results of internal auditing. Overall, they find that an audit committee with solely independent directors is likely to have more interaction with internal auditing. With respect to the various types of audit committees' interaction with internal auditing, they find that audit committees solely with independent directors are related to more frequent meetings with the chief internal auditor and greater review internal auditing programmes and results.

In terms of publicly held US manufacturing companies environment, Raghunandan et al. (2001) focus on the relationship between audit committee quality and the committee's interaction with internal auditing. Based on the analysis of survey data from chief internal auditors of 114 public companies, they report 68 percent of the responding companies had audit committees comprised solely of independent directors (without inside or gray directors⁴) and at least one member having an accounting or finance background. They find that audit committee quality (audit committees without inside or gray directors and with at least one member having an accounting or finance background) is related to: (1) longer meetings with the chief internal auditor; (2) providing private access to the chief internal auditor; (3) reviewing the internal audit programme and findings; and (4) reviewing management's interaction with internal auditing.

Goodwin (2003) examines the association between the audit committee and the internal audit function in Australia and New Zealand. According to a survey of 120

⁴ According to Raghunandan et al (2001), outside directors generally included both those independent of the company as well as those so-call 'gray directors' with some nonboard affiliation with top management of the company. In other words, gray directors are outside directors who appear to be related to the company by their relationship with top management of the company. In contrast, solely indepent directors are outside directors who do not have current or potential business ties to the company.

companies, with 85 from Australia and 35 from New Zealand, the author finds that the degree of audit committee involvement in internal audit is associated with audit committee independence and the level of accounting experience of committee members. While the proportion of committee members with accounting financial expertise is related to the extent to which the audit committee reviews the internal audit activities, audit committee independence is related to the length and frequency of meetings with internal auditors, the privacy of such meetings, and the committee's decisions to dismiss the chief internal auditor.

Using survey data from chief internal auditors of 76 Malaysian companies, Zain et al. (2006) investigate associations between audit committee characteristics, internal audit function characteristics and internal auditors' evaluation of their contribution to the financial statement audit. They find internal auditors' assessments of their contribution to financial statement audits are associated with three audit committee characteristics: the proportion of independent audit committee members, the audit committee members with accounting financial expertise, and audit committee reviews of internal audit programmes, budgets and their coordination with external auditors. They also find that internal auditors' evaluations of their contributions to the financial statement audit is related to internal audit function size, prior auditing experience of staff, and time allocation and the closeness of the internal audit function's interaction with the external auditor. The authors conclude that effective audit committees and well-resourced internal audit functions are more likely to affect the potential for internal auditors to contribute to financial statement audits.

Using proxy statement data and 219 survey responses from *Fortune* 1000 companies in the year 2000, Abbott et al. (2007) examine a relationship between audit committees with strong governance characteristics and internal audit outsourcing to the external auditor in the era prior to the Sarbanes-Oxley Act of 2002. They find a

significant association between audit committee effectiveness (based on independence, meetings and expertise) and the proportion of routine or core (recurring) internal audit activities outsourced to the external auditor. They find no significant association between audit committee effectiveness and the proportion of non-routine (unique) outsourcing. The results suggest that effective audit committees are less likely to outsource routine internal audit tasks to the external auditor, because such routine activities could impair auditor independence. However, the authors argue that outsourcing of non-routine internal audit activities to the external auditor may be less likely to reduce auditor independence and may have important benefits from the outsourcing of non-routine internal audit operations (because of their specialised activities nature) to the external auditor.

Asare et al. (2008) use an experimental approach to examine internal auditors' fraud risk decisions in response to variations in the quality of the audit committee. They conduct two experiments. In the first experiment, internal auditors are asked to assume a due diligence role, which they have been assigned in order to plan the audit engagement for a potential acquisition target company. In the second experiment, internal auditors are asked to assume a self-assessment role, which they have been assigned in order to plan an audit for the employing company. They find that, in a due diligence setting, internal auditors are more likely to increase their fraud risk assessments when the audit committee quality is low⁵ compared to when the audit committee quality is high. In contrast, they find that, in a self-assessment setting, the interaction of the revision in fraud risk assessment and the audit committee quality is insignificant, suggesting that audit committees have ultimate oversight responsibility, including evaluation responsibility, for the internal audit function. Consequently, internal auditors do not

⁵ In this experiment, audit committee quality was manipulated by varying the independence and financial expertise of the audit committee. The participants were divided into 2 groups and there were 2 levels of the quality of the audit committee: the high and low quality conditions (see Asare et al (2008:189)). Accordingly, the experiment was a 2 x 2 between-subjects research design.

place much emphasis in evaluating their own audit committee. In addition, internal auditors with more experience are more likely to assess the fraud risk implications of an audit committee in a due diligence role than a self-assessment setting.

Barua et al. (2010) examine whether the internal audit budget is associated with audit committee characteristics. They provide evidence that the internal audit budget is negatively associated with audit committee members' expertise in auditing and the average tenure of audit committee members. They argue that audit committee members with auditing expertise and longer tenure (who are expected to possess more firm-specific knowledge) may have substitution impacts on the investment in internal auditing. They find that the internal audit budget is positively associated with the number of audit committee meetings, suggesting that diligent audit committees which meet more frequently demand a higher budget in order to support the internal audit function in performing their responsibilities. However, they find no evidence that the internal audit budget is associated with audit committee members with multiple board seats.

Anderson et al. (2012) examine factors that are related with internal audit function size in the post- Sarbanes-Oxley Act era. Based on 173 survey data from public and private companies, they find that internal audit size (as measured by the number of internal auditors) is positively associated with the size of the audit committee, the frequency of its meetings with the chief audit executive, and its oversight role in approving the internal audit budget. The results suggest that internal audit function size is influenced by audit committee quality characteristics.

Interaction between Audit Committee and Internal Audit Function

Zain and Subramaniam (2007) investigate perceptions of internal auditors regarding their interactions with audit committee members in Malaysia by interviewing 11 chief

internal auditors from public companies from November to December 2003. They find that most of internal auditors (7 of 11) reported internal audit results directly to the audit committee on a functional basis, and to the chief executive on an administrative level. The perception of Malaysian internal auditors was that a direct line of communication to the audit committee typically appeared to be critical because it placed them in a position of greater relative power to be open and straightforward as well as to resist management pressure, and they felt safer and more comfortable when voicing their opinion. Therefore, a direct reporting line from the internal audit function to the audit committee is used to convey a sense of internal auditors having greater power and independence. Most of interviewees stated that chief executives were always attending their meetings with the audit committee and indicated that private meetings with the audit committee were rare. The results also show that regular meetings in which audit committees with knowledge and requisite skills are willing to question management and offer plausible solutions for problem solving are the effectiveness of the audit processes and communication between internal audit function and audit committees. Finally, the common responses of interviewees perceived the audit committee to be highly effective when audit committee members: (1) have in-depth knowledge and experience related to industry in which the company operated; (2) possess accounting financial expertise; and (3) are more broad-based with expertise in a diversity of professions, e.g. law, engineering, environment, etc.

Sarens et al. (2009) study the relationship between the audit committee and the internal audit function placing more emphasis on the audit committee process. The qualitative data including interview data and archival materials (e.g., the internal audit charter, internal audit plans, and internal audit reports) from four Belgian case studies were used to examine the audit committee and the internal audit function. The authors find that audit committees themselves are aware of their own monitoring

responsibilities, as well as the important of risk management and internal control for companies. However, most of the audit committees feel uncomfortable about risk management and internal control. The results show that the internal audit function is an importance source of comfort for audit committees, specifically in areas of risk management and internal control. To provide comfort, internal auditors play important roles in advising, supporting and facilitating audit committees with respect to improving the risk management and internal control aspects of companies. An internal audit function's ability to relieve discomfort to audit committees strongly depends upon the quality of internal auditors. In addition, informal and private interactions between the audit committee and the internal audit function appear to be crucial means to transfer comfort for audit committee effectiveness.

For a sample of 134 chief internal auditors from *Fortune* 1000 companies in the year 2005, Abbott et al. (2010) examine the relationship between audit committee oversight of the internal audit function (IAF) and the amount of IAF resources allocated to internal-controls-based activities in the post-Sarbanes-Oxley Act environment by using a survey approach. They find evidence that audit committees with greater IAF oversight are related to higher proportions of IAF hours being allocated toward internal control operations. Furthermore, they find a positive relationship between audit committees with greater IAF oversight and the percentage of the IAF budget devoted to internal-control-based activities. Their results indicate that audit committees that are highly concerned with the quality of internal controls appear to have greater oversight of the IAF and the majority of IAF budgets is allocated to internal controls operations.

Using survey data on 187 chief internal auditors in the UK from financial and non-financial companies, Zaman and Sarens (2013) examine whether audit committee characteristics are related to informal interactions between audit committees and internal audit functions. A majority of chief internal auditors (88.1 percent) indicates

that the audit committee chair and/or audit committee members have informal interactions with them outside the regular pre-scheduled formal meetings. The authors find that the existence of informal interactions between audit committees and internal audit functions are positively related to audit committee characteristics including: (1) the proportion of independent audit committee members; and (2) the knowledge and experience background of the audit committee chair in a variety of fields. Their results also show a positive relationship between informal interactions and quality of the internal audit function. The authors conclude that interactions between audit committees and internal audit functions outside of formal pre-scheduled meetings appear to take an important role for the effectiveness of the governance process and the background of the audit committee chair is a significant influence informal interactions.

Additionally, a recent Australian study by Sarens et al. (2013) uses a survey approach to examine the informal interactions between audit committees and internal auditors. Based on the analysis of 100 responses from chief audit executives, the authors demonstrate that the majority of the responding internal auditors indicated that they have informal interactions (defined as all forms of communication outside formal audit committee meetings) with the audit committee and both parties informally interact relatively often. Almost half of this group indicated that these informal communications remained stable (46.6 percent) or increased (48.9 percent). Email and telephone are the two most common ways to facilitate informal communication. The results indicate that the existence (and increase) of informal interactions between audit committees and internal auditors are associated with certain personal characteristics of internal auditors, the specific expertise and knowledge background of the audit committee chair, and the personal characteristics of the audit committee chair.

Internal Control Deficiencies

Prior to the Sarbanes-Oxley Act 2002 (SOX), Krishnan (2005) examines the relationship between audit committee effectiveness and internal control deficiencies. As reports on internal control were not required in the pre-SOX period, the author could only use information disclosed by auditors. Krishnan (2005) focuses on three dimensions, size, independence, and financial expertise, to proxy for audit committee effectiveness. The results show that audit committee independence and the number of audit committee members with financial expertise are negatively related to the existence of internal control problems. No evidence is found of an association between audit committee size and the presence of internal control problems. The results suggest that the independence and accounting financial expertise of audit committee members are likely to ensure a company with high-quality internal control.

After the SOX 2002 was enacted, many accounting scholars have paid attention to examining the effectiveness of its requirements with respect to the link between the audit committee, the internal audit function and the disclosure of internal control deficiencies. Krishnan and Visvanathan (2007) complement and extend Krishnan (2005) study by investigating the association between audit committee characteristics and the reporting of internal control deficiencies subsequent to SOX. They compare companies reporting internal control weaknesses with companies of similar size in the same industry that did not report any such weaknesses during the time period of November 15, 2004 to March 1, 2005. They find that companies that disclose internal control deficiencies are characterized by audit committee that meet more frequently and have a higher proportion of members who qualify as having accounting or financial expertise. The findings suggest that more active audit committees (as measured by more frequent audit committee meetings) are more likely to disclose internal control

weaknesses than companies with a smaller number of accounting or financial experts on the audit committee as the former are more likely to report internal control weaknesses.

In a study investigating material weaknesses disclosures requirement under SOX Sections 302 (internal controls testing is not required) and 404 (internal controls testing by the company's management and external auditor is mandatory), Hoitash et al. (2009) find a relationship between audit committee characteristics and material weakness disclosures in internal control over financial reporting. They find that greater audit committee financial expertise is related to a lower likelihood of material weakness disclosures under Section 404, but no evidence is found under Section 302. Their results indicate a difference in the relationship of corporate governance quality (audit committee financial expertise and overall board quality) and material weakness disclosure between the two regulatory regimes. The results also suggest that companies with more accounting or financial expertise on the audit committee are related to higher quality internal controls over their financial reporting function (as measured by disclosing material weaknesses related to account-specific control problems). Moreover, they find a positive relationship between the number of audit committee meetings and material weakness disclosures, which is consistent with Krishnan and Visvanathan (2007). They argue that, in terms of material weaknesses, rather than increased diligence causing better internal control over financial reporting, more frequent audit committee meetings may be more likely to place emphasis on the finding of problems in internal controls. Consistent with Krishnan (2005), the authors find audit committee size is not significantly related to disclosing internal control problems.

Naiker and Sharma (2009) examine the relationship between internal control problems reported under Section 404 of the SOX and the presence of affiliated former audit partners and unaffiliated former audit partners on the audit committee. Based on a sample of 1,225 companies disclosing internal controls under SOX Section 404 for the

year ending on or after November 14, 2004, they provide evidence that the presence of former partners on the audit committee who are either affiliated or unaffiliated with the companies' external auditor are negatively related to the incidence of internal control weakness disclosures over financial reporting. They find no evidence of a difference between the impact of affiliated former audit partners and unaffiliated former audit partners on internal control weakness disclosures. They conclude that concerns raised by policymakers and regulators that companies appointing former audit firm employees to a client's board threatens the independence and objectivity of the financial reporting oversight process may not be warranted when former partners of audit firms are appointed to serve on companies' audit committees.

Norman et al. (2011) test whether audit committee expertise influences internal auditors' decisions. They employ an experimental approach, whereby internal auditors are required to decide to disclose or recognise misstatements. They adapted the case materials of Libby et al. (2006) where participants were external auditors. They find that internal auditors are willing to identify more disclosed misstatements relative to recognized misstatements. Their results are consistent with the findings for external auditors (Libby et al., 2006). The authors conclude that both external auditors and internal auditors seem to waive misstatement corrections for disclosed, rather than for recognised amounts. They fail to find that internal auditors require higher misstatement recognition when audit committees have more financial accounting expertise, relative to less expertise, suggesting that audit committee expertise may have little power to mitigate management's influence over internal auditors' decisions, specifically, in requiring greater misstatement corrections.

Using company data on material weakness disclosures, company financial data and survey responses from 2014 companies collected in the years 2003 and 2004, Lin et al. (2011) examine the association between material weakness disclosures and

companies' internal audit function attributes and activities. Regarding internal audit function attribute measures, they find that a negative association between material weakness disclosures and the education level of the internal audit function. In terms of internal audit function activities, they find negative associations between material weakness disclosures and the extent to which the internal audit function uses quality assurance techniques during fieldwork, audit activities related to financial reporting processes, and follow-ups on previously identified control deficiencies. In addition, they find that material weakness disclosures are positively associated with internal audit function grading of audit engagements and external-internal auditor coordination in audit activities. Overall, the findings suggest that the internal audit function plays important roles in preventing, detecting and reporting material weakness.

2.5.2 External Audit Function

Although the oversight role of audit committees cover a wide range, an essential role of the audit committee is to oversee the external audit function, including the appointment, removal and compensation of the external auditors, the quality of audit work, auditor independence, and the resolution of disagreements between management and auditors. Fundamentally, effective oversight is expected to ensure that the highest audit quality is provided by the external auditors. Accordingly, several studies have examined issues related to the relationship between the external audit function and the audit committee. They are discussed below.

Audit Committee Characteristics and External Audit Function

Abbott and Parker (2000) examine the association between audit committee characteristics and auditor choice. Using a sample of 500 randomly selected US public companies from 1994, they find that both independent and active audit committees

(defined as an audit committee comprised entirely of outside directors and that meets at least twice per year) are more likely to demand a greater level of audit quality related to an industry-specialist auditor. The findings suggest that audit committee quality plays a significant role in assuring the quality of financial reporting process, thereby employing an industry-specialist auditor.

Carcello and Neal (2000) examine the association between the characteristics of financially distressed companies' audit committees and the likelihood of receiving going-concern audit reports. Using a sample of companies experiencing financial distress during 1994, they find a negative association between the proportion of affiliated directors on the audit committee (i.e., directors who lack independence) and the probability of receiving a going-concern audit report. Their findings indicate that auditors are less likely to issue going-concern audit reports for distressed companies that have a higher proportion of affiliated directors on the audit committee.

Abbott et al. (2003a) investigate the relationship between audit committee characteristics and audit fees. Based on the analysis of 492 public companies in 2001, they find that audit committee independence (defined as an audit committee comprised solely of independent, outside directors) and financial expertise (defined as an audit committee has at least one member with financial expertise) are significantly, positively related to higher audit fees. They interpret the results that audit committee characteristics affect the demand for higher audit coverage, reflected in greater audit fees. Specifically, certain audit committee characteristics could lead to an increase in bargaining power for the external auditor and concomitant increases in audit fees, even in the absence of increased audit scope or quality.

Lee et al. (2004) investigate the association between audit committee and board of director independence and auditor resignations. Based on the analysis of US

companies with auditor resignations and dismissals during the period 1996 to 2000, they find that the probability of an auditor resignation is negatively associated with both audit committee and board of director independence, suggesting that independent audit committees and boards are more likely to reduce the likelihood of auditor resignation. With respect to the influence of the audit committee in engaging a successor auditor following an auditor resignation, their findings reveal that the quality of the company's successor auditor is positively associated with audit committee independence. The results indicate that independence audit committees are more likely to choose a successor auditor of higher quality to reduce the negative consequences of an auditor resignation than non-independent audit committees.

Using an experimental approach involving a firm with a newly formed audit committee, Stewart and Munro (2007) focus on the viewpoint of external auditors in Australia to examine the effect of the existence of an audit committee, audit committee meeting frequency and the auditor's attendance at meetings on audit testing, audit risk, audit efficiency, audit quality, auditor-client conflict resolution and audit fees. Their findings demonstrate that auditors' perceptions of the presence of an audit committee, the frequency of audit committee meetings and the audit partner's attendance at meetings significantly influence a reduction in the perceived level of audit risk. The authors find a small positive impact of audit committee existence on perceived audit efficiency, but no impact is found on audit testing. Audit manager and partner hours are more likely to increase when an audit committee is in place, specifically when a committee has more meetings and the auditor is required to attend all meetings. The findings show that the existence of an audit committee is expected by auditors to assist them in resolving conflicts with management and improving the overall level of audit quality. However, it appears that audit committee meeting frequency and the auditor's attendance at meetings do not influence these auditors' perceptions. The findings also

show that the existence of an audit committee is more likely to lead to an increase in audit fees, in particular when meetings are more frequent and the auditor's attendance at meetings is required. This is due to additional work that may be requested by committees in preparing for, attending and reporting at the meetings.

Zhang et al. (2007) examine the association between audit committee characteristics, auditor independence, and the disclosure of internal control weaknesses following the enactment of SOX 2002. Based on the analysis of companies with material internal control weaknesses from the period 2004 to 2005, they find that companies with less audit committee financial expertise are more likely to be identified with an internal control weakness, more specifically, if companies have less accounting financial expertise and non-accounting financial expertise on the audit committee. The findings also show that auditor independence (defined by the ratio of audit fee to total fee) is associated to the disclosure of a company's internal control weaknesses. Additionally, companies with recent auditor changes are more likely to disclose internal control problems.

Mangena and Taurigana (2008) examine the relationship between audit committee characteristics and the external auditor engagement to review interim reports. Based on the analysis of interim reports of 258 UK listed firms during the period 2001 to 2002, they find that external auditor involvement in auditing interim reports is positively related to audit committee independence and financial expertise. They find a negative relationship between share ownership by audit committee members and external auditor involvement in reviewing interim reports. However, the authors find that audit committee size and the frequency of audit committee meetings are not significantly related to external auditor involvement in reviewing interim reports. Overall, the findings indicate that effective audit committees are more likely to engage

an external auditor to review interim reports to enhance the quality of interim financial information.

Hoitash and Hoitash (2009) examine the relationship between audit committee characteristics and audit fees and dismissals following the passage of SOX 2002. They find that higher audit fees are related to audit committee size, diligence (measured by frequency of audit committee meetings) and the percentage of experts on the audit committee. The findings suggest that stronger audit committees appear to demand a greater level of assurance in the period that follows SOX 2002. In addition, they find that the issuance of new going-concern audit reports by auditors is not related to auditor dismissals, indicating that auditor independence is improved after SOX 2002.

Schmidt and Wilkins (2013) focus on whether audit committee expertise and auditor quality are related to the timely disclosure of restatement. Based on a sample of 154 companies publishing restatement during the 2004-2009 period, they find that companies that engage Big 4 audit firms disclose restatement information significantly more quickly than companies that do not engage Big 4 audit firms. They also find that restatement disclosures are timelier when companies have financial experts on the audit committee, but only when such expertise is with respect specifically to accounting. Finally, the findings show that restatements are disclosed more quickly when companies have an audit committee chair who is an accounting or financial expert. Overall, their results indicate that auditor and audit committee expertise contribute to the timely disclosure of restatement financial information.

Interaction between Audit Committee and External Audit Function

Using a semi-structured interview with 36 external auditors (11 seniors, 12 managers and 13 partners), Cohen et al. (2002b) examine the effect of corporate governance factors on the audit process. They find that auditors considered that senior management

(81 percent) and the board of directors (75 percent) are key corporate governance mechanisms in the corporate governance mosaic, while other mechanisms such as the audit committee (44 percent) were considered to be of secondary importance. Although auditors in the study considered the audit committee to be somewhat important, however, one-third of the respondents suggested that the audit committee was less important than senior management or the board. Interestingly, several auditors indicated that members of the audit committee often lack expertise and committees are not powerful enough to carry out their oversight responsibility effectively. In a following study, Cohen et al. (2010) explore auditors' experiences in their interactions with various corporate governance factors in the post-SOX 2002 environment. They conduct semi-structured interviews with 36 external auditors (13 partners, 12 managers and 11 seniors) from three of the Big 4 audit firms. Their findings reveal that auditors suggest the corporate governance environment has improved considerably in the post-SOX era. Auditors see the management (67 percent) and the board of directors (67 percent) as important actors in achieving effective governance. Sixty percent of the respondents indicate that the control environment/corporate culture plays an important role in the governance structure of a company. Importantly, they find that auditors view audit committees as considerably more active and diligent in the post-SOX 2002 environment. The findings show that audit committees play important roles in monitoring internal controls, emphasizing financial reporting quality, reviewing risks, asking challenging questions and monitoring the whistleblowing process. Auditors' experiences indicate that audit committees have sufficient expertise and power to fulfil their jobs in the post-SOX 2002 era.

Salleh and Stewart (2012) conduct interviews with audit committee members, external auditors and management in Malaysia with respect to the role of the audit committee in resolving auditor-client conflict situations. They find that while less

material accounting issues can be generally resolved between management and the external auditor, only very material issues will be raised with the audit committee. Their findings show that Malaysian audit committees play an important mediating role in resolving disagreements between management and auditors concerning contentious accounting issues. In addition, audit committee members with experience and knowledge in accounting and auditing play a significant role in making systematic judgements regarding accounting issue disagreements between auditors and management. In order to resolve auditor-management disagreements, mediation techniques used by audit committees include controlling the agenda when assisting to resolve disputes, gathering information on the disputed issues, acting as advisors to auditors and management, and suggesting solutions and recommendations for the issues. Finally, the majority of interviewees indicates that agreement is normally reached on disputed issues following the mediation process and the outcome from the interaction between the three parties is generally a compromise solution.

Beattie et al. (2012) study the financial reporting issues which are the subject of audit committee engagement in their discussions with chief financial officers and audit partners, focusing on how significant existing audit committee responsibilities are being performed in post-IFRS adoption, post-SOX 2002 and Anglo-Saxon corporate governance environments. They provide evidence based on the analysis of survey data of 149 chief financial officers and 130 audit committee chairs from UK listed companies and 219 audit partners responsible for the audit of at least one UK listed company in the 2007 regulatory environment. Beattie et al. (2012) report that the level of audit committee and audit committee chair engagement in relation to audit-related matters (seven areas of specific audit committee responsibility from the 2006 Combined Code) is relatively high (over 80 percent). However, only 50 percent of 16 mainstream

audit issues⁶ concerning audit planning, performance and finalisation are routinely discussed. The authors also reveal that while 40 percent of discussions of specific audit-related issues involve both the audit committee chair and the full audit committee, the audit committee chair acts without the involvement of the full audit committee in 11 percent of discussions. It is found that the extent of discussion and/or audit committee chair involvement is influenced by company size, auditor size, and audit committee chair experience and qualifications. Interestingly, the position of the audit committee in discussions relating to corporate risk issues is lower in the rankings than would have been expected. The authors interpret the findings that corporate risk issues may be discussed at the main board level or by a specific risk committee (board sub-committee). Beattie et al. (2014) provide further evidence of the extent to which audit committees and audit committee chairs engage with chief financial officers and audit partners in relation to a range of 32 financial reporting issues⁷. The findings demonstrate that the audit committee chairs' level of awareness of discussions concerning the quality of financial reporting issues was similar to that of chief financial officers and audit partners, but vary with financial reporting issues, auditor firm size and company. However, they find that audit committee chairs are significantly less likely than audit partners to be aware of discussions on fraud and illegal acts.

The next section presents a review literature of audit committee judgement and decisions.

⁶ Ibid., p. 18.

⁷ List of issues in the questionnaire instrument consists of 6 issues in consolidation matters (i.e. dividends from subsidiaries), 13 issues in primary financial statements matters (i.e. revenue recognition), 5 issues in compliance and other regulatory matters (i.e. directors' remuneration report), and 8 issues in other accounting matters (i.e. post-balance sheet events).

2.6 Audit Committee Judgements and Decisions

Typically, numerous studies have examined audit committee judgements and decisions in the financial reporting process using experiment research⁸. Knapp (1987) examines factors that affect the willingness of audit committees to support auditors, rather than management, when they are involved in an auditor-client disagreement situation. The results show that audit committee members who are currently serving as corporate managers are more likely to support auditors than subjects who are either individuals from a non-business background or retired business executives. Furthermore, audit committees are more supportive of auditors when the audited company is in poor financial condition and when the issue in conflict is supported by objective, rather than subjective, technical standards.

DeZoort (1998) explores the effect of audit committee members' experience on their oversight judgements in overseeing companies' internal control assessments. The author finds that experience influences audit committee members' oversight judgements. Members who have auditing or internal control evaluation experience are more likely to make internal control judgments more like auditors than members who have no such experience. Additionally, the author reports that experienced audit committee members have a high degree of self-insight, consensus and additional technical knowledge, compared to members without experience. The results indicate that experience affects audit committee members in performing their oversight responsibilities, and thereby can make a difference in audit committees' judgements and

⁸ Accounting researchers typically using an experimental research design utilise quantitative comparisons between experimental and control groups with respect to the dependent variable. According to Libby et al. (2002), in order to conduct an experiment, it is necessary to *manipulate* the independent variable in order to determine whether it does in fact have an influence on the dependent variable, *control* for other potentially influence variables by holding them constant or through randomisation, and *measure* the intervening processes and mental states that affect final outcomes. This design allows researchers to disentangle the effects of variables that are confounded in the environment to draw strong causal inferences, and to test the effects of conditions that do not yet exist or do not exist in sufficient quantity in the natural environment.

a member with the appropriate domain-related experience could be capable of understanding the audit issues reported, advising potential solutions to the problem(s), assessing possible consequences and resolving auditor-management disagreement situations.

DeZoort and Salterio (2001) employ an experimental approach to test whether audit committee members with more experience, greater financial-reporting knowledge and a longer audit-reporting background find their experiences affect their judgements in auditor-management conflict situations. Based on a sample of audit committee members from 68 Canadian companies, they find that audit committee members with more audit-reporting experience as independent directors are more likely to support the auditor in an audit-management disagreement than members with less such experience. In contrast, they find that concurrent experience as a board director and a senior member of management are less supportive of the auditor. However, they find no evidence that audit committee members with higher financial-reporting background relate to support for the auditor in an auditor-management conflict.

DeZoort et al. (2003b) test whether accounting and auditing issue characteristics affect audit committee members' judgement in providing support for auditors in an auditor-management disagreement. Using an experiment approach with 55 audit committee members, they find that in auditor-management disagreements where management prefers to waive an auditor-proposed adjustment, members provide higher levels of support for auditors when the auditor provides both quantitative and consequences-oriented factors (i.e., the interpretation of an earnings trend), and when the accounting issue was subject to precise measurement. Furthermore, audit committee members with more experience and those who are certified public accountants (CPA) were more supportive for auditors.

DeZoort et al. (2008) conduct experiment analyses to examine audit committee member judgements in support of an auditor-proposed adjustment both before and after the SOX 2002 environments as well as audit committee member perceptions of the impacts of SOX 2002. The authors use procedures similar to those of DeZoort et al. (2003a) for collecting the post-SOX 2002 data. According to the pre-SOX 2002 data (DeZoort et al., 2003a) and the post-SOX 2002 data, the findings show that audit committee members in the post-SOX 2002 period have significantly increased their support for auditor-proposed adjustments since they were the pre-SOX 2002. With respect to audit committee members who are CPAs versus non-CPAs, the authors find that audit committee members that are CPAs are more likely to provide greater support for an auditor-proposed adjustment in the post-SOX 2002 period than in the pre-SOX 2002 period. Overall, audit committee members in the post-SOX 2002 environment perceive greater responsibility for resolving the accounting issues, feel that audit committee members have more expertise to monitor the accounting issues, and are more conservative with respect to financial reporting accuracy than those in the pre-SOX 2002 environment. Furthermore, audit committee members who support the proposed adjustment in the post-SOX 2002 period appear to have more favourable views of the benefits of SOX 2002, and they believe more strongly that audit committees in the post-SOX 2002 period have more power and are more conservative with respect to the quality of financial reporting than they were the pre-SOX 2002.

Gaynor et al. (2006) focus on whether audit committee consider the effect of joint provision of audit and non-audit services on their decisions in relation to audit quality. They find that audit committees appear to consider the impacts of non-audit service on audit quality when making a decision whether a non-audit service be jointly provided by the auditor or provided by an unaffiliated audit firm. The experimental findings show that committees are less likely to approve the purchase of non-audit and

audit services from the same audit firm when public disclosures are required, even if they believe that the joint provision of the audit and non-audit services will deliver a higher audit quality. Overall, the results suggest that audit committees seem to increase their concerns to auditor objectivity impairment, especially when audit and non-audit service fee disclosure is required and they are less likely to recommend joint provision to avoid investors' concerns over auditor independence.

Using a laboratory experiment with 40 experienced audit committee members, Rose and Rose (2008) investigate the effects of financial knowledge and trust on audit committee judgements. The results reveal that audit committee member with lower levels of financial knowledge are more likely to accept insufficient management explanations for companies' accounting practices than more knowledgeable audit committee members. Conversely, members with lower levels of financial knowledge are more likely to reject sufficient management explanations for companies' accounting practices than more knowledgeable members. Additionally, the findings show that members with greater levels of trust in others are more likely to accept insufficient management explanations for companies' accounting practices than members that place a small level of trust in others.

Based on a laboratory experiment with 47 experienced audit committee members, Rose et al. (2010) examine how audit committee members' dispositional trust and management incentives affect audit committee support for external auditors when audit committees are involved in an auditor-management disagreement situation with respect to financial reporting issues. They find that when management has incentives to manage earnings, members that place higher levels of trust in management are more likely to support the auditor when there is a conflict between management and the auditor than members that place lower levels of trust in management. In contrast, when management has incentives to manage earnings, members that place lower levels of

trust in management are more likely to perceive that management is not reliable, and more likely to perceive that management is being deceptive than members that place higher levels of trust in management. In addition, they find that audit committee perceptions of management's intent to deceive influences audit committee decisions to support the auditor versus management in a financial reporting issue dispute.

Pomeroy (2010) examines how audit committee members maintain their effectiveness in a situation where they are both not involved in important accounting issue decisions and not informed that these decisions are the result of auditor-client negotiations. The author finds audit committee members are less comfortable when they were informed that an accounting issue decision was the result of an auditor-client negotiation. However, members do not increase the extent of the investigation, even though they feel discomfort. With respect to the accounting issue outcome aggressiveness, the results show that members seem to be less comfortable with aggressive accounting issue outcomes compared to neutral or conservative outcomes. To deal with aggressive accounting issue decisions, they seek comfort by broadening the investigation by asking more complex and probing questions of the management and auditors. In addition, the results show that more experienced members are more skilful and motivated to investigate accounting issue decisions, specifically when the outcomes are aggressive.

Persellin (2013) explores the effects of the Public Company Accounting Oversight Board (PCAOB)'s audit engagement inspection and forms of compensation on the judgements of audit committee members' judgement when there are disputes between the external auditors and management. The author finds that audit committee members are more likely to provide stronger support for recording an audit adjustment when the firm on whose audit committee the members serve is faced with a high probability of inspection by the PCAOB, as opposed to a low probability. With respect

to forms of compensation, the results show that members appear to demonstrate less support for recoding an audit adjustment when they receive a compensation in the form of short-term stock options rather than cash compensation. The author also reports that for members receiving primarily short-term options as their form of compensation, when their firm face a high probability of inspection by the PCAOB they are more supportive of making an audit adjustment than for those with a low probability of a PCAOB inspection. The author argues that although members are not the primary target of the PCAOB inspection, they feel pressure from the PCAOB.

2.7 The Evolution of Corporate Governance and the Audit Committee in Thailand

Historically, *corporate governance* was very undeveloped in Thailand before the financial crisis of 1997 (Limpaphayom & Connelly, 2004; Persons, 2006). Even though the subject of corporate governance has been widely discussed and promoted to protect investors and stakeholders in Western countries for decades (Shleifer & Vishny, 1997), for Thailand, the policy makers and regulators appeared to begin to take care of corporate governance only a few years prior to the 1997 financial crisis. Beginning in 1995, PriceWaterhouse Management Consultants was assigned by the Stock Exchange of Thailand (SET) to conduct a survey of ‘Corporate Governance in Thailand’ and it undertook a survey of 202 companies listed on the SET during the year 1996. In January 1997, ‘Corporate Governance in Thailand—A PriceWaterhouse Survey’ was published (PriceWaterhouseCoopers, 1997). The survey reports levels of existing corporate governance practices among the Thai listed companies as well as the attitudes of senior management and various parties with respect to the future improvement of corporate governance practices in Thailand, and their perspectives concerning potential constraints or obstructions of corporate governance implementation in the future. The

highlighted issue from the survey is that over 70 percent of the respondent companies stated that significant components of Thai corporate governance should be improved considerably (e.g. mechanisms to encourage minority shareholders easier ways to make their voices heard, improved disclosure, transparency and communication). In relation to the audit committee, the survey reveals that the majority of Thai listed companies (81 percent) did not have an audit committee. Nonetheless, the rest of the companies listed by the respondents indicated that their informal audit committees were implemented by their boards of directors. Although over 60 percent of the respondent companies indicate that they had an internal audit department, the survey demonstrates that there were small number of companies with plans to establish an audit committee. Despite the Thai capital market authorities and regulators considering reform of corporate governance of the market, the reform process was launched and extensive implementation after the financial crisis of 1997.

To gain a better understanding of the corporate governance reform in Thailand, it is important to learn about the 1997 financial crisis 19 years ago because the literature on Thailand's corporate governance reform shows that the crisis led to an impetus for a massive governance reform in the country (e.g. Claessens et al., 2000; Johnson et al., 2000; Lemmon & Lins, 2003). Indeed, the series of Thai financial crises, their causes and consequences are well documented (e.g. Cabalu, 1999; Leightner, 1999; Warr, 1999; Jansen, 2001; Leightner, 2007; Sussangkarn & Vichyanond, 2007; Pholphirul, 2009), so only a brief review will be given here.

Thailand had enjoyed remarkably rapid growth for decades. In the late 1980s, the Thai economy was growing rapidly and had been 'miracles' for many years, with a real GDP growth rate of 4.6 percent in 1985 suddenly climbing up to the highest rate of 13.5 percent in 1988. Not a single year of real GDP growth had achieved over 10 percent before then, and the growth rates of 1989 and 1990 reached very high levels of

12.2 percent and 11.2 percent, respectively. Over the period 1991 to 1996, the average annual growth rate of the country was well over 8 percent (Table 2.2) (Leightner, 1999). As a result of the extraordinary success stories in the economic development, such a long period of consistency high economic growth transformed the economy of the country from a poor and largely rural, less-developed country in to a middle income emerging market. In particular, the country was at its peak period during the economic boom times with its economy stability and steadily declining poverty incidence. In 1996, the Thai economy slowed down and was hit by economic problems in the middle of 1997. By the end of 1997, GDP growth rate fell to -1.3 percent, which resulted from the collapse of Thai economic system. In the following year, the crisis was bad enough to push its GDP down to -9.4 percent, so that several corporations collapsed and many financial institutions ran into difficulty and had to be rescued by the government (Leightner, 2007). As a result, Thailand fell into the massive, most severe recession in half a century.

Table 2.2: Real GDP Growth in Thailand (1985-98)

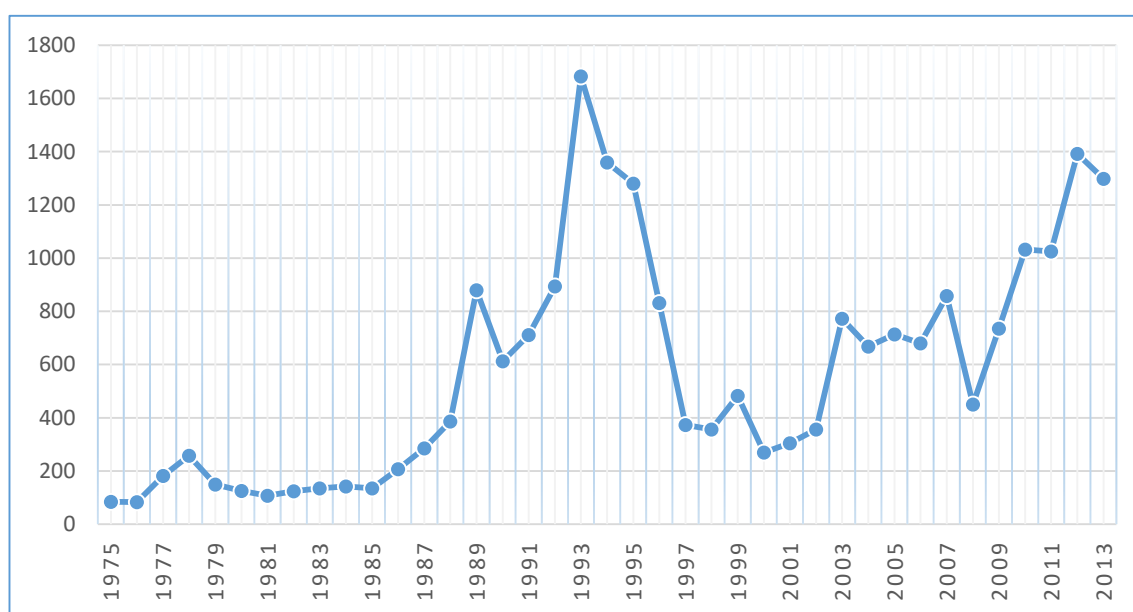
Year	Growth (%)	Year	Growth (%)
1985	4.6	1992	8.1
1986	5.5	1993	8.3
1987	9.5	1994	8.9
1988	13.5	1995	8.7
1989	12.2	1996	6.4
1990	11.2	1997	-1.3
1991	8.5	1998	-9.4

Source: Bank of Thailand (n.d.)

Looking at the Thai capital market, the Stock Exchange of Thailand Index surged dramatically, which was consistent with the GDP growth rates. According to Figure 2.3, the SET Index increased from 134.95 in 1985 to 1,682.85 in 1993. In particular, the Thai capital market was very successful between 1985 and 1993 (BOT,

n.d.), as shown by its high growth in the index, outstanding annual turnover and high trading volume. Nevertheless, from 1994 the SET index began to decrease and shrank sharply from 1,280.81 in 1995 to 355.81 in 1998 (BOT, n.d.).

Figure 2.3: SET Index from 1975 to 2013



Sources: Market Statistics, The Stock Exchange of Thailand (www.set.or.th)

In fact, the country suffered a huge speculative attack on its currency in various waves starting in November 1996. International hedge funds launched a speculative attack against the Thai baht — Thailand’s official currency by short and long positions in spot, options and forward markets. The Bank of Thailand (BOT) defended the baht spending \$6.8 billion to maintain the fixed exchange rate by May 1997. After nearly exhausting its net reserve, the BOT abandoned its fixed exchange rate and then decided to float the Thai baht in 2 July 1997, causing its devaluation from 25 baht/US dollar to approximately 60 baht/US dollar, and thereby began the Asian financial crisis. During the years of the crisis, the country had to undergo much suffering that consisted of “insufficient international reserves, the instability of the Thai baht, weakness in the financial system, high levels of non-performing loans (NPLs), high inflation, liquidity shortage, large capital outflows, a dramatic contraction of GDP, and a very high

unemployment rate” (Pholphirul, 2009:280). As the crisis started in Thailand, it spread expeditiously to a number of other Asian countries and wider to Russia and Brazil the following year. The crisis had a substantial impact on several Asian currencies. For instance, the Indonesian rupiah, Malaysian ringgit and Korean won also experienced currency crises and deeply devalued their currencies, the story was similar to the Thai baht due to Thailand trying to obstinately defend the value of the baht against speculative attacks. By the end of June 1997, the country’s official foreign reserves had declined to only \$2.8 billion. As a result, Thailand was forced to seek assistance from the IMF (Leightner, 1999).

On 19 August 1997, the Thai government announced that it was accepting the IMF and the World Bank rescue package of \$17.2 billion (Jansen, 2001). This money came with strict conditions, such as the government agreeing to reform its financial sector and close problem financial institutions. According to the IMF programme requirements, the country was required to adopt several policy reforms, including fiscal and monetary tightening and restructuring its financial and real sectors, leading whereby to improved governance, heightened prudential standards, foreign access, and privatisation.

As the governance reform was included in a letter of intent to the IMF, as part of its debt relief programme, this has led to reforms and improvements in governance throughout the country either public or private sectors. The reforms ran into many roadblocks, however, since 1998, the Stock Exchange of Thailand has introduced a programme to reform and improve corporate governance among Thai listed firms. The significant corporate governance reforms were beginning to tighten up the laws and regulations and included more disclosure requirements on listed firms. The structure and function of the board of directors of listed firms were reformed. In addition, the

Thai Institute of Directors Association and the Department of Special Investigation were established in 1999. The SET has highly recommended all directors of listed firms attending training at the Thai Institute of Directors with the aim that all Thai directors are fully aware of their roles and responsibilities and to ensure better good corporate governance in place. Among the actions taken by the regulators, a number of companies have requested a delisting, subject to not meeting new mandatory requirements. For the Thai capital market, the SEC and SET commonly play a significant role in regulating the market. Importantly, these two bodies are responsible for ensuring good governance practices by the listed firms, in particular, implementing internationally accepted good practices. Beginning in 1998, the OECD Principles of Corporate governance was employed as a framework for improving the legal, institutional and related regulations in Thailand.

By 1999, the Stock Exchange of Thailand (SET) required all listed companies to have an audit committee, as well as issuing a corporate governance guidance on Thai listed firms namely ‘Best Practice Guidelines for Audit Committee’ (Montreevat, 2006). In essence the duties and responsibilities of the audit committee have been as follows:

1. To review the company’s financial reporting process to ensure accuracy and adequate disclosure, by coordinating with the external auditor and the management members who are responsible for preparing the quarterly and yearly financial reports. The Audit Committee may suggest that the external auditor review or examine any transaction which is considered necessary and significant during the audit of the company’s accounts.
2. To ensure that the company has suitable and efficient internal control system and internal audit by making a review jointly with the external auditor and the internal auditor (if any).
3. To review the performance of the company to ensure compliance with the securities and exchange law, regulations of the Exchange or laws relating to business of the company.

4. To select and nominate an external auditor of the company, including recommendation of remuneration of the external auditor by taking into account the credibility, adequacy of resources and volume of audit assignments of that auditing firm, as well as experience of personnel assigned to audit the company's accounts.
5. To review the disclosure of information of the company in case that there is a connected transaction or transaction that may lead to conflict of interest so as to ensure the accurateness and completeness.
6. To perform any other act as delegated by the Board of Directors and approved by the Audit Committee such as to review the financial management and risk management policies, to review of the compliance with the Code of Corporate Conducts, to review significant reports which must be disclosed to the public as required by law jointly with the management of the company e.g. the Management's Discussion and Analysis etc.
7. To prepare a report on activities of the Audit Committee and disclose it in an annual report of the company. Such report must be signed by the Chairman of the Audit Committee and should consist of information as follows:
 - Comment on the accurateness, completeness and credibility of the preparation process and disclosure of information in financial report of the company.
 - Comment on the adequacy of the company's internal control system.
 - Ground to believe the company's external auditor is suitable for re-appointment for another term of service.
 - Comment on the compliance with the securities and exchange law, regulations of the Exchange or laws relating to business of the company.
 - Any other report which should be made to the shareholders and general investors within the scope of duties and responsibilities assigned by the Board of Directors.

8. The Audit Committee may seek independent opinion from any other professional counsel when it is deemed necessary at the expense of the company.

According to the SET's policy, it states that the SET will publicly name companies that do not meet listing requirements concerning audit committees and may delist securities of the company if they do not meet the SET's audit committee membership requirement within three months of the posting of the 'NC' (non-compliance) sign.

In 2002, the National Corporate Governance Committee was established to promote corporate governance practices and designated that year as the 'Compass for Good Corporate Governance'. In March 2002, the SET published the '15 Principles of Good Corporate Governance'. All listed companies were recommended to implement fifteen principles of good corporate governance (Montreevat, 2006). Although it is a voluntary principle, they should be given justification in case they do not apply any principles. The corporate governance reform was extensive. The SEC and SET has published a series of guides and codes for listed firms on many aspects of corporate governance, which can be summarised as follows:

- The Code of Best Practice for Directors of Listed companies, January 1998.
- Best Practice Guidelines for Audit Committee, June 1999.
- Code of Best Practices of Listed Companies, October 2002.
- The Principles of Good Corporate Governance for Listed Companies, March 2006.

In summary, many of the laws, regulations and guidelines regarding corporate governance practices at the present are similar to the OECD and based on the UK and US models (Montreevat, 2006; Tengamnuay & Stapleton, 2009).

2.8 Prior Research on Audit Committees in Thailand

The corporate governance research in terms of accounting and auditing has received an increasing amount of study over the past 15 years (Carcello et al., 2011). However, academic research focusing on the audit committee in Thailand is relatively rare. Tengamnuay and Stapleton (2009) use a survey approach to examine perceptions of audit committee members, investors and analysts about the roles of audit committees. This survey was carried out during the period of December 2002 to April 2003. The authors found that: (1) audit committees in Thailand have a wide range of responsibilities like those in Anglo-American countries and generally comply with international and Thai guidelines; (2) Thai audit committee may take an ‘active’ role in association with some activities, but may take a ‘passive’ role in association to others; (3) the majority of participants included members of audit committees who perceive the role of audit committees not to be the most important roles; and (4) Thai external auditors have concerns with the lack of knowledge about the operation of the audit committee. Using Spira’s (1998) model of evolutionary development of audit committees, the findings reveal that audit committees in Thailand were likely to be at an early stage in the evolutionary process. The authors argue that audit committees’ roles related to improving the quality of the financial reporting process are likely to be undertaken in a passive rather than active way. The difference between the groups of participants and the roles that each group prioritises indicates a need for improvement in audit committees operations.

Using the agency theory, Thoopsamut and Jaikengkit (2009) examine the association between audit committee characteristics, audit firm size and earnings management in quarterly financial reports of listed companies in the SET during 2005 and 2006. Audit committee characteristics include the number of audit committees meetings, the average tenure of audit committees and the ratio of the audit committees with accounting or financial expertise. The study document an association between the average tenure of audit committees and quarterly earnings management; however neither audit committee characteristics nor audit firm size find a significant association with quarterly earnings management.

In more recent Thai research, Kiatapiwat (2010) examines the relationship between audit committee effectiveness and earnings quality for the 2005-2007 time period. To measure audit committee effectiveness, the study constructs a composite audit committee effectiveness score that is the sum of the transformed values from four dummy variables including audit committee size, the proportion of audit committee members with accounting financial expertise, average tenure of audit committee members, and average number of independent audit committee positions held by audit committee members. The author assigns a dummy variable for each of the four audit committee components. The study takes on the value of 1 if the value of the corresponding audit committee characteristic is more than the sample median and 0 if the value is less than the sample median and then combines them into a single variable. However, the author fails to find any significant relationship between audit committees with strong corporate governance characteristics and earnings quality. The author interprets this result as evidence that high characteristics of audit committees do not provide a significant role in mitigating earnings management in Thai listed companies, inconsistent with prior research in Western literature and recommendations by regulators.

2.9 The Research Gaps

The above review of the existing literature has helped to identify the research gaps and shape this research debate. Consequently, a new research topic emerges in response to several needs. The gaps in the existing research are identified as follows.

Firstly, there has been increasing recognition in recent years of the importance of enterprise risk oversight in all regions of the globe (Beasley et al., 2010). Clearly, the board of directors are primarily responsible for enterprise risk oversight. However, most boards of directors often delegate formal risk oversight responsibility to the audit committee in order to monitor management's risk assessment and risk management process (e.g. Beasley et al., 2008; COSO, 2009a, 2010; Beasley et al., 2015). Interestingly, what audit committees actually do to effectively oversee firms' enterprise risk management remains unspecified. As apparent from earlier reviews, existing studies into audit committee operation consider the process used by the audit committee as a whole (Beasley et al., 2009b), the ceremonial performance of audit committees (Spira, 1999a), the process by which meanings are drawn relation to audit committee effectiveness (Gendron et al., 2004; Gendron & Bédard, 2006), the power of audit committee members and informal processes (Turley & Zaman, 2007), and the audit committee oversight involving external auditor activities (Beattie et al., 2012). The notion of audit committee oversight of enterprise risk management is largely absent from the prior studies. The current study therefore aims to overcome this gap examining the activities and processes of audit committees when carrying out their risk management oversight responsibilities.

Secondly, existing audit committee literature is extensive and offers valuable insights into the present and potential roles of the audit committee in corporate governance. Specifically, because the oversight of internal and external auditing is the

primary responsibility of the audit committee, numerous studies have examined the role of the audit committee in overseeing and strengthening the internal and external audit functions. Evidence from a large number of studies indicates that, in the end, strong internal and external audits will impact on the quality of corporate governance. Generally, the audit committee and the internal and external audits work together when discharging corporate governance responsibility. The review of the literature indicates the existence of two distinct bodies of research: (1) the link between the audit committee and the internal audit functions (e.g. Sarens et al., 2009; Abbott et al., 2010; Sarens et al., 2013; Zaman & Sarens, 2013); and (2) the link between the audit committee and the external audit functions (e.g. Cohen et al., 2002b; Stewart & Munro, 2007; Mangena & Taurigana, 2008; Cohen et al., 2010; Salleh & Stewart, 2012). However, there has been little research on audit committees involving both internal and external audit functions with regard to their oversight activities in one empirical examination (e.g. Hadden et al., 2003; Beattie et al., 2012, 2014). This is a noteworthy omission because internal and external audit functions serve as valuable resources to audit committees (DeZoort et al., 2002; Bédard & Gendron, 2010), and hence, the three oversight parties must be an integral component of auditing in order for them to work together to achieve quality corporate governance. To address this gap, the present study attempts to broaden our understanding of audit committees' engagement with internal and external functions when performing risk management oversight.

Thirdly, based on the literature review, the decision-making process of audit committees is commonly a complex area for research. To date, more recent research in audit committee judgements and decisions has focused on the factors affecting the willingness of audit committees to support auditors when they involved in an auditor-client disagreement situation (e.g. Knapp, 1987; Salleh & Stewart, 2012; Persellin, 2013), the effect of audit committee members' experience on their oversight judgements

(e.g. DeZoort, 1998; DeZoort & Salterio, 2001; DeZoort et al., 2003b; 2008), the effect of joint provision of audit and non-audit services on audit committees' decisions (e.g., Gaynor et al., 2006) and the effects of financial knowledge and trust on audit committee judgements (e.g. Rose & Rose, 2008; Rose et al., 2010). Although researchers' understanding of audit committee judgements and decisions has grown in many areas of audit committee research, the lack of attention to examining the decision-making process of audit committees when carrying out their risk management oversight responsibility, in essence, demonstrates an important gap in the extant literature. To fully realise the promise of such insights, the aim of the current study is to empirically research the process of the value judgement and decision-making of audit committees when they oversee firms' enterprise risk management, as well as the impact of perception on their decision-making.

Fourthly, over the past two decades, prior studies of audit committees held in accounting and finance have been undertaken in the domain of agency theory, with an emphasis on the basis of quantitative approaches. Extant literature has provided significant evidence of the association between good audit committee characteristics and good accounting and auditing outcomes (DeZoort et al., 2002; Beasley et al., 2009b; Carcello et al., 2011). Even though audit committee characteristics and their relations to several outcomes are important, many of the existing studies have generally overlooked the process of the audit committee. In accounting-based corporate governance research areas, many authors have called for accounting researchers conducting qualitative research to further their understanding of complex corporate governance realities and process (DeZoort et al., 2002; Spira, 2002; Cohen et al., 2004; Turley & Zaman, 2004; Bédard & Gendron, 2010; Carcello et al., 2011). Until recently, in response to calls for deeper understanding of audit committee processes, many studies have examined a wide range of process issues using qualitative approaches (e.g.

Spira, 1999a; Gendron et al., 2004; Gendron & Bédard, 2006; Turley & Zaman, 2007; Beasley et al., 2009b; Cohen et al., 2010). While quantitative methods are appropriate when addressing research questions that require hypothesis-testing approach in the field of the audit committee research, the question of why and how audit committee members actually discharge their duties cannot be answered statistically as there is not enough publicly available data that contain the explanatory variable. Moreover, it is difficult to quantify them in a way useful for econometrical research. Instead, qualitative methods are most suitable for addressing research questions that require explanation and understanding of audit committee phenomena and research participants' views. This study therefore aims to overcome this methodology gap and tries to balance these two opposing streams of research by using both quantitative and qualitative methods to analyse audit committees practices' typical areas in the oversight of enterprise risk management. The research methods are discussed in more detail in Chapter 4.

Finally, as can be observed from the literature review, the majority of the extant audit committee literature is set in the context of developed countries. In comparison to developed countries such as the UK and US, the research evidence on audit committees in Thailand is rather limited. Although Thai scholars have recognised the value of studying the audit committee, the existence of literature has primarily focused on the relationship between audit committee characteristics and earnings management (Thoopsamut & Jaikengkit, 2009), the relationship between audit committee effectiveness and earnings quality (Kiatapiwat, 2010), and perceptions of audit committee members, investors and analysts about the roles of audit committees (Tengamnuay & Stapleton, 2009). To date, however, the extent to which the audit committee oversees the enterprise risk management system has not been widely examined in Thai listed companies. Therefore, this issue still leaves much to be explored for Thailand. This research address this gap by examining the role of audit

committees among publicly listed companies in Thailand: cases of audit committee oversight of enterprise risk management.

In summary, the current research therefore provides a broad range of evidence for the decision-making process audit committees during the operation of the usual oversight of enterprise risk management in the Thai context, that of a developing country.

2.10 Chapter Summary

In this chapter, the literature on audit committee research has been reviewed in order to help identify research gaps in the literature, which might lead to establishing the current research agendas. Generally, prior literature has provided significant evidence of insights into the role of audit committees in a corporate governance context. More recently, there has been a growing body of studies examining the operation of audit committees. However, the extant literature on the process of audit committees and their decision-making associated with the oversight of enterprise risk management are relatively rare and in their infancy. A number of gaps in the literature have been identified from the existing literature review. Arguably, this provides an opportunity to make significant contributions to the existent literature. In the Thai context, this study, therefore, aims to fulfil the gaps in the existing body of knowledge on audit committees and thereby contribute to a better understanding of the audit committee oversight of enterprise risk management.

The next chapter describes the theoretical foundation and hypotheses with respect to the current study.

CHAPTER 3

Theoretical Framework and Hypotheses Development

3.1 Introduction

The preceding chapter provides an extensive literature review on a broad range of the audit committee studies, the role of the audit committee in performing the oversight of enterprise risk management and corporate governance in Thailand and prior research on audit committees in Thailand. More importantly, the review has helped to identify the research gaps. Following a number of research gaps identified from the literature which this study attempts to narrow, the research objectives, research questions and hypotheses have been formulated in this chapter. The beginning of the chapter presents the research objectives, research questions and hypotheses. In the second section, the underlying theoretical framework grounded on psychological theories of information processing, perception, judgement and decision-making for guiding the research is discussed. The third section focuses on the development of the hypothesised relationship and causal mechanisms based on the theoretical framework. Finally, the chapter ends with a summary.

3.2 Research Objectives, Research Questions and Hypotheses

According to the research gaps identified in Chapter 2 of this thesis, the present study is an endeavour to fill these gaps in the existing audit committee literature, specifically with respect to the developing countries: in this setting the country of Thailand. Thus, four objectives are established as follows:

Research Objective 1: To understand the extent of a background of audit committee oversight of enterprise risk management practices within Thai public company audit committees.

To achieve this objective, the following research question is addressed.

Research Question: To what extent is there a background of audit committee oversight of enterprise risk management practices within Thai public company audit committees?

Research Objective 2: To examine how audit committee members' perceptions of the oversight of enterprise risk management and oversight activities influence their judgement competence and perceptions of the quality of enterprise risk management system.

To achieve this objective, the following hypotheses were investigated. These hypotheses are developed on the basis of the theoretical framework, which underpin a process thinking model (Rodgers, 1991, 1992; Rodgers & Housel, 2004; Foss & Rodgers, 2011) and psychological theories of information processing, perception, judgement and decision-making (Tushman & Nadler, 1978; Gibson, 1988; Luthans, 1998; Blanchette & Richards, 2009; Huczynski & Buchanan, 2013).

Hypothesis 1: Audit committee members' perceptions of the high importance of enterprise risk management oversight will be positively related to their judgement competence.

Hypothesis 2: Audit committee members' perceptions of the high importance of enterprise risk management oversight will be positively related to their perceptions of the high quality of enterprise risk management.

Hypothesis 3: Audit committee members' activities in evaluating the internal audit function will be positively related to their judgement competence.

Hypothesis 4: Audit committee members' activities in evaluating the external audit function will be positively related to their judgement competence.

Hypothesis 5: Audit committee members' judgment competence will be positively related to their perceptions of the high quality of enterprise risk management.

Research Objective 3: To describe process elements used by Thai public company audit committees in performing the oversight of enterprise risk management.

To accomplish this objective, the following research question is addressed.

Research Question: What process do Thai public company audit committees use to fulfil their enterprise risk management oversight responsibility?

Research Objective 4: To explain the ways in which Thai public company audit committees make judgements and decisions when they carry out the oversight of enterprise risk management.

To achieve this objective, the following research question is addressed.

Research Question: How do Thai public company audit committees make judgements and decisions when they carry out the oversight of enterprise risk management?

The first and second objectives are based on the underlying assumptions of quantitative research. The theoretical framework basis for the linkages illustrated in the hypothesised model for Objective 2 is provided in the following sections. In contrast the third and fourth objectives require a qualitative approach aiming to provide rich accounts of the complex operation of audit committee oversight of enterprise risk management. Given that these objectives are mixed as both quantitative and qualitative in nature, this study therefore utilises a mixed methodology research approach to achieve the four research objectives. A quantitative research method was used to obtain descriptive information of the extent to which a background of audit committee oversight of enterprise risk management practices within Thai public company audit committees for the first objective and to test the theoretical model for the second objective. In order to provide insights and explanations for Research Objectives 3 and 4, this study uses a qualitative research method to collect and analyse data. For more details, the research methodology is discussed in Chapter 4. The next section presents the theoretical framework for Objective 2.

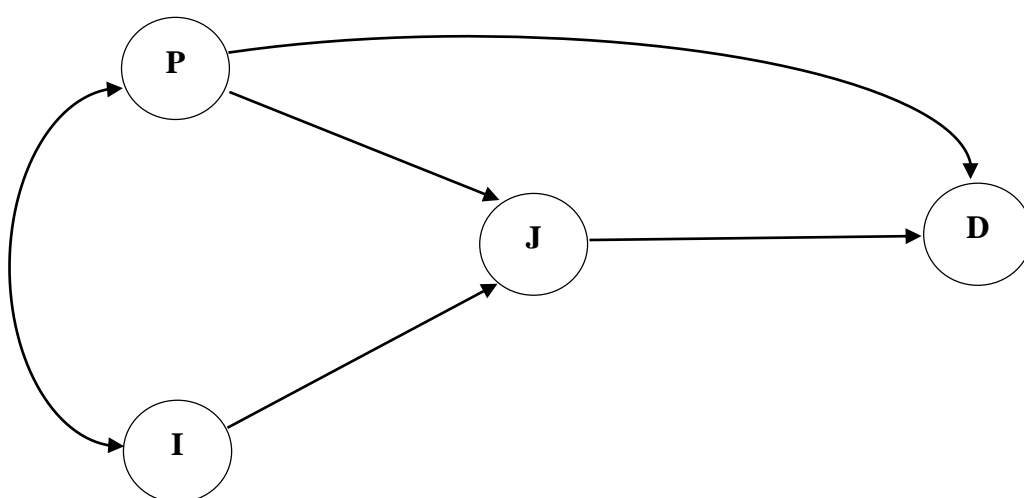
3.3 Theoretical Framework for the Current Study

Research Objective 2 aims to examine how audit committee members' perceptions of the oversight of enterprise risk management and oversight activities influence their judgement competence and perceptions of the quality of enterprise risk management. In order to address this important issue, the current study adopts both a process thinking model⁹ (Rodgers, 1991, 1992; Rodgers & Housel, 2004; Foss & Rodgers, 2011) and psychological theories of information processing, perception, judgement and decision-making (Tushman & Nadler, 1978; Gibson, 1988; Luthans, 1998; Blanchette &

⁹ Rodgers (1991, 1992), Rodgers and Housel (2004), and Foss and Rodgers (2011) also call this conceptual framework (see Figure 3.1) as '*Process Thinking Model*,' '*Throughput Model*' and '*Decision-Making Model*.' They demonstrate the importance of this framework is that it imports four major concepts (perception, information, judgement, and decision choice) that suggest how individuals interact before making a decision.

Richards, 2009; Huczynski & Buchanan, 2013) as the theoretical foundations for the research framework, looking to predict and explain audit committee members' decision-making processes regarding the oversight task of enterprise risk management. The conceptual model is illustrated in Figure 3.1. The model demonstrates links between four major theoretical concepts that are used in decision-making processes: namely perception (P), information (I), judgement (J), and decision choice (D).

Figure 3.1: Individuals' Process Thinking and Decision-Making Diagram



Where P= perception, I= information, J= judgement, and D= decision choice

Source: Rodgers (1991, 1992, 1997, 1999, 2006)

The theoretical framework adopted in this study was used to examine many issues regarding the decision-making and process thinking matters. For instance, Rodgers (1991) examines how loan officers make decisions about credit risk. He finds that loan officers generally used information as a priority in order to come to a decision point. Furthermore, the results indicate that loan offers combined information incorporated with their perceptions of critical loan responsibilities for rational decision-making purposes whether or not to make loans.

Rodgers and Housel (2004) use this model to test how external auditors make decisions when presented with environmental risk information in terms of a task that

requires their professional judgement on a corporation's forecasted information. The findings from 88 senior auditors show that when they were experienced with traditional (i.e. liquidity risk and leverage) and non-traditional risk (i.e. environmental risk) information when analysing a corporation's forecasted financial statements, they are more likely to integrate their perceptions of traditional risk and risks based on traditional financial information in their decision-making as to whether or not corporations' forecasted financial statements were acceptable. However, the findings show that auditors' perceptions of environmental risk information did not influence how auditors judged information and made decisions, while environmental risk information has a significant influence on their judgement and decision-making. The authors argue that when dealing with conflicting information, auditors appear to place more reliance on traditional financial information rather than environmental risk information, suggesting that auditors should receive education and training in handling non-traditional information, such as environmental risk.

Recently, Foss and Rodgers (2011) examine the decision-making process of line managers in a large global bank when they are involved in risk assessment activities conducted by corporate audit. In this setting, branches are operated as profit centres and line managers are delegated with much discretion concerning the risk assessment of individual branches, whereas the corporate audit function is responsible for reviewing operating branches' procedures and assisting branches in assessing their risks in the portfolio of activities. The findings show that line managers' perceptions of the critical role of corporate audit function in the firm and the ways in which they were involved in their branches' risk assessment activities carried out by corporate audit influence their judgements and decisions, whereby developing and improving effective means of performing risk assessment activities. Foss and Rodgers (2011) suggest that it is important that line managers perceive the operations of corporate audit as useful,

working together and that they should be willing to use feedback information from corporate audits to transfer risk assessment best practises throughout their branches.

To demonstrate the research framework for the present study, the four phases of process thinking are discussed as follows.

First Phase: Perception

From a psychological point of view, perception (or worldview) is a cognitive process by which individuals make sense of stimuli from the environment in order to make judgements and decisions (Smith et al., 2013:50). Cognitions are fundamentally bits of information, and the cognition processes of perception involve the ways in which individuals process that information. Thus, perception is a significant aspect in determining individual and group decision-making behaviour. Generally, individuals make various decisions based on perception of something or someone on an ongoing basis. In the context of behavioural decision-making research, the process of perception involves the way decision-makers use it to frame their problem-solving or view of the world. Framing refers to how decision makers see a problem based on their stored experience and knowledge, which is carried out to solve a problem (Rodgers, 2006). Joyce and Libby (1981) also argue that different decision makers sometimes frame the same problem quite differently. Furthermore, not only do individuals frame the same problem differently, but the same decision maker often frames considerably similar problems differently. Consequently, different decision frames can result in different decisions and outcomes.

Numerous studies find that individual perceptions affect individuals' choices among a variety of decision alternatives (e.g. Rodgers, 1992; Highhouse & Paese, 1996; Highhouse et al., 1996; Highhouse & Yüce, 1996; Foss & Rodgers, 2011). In terms of

behavioural decision-making research in accounting, Schroeder et al. (1986), for example, examine the effect of audit committee chairpersons' perceptions on their decisions in the auditor nomination/selection process. They find that the audit committee chairpersons perceived audit-team factors (e.g. the level of partner/manager attention given to the audit, planning and conduct of audit team work and communication between audit team and management) are important determinants of audit quality that influence audit committees' decision-making in the external auditor nomination/selection process. Also, Hilton and Swieringa (1981) and Hilton et al. (1981) indicate the perception affect individuals' processes of decision-making and information evaluation. More importantly, Gibbins and Wolf (1982:106) assert the use of perception data is an important factor of behavioural decision-making research in that "there is general agreement that an understanding of judgement and decision processes must relate to the subjective representation of the situation by the judge or decision maker."

According to Rodgers (1992), Rodgers and Gago (2003) and Foss and Rodgers (2011), decision makers use a combination of perception and information to help them for problem-solving or decision-making purposes. Yet, sometimes they have information overload or they rarely have enough information. As a result, often they are required to make a decision within limited time periods. Under this circumstance, for instance, Mills and Wilson (2001) suggest that decision makers use an integration of perceptual cues and mental sets to fill in the information blanks for their decision-making purposes. This is where perceptual short cuts are critical for decision makers.

Second Phase: Information

The principal goal of the accounting function is to provide information to decision makers (Dillard, 1984) and accounting information is an essential type of information

for decision makers (Kinney, 2001). Apparently, the American Accounting Association (1966:1) defines accounting as: “The process of identifying, measuring and communicating economic information to permit informed judgements and decisions by users of the information”. Accounting information is typically produced by management and management themselves are also responsible for the quality of accounting information. Levitt (1999:2) stated in his speech to directors, “the link between a company’s directors and its financial reporting system has never been more crucial.” This is consistent with Cohen et al. (2002b), suggesting that auditors perceived that management to be an essential component of the corporate governance mosaic. In order to provide confidence about the quality of accounting information to stakeholders, the various bodies either individually or collectively in the governance mosaic, including the board of directors, the audit committee, the external auditor and internal auditors, play important roles in monitoring the financial reporting process (Cohen et al., 2004; Bédard & Gendron, 2010). While decision makers such as investors, analysts and bankers largely use accounting information to make their judgements and decisions regarding investments and lending, several players in the accounting function (e.g. accountants, management, boards, audit committees, external auditors and internal auditors) make judgements and decisions concerning their responsibilities in different stages of the process of financial reporting. For instance, audit committees are specifically required to make judgements and decisions on whether companies’ financial statements are presented fairly, in all material respects, and free of material misstatement due to error or fraud.

Information is a set of data transmission and interpretation available to a decision-maker for problem-solving purposes. While data are considered as facts, information is processed and interpreted data. Generally, a decision-maker requires relevant and reliable information (Walster et al., 1966; Birnbaum & Stegner, 1979;

Bamber, 1983). Kinney (2001:276) suggests that “the *quality* of information is comprised of its relevance for a particular decision and decision maker and its reliability (care in or precision of its preparation and trustworthiness of its display), while information *context* denotes factors surrounding a decision including the knowledge and abilities of the decision maker and the decision maker’s utility function.”

If the information is without relevance and reliability, it is difficult to confirm whether a decision-maker’s objectives have been met. Additionally, Rodgers (1992) argues that perception and information are interdependent because information has no meaning without the decision-makers interpreting it. The double-ended arrow linking perception and information in Figure 3.1 depicts this relationship. However, in this study the links between ‘Perception’ and ‘Information’ will not be investigated.

Third Phase: Judgement

Generally, Judgement and decision-making research is undertaken with the aim of understanding individual and group judgements and decisions (Libby & Luft, 1993). Even though the terms *judgement* and *decision* are often used interchangeably, there is a difference between these terms. Bonner (1999:385) points out how differences are distinguished between judgement and decision.

“The term *judgement* typically refers to forming an idea, opinion, or estimate about an object, an event, a state, or another type of phenomenon. Judgements tend to take the form of predictions about the future or an evaluation of a current state of affairs. The term *decision* refers to making up one’s mind about the issue at hand and taking a course of action. Decisions typically follow judgements and involve a choice among various alternatives based on judgements about those alternatives and, possibly, preferences for factors such as risk and money. In other words, *judgement* reflect one’s beliefs, and *decisions* may reflect both beliefs and preferences. For example, an

auditor makes a judgement about whether financial statements contain material misstatements. Then, he or she makes a decision about what type of audit opinion to issue based on his or her judgement about misstatements and preferences regarding client retention and litigation.”

Similarly, Solomon and Trotman (2003:396) use “the term *judgement* to refer to subjective assessments made as a prelude to taking action” and “the term decision to mean action that people take to perform some task or solve some problems”.

Following Libby (1981), Trotman et al. (2011:279) also make a distinction between judgement and decision.

“Judgement usually refers to the process of estimating outcomes and their consequences (e.g. likelihood of a material misstatement, risk assessment, estimate of an account balance, estimate of future cash flows), while decision-making involves an evaluation of these consequences which lead to a choice among the alternatives (e.g. quality/not quality audit report, invest/not invest). Judgements are an important input for decisions.”

Drawing on the above definitions, in the theoretical framework for the current study, judgement is the process by which decision-makers assess and analyse information as well as influences from the perceptual process. Consequently, decision-makers will estimate the likelihood of the occurrence of various decision choices (outcomes) before making a decision (Blanchette & Richards, 2009).

Fourth Phase: Decision Choice

While decision-making processes require human judgements, *decision choice* represents an action based on the process through which a decision-maker selects the best alternative solution from among different options (Bonner, 1999; Blanchette & Richards, 2009; Trotman et al., 2011). In other words, decisions characteristically

follow judgements and involve a choice among several alternatives based on judgements regarding those alternatives. Additionally, decisions are sensitive to alternative decision frames (perceptions) (Joyce & Libby, 1981). In summary, it can be argued that the decision choice is influenced by both the perception and judgement processes (Rodgers 1992; Foss and Rodgers 2011).

3.4 Hypotheses Development

‘Oversight of enterprise risk management’ refers to the work of the audit committee in reviewing and evaluating a company’s risk assessment and management processes to ensure that the guidelines and policies used to govern the process are undertaken. Beasley et al. (2008:44) discuss the rising expectation for the audit committee overseeing a company’s risk management:

“In many companies, boards are assigning the additional task of risk oversight to the audit committee, despite the audit committee’s already lengthy list of responsibilities related to financial reporting and the internal/external audit function. Not only are audit committees being charged with overseeing management’s risk policies and guidelines, they are also being asked to discuss with management the enterprise’s key risk exposures—including those beyond financial reporting related risks.”

Fundamentally, audit committees are primarily responsible for monitoring the integrity of companies’ financial statements. Interestingly, part of this responsibility is risk oversight, which is evolving as a new key area for audit committees. The second objective of the current study is to examine how audit committee members’ perceptions of the oversight of enterprise risk management and oversight activities influence their judgement competence and perceptions of the quality of enterprise risk management. In the sections below, rationales for the hypothesised linkages are discussed.

Perception of the Importance of ERM Oversight—Judgement Competence and Perception of the Importance of ERM Oversight—Perception of the Quality of ERM Pathways

Perception is described as a cognitive process by which people perceive and describe their sensory information in order to give meaning to and understand their environment (Gibbins & Wolf, 1982; Gibson, 1988; Mullins & Hicks, 2002; Robbins & Judge, 2013). Based on a fundamental assumption of the psychology of perception, each audit committee member has a different perception of the oversight role of enterprise risk management. As a result, different individuals normally perceive a situation differently, depending on an individual's motives, attitude or personality, personal characteristics, and experiences (Robbins & Judge, 2013). Consequently, audit committee members' perception of the oversight of enterprise risk management influence their actions and thought patterns, which give rise to individual behavioural responses in their judgements and decision choices (Luthans, 1998). In a related study, for, example, audit committee members' experiences and their judgements have been examined by DeZoort (1998), indicating that the previous audit and internal control assessment experiences of audit committee members make a difference in their judgements on an internal control oversight task. Specifically, audit committee members with experience made internal control judgements more like auditors in the area when members without experience did not. Furthermore, the results also indicate that experienced audit committee members made more consistent judgements, had higher levels of self-insight, greater consensus, and more technical knowledge than did the members without experience. These results are consistent with the psychology of perception concept (Gibson, 1988) and the perceptual process concept of organizational behaviour and management (Luthans, 1998). According to psychological factors, Mullins and Hicks (2002:390) explain that

“learning from previous experiences has a critical effect throughout all the stages of the perception process.”

Judgement is the process that individuals implement to analyse and assess information and determine the alternatives of possible occurrence of various outcomes (Libby, 1981; Bonner, 2008). Decision makers proceed to rate each likelihood from each criterion before making a decision. In terms of *audit committees' judgement competence*, audit committees are required to analyse, weigh, sort, and classify auditing reports made by internal and external auditors, and financial reporting information from management for decision-making purposes. A number of studies indicate that higher quality internal auditors (James, 2003; Chan et al., 2008; Prawitt et al., 2009; Holt, 2012), external auditors (Balsam et al., 2003; Chih-Ying et al., 2008; Gul et al., 2009; Francis et al., 2013; Baber et al., 2014), and an adequate number of audit committee members (Klein, 2002a; Ghosh et al., 2010) are associated with accounting information quality. In addition, according to the audit committee resource literature (DeZoort et al., 2002; Bédard & Gendron, 2010), the resource component of audit committee effectiveness consists of the internal auditor, external auditor, and the size of the audit committee. Applying the above literature insight to the current study context, it can be argued that audit committee members' judgement competence depends on whether they believe the quality and skills of the internal auditor and external auditor, and the size of the audit committee are appropriate for the task.

Finally, *decision choice* represents the process whereby decision makers choose one from various options (Blanchette & Richards, 2009). Fundamentally, decision makers implement their ability to select the best alternative solution or course of action to ensure that a decision follows their intended objectives. As a result, the solution with the highest expected value should be selected as their decision choice. This study treats audit committees' evaluations of the auditing reports provided by internal auditors and

external auditors in the past year as well as audit committees' self-assessment (audit committees assess their own performance) as the decision choice. For the current study, the decision choice is defined as *perception of the quality of ERM*, which is affected by both *perception of the importance of ERM oversight* and the information processing stages.

Taken together, the current study links the conceptualization of *perception of the importance of ERM oversight* with the conceptualisation of *judgement competence* and *perception of the quality of ERM* to develop two hypotheses specifically about the associations of audit committee members' perceptions of the oversight of ERM with their judgement competence and perception of the quality of ERM. Moreover, given that regulators (e.g. SET, 1999; NYSE, 2004; FRC, 2014) and professional firms (e.g. PwC, 2011; Deloitte, 2013; KPMG, 2013; EY, 2014) offer guidelines and suggest audit committees should be aware of the importance of the oversight role of enterprise risk management, the first hypothesis posits that audit committee members who perceive the oversight role of enterprise risk management as more important will demonstrate its positive impact on their judgement competence. The second hypothesis posits that audit committee members who perceive the oversight role of enterprise risk management as more important will demonstrate its positive impact on their perceptions of the high quality of enterprise risk management. The two hypotheses are as follows:

H1: Audit committee members' perceptions of the high importance of enterprise risk management oversight will be positively related to their judgement competence.

H2: Audit committee members' perceptions of the high importance of enterprise risk management oversight will be positively related to their perceptions of the high quality of enterprise risk management.

Audit Committees' Oversight Activities—Judgement Competence— Perception of the High Quality of ERM Pathway

Based on corporate governance frameworks, the central monitoring parties in the corporate governance mosaic include the audit committee, internal auditor, and external auditor (Cohen et al., 2004). For interactions between the three parties, a number of researchers have found evidence that the internal auditor and external auditor are largely involved in audit committee activities (Carcello et al., 2002; Spira, 2002; Turley & Zaman, 2007; Cohen et al., 2010). Importantly, numerous professional publications also offer more detailed guidance about communications and interactions between audit committees, internal auditors and independent auditors (PwC, 2011; Deloitte, 2013; KPMG, 2013; EY, 2014). In addition, Solomon (2013:164-165) states that

“[i]t is essential for good corporate governance that the audit committee, the internal audit function and the external audit are effective in themselves, and that they are linked effectively. Operating effectively in isolation is in itself inadequate. The information flows and linkages between these essential elements of corporate governance are paramount to effective corporate governance.”

In a recent study, Beasley et al. (2009b) have provided important evidence of insight into the audit committee oversight process. Based on interviews with 42 individual audit committee members in the US, they find that the audit committee meets regularly with the internal auditor and it appears that audit committee involvement in the internal audit has increased since the pre-SOX 2002 periods. The external auditor is also heavily involved with audit committees, especially in audit committee meetings. In addition, they also point out that there is significant communication between the audit committee chair and the auditor outside of meetings, which is consistent with prior studies (Spira, 2002; Turley & Zaman, 2007). With respect to oversight of risk, even

though reviewing the risk of fraudulent financial reporting is considered by a number of the audit committee members to be a primary audit committee responsibility, many audit committee members are very uncomfortable with this task and most of them rely largely on internal and external auditors. Beasley et al. (2009b:98) argue that

“it appears that many audit committee members simply do not want to be responsible for detecting fraud, much as external auditors have attempted to avoid this responsibility for decades. Many audit committee members may want to serve as vigilant monitors of management, but within certain limits. Fraud detection is, however, beyond the limit for many.”

In a number of corporate governance reviews and analyses (DeZoort et al., 2002; Cohen et al., 2004; Turley & Zaman, 2004; Cohen et al., 2007; Bédard & Gendron, 2010; Ghafran & O'Sullivan, 2013), the literature suggests that the audit committee can strengthen corporate governance by overseeing the internal audit and external audit functions. In turn, both internal and external auditors can strengthen the audit committee by providing the relevant and reliable information to the audit committee when fulfilling its responsibilities. Basically, internal and external auditors are assumed to be the resource component of audit committee effectiveness. To achieve effectiveness, the audit committee discharges their responsibility through “work[ing] together as needed to prepare, ask questions, and pursue answers when dealing with management, external auditors, internal auditors, and other relevant constituents (DeZoort et al., 2002:45).” Existing research into the audit committee oversight process shows that the audit committees that more effectively fulfil their monitoring role are likely to ask tough and important questions that challenge internal and external auditors on the quality of accounting information within an organization (Gendron et al., 2004; Gendron & Bédard, 2006; Beasley et al., 2009b). Therefore, asking good questions seems to be a key aspect of the approach in which the audit committee assess the credibility of

information. More importantly, meaningful communications and interactions between the audit committee, internal auditor and external auditor seem to be critical to strengthen governance and financial reporting quality within an organization (Cohen et al., 2004; Cohen et al., 2007; Beasley et al., 2009b).

It is widely accepted that internal audit functions play a fundamental role in supporting enterprise risk management (COSO, 2004, 2011). (Beasley et al., 2005b) empirically investigate internal auditing involvement in enterprise risk management. Using an online survey from spring 2004, they report that the respondents indicated a wide range of enterprise risk management developments in their organizations. They document the effects of enterprise risk management on internal auditing, including: (1) enterprise risk management has affected the planning and testing of internal auditing, as well as causing internal auditing to gain a better understanding of corporate risks; (2) enterprise risk management has increased internal auditing's status within the corporation; and (3) enterprise risk management has affected internal auditing by increasing work-loads. However, the respondents indicated that enterprise risk management has had a moderate effect on internal auditing activities. The evidence based on interviews finds that the current roles for internal auditors allow a greater role in enterprise risk management and the internal audit function has now moved to more risk-based auditing (Soh & Martinov-Bennie, 2011). Furthermore, the risk management system has become closely aligned with the internal audit function and it has been adopted as part of the accountability process (Spira & Page, 2003). The experimental evidence shows that a high involvement of internal auditors in enterprise risk management influences the perception of their willingness to report a breakdown in risk procedures to the audit committee (Zwaan et al., 2011).

In terms of risk management and the external auditor, the evidence for the degree to which the role of risk management is related to audit demand shows that a

company that has disclosed a relatively high level of compliance risk management is associated with lower audit fees. In addition, when a company has an audit committee, discloses a relatively high level of financial risk management, and has a larger proportion of independent board members, it is associated with higher audit fees (Knechel & Willekens, 2006). In response to an enterprise risk management perspective, it appears that many audit firms have been moving forward using a risk-based auditing approach to audit their clients' financial statements (O'Donnell & Schultz Jr, 2005; Knechel, 2007; Bowlin, 2011). Interestingly, although various professional articles discuss the important roles of audit committees in overseeing enterprise risk management, the academic literature relating to the audit committee's responsibilities in this area is relatively limited. Beattie et al. (2012) have examined the engagement of the UK audit committee with auditors and chief financial officers over enterprise risk management. They find that the level of discussion on enterprise risk management issues is less than 60 percent across the three groups, and 'lower' in ranking (between 7 and 12 out of 16 audit-related issues) than would have been expected. They argue that enterprise risk management issues may be discussed by the board of directors or by a separate risk committee (board subcommittee).

Therefore, combining the above literature, the current study proposes that the audit committee's involvements in internal and external audit functions play a crucial role in overseeing enterprise risk management information. Applying the concept of interactions between the audit committee, internal auditor, and external auditor to our context, since internal and external auditors are resources for the audit committee, there is reason to expect both internal and external auditors should provide quality information to the audit committee in order to fulfil the committee's responsibility of the oversight role of enterprise risk management. To accomplish effectiveness, the audit committee interacts and communicates with internal and external auditors in a number

of ways to assess the relevance and reliability of the information provided to it. In particular, the audit committee seeks to pose important questions to internal and external auditors in order to evaluate their information. As mentioned earlier, judgement in the context of audit committee oversight of risk management depends on whether audit committees believe the quality and skills of their resources are appropriate for the task. Therefore, this study predicts that the audit committee's involvements in the internal and external audit functions will influence their judgement. Finally, this study also predicts that the audit committee's judgement will affect their decision choices. Consequently, the predictions are summarized in the following hypotheses:

H3: Audit committee members' activities in evaluating the internal audit function will be positively related to their judgement competence.

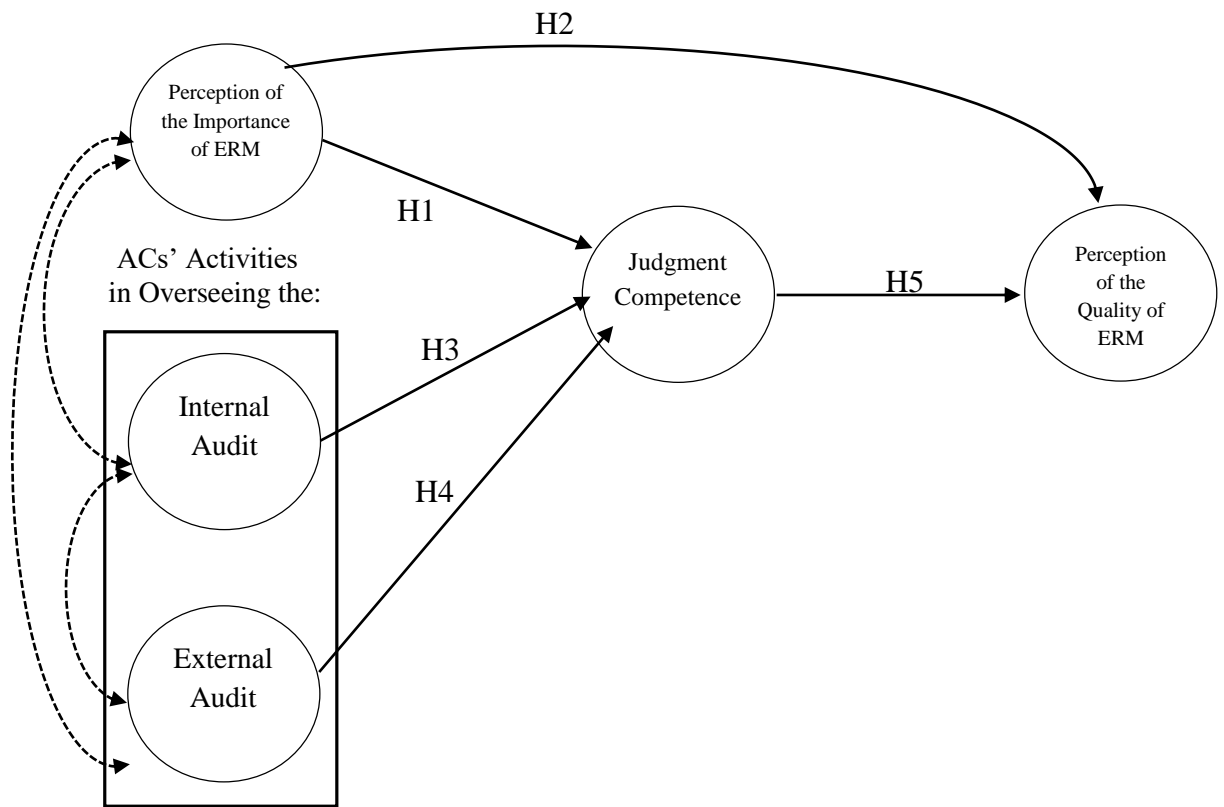
H4: Audit committee members' activities in evaluating the external audit function will be positively related to their judgement competence.

H5: Audit committee members' judgment competence will be positively related to their perceptions of the high quality of enterprise risk management.

The hypotheses are summarized graphically in Figure 3.2

Importantly, it should be noted that the links between 'Perception of the Importance of ERM' and 'Audit Committees' Activities in Overseeing the Internal Audit and External Audit' will not be investigated in the current study.

Figure 3.2: Hypothesized Relationships



Source: The current study

3.5 Chapter Summary

As discussed in the previous chapter, a number of the research gaps indicates that there is a need for research into the audit committee oversight of enterprise risk management. Therefore, four research objectives have been developed in this chapter in order to fill these research gaps in the literature. The four objectives of this research are to: (1) understand the extent of a background of audit committee oversight of enterprise risk management practices within Thai public company audit committees; (2) examine how audit committee members' perceptions of the oversight of enterprise risk management and oversight activities influence their judgement competence and perceptions of the quality of enterprise risk management; (3) describe process elements used by Thai public company audit committees in performing the oversight of enterprise risk

management; and (4) explain the ways in which Thai public company audit committees make judgements and decisions when they carry out the oversight of enterprise risk management. While Research Objective 1 purposes a descriptive analysis of survey data, Research Objective 2 aims to test the theoretical model: how audit committee members' perceptions of the oversight of enterprise risk management and oversight activities influence their judgement competence and perceptions of the quality of enterprise risk management. The theoretical model has been discussed and the research hypotheses have been developed based on the conceptual framework and the extant literature. Given that Research Objective 3 and 4 are typically of a qualitative research in nature, achieving these objectives does not involve hypothesis development and testing. However, the theoretical model proposed in this chapter will be used to guide the analysis and interpretation of the data for Objective 4. Research hypotheses will be then formally tested in Chapter 6. The next chapter introduces how the research objectives of the current study will be accomplished, discussing the underlying research philosophy, methodology and data collection.

CHAPTER 4

Research Methodology

4.1 Introduction

The previous chapter outlines the research objectives, theoretical framework, hypotheses and research questions of this study. This chapter focuses on the methodology used to test the research hypotheses and to answer the research questions in order to achieve the research objectives. The chapter begins with a discussion of the ontological and epistemological assumptions that underpin research methodologies, followed by a description of the distinction between quantitative and qualitative research methods, an outline of the mixed methods research, and the rationale to justify the use of the mixed methods research approach for the present study. It continues with a detailed discussion of the research design of this study, including quantitative research design and qualitative research design. Finally, the chapter ends with a brief summary.

4.2 Research Philosophy and Approach

Philosophical and methodological foundations make a research approach distinctive and diverse (Guba & Lincoln, 1994). The term research philosophy is similar to the research paradigm, an idea made from Thomas Khun (1970). A paradigm represents a *worldview* as meaning a basic set belief system that guides action based on ontological, epistemological and methodological foundations (Guba, 1990; Guba & Lincoln, 1994). Research paradigm is a general term, wider than methods or methodology. Similar to social research, business, management and accounting research are influenced by two philosophical foundations namely ontology and epistemology. Each research approach to business, management and accounting research rests on the ontological and epistemological orientations of the research philosophy, and involves taking a stance on

what forms the best research. The orientations of ontology and epistemology give rise to research approaches, these in turn give rise to methodological considerations and prescribe the suitable types of research methods, designs, instruments and data collection.

Ontological orientation is concerned with the fundamental nature of reality or the nature of what exists. Objectivism is based on an ontological assumption that contends that the 'real world' or 'social phenomena' exist independently of social actors and their interpretation. An ontological position of constructionism holds that the 'real world' or 'social phenomena' is merely created through consequent actions of humans and their interpretations and inner subjectivity.

Epistemology is concerned with the issue of how humans know the social world around them or what makes a claim about it true. There are two major positions on what produces acceptable knowledge in a field of study: positivism and interpretivism. Positivism implies a particular philosophical stance regarding the researcher as an observer of reality. Researchers favouring a positivist approach will probably adopt the methodological procedures of the natural sciences. Thus, positivism is based on a logic of the natural sciences. From positivist perspectives, research in social sciences including business, management and accounting, could be researched in ways similar to the natural sciences, generating theories and laws that could be examined empirically. Positivist researchers typically seek rigorous, precise measures and 'objective' research, and they generally demand exact quantitative data, often using experiments, surveys and statistics. In positivism, the end-product of investigations by positivist researchers can be used to predict general patterns of human behaviour. Interpretivism concerns the association between human beings and their environments, such as how they interact and get along with each other. While positivists view the social world as being real and external to the individual, interpretivists hold the social world as being much more

personal and generated by humans. Furthermore, whereas positivists aim to generalise empirical evidences onto the world at large, interpretivists focus upon understanding and explanation of the subjective experience of individuals with regards to how they create and maintain their social world rather than the general and the universal.

Interpretive researchers often use participant observation, interviews and field research to gain the details (qualitative data) of how individuals create meaning in their everyday lives.

Up to this point, quantitative and qualitative research represent two distinctly different approaches researchers bring to investigate the behaviour and actions of humans and social phenomena. Quantitative research holds the view of social reality as external fact, objective reality, which leads to adopting the methodology of the natural sciences and of positivism in particular for research aiming to test theories.

Furthermore, the quantitative research approach typically emphasises quantification in the data collection and analysis. By contrast, qualitative research holds the view of social reality as socially constructed meaning, and it is typically seen as the opponent of positivism. The nature of qualitative research is to study meaning from the ways in which individuals interpret the social world around them and is concerned with the generating rather than the testing of theories. Typically, qualitative research is framed in terms of using words rather than quantification in the data collection and analysis. In terms of the enquiry process, qualitative research is more closely related to an inductive enquiry process. Inductive enquiry starts with observing social phenomena and analysing its patterns and themes, and then formulates reasons from the specific situation to a general conclusion or to develop theory. On the other hand, quantitative research is generally associated with a deductive enquiry process, reasoning from general principles to a specific situation. Deductive enquiry begins with developing

hypotheses based on ideas and theories in relation to a certain domain of inquiry, and then collecting the data in order to test or confirm the proposed hypotheses.

It has been recognised that qualitative and quantitative research have their own characteristics and both approaches have strengths and weaknesses. In order to advance knowledge and overcome the weaknesses and biases of single approaches, mixed methods research has been adopted as a research paradigm that integrates quantitative and qualitative research in a single research project. Applying mixed methods research allows researchers to establish research problems from different worldviews, and use different approaches to gather data in conducting both confirmatory and exploratory research, deduction and induction, to answer research questions. Reams and Twale (2008:133) note that mixed methods research is “necessary to uncover information and perspective, increase corroboration of the data, and render less biased and more accurate conclusion”. Creswell (2014:4) defines mixed methods research as follows:

“Mixed methods research is an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks. The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone.”

Despite quantitative research approaches currently dominating the forms of research in the field of accounting studies, interest in qualitative research approach has increased and, along with it, mixed methods research has been accepted as an approach to conducting accounting research. For instance, Dichev et al. (2013) use a mixed methods approach to investigate insight into the concept of earnings quality using field evidence. They conduct a survey of 169 CFOs of public corporations and in-depth interviews with 12 CFOs and two standard setters. Following mixed methods approach,

surveys and interviews allow them to “(i) discover institutional factors that impact practitioners’ decisions in unexpected way and (ii) ask key decision makers directed questions about their behaviour as opposed to inferring intent from statistical associations between proxy variables surrogating for such intent” (Dichev et al., 2013:2).

In summary, the philosophical worldviews and the methodological foundations all contribute to a research approach that gives rise to being quantitative, qualitative, or mixed. When researchers plan a research project, they need to identify whether they will use a qualitative, quantitative, or mixed methods approach. Generally, the criteria for selecting a research approach is influenced by certain types of research objectives and problems. The next section describes the research methods used in the present study.

4.3 Choosing the Methods for the Present Study

Most of the current research on audit committees held in accounting has been undertaken with an emphasis on the basis of quantitative approaches. The early studies on corporate governance in the field of accounting by Beasley (1996) and Dechow et al. (1996) have a strong initial influence on the subsequent studies in the area of corporate governance and audit committee (Carcello et al., 2011). In terms of audit committee research, the influential works of Klein (2002a; 2002b) and Xie et al. (2003) have a substantial impact on a number of audit committee researchers. Obviously, these studies have been cited with reference to many subsequent studies. However, it appears that the quantitative audit committee research approach largely fails to examine the complexity surrounding the audit committee processes (Beasley et al., 2009b).

The existing reviews of governance and audit committee studies (e.g. DeZoort et al., 2002; Spira, 2002; Bédard et al., 2004; Cohen et al., 2004; Turley & Zaman, 2004; Gillan, 2006; Cohen et al., 2007; Brennan & Solomon, 2008; Bédard & Gendron, 2010)

provide a critique of many themes of corporate governance and audit committee research. Also, numerous issues of audit committees have been suggested in light of future research opportunities (e.g. Bédard et al., 2004; Cohen et al., 2004; Turley & Zaman, 2004; Gillan, 2006). These reviews indicate that, among accounting scholars, they have mostly examined the emphasis on the link between corporate governance mechanisms (e.g. boards and audit committee characteristics) and financial reporting outcomes (e.g. earnings quality), while the topics in relation to the audit committee processes have been neglected in the corporate governance and audit committee literature. Consequently, many researchers in the area of audit committee studies call for using a variety of research methods and theories to enhance better understanding of the audit committee processes. Thus, contributions that pioneer a research stream of using qualitative research approaches for investigating the audit committee processes are, for instance, Spira (1999b), Spira (2002), Gendron et al. (2004), Gendron and Bédard (2006), Turley and Zaman (2007), Cohen et al. (2002b), Cohen et al. (2010), and Beasley et al. (2009b) (see Chapter 2).

Indeed, both qualitative and quantitative research approaches have made unique and valuable contributions to the audit committee literature and practice. Quantitative research is typically grounded in mathematical and statistical procedures and well suited for analysis of causal relations and addressing research questions of prevalence, calibration and generalizability. Quantitative research provides important evidence regarding relationships between variables, using the hypothetical-deductive enquiry process to test general propositions. In contrast, qualitative research is concerned with words, talk and texts as valuable representations of concepts which are highly descriptive. Thus, qualitative research is most appropriate to address issues of description, explanation and interpretation. Importantly, qualitative research uncovers in-depth processes of what participants experience and how they interpret their

experiences. Gephart (2004:455) suggests that “qualitative research has potential to rehumanise research and theory by highlighting the human interactions and meanings that underlie phenomena and relationships among variables that are often addressed in the field”. Therefore, both qualitative and quantitative research approaches have their own strengths. For the current study, a mixed methods approach is employed by utilising both quantitative and qualitative research methods for collection and analysis of the data.

In short, the certain nature of research problems and objectives, the planned research design and the aimed contributions the researchers desire to make affect a decision to approach a study quantitatively or qualitatively (Edmondson & McManus, 2007; Bluhm et al., 2011; Creswell, 2014). As mentioned in the previous chapter, the current study consists of four objectives. The first objective aims to analyse descriptive statistics of survey data, while the second objective focuses on testing the theoretical model: how audit committee members’ perceptions of the oversight of enterprise risk management and oversight activities influence their judgement competence and perceptions of the quality of enterprise risk management system. The second objective involves the deduction of hypotheses from the available theories and testing those hypotheses employing primary data. The quantitative method is, therefore, adopted. A questionnaire survey was used as the research instrument for data collection. Data was collected directly from a sample frame. A sample of audit committee members of Thai listed companies was randomly selected for the study. The hypothesised causal relationships between the variables of this study were tested by using partial least squares (PLS) regression technique and the results are generalised. The testing of hypotheses and findings of structural equation modelling (SEM) model are presented in Chapter 6.

The third objective aims to describe process elements used by audit committees in performing the oversight of enterprise risk management. The fourth objective aims to explain the ways in which audit committees make judgements and decisions when they carry out the oversight of enterprise risk management. It can be observed that the nature of these two objectives highlights the need to describe, interpret and explain the actual audit committee interactions, meanings, and processes that Thai audit committee members experience when they discharge their responsibility in overseeing companies' enterprise risk management. Therefore, a qualitative method turns out to be the most suitable method in order to achieve these objectives because it can provide the richness of data in the specific context of audit committee oversight of enterprise risk management in Thailand. More importantly, a qualitative research approach is essential for gaining an understanding both of what individual audit committee members experience and how they interpret their experience (Bluhm et al., 2011). The method of data collection used in this study is semi-constructed interviews. Following transcription by the interviewer, the interviews are then analysed. The Interview data analysis procedure is discussed in Section 4.5.6, while the qualitative findings are presented in Chapter 7.

The following sections discuss the quantitative and qualitative research methods used for addressing the research objectives.

4.4 Quantitative Research Design

A research design is a framework or plan for conducting a research project. As a plan, research design in quantitative research deals with matters and activities that comprise the research process such as drawing a sample of a population and the procedures necessary for collecting and analysing the data (Churchill Jr & Iacobucci, 2010; Malhotra, 2010). A questionnaire is designed in order to collect the research data.

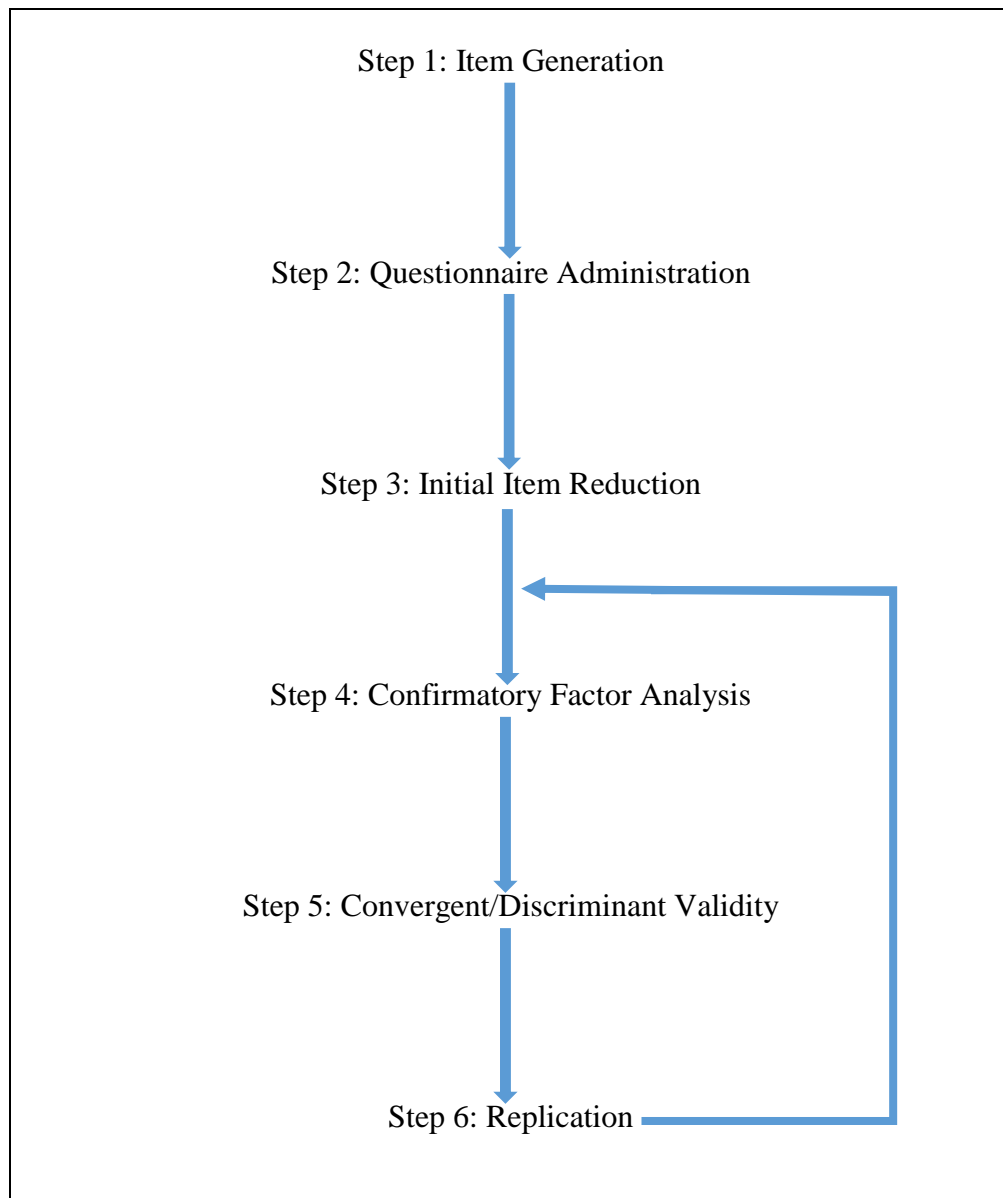
While the first objective of this study aims to present a descriptive analysis (frequency, mode, mean, and standard deviation), the second objective is concerned with theory testing employing empirical research methods. The quantitative research design, therefore, is required to obtain the quantitative data needed for both Research Objective 1 and 2.

The next sections describe the relevant aspects of the quantitative research designed for the current study, including the questionnaire development, a cover letter accompanying the questionnaire, the structure of the questionnaire, the population and sampling frame, administration of the survey, and the data analysis techniques.

4.4.1 Development of the Questionnaire

A questionnaire survey is used to gather the research data for this study because no publicly available archival data exists on the decision-making processes of audit committee members or on the operation of audit committees in overseeing companies' enterprise risk management (Graham et al., 2005). In this study, the questionnaire was designed in a very focused and systematic manner. Sommer and Sommer (2002:136) state that a questionnaire contains a list of questions which systematically collect information about research participants' beliefs, attitudes, values, and behaviour. While it is difficult to use interviews to collect large amounts of evidence detailing audit committees' involvement in overseeing risk management, questionnaire surveys can be distributed to a large number of audit committee members which enables the involvement of a greater number of participants. The process of the questionnaire development went through a number of interrelated steps. For defining constructs in the structural model, this study followed the recommendations of Bisbe et al. (2007) and Hair et al. (2014) for proper construct specifications.

Figure 4.1: Scale Development Process



Source: Hinkin (1998:106)

Basically, researchers are required to identify constructs as either reflective or formative when developing constructs (Hair et al., 2014). According to the reflective measurement model, measurement scales (also called items, indicators or measures) represent the effects of an underlying construct. Reflective indicators are assumed to reflect the variation in a particular construct. Therefore, indicators related to a specific construct should be closely correlated with each other. As far as the construct has sufficient reliability, any single reflective indicator within a particular construct can

generally be left out without affecting the meaning of it. That is, individual indicators could be interchangeable. On the other hand, the formative measurement model is based on the assumption that the indicators determine, form or cause the construct. An important attribute of formative indicators is that they could not be interchangeable. As a result, each indicator for a formative construct represents a specific element of the construct's domain. In this study, all constructs used in the model are treated as reflective.

In order to generate measures to investigate the causal relationships between the core concepts of the decision-making process, the research looks at five constructs: (1) perception; (2) audit committees involved in internal audits and (3) external audits, (4) judgement; and (5) decision choice. Therefore, this study followed closely the scale development process suggested by Churchill (1979), Spector (1992) and Hinkin (1998). Figure 4.1 summarises the steps in the scale development process. This section focuses on two stages of scale development: item generation and questionnaire administration. The remainder of the four steps are discussed in Chapter 6.

The logical starting point for developing a questionnaire survey is to translate the data requirements of a research project into a list of questions designed to systematically collect the data necessary to accomplish the objectives of a research project. The survey instrument used in this research contains a list of questions designed to systematically collect the data necessary for accomplishing the first and second objectives of the study. The survey instrument was developed in four phases as follows:

Phase One

As mentioned in the previous chapter, a decision-making model (Rodgers, 1992; Foss & Rodgers, 2011) and psychological theories of information processing, perception, judgement and decision-making (Tushman & Nadler, 1978; Gibson, 1988; Luthans,

1998; Blanchette & Richards, 2009; Huczynski & Buchanan, 2013) are employed as the basis for formulating the theoretical framework of this study. Thus, the specific objectives and the broad range of hypotheses derives from the theoretical framework and the existent related literature on audit committees. Following the common practice in business and accounting research for designing a questionnaire survey (e.g. Bourque & Clark, 1992; Dillman et al., 2009), an initial draft of the questionnaire was developed in English from an extensive review of the academic literature and practitioner guidelines regarding the audit committee's responsibilities in the oversight of enterprise risk management as well as theoretical input from psychological theories of information processing, perception, judgement and decision-making. In order to maximise the measurement reliability and validity with respect to constructs used in this study, the measurement scales were primarily used and refined to capture the constructs of interest from several previously validated measures where possible (Hinkin, 1998). When there were no existing measurement items or scales developed to measure the constructs for the study, new measures were designed for several of the study's constructs. As it is important to assess the validity and reliability of the questionnaire, a draft version of the questionnaire was initially emailed to a panel of scholars: a supervisor of this research and two Thai scholars. They were asked to report back to the researcher about any ways in which the procedures and the questionnaire could be improved. Accordingly, they provided suggestions on the questionnaire content, wording and design. This study also obtained feedback from interviews with two Thai audit committee members to explore issues that are possibly missed or underdeveloped in the literature. Based on this and such feedback, preliminary drafts of the questionnaire were revised several times. A completed first draft was pilot-tested with four accounting doctoral students, each of whom reviewed the questionnaire and provided feedback concerning the questionnaire content and design in order to refine the questionnaire. Based on their suggestions, the

questionnaire was revised by refining the wording of specific survey questions, revising the instructions for the questionnaire and improving its overall design before translation and pre-testing.

Phase Two

Given that collection of the data took place in Thailand, the survey was administered in Thai. An extensive translation process was undertaken in order to check for consistency and interpretation of the questions that were asked to participants in Thailand.

Following Brislin's (1986) recommendation of translation and back-translation procedures, the questionnaire was translated from English into Thai by the researcher, a native speaker. Another version of the translation was done by a bilingual scholar.

Following this, a first draft of the questionnaire was compared with the two Thai versions, and differences were resolved through discussion. Then, the questionnaire was translated back into English by an independent translator. The back-translated and original English versions were compared. It appears that there were minor differences between translations followed from choice of wording, which did not, however, demonstrate a different meaning to/interpretation of the question. For these reasons, the questionnaire was then amended and prepared for a pre-test.

Phase Three

Basically, an initial draft of a questionnaire should be pre-tested. According to Saunders et al. (2007), a pre-test enables the researchers to gain some evaluation of the questions' validity and the likelihood of the reliability of the data that will be collected. A pre-test should be done with individuals similar to the intended participants. The goal of a pre-test is to inspect for ambiguity, confusion and poorly prepared measurement scales (Malhotra, 2010). Accordingly, feedback from a pre-test is very useful for revising the questionnaire (Malhotra, 2010). A pre-test can help researchers determine how much

time participants will need to fill out the questionnaire, whether to add any instructions and what to express in the cover letter (Hair et al., 2006). Furthermore, a pre-test may provide information about possible patterns of results.

A pre-test of the survey instrument was conducted as well as interviews with 11 current audit committee members from the population, none of which participated in the final survey. They were required to fill out the questionnaire and note the required time, it takes on average 18 minutes to complete the questionnaire. The aim is to ensure that the time required to complete that questionnaire is reasonable. Additionally, they were asked to discuss their understanding of all the survey questions and provide feedback on the content, instruction and format. The questionnaire was revised and edited in light of their feedback to reduce ambiguity, clarify unclear or difficult words, remove some issues that could be left out, and to maximize the response rate.

Phase Four

After the questionnaire was pre-tested, this study also solicited feedback from a number of Thai academics, internal auditors and external auditors about the Thai version of the survey before finalising the questionnaire. Only a few minor changes to the Thai survey version were made based on their suggestions and that questions were judged to be clear and understandable for the targeted participants. In the end, these procedures led to the final questionnaire for the issue.

4.4.2 Cover Letter

A cover letter is a critical part of the survey accompanying a questionnaire sent through the mail (Hair et al., 2006). The role of a cover letter is to: introduce the person conducting the survey, describe the nature of the survey, explain why it is being done, how the results will be employed, and approximately how long it will take to complete

the survey (Sommer & Sommer, 2002). Thus, a cover letter plays an important role in the successful collection of data using the survey method by introducing the intended participants to the survey and motivating them to respond.

This study developed a cover letter based on the guidelines of Sommer and Sommer (2002), Hair et al. (2006) and Wiersma and Jurs (2009). The cover letter was used to introduce the potential participants to the survey, describe the purpose of the study, stress its importance, persuade them to complete the questionnaire accurately and return it in timely manner (see Appendix A for a copy of the cover letter). More importantly, the letter emphasizes that respondents can be assured as to the confidentiality of responses. The cover letter reads as follows:

Will your answers be confidential?

Absolutely! All completed surveys will be mailed directly to me at Mae Fah Luang University. Only my advisor and I will view your responses to this survey. This is an anonymous questionnaire. Participation in this project is entirely voluntary. All data will be treated with the strictest confidence and will only be used for the purposes of this study. All questionnaires will be destroyed immediately after the data is entered into the computer. If the information you provide is published, you will not be identified in any written work, since the data will be aggregated prior to presentation.

4.4.3 Structure of the Questionnaire

The questionnaire starts with an introduction that clarifies the importance and the objectives of the study in order to motivate respondents to complete the questionnaire. More importantly, this study follows the recommendation of Podsakoff et al. (2003) for protecting respondent anonymity and reducing evaluation apprehension. The introduction of the questionnaire reads as “I assure you that all responses will be held in strict confidence. Responses will be used only in aggregate, so your individual responses are not identified.”

The questionnaire used for this study contains primarily closed-form question and is divided into eight sections: (I) background information; (II) perception; (III) involvement; (IV) judgement; (V) decision choice; (VI) effectiveness; (VII) respondent's information; and (VIII) follow-up. In addition, the questionnaire was designed with open-ended questions in sections III, VII and VIII, each of them containing an open-ended question. The English version of the survey was 12 pages long, whereas the Thai version was 11 pages long.

(I) Background Information

The present study targets Thai listed companies' audit committees that are currently involved in the oversight of enterprise risk management programmes. However, this study considers that a number of corporate boards do not delegate formal responsibility for risk oversight to the audit committee. Therefore, in order to solicit feedback more relevant to the study, audit committee members were first asked, "Are you an audit committee member who is knowledgeable about your committee's experience in overseeing the listed company's risk management, including the audit committee reviewing the company's risk management policies with respect to the wider aspects of risk management system? [Yes/No]". If a respondent indicated "No", he or she did not need to complete the rest of the survey.

For the respondents who picked "Yes", the survey continues to ask about the status of their company's risk management programme, types of risks over which his/her audit committee has primary oversight responsibility, number of meetings respondents' committees held during the past year, and whether his/her committee has increased its focus on the oversight of the company's risk management system. The respondents are also asked to indicate whether his/her company has the same, less or more financial risk when compared with other companies within the same industry. The

first section of the questionnaire ends with a series of phrase; respondents are asked to respond to five statements on a five-point Likert scale. The following labels employed were: strongly disagree, disagree, neutral, agree, and strongly agree. The five statements are:

1. I am very familiar with the company's business model and industry.
2. I fully understand the company's risks and internal control environment.
3. I fully understand the company's policies and procedures for detecting fraud and illegal acts.
4. I fully understand the company's complex business transactions and significant contracts.
5. I fully understand the company's accounting industry practices and financial reporting process.

(II) Perception of the Importance of ERM Oversight

The present study is interested in how the audit committee carries out its specific oversight responsibility; namely, the oversight of enterprise risk management. In constructing the measure of *perception*, four items was developed based on interviews with audit committee members, and the underlying academic and practice literature. Following to the psychological theory of perception (e.g. Gibson, 1988), this study measured perception as the extent to which an individual perceived the importance of the audit committee's oversight role in enterprise risk management. Four statements were adapted from Foss and Rodgers (2011) to match the context of this study. These statements were then rated on a five-point scale ranging from "strongly disagree" to "strongly agree". The items used to measure *perception* in this study are as follows:

1. Beyond meeting the integrity of the company's accounting and reporting practices and financial statements, the audit committee considers the oversight of risk management as its first priority.
2. The role of the audit committee in the oversight of the risk management process is seen as a critical role in the integrity of financial reporting.
3. The audit committee plays an important role with respect to enterprise risk management.
4. The audit committee contributes to the governance process and enterprise risk management by providing reliable information to stakeholders.

(III) Audit Committees' Oversight Activities

As stated in the previous chapters, the audit committee literature has established the importance of the internal and external audit as part of the resource component of audit committee effectiveness (e.g. DeZoort et al., 2002; Bédard & Gendron, 2010).

However, to the best knowledge of the researcher, accounting literature that explicitly examines the operation of audit committees in overseeing companies' enterprise risk management is relatively rare. So, an initial step of the instrument construction involved developing a specific list of the techniques that audit committees frequently use to oversee companies' enterprise risk management. Techniques that may be often used by audit committees were identified by reviewing the literature. In addition, practical guidelines of professional firms (e.g. KPMP, PwC, EY, and Deloitte) also suggest best practices for audit committees in reviewing the information regarding a company's risk management.

As a first stage, the researcher iteratively developed a large set of survey questions that addressed the audit committee's involvement in the oversight of enterprise risk management. One set of measures was adapted from a group identification scale developed by Kalbers and Fogarty (1993). Another set of survey

measures were derived from the preliminary interviews, the extant audit committee literature (e.g. Gendron et al., 2004; Gendron & Bédard, 2006; Turley & Zaman, 2007; Beasley et al., 2009b; Sarens et al., 2009), and practical guidelines. The adapted measures along with newly developed measures reflect the techniques audit committees may frequently use when they are involved in risk management oversight. Then, a questionnaire listing techniques that may be often used in the audit committee oversight of enterprise risk management was refined through review by a panel of experts and a pilot-test.

Even though this study focuses on generating multiple-item scales to measure the constructs of the audit committee's involvement in the internal audit and external audit functions, the questionnaire contains a broad range of techniques that audit committees may have frequently employed when audit committees oversee companies' enterprise risk management, because, from a practice development perspective, audit committees are not involved only with the internal and external audit functions in carrying out the oversight of enterprise risk management. Indeed, they are also involved with several members of management, such as the CFO, controller and general counsel, etc. This is consistent with the preliminary interviews with audit committee members, conducted when the pre-test was undertaken, which indicated that audit committees were typically involved with a number of parties in an organisation when they discharged their responsibility in overseeing a company's risk management. Finally, after pre-testing with 11 audit committee members, there were 16 questions included in the survey. All the questions had amendments in the wording following the feedback from the pre-test.

The survey participants were asked to evaluate "How frequently does your audit committee use the following techniques to oversee the company's risk management?",

and these items were scored from 1 (“never”) to 5 (“always”). The items used to measure *involvement* in this study read as follows:

To oversee the company’s risk management system we would...

1. learn about how the company’s compliance programme implements its *enterprise risk management*, which is applied across the organization.
2. review whether the internal audit department have a risk-based audit plan based on a risk assessment accepted and approved by the board.
3. assess whether the internal audit department submits its plan to the audit committee for approval on a timely basis (at least annually) and as appropriate when updates are required.
4. evaluate whether the internal control and risk management reports information is reliable.
5. discuss the audit findings with the chief audit executive at formal meetings on a regular basis.
6. conduct annual evaluations assessing the effectiveness and competence of the Internal Audit Department.
7. seek the external auditor’s views on the effectiveness of the company’s risk management process.
8. discuss the audit results with the external auditor at formal meetings on a regular basis.
9. obtain an understanding of the extent of control testing by internal and external auditors and consider whether internal control and risk management recommendations made by internal and external auditors have been implemented by management.
10. provide formal evaluations of the external auditor as well as regular feedback.

11. evaluate whether the information the audit committee receives from management contains the appropriate level of detail, whether issues are explained clearly, and whether discussion with internal and external auditors corroborates the information.
12. schedule regular sessions with and without the internal audit team, the external auditor and management.
13. schedule regular sessions with various members of management, such as the CFO, controller, general counsel and others as appropriate.
14. consider private audit committee sessions both before and after meetings with the internal auditor, the external auditor and management.
15. review whether the risk disclosure in the financial statements and in the related forms to be submitted to the stock exchange or the SEC are appropriate, robust and understandable.
16. conduct an annual committee self-evaluation, considering what the committee could have done better and what the audit committee needs to do next year.

Additionally, to allow for the possibility that audit committees may use other techniques, an open-ended question also was designed. The question invited respondents to describe other techniques that their committees used for the oversight of enterprise risk management.

(IV) Judgement Competence

This study measured *judgement* using five items. Three items were adapted from Foss and Rodgers (2011). Respondents were asked to indicate the extent to which they agree or disagree with the statements that relate to: (1) his/her committee size, abilities, and skills; (2) the quality and skills of internal auditors; and (3) the quality and skills of external auditors to oversee a company's risk management. For the remaining questions, this study developed two new questions to capture the construct of judgement.

Respondents were asked to indicate the extent to which they agree or disagree with the statements that relate to (1) the company's system of risk management processes and (2) the management proactively assessing and managing the company's exposure to risk. All items were measured on five-point scales ranging from "strongly disagree" to "strongly agree". The questions used to measure *judgement* in this study are as follows:

1. My audit committee is the right size and brings the requisite knowledge, abilities and skills to the oversight of risk management.
2. The internal auditors are experts in internal control and risk management, and do not need to be trained.
3. The external auditors are professional and have the qualifications and experience for auditing a wide range of risks.
4. The company's system of risk management processes is functioning effectively.
5. The CEO and senior management proactively assess and manage the company's exposure to risk.

(V) Perception of the Quality of ERM

This study developed five survey scales to measure the construct of *perception of the quality of ERM*. Three questions asked respondents to indicate the extent to which their perceptions related to the adequacy, relevance, and reliability of information provided by: (1) internal auditors; (2) external auditors; and (3) management. Two items asked respondents to indicate to what extent an audit committee member believed that: (1) his or her committee enhances the company's overall risk management process; and (2) no significant risks are overlooked. These statements were rated on a five-point scale ranging from "strongly disagree" to "strongly agree". The statements used to measure *perception of the quality of ERM* in this study are as follows:

1. The internal audit department adequately provides concrete evidence to the audit committee in order to evaluate the effectiveness of risk management.
2. The external auditors provide substantial evidence to the audit committee on any areas related to risk management to evaluate the effectiveness of risk management.
3. The CEO and senior management provide the comprehensive, reliable information the audit committee need to perform effective risk oversight and sufficient agenda time is allocated to the discussion of the company's risks with the appropriate company individuals.
4. The audit committee enhances the company's overall risk management processes.
5. No significant risks are overlooked.

(VI) Effectiveness

To measure *effectiveness*, this study adapted established multi-item scales from Grinaker et al. (1978a), Kalbers and Fogarty (1993). In fact, these five questions were used and validated in prior research as measures of audit committee effectiveness. This study modified the wording of individual questions using feedback from a panel of experts and the pre-test. Participants were required to rate the extent to which they agree/disagree, on five-point Likert type scales ranging from “strongly disagree” to “strongly agree”, with a series of statements as follows:

1. The audit committee accomplishes very little in overseeing the company's risk management.
2. As regards risk management oversight, the audit committee serves an important need in this company.
3. The audit committee's oversight of risk management in this company is very effective.

4. The risk management oversight performance of this audit committee is probably better than most other audit committees.
5. Other audit committees would do well to use this audit committee as a model for risk management oversight.

(VII) Respondent's Information

Background and demographic information with respect to the respondents is meaningful in that it identifies the individual in terms of categorising variables for the analysis. This section aims to obtain the respondents' information in relation to: (1) their education, (2) previous work experience in accounting/auditing/finance or related area, (3) professional qualification, (4) gender, (5) age group, (6) how many years they have been serving as an audit committee member, (7) company size, and (8) industry of his/her company. In addition, respondents were asked "Do you have any other comments?" It is an open-ended question designed to invite respondents to express feelings and thoughts they might wish to contribute to the study.

(VIII) Follow-Up

The last section invited the potential respondents into an interview and thanked them for their contribution to the survey. The statement reads as follows:

When writing about the results of this survey, I would like to talk with audit committee members to add real-world examples to their stories. Would you be willing to discuss your views and experience with me regarding the audit committee oversight of risk management?

If the prospective respondents were willing to be interviewed, they were asked to check 'yes' in the questionnaire and provide their contact information. Importantly, strict confidentiality was assured and it was made clear that his or her name, while known to the researcher, will not be revealed to a third party.

4.4.4 Population and Sampling Frame

The unit of analysis of the present study is audit committee members who serve on the audit committee of Thai companies listed on the Stock Exchange of Thailand (SET). Thus, the research data were collected for the study directly from audit committee members of Thai public companies by using a questionnaire survey. Four hundred and sixty-one companies listed on the SET in December 2013 were the targets. The complete list of the audit committee member names and company contact details was obtained from the SET website (www.set.or.th), which contains the addresses of companies domiciled in Thailand. The sample audit committee members were framed based on the systematic sampling method. The sampling process aimed at picking one audit committee name that must be a representative of a listed company only. Due to the nature of the process, overlaps were found amongst certain names in the sample frame. A Microsoft Excel spreadsheet was employed in order to identify audit committee members who were selected more than once. To eliminate the multiple selection of individual audit committee members, resampling was performed. Finally, a target sample size of 461 audit committee members for each company¹⁰ was randomly selected

4.4.5 Administration of the Survey

This study followed closely the suggestions of Dillman et al. (2009) for administration of the questionnaire survey. The questionnaires were distributed by mail. Individual audit committee members received a cover letter, a copy of the questionnaire and a self-addressed stamped envelope for reply. The letter introduces the researcher conducting the survey, and informs the recipient that their participation in the survey is voluntary and that their responses will remain strictly confidential. Additionally, all respondents

¹⁰ The current study followed the sample selection method of Beattie et al. (2012).

were offered a summary of the results upon request (DeZoort, 1997; Maiga & Jacobs, 2008).

A questionnaire survey was mailed in May 2014 to all audit committee members in the sample frame. Individual audit committee members received a cover letter, a copy of the questionnaire and a self-addressed stamped envelope for reply. Three weeks later, follow-up letters and replacement questionnaires were distributed to non-respondents (Dillman et al., 2009). The individual audit committee member respondents returned the completed questionnaires directly to the researcher. Finally, 116 questionnaires were returned from audit committee members, providing an initial response rate of 25.2 percent. Four responses were excluded due to missing data, leaving a response rate of 24.3 percent. The response rate of this survey compares closely with a previous study by Thengamnuay and Stapleton (2009). They examined the responsibilities of Thai audit committees, achieving a 26.8 percent response rate from 321 mailed surveys.

As stated in an earlier section, in order to solicit feedback most relevant to the study, audit committee members were firstly asked the question “Are you an audit committee member who is knowledgeable about your committee’s experience in overseeing the listed company’s risk management, including the audit committee reviewing the company’s risk management policies with respect to the wider aspects of risk management system? [Yes/No]”. If a respondent indicated “No”, he or she did not need to complete the rest of the survey. Out of 112 responses, 24 respondents (21.4 percent) indicated that they were not involved in the oversight of enterprise risk management. As a result, the final sample used for the hypotheses testing contains 88 audit committee members.

4.4.6 Test for Non-response Bias

The potential for non-response bias is one of limitations of using survey data. To address this issue, the current study examined for a potential non-response bias by comparing early and late respondents for their major characteristics in the two groups. A comparison between the early and late respondents' characteristics is generally used to test for a potential non-response bias. This technique assumes that those who responded early would share common characteristics to those who might have responded (as they are presumed to have a higher interest in the topic of the study) and those later informants would share common characteristics to those who never responded (Armstrong & Overton, 1977; Lambert & Harrington, 1990). In this study, the first wave of the questionnaire survey produced 56 replies, whereas the balance of 32 replies were received after the follow-up letters and replacement questionnaires were sent out. Accordingly, the respondents were divided into two groups. The 56 responses of the first wave were considered as early respondents and the remaining 32 responses of the second were considered as late respondents. To test for non-response bias, a chi-square test was performed to compare six major characteristics of the respondents between the first wave and the second wave.

The chi-square test results presented in Table 4.1 indicate that there was no statistically significant differences between early replies and late replies for any of the respondents' characteristics (Sig. > 0.05)¹¹; thus, there is no evidence of a potential of non-response bias.

¹¹ The current study considers significant of statistics at 0.05, 0.01 and 0.001 level, also see Chapter 6.

Table 4.1: Tests of Non-response Bias for Respondents' Characteristics

Respondents' Characteristics	Chi-Square Tests			
	N ¹²	value	df	Asymptotic Sig. (2-sided)
Level of education	85	5.575	3	0.134
Gender	85	0.248	1	0.618
Age group	85	1.080	3	0.782
Position on the audit committee	85	0.127	1	0.869
Company size	80	4.413	2	0.110
Industry sector	81	3.557	7	0.829

Source: The current study

In addition, this study also adopted the procedure used by Ghobadian and O'Regan (2006) to test non-response bias. Non-response bias was assessed by the means of the responses received from early and late informants. The values of t-tests were performed to detect whether significant differences exist in the means of *perception of the importance of ERM, internal audit, external audit, judgement competence, and perception of the quality of ERM* variables between these two groups. The Sig. values obtained from t-tests for equality of means of these variables are provided in Table 4.2.

As reported in Table 4.2, there is no statistically significant difference in mean variables between early and late informants (Sig. > 0.05). Overall, the elaborate analysis indicates that non-response bias is not a severe problem and does not harm the conclusions of this study.

¹² Although the final sample used for the hypotheses testing consists of 88 respondents, N in Table 4.1 is less than 88 because there were some questions concerning respondents' characteristics not completed by all 88 respondents.

Table 4.2: Tests of Non-response Bias for Constructs

Variables	t-test for Equality of Means					
	t	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Perception of the importance of ERM	1.914	0.059	0.261	0.261	-0.010	0.532
ACs' activities in overseeing the:						
Internal Audit	0.902	0.370	0.108	0.120	-0.130	0.346
External Audit	0.609	0.544	0.093	0.154	-0.212	0.400
Judgement competence	0.966	0.337	0.159	0.165	-0.169	0.487
Perception of the quality of ERM	0.714	0.477	0.102	0.143	-0.183	0.388

Source: The current study

4.4.7 Data Analysis Techniques

Questionnaire data were initially analysed using SPSS (Statistical Package for the Social Sciences). As described earlier, the questionnaire survey was designed using primarily closed-ended form questions. For analysis purposes, all questions were given a number code for entering into SPSS. Consequently, the data were edited to ensure their completeness and accuracy. Relevant descriptive statistics (e.g., frequencies, ranks, mean, and variance) were generated where appropriate for analysing the preliminary data. The descriptive statistics and interpretation are presented in Chapter 5.

Next, the data were analysed employing exploratory factor analysis to examine the dimensions of the hypothesised model's constructs. As constructs employed in this study are considered as reflective constructs, the factor analysis and Cronbach alphas

were performed for the preliminary analyses of uni-dimensionality and reliability of multi-item constructs (Bisbe et al., 2007). Finally, confirmatory factor analysis was conducted by using the structural equation modelling (SEM) approach to examine the theoretical model under the study. In this study, partial least squares (PLS) regression technique was used to test the hypotheses path model. PLS regression is a technique applied to structural equation modelling (SEM) that has been increasingly used in the field of accounting research (e.g. Chapman & Kihn, 2009; Chenhall et al., 2011; Elbashir et al., 2011; Fayard et al., 2012; Abernethy et al., 2013) to analyse quantitative data especially for testing more complex research models with both moderating and mediating relationships. Along with this technique, the measurement model for constructs was evaluated to provide a confirmatory assessment of convergent and discriminant validity. Evaluation of the measurement model includes assessing the reliability (Cronbach's alpha), composite reliability, average variance extracted (AVE), and cross loadings. Results of the hypotheses testing and discussion are provided in Chapter 6.

Causal or SEM is a statistical technique combining features of factor analysis and multiple regression that take a confirmatory (i.e. hypothesis testing) method to the analysis of a structural theory bearing causal relationships on some phenomenon (Hair et al., 2010). Byrne (2010:3) points out that the term SEM represents two important aspects of the methodology: (1) the causal processes (principle by which cause and effect are established) under study demonstrated in a series of structural (i.e. regression) equations; and (2) these structural relationships can be modelled diagrammatically to demonstrate a clearer conceptualisation of the theory via a set of equations under study. Gefen et al. (2011:iv) claim that "SEM has potential advantages over linear regression models that make SEM *a priori* the method of choice in analysing pat diagrams when these involve latent variables with multiple indicators." In addition, Chin (1998b)

highlights that SEM-based approaches provide substantial benefits over first-generation statistical techniques (i.e. factor analysis, principal components analysis, discriminant analysis, multiple regression, or logistic regression) with the flexibility that allows researchers in modelling theory with data. When applied correctly, SEM enables researchers with the flexibility to: “(a) model relationships among multiple predictor and criterion variables, (b) statistically test a priori substantive/theoretical and measurement assumptions against empirical data (i.e. confirmatory analysis)” (Chin, 1998b:vii).

In academic research, a *variable* is an observed variable and measured directly by measurable attributes or elements of an object. For example, a company’s profit, number of employee and share prices. Observed variables are also called manifest variables or indicator variables. In contrast, a *latent variable or latent construct* is an unobserved variable, an abstract concept, and is measured indirectly by multiple variables that serve as indicators of a latent variable or construct (Hair et al., 2014). For instance, Chapman and Kihn (2009) measure “financial performance” that represent indirectly measurable constructs including “return on investment”, “profit”, and “cash flow from operation”. Therefore, when the latent variables cannot be directly observed or measured, researchers are able to measure them indirectly with a group of measurement scales or indicators that serve as proxy variables. Individual scale represents a single separate component of a particular abstract construct or concept.

Two approaches to structural equation modelling which are widely used to analyse quantitative data are: (1) the covariance-based SEM approach, as applied in software packages such as LISREL, EQS, AMOS and MPlus, and (2) the component-based (or variance-based) approach of PLS, as applied in software packages such as SmartPLS, VisualPLS, WarpPLS and PLS-Graph. It is important to note that while traditional regression is appropriate for examining the relationship between the single

dependent variable and one or more independent variables, SEM technique has the ability to investigate a set of relationships among one or more independent variables and one or more dependent variables to be analysed in a comprehensive model (Lee et al., 2011). In doing so, SEM analyses relationships separately for each of a set of dependent variables. As explained by Hair et al. (2010:635), “SEM estimates a series of separate, but interdependent, multiple regression equations simultaneously”.

The first approach to structural equation modelling is the covariance-based SEM approach. Because it is based on the basic statistic in the covariance, the objective of covariance-based approach is to reproduce the theoretical covariance matrix based on a specified set of structural equations. When performing a covariance-based SEM approach, the objective of the estimation model is to minimise the difference between the estimated and sample covariance matrices. The covariance-based SEM approach is also called covariance structure analysis and covariance structure modelling (Diamantopoulos & Siguaw, 2000), because the parameter estimation technique focuses on reproducing the covariance matrix of the observed indicators (Chin & Newsted, 1999). To examine how well the hypothesised model ‘fit’ the data, the goodness-of-fit between a covariance matrix of the measures (or observed variables) for the sample data is employed to be the statistical test of the adequacy of the research model. Importantly, carrying out covariance-based SEM approaches require that certain underlying assumptions are fulfilled in order to allow accurate references, including the multivariate normality of data, no systematic missing data, a satisfactorily large sample size (e.g. 200), and correct model specification (Kaplan, 2000).

The second approach to structural equation modelling is the component-based approach of PLS. While the covariance-based SEM approach estimates model parameters in a way that the discrepancy between the sample covariances and those estimated by the theoretical model is minimised, in the component-based approach of

PLS the explained variance of the dependent latent constructs is maximised. Similar to multiple regression analysis, the estimation process of PLS-SEM is based on a series of ordinary least squares (OLS) regressions by estimating the path relationships in the structural model with the objective of maximising the R^2 values of the dependent (endogenous) variables that are explained by the independent variables (Hair et al., 2012; Hair et al., 2014). Table 4.3 presents an overview of the main differences between covariance-based SEM, component-based SEM and linear regression.

Table 4.3: Covariance-Based versus Component-Based SEM versus Linear Regression

Criteria	Covariance-based SEM	Component-based SEM	Ordinary least squares regression
Example software	LISREL, EQS, AMOS	SmartPLS, PLSGraph	SPSS, SAS, Excel
Objective of overall analysis	Show that the null hypothesis of the proposed model is plausible, while rejecting path-specific null hypotheses of no effect	Reject a set of path-specific null hypotheses of no effect	Reject a set of path-specific null hypotheses of no effect
Objective of variance analysis	Overall model fits to the data, as represented by various fit indexes	Variance explained (e.g. high R^2)	Variance explained (e.g. high R^2)
Estimation technique	Maximum likelihood (ML) most widely used	Ordinary least squares	Ordinary least squares
Type of maximisation	Maximises the reproduction of the covariance among the variables	Maximises the prediction of the original raw scores	Maximises the prediction of the original raw scores
Construct specification	Supports the use of reflective and formative measures for constructs	Supports the use of reflective and formative measures for constructs	Measures are aggregated using a summated scale, index, or other weighting schemes
Dependent variables	Supports multiple dependent variables within a model	Supports multiple dependent variables within a model	Only one dependent variable can be assessed at a time
Mediation tests	Mediating variables are tested as part of the comprehensive model	Mediating variables are tested as part of the comprehensive model	Separate multi-step process for testing for mediators, e.g. Baron and Kenny, 1986.

Moderation tests	Typically performed using a product indicator approach (the moderator is a construct with measures derived from a cross multiplication of the measures of the latent variables) or by analysis of groups if the moderator is categorical (Sauer and Dick, 1993)	Possible to perform using either the product indicator approach or product of sums approach (moderating construct derived using the sum of the measures from one construct multiplied by the sum of the measures in the second construct). Best results when using the product of sums approach (Goodhue et al., 2007).	Often performed using product of sums approach (moderator term calculated using the sum of the measures from one construct multiplied by the sum of the measures in the second construct).
Assumptions	Typically multivariate normal distribution and independent observations (parametric)	Nonparametric	Typically multivariate normal distribution and independent observations (parametric)
Data sources	Primary data	Primary or secondary data	Primary or secondary data
Sample size	Small sample may not converge, yet large samples may introduce bias in goodness-of-fit statistics	Large samples do not bias statistics.	Large samples do not bias statistics.

Source: Lee et al. (2011:308)

To choose between covariance-based SEM and PLS-SEM, researchers should carefully consider using the SEM technique that best appropriates their research objective, the characteristics of the data, and model formulation. Basically, the use of covariance-based SEM requires a set of assumption to be satisfied. In certain cases, particularly “when covariance-based SEM assumptions are violated with regard to normality of distributions, minimum sample size, and maximum model complexity, or related methodological anomalies occur in the process of model estimation, PLS-SEM is a good methodological alternative for theory testing” (Hair et al., 2014:18). Additionally, Barclay et al. (1995a:291) note that “PLS can be used effectively in small sample studies with complex causal models. The parameter estimates in PLS are consistent at large; i.e. as the number of measures of constructs increases and as sample sizes increase, the parameter estimates tend toward ‘true’ values.”

For this study, component-based SEM, PLS in particular, was employed to test the research model and hypotheses. PLS-SEM is most suitable for this study because its statistical technique allows the researcher to analyse the measurement model and the structural model at the same time, especially when a dependent latent variable becomes a dependent latent variable in subsequent dependence associations (Hair et al., 2010), while traditional statistical techniques such as multiple regression analysis does not. Following the recommendations of Chin (1998a), Gefen et al. (2011), Lee et al. (2011), Hair et al. (2012) and Hair et al. (2014), the rationale for selecting component-based SEM, and PLS in particular, in this study is that it is more consistent with the research objectives, data characteristics and model formation than covariance-based SEM techniques such as AMOS and LISREL. More importantly, PLS performs effectively with small sample sizes (Barclay et al., 1995a), and can handle complex modelling including structural models with hierarchical variables, mediating and moderating effects (Chin, 1998b). In addition, PLS can be applied even when there is violation of the normality distribution assumption because multivariate normality is not required for the estimation process of PLS parameters (Barclay et al., 1995a; Hair et al., 2014).

Measurement Properties

Specifically, this study uses SmartPLS 3.0 for measurement validation and to test the structural model. Typically, the PLS technique provides: (1) the measurement model that specifies the relationships between and the indicators (measures, items or scales) and the latent constructs (variables) that they represent: and (2) diagnostics and estimates of the structural model that identify the relationships among constructs. To maximise the interpretability of the PLS path model, both the measurement model and the structural model need to be analysed and interpreted consecutively in two phases: the validity and reliability of the measurement model for constructs are first assessed,

followed by an assessment of the estimated path coefficients and their significance levels for the structural model (Hulland, 1999).

Following Hulland (1999), Gefen et al. (2000), Gefen and Straub (2005), and Hair et al. (2014), composite reliability, convergent validity and discriminant validity are examined to assess reflective constructs in the measurement model in the first phase of the PLS analysis.

Reliability refers to the extent to which the indicators used to measure the latent variable or construct consistently measured what it was intended to measure. This means high reliability is related to lower measurement error. Cronbach's alpha is used as the traditional criterion for internal consistency. For PLS-SEM assessment of reflective measurement models, Hair et al. (2014) recommend that composite reliability is more appropriate as a measure of internal consistency reliability than Cronbach's alpha because Cronbach's alpha is sensitive to the number of indicators in the construct and its limitation in the population.

The composite reliability has values between 0 and 1, with greater values indicating higher degrees of reliability (Hair et al., 2014). It is normally used in the same way as Cronbach's alpha. In exploratory research, composite reliability values of 0.60 to 0.70 are acceptable. In terms of advanced stages of research, values between 0.70 and 0.90 are considered as satisfactory (Nunally & Bernstein, 1994). In summary, a composite reliability value of less than 0.60 indicates a lack of internal consistency reliability.

Convergent validity refers to consistency across multiple measures. It is defined as the extent to which an indicator is highly correlated with alternative indicators of the same construct. A construct reflects convergent validity when the items that are measures of a particular construct converge or share a high level of variance in

common. In order to establish convergent validity, the outer loadings of the indicators and the average variance extracted (AVE) are considered.

High outer loading on a construct represents the related measures have much in common, which are captured by the construct. This characteristic is often called indicator reliability. An indicator's outer loading should exceed 0.708 for establishing convergent validity. However, 0.70 is considered relatively close enough to 0.708 to be acceptable (Hair et al., 2014). Another criteria to assess convergent validity on the construct is the AVE. With PLS, the AVE is a summary indicator of convergence, which is calculated as the mean variance extracted for the indicators loading on a construct (i.e. the total of the squared loadings divided by the number of indicators), once the square of an indicator's loading is used as the communality of an indicator. Thus, the AVE is an average communality of all the indicators of a construct. An AVE estimate would then be calculated for each latent construct in a measurement model. Applying the same logic as that used with each indicators' outer loading, a good rule of thumb is that an AVE value should be 0.50 or higher, suggesting adequate convergence. An AVE value falling below 0.50 indicates that, on average, more error remains in the indicators than the variance can be explained by the latent construct.

Discriminant validity is the extent to which different constructs diverge from one another. Thus, high discriminant validity indicates that a latent construct is unique and captures some phenomena that other latent constructs in the model do not. In other words, a latent construct being investigated differs significantly from other latent constructs that are distinct. PLS-SEM provides two measures of assessing discriminant validity. First, discriminant validity could be assessed by examining the cross loadings of the indicators. For establishing discriminant validity, an indicator's outer loading on the related construct should be more than the cross loadings (i.e., all of its loadings on other constructs). Conversely, if the cross loadings exceed the indicators' outer

loadings, they should be considered as a discriminant validity problem. The second measure for assessing discriminant validity is examined the Fornell-Larcker criterion (Fornell & Larcker, 1981) by comparing the square root of the AVE values for any constructs with the construct correlations. Evidence of discriminant validity is provided when the square root of each construct's AVE estimate exceeds its highest correlation with any other construct. Table 4.4 summarises the key criteria for assessing the reliability and validity of reflective construct measures in measurement models.

Table 4.4: Rules of Thumb for Assessing Reflective Measurement Models

- Internal consistency reliability: composite reliability should be higher than 0.708 (in exploratory research, 0.60 to 0.70 is considered acceptable). Consider Cronbach's alpha as a conservative measure of internal consistency reliability.
- Indicator reliability: the indicator's outer loadings should be higher than 0.708. Indicators with outer loading between 0.40 and 0.70 should be considered for removal only if the deletion leads to an increase in composite reliability and AVE above the suggested threshold value.
- Convergent validity: an AVE value should be 0.50 or higher.
- Discriminant validity:
 - An indicator's outer loadings on a construct should be higher than all its cross loading with other constructs.
 - The square root of the AVE of each construct should be higher than its highest correlation with any other construct (Fornell-Larcker criterion).

Source: Hair et al. (2014:107)

In the second phase of the PLS analysis, the structural model and hypotheses are assessed by examining the significance of the standardised β -statistics (used as path

coefficients) and the variance accounted for by the antecedent constructs (R^2). As the PLS estimation approach is not based on the covariance matrix, measures of goodness of fit are not employed for assessing the structural model (Hulland, 1999; Lee et al., 2011; Hair et al., 2014). Like regression analysis, the R^2 is the degree to which the dependent (endogenous) variable's variance can be explained by the independent variables. The R^2 value varies between 0 and 1, with higher values indicating higher degrees of predictive accuracy. Falk and Miller (1992) suggest that an $R^2 \geq 0.10$ is considered as indication of substantive explanatory power. To ensure stability of results, bootstrapping using 500 samples with replacements is used to examine the accuracy of the estimates and to generate significance tests for the path coefficients (Hair et al., 2014).

4.5 Qualitative Research Design

Quantitative studies generally focus much more on the measurement and analysis of casual associations between variables; however, they largely fail to provide richer descriptions and explanations of why and how certain phenomena occur (Beasley et al., 2009b). In contrast, qualitative studies provide rich accounts of the certain phenomena based on textual data (Bansal, 2013) that contribute to a better understanding the process by which events and actions take place (Maxwell, 2012). As Denzin and Lincoln (2000:8) indicated,

“[T]he word *qualitative* implies an emphasis on the qualities of entities and on processes and meanings that are not experimentally examined or measured (if measured at all) in terms of quantity, amount, intensity, or frequency. Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry. Such researchers emphasise the value-

hidden nature of inquiry. They seek answers to questions that stress *how* social experience is created and given meaning.”

Accordingly, designing qualitative research in the field of accounting studies is particularly useful for the examination of complex accounting realities and processes (e.g. Merchant & Stede, 2006; Gendron, 2009; Radcliffe, 2010).

According to Lewis (2003:47), “[a] good qualitative research study design is one which has a clearly defined purpose, in which there is a coherence between the research questions and the methods or approaches proposed, and which generate data which is valid and reliable”. In other words, the research question(s) to be answered or research objective(s) to be accomplished by a study will be reflected in the research design (Harding, 2013). As the two research questions of this study are concerned with gaining insights into the complexities surrounding the audit committee processes in terms of audit committee oversight of enterprise risk management, designing qualitative research methods for the study is more appropriate to examine such complex realities and processes. Importantly, there have been calls within the community of corporate governance and audit committee scholars for a better qualitative methodology and for more attention to be paid to dynamic phenomena around complex corporate governance and audit committee realities in order to improve existing practices and policies (e.g. DeZoort et al., 2002; Spira, 2002; Cohen et al., 2004; Turley & Zaman, 2004; Beasley et al., 2009b; Bédard & Gendron, 2010; Cohen et al., 2010; Carcello et al., 2011). In response to such calls for a deeper understanding of audit committee processes, a qualitative research approach is adopted in this study because it focuses on the meanings individuals bring to practices and processes with which they are involved or engage with in real-life organisational settings (Denzin & Lincoln, 2000; Gephart, 2004; Edmondson & McManus, 2007; O’Dwyer, 2011), especially the extent to which the practices and processes of audit committees when they perform and are involved with

the oversight of enterprise risk management in the context of Thailand, a developing country.

The following sections outline the qualitative research approach designed for this study.

4.5.1 Types of Interview

Interviews are used as methods of data collection in most qualitative research design. An interview generally facilitates direct communication between at least two people and other possibilities include one or more either interviewers or interviewees. The interview methods are typically related to the collection of qualitative data when the researcher is interested in experiences, behaviour and perspectives of the respondents in his or her study and aims to examine how and why they experience and understand the social world in such way. Types of conversation between two or more people include talking face-to-face and at a distance via telephone or the internet.

An interview enables the interviewer to elicit information from the respondents using questions and interactive dialogue, and in turn allow the respondents the opportunity to tell their experiences, feelings and thoughts in their own words. Thus, the goal of interviewing is to acquire information from people by ‘getting inside their minds’ in order to hear them speak and reflect how they render meanings on the events, situations, experiences and actions with which they are involved to researchers (O’Dwyer, 2004; Maxwell, 2012). Legard et al. (2003:142) state the importance of the interview method:

“[T]he interview is generative in the sense that new knowledge or thoughts are likely, at some stage, to be created. The extent to which this is so may vary depending on the research questions, but it is likely that the participant will at some point direct

themselves, or be directed by the researcher, down avenues of thought they have not explored before. Participants may also be invited to put forward ideas and suggestions on a particular topic and to propose solutions for problems raised during the interview.”

Despite the fact there are many types of interview (Gubrium & Holstein, 2002), structured, unstructured and semi-structured interviews are found as the common methods of data collection in qualitative research.

Structured Interviews

The primary goals of a *structured* or *standardised* interview are to collect the research data consistency from one situation to the next. Research studies use a structured interview when they know exactly what information is needed. In conducting a structured interview, interviewers have a predetermined or identical set of questions that will be posed to participants. The same question must be asked in the same manner for all participants in the study’s sample. Importantly, strict adherence to the order and the questions’ wording as well as the instructions are required. Guidelines to interviewers often include some of the following instructions (Fontana & Frey, 2000:649-650):

- Never get involved in long explanations of the study; use the standard explanation provided by the supervisor.
- Never deviate from the study introduction, sequence of questions, or question wording.
- Never let another person interrupt the interview; do not let another person answer for the respondents or offer his or her opinions on the questions.
- Never suggest an answer or agree or disagree with an answer. Do not give the respondent any idea of your personal views on the topic or the question or the survey.

- Never interpret the meaning of a question; just repeat the question and give instructions or clarifications that are provided in training or by the supervisors.
- Never improvise, such as by adding answer categories or making wording changes.

This means that the interviewer is expected to conduct the interviews by asking questions in a set order and in a specified manner with the answers recorded on a standardised schedule, generally with pre-coded answers (Saunders et al., 2007). As a structured interview is employed in quantitative research to obtain quantifiable data, this form of interview is also referred to be ‘a quantitative research interview’.

Unstructured Interviews

The unique characteristic of an *unstructured* interview is the *depth* or *intensive* interview. This form of interview gives the interviewee the opportunity to tell their stories freely with respect to the topic area; therefore, that kind of interaction is sometimes called non-direction (Saunders et al., 2007).

“The interviewer follows the respondent’s answers with a request for more information at an increasing level of depth. It is this process of using the respondent’s answers to delve more deeply into the topic that gives the depth interview its name (Sommer & Sommer, 2002:114).”

Even though researchers are required to have a research objective that they want to explore, there is no predetermined set of questions asked of all respondents. Based on this form of interview, the interviewer has a clear topic in mind and may want to ask a certain questions. Questions are tailored to each situations and many questions occur in the course of interviewing. If the researcher aims to explore in depth a general area in

which they are interested and all the alternatives in order to gain information, to define fields of importance that might not have been thought of ahead of time, an unstructured interview is desirable.

Semi-structured Interviews

Semi-structured interviews contain elements of both structured and unstructured interviews, with some being relatively close to structured interviews, and others being relatively close to unstructured ones. The researcher has a set of questions, often called an interview protocol or interview guide on fairly particular topics to be covered, although the manner in which the interviewees are questioned differs from one person to the next. This means that the interviewer may change the wording or sentence structure to best fit the respondent or the situation. Questions may not be asked in a set order or in a specified manner, depending on the flow of the conversation or the situation, whereas additional questions that are not included in the interview protocol may be asked as the interviewer discovers new topics from issues answered by interviewees: “The degree to which interviews are structured depend on the research topic and purpose, resources, methodological standards and preferences, and the type of information sought, which of course is determined by the research objective” (Sarantakos, 2013:278).

4.5.2 Interview Method Used in the Study

Regardless of the form of the data collected, interviews are a method used to collect information from respondents, by asking questions to elicit information from them. The value of interviewing is that interviews are a source of information, with the assumption that interviewing results in true and accurate pictures of the informants’ selves and lives (Fontana & Frey, 2000). Interviews provide rich descriptions of the context surrounding the certain phenomena of interest (i.e. accounting practices) and also provide rich data

sets, meaningful stories and examples (Merchant & Stede, 2006). With stimulation and the acknowledgement of genuine interest on the part of the interviewer, respondents will reveal a great deal about themselves according to their own interpretive schemes, and about their feelings and thoughts extensively (Tremblay & Gendron, 2011).

In accounting research, the use of interviewing to acquire information has been widely accepted among accounting scholars. Also, the contributions of interviews have been significant and employed increasingly by accounting researchers in recent years (e.g. Hirst & Koonce, 1996; Beasley et al., 2009b; Trompeter & Wright, 2010; O'Dwyer, 2011; Cohen et al., 2012; Hermanson et al., 2012; Clune et al., 2014). Many accounting researchers provide several reasons why the interview is a more appropriate technique for collecting research data rather than other techniques. For instance, Hirst and Koonce (1996) chose the interview method in collecting research data to examine audit analytical procedures rather use archival methods by reviewing the firms' audit manuals because audit manuals do not completely reflect how analytical procedures are really performed by auditors in practice; hence, interviews are useful for obtaining information regarding auditors' perceptions of analytical procedures which audit manuals do not contain. In terms of audit committee research, Beasley et al. (2009b) chose the interview method to obtain detailed insights into the audit committee process because this method enable them to examine issues that are difficult to study using archival methods.

Consistent with prior research on corporate governance and audit committee (e.g. Cohen et al., 2002b; Gendron et al., 2004; Gendron & Bédard, 2006; Beasley et al., 2009b; Cohen et al., 2010), a semi-structured interview was used as the main data collection method for addressing two research questions:

RQ3: What process do Thai public company audit committees use to fulfil their enterprise risk management oversight responsibility?

RQ4: How do Thai public company audit committees make judgements and decisions when they carry out the oversight of enterprise risk management?

Following Horton et al. (2004:340),

“semi-structured interviews were chosen in order to allow the interviewees a degree of freedom to explain their thoughts and to highlight areas of particular interest and expertise that they felt they had, as well as to enable certain responses to be questioned in greater depth, and in particular to bring out and resolve apparent contradictions.”

The use of semi-structured interviews enables the researcher to obtain first-hand knowledge and rich data from real people’s insights into real problems and real organisations (Edmondson & McManus, 2007); more specifically, the complexities underlying audit committees that perform the oversight of companies’ enterprise risk management. Additionally, “[s]emi-structured interviewing works very well in projects where you are dealing with managers, bureaucrats, and elite members of a community—people who are accustomed to efficient use of their time” (Bernard, 2000:191). Before embarking on semi-constructed interviews, Wengraf (2001:5) points out that:

“They are *semi*-structured, but they must be fully planned and prepared. Improvisation requires more training and more mental preparation before each interview than simply delivering lines prepared and rote-learned in advance. Compared with fully structured interviews, *semi-structured interviews* to be successful require

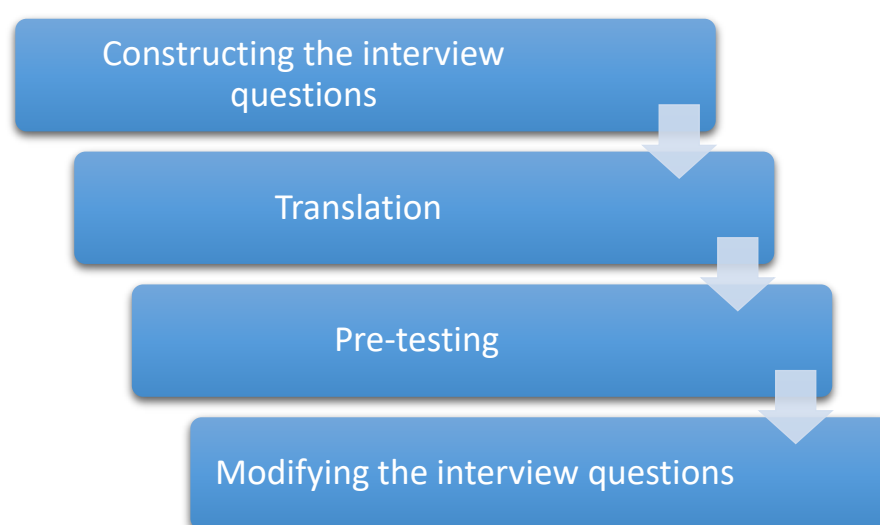
- *as much preparation* before the session, probably, and certainly
- *more discipline and more creativity in* the session, and certainly
- *more time for analysis and interpretation after* the session.”

Based on Wengraf (2001)’s suggestions, interview questions were designed to fit the research objectives and questions of this study. Prior to the course of interviewing, a set of interview questions or interview protocol was designed in advance to guide the researcher in conducting the interview but such pre-established questions were designed to be adequately open-ended in nature in order to persuade the interviewees to share their perspectives in a loosely guided conversation. However, questions may arise when the researcher is conducting the interviews and they may add or replace new questions to a pre-established list. Consequently, when conducting semi-structured interviews, the researcher started by asking the pre-established list of questions and remained open to changing and adding to them throughout the data collection process to further explore participants’ thoughts and experiences.

4.5.3 Development of the Interview Protocol

Using a semi-constructed interview method, an interview protocol was developed. An interview protocol or interview guide is a series of written questions or issues in which the content focuses the questions of the study. An interview protocol is developed to ensure that participants’ feelings, thoughts and attitudes fit into a certain subject area to the extent to which the researcher intends (Patton, 1990). In fact, this study developed the questionnaire survey coincident with the construction of the interview protocol in the last quarter of 2013. The questionnaire was pre-tested and finalised in April 2014 and the survey was carried out in May 2014. Prior to the course of interviewing, a pre-test interview was conducted with a retired audit committee member and finalised in early February 2014. Figure 4.2 demonstrates the interview protocol development process:

Figure 4.2: Interview Protocol Development Process



Source: The current study

Firstly, a series of interview questions was designed based on the context of the present study from various sources of information, including: (1) an extensive review of relevant literature in the fields of accounting, finance and management, etc.; (2) a review of the best practice guidelines from the Big 4 audit firms; and (3) discussions with two audit committee members who have significant experience in sitting as members of Thai public company audit committees with respect to the role of audit committees in the oversight of enterprise risk management. Following the procedures used by Cohen et al. (2002b) and Cohen et al. (2010), the interview questions were assessed by several academic researchers and audit committee members to ensure validity, clarity, relevance and completeness.

Secondly, the interview protocol was translated into Thai, based on and similar to the questionnaire translation process (see section 4.3.1) in January 2014.

Thirdly, in order to test understanding of the content of the interview, a pre-test was conducted with retired Thai audit committee members in early February 2014, which was not included in the analysis.

Finally, the interview questions and the procedures were modified on the basis of feedback from the pre-testing. In addition, the researcher initially conducted individual interviews with four participants using the interview protocol in February 2014, which then resulted in minor modifications to the protocol. The interview protocol used in this study is presented in Appendix C.

4.5.4 Recruitment of Participants

Dissimilar to a piece of quantitative research, this study did not draw a sample from the total population of audit committee chairs and members. Rather, the selection of participants for the qualitative research in this study is criterion based or purposive (Patton, 1990). Typically, qualitative research employs non-probability samples to select the population for study (Ritchie et al., 2003). The sample units are selected because they have unique features or particular characteristics which enable the researcher to obtain in-depth information from a small number of people, aiming at detailed exploration and understanding of the central themes and puzzles within a certain phenomenon. Purposive sampling or purposeful selection is clearly what the names indicates. Selecting individuals that represent a setting or type in relation to a key criterion of the study is the most important consideration in qualitative sample selection decisions.

Although the selection of participants is purposive, Ritchie et al. (2003:79) recommend each member of a sample should be chosen to achieve two principal aims: “The first is to ensure that all the key constituencies of relevance to the subject matter are covered. The second is to ensure that, within each of the key criteria, some diversity

is included so that the impact of the characteristic concerned can be explored”.

Consistent with prior qualitative corporate governance and audit committee research (e.g. Uddin and Choudhury, 2008; Uddin et al., 2011; Gendron and Bédard, 2002; Gendron et al., 2004; Beasley et al., 2009), the research is dependent on the voluntary participation of audit committee chairs/members. In the first step, audit committee chairs/members in Thai listed companies from a broad range of experiences, company sizes, and industrial sectors were targeted for interview.

This study is interested in audit committee chairs/members from various experiences, organisation sizes and industries because each individual at varying ranks may perform the oversight of enterprise risk management differently. For instance, Beasley et al. (2005a) find that larger organisations are more likely to be further advanced in enterprise risk management implementation than smaller organisations, and companies in the banking, education and insurance industries are also more advanced in their enterprise risk management implementations, which is likely because of straightforward calls for more effective risk management arising from regulators or industry leaders. Additionally, explicit calls from the CEO and CFO for internal audit involvement in enterprise risk management, companies that are audited by Big 4 audit firms, and more independent boards of directors are significantly related to the extent of a company's enterprise risk management deployment. Accordingly, it is reasonable to assume that these factors may affect the way in which audit committees perform the oversight of enterprise risk management.

It has been recognized that the difficulty of pursuing a qualitative research method in the field of audit committee studies is in gaining access to interviews with individual audit committee chairs/members (e.g. Gendron et al., 2004; Gendron & Bédard, 2006; Beasley et al., 2009b). This study, however, recognises this problem and uses any attempts to gain access to the intended participants for interviewing. In order to

maximise as much as possible the likelihood of obtaining diverse perspectives from audit committee chairs/members who have been directly involved in shaping a practice in terms of the enterprise risk management oversight, members of the potential interviewees were identified using a purposive sampling method in a number of ways, as follows:

1. The study followed the procedures used by Graham et al. (2005) and Dichev et al. (2013) to identify interview subjects. A list of the prospective participants was developed to reflect a diversity of company sizes and industrial sectors. Next, the researcher obtained personal email addresses of the intended participants in two ways: hand-collected via Internet search, and from direct contact with companies. As a result, a list of audit committee chairs/members contacts consisted of 31 individuals' email addresses. Thirty-one invitation letters were emailed to each contact person in February 2014. The invitation email described the interviews and gave an explanation of the nature of the research being undertaken and the purpose of the interview together with a brief *curriculum vitae* of the researcher. Specifically, the letter completely assured anonymity and confidentiality to all participants and the companies in which they work. Out of 31 requests made, 20 individuals did not respond to the letter. Eleven individuals were subsequently contacted through either email or telephone to encourage their willingness to take part in the research. Some individuals requested a copy of interview questions. Four individuals dropped out after no response despite follow-up attempts. Finally, this approach enabled the researcher to recruit seven knowledgeable and high-profile informants to participate in the study.

2. Some individuals were identified as the researcher's personal contacts. The researcher contacted two people whom the researcher knew for an interview. Both responded very positively in agreeing to participate in the study.
3. The researcher employed a personal direct approach to obtain the potential participant's commitment to participate in the study. Direct approaches were made at annual meetings of public companies. The researcher approached five audit committee chairs/members at the annual meetings of five different companies to request an interview between March and May 2014. Two audit committee chairs and one member agreed to an interview, but one chair and one member declined.
4. Using telephone calls and office visits, four audit committee chairs/members from different companies were invited to participate the research. Two members agreed to participate, but another two declined.
5. After interviewing a participant in a hotel lounge, this participant had met an audit partner of a Big 4 audit firm at lunchtime. The participant then introduced the researcher to this partner. Accordingly, the researcher was able to express an interest in attending the audit committee forum, which would be taking place at his firm, informally with this partner. The partner was delighted with this request. Accordingly, the researcher was allowed to apply to attend the forum and the firm offered the opportunity to access and observe the forum for two sessions in March 2014. However, the observation of two sessions of the audit committee forum was not included in the analysis. At the two sessions of the forum, the researcher had the opportunity to introduce himself and the research being conduct in addition to encourage audit committee chairs and members to participate in the

research. Through this approach, the researcher was able to arrange an interview with participants from two leading public companies.

6. This study also used a snowball technique to identify the intended participants that allowed access and insight into the issues. This approach yielded two participants to take part in this study.
7. Questionnaire survey respondents who provided their contact details were approached to take part in the study. Four respondents stated that they were willing to participate in this study and also provided their contact information. They were subsequently contacted via either phone or email. One audit committee chair and two members agreed to be interviewed, before one member dropped out because of the lack of time.

In total, 21 experienced audit committee chairs/members agreed to participate in the interview. Consistent with prior studies, all participants taking part in this study consisted of a non-probability sample chosen on the basis of accessibility, personal contacts and expected willingness to help with the research process (Bruns & McKinnon, 1993).

4.5.5 Conducting the Interviews

The interviews were carried out with Thai audit committee chairs/member primarily during the period between February and July 2014 in Bangkok. The interviews varied in length between 19 minutes and 94 minutes. All interviews were undertaken in the Thai language. The set of interviewees in this study consisted of 21 audit committee chairs/members¹³. Nineteen of the 21 interviews were conducted in person and the remainder were done via telephone. The researcher usually requested to schedule

¹³ In prior studies, Gendron et al. (2004) and Gendron and Bédard (2006) interviewed 22 members, Beasley et al. (2009) interviewed 42 members, Hermanson et al. (2012) interviewed 20 compensation committee members, and Cohen et al. (2002) initially interviewed 36 auditors, then (2010) 30 auditors.

interviews using email. In some cases, the prospective interviewees were contacted by telephone. The 21 audit committee chairs/members who agreed to participate in the study were contacted by either email or telephone in order to confirm an interview date and location suitable to both the participant and the interviewer. Prior to an interview session, the introductory email was sent to each interviewee along with a copy of the interview questions a week or so in advance of the actual interview. This allowed each interviewee to consider what issues were to be discussed and enabled the interviewee to get some idea of the issues as well as seek clarification about them prior to the interview. More importantly, it included a statement making it clear that complete anonymity and confidentiality would be assured to all participants and the companies in which they work.

The interview protocol was used to guide the researcher throughout the course of interviewing. Most interview questions were open-ended. As the interviews were semi-structured, Hirst and Koonce (1996) note that this form of interview enables the researcher and the interviewees to pursue interesting issues as they emerge. In other words, conducting semi-structured interviews “also revealed certain issues that we had not previously identified and which could be followed up in further questioning as well as in later interviews” (Horton et al., 2004:340). The larger part of the interviews were conducted by the researcher visiting the participants’ offices. In some cases, the researcher visited the participant at his or her home for an interview. Other interviews occurred at restaurants and in hotel lounges.

While conducting each interview, the researcher began with building rapport and trust with participants, which were essential in order to evoke detailed discussions about their experiences and thoughts of enterprise risk management oversight. Next, the researcher expressed his appreciation for the time taken by each interviewee, introduced himself, provided the interviewee an information form to read so he could obtain

written consent, which both the research and informant needed to sign, and described the purpose of interviewing: that this study aims to explore the role of audit committees in overseeing companies' enterprise risk management. Each participant was informed that it was his/her opinions that were being sought, and hence there was no search for 'right' or 'wrong' answers to the questions (Cohen et al., 2002b; O'Dwyer, 2002; Cohen et al., 2010). The researcher stressed that this study was interested in the participant's individual experiences as a chair or member of the audit committee on which they currently serve. Also, the researcher endeavoured to explain that the interviewee is an expert on his/her own experience and thus best able to provide information how he/she has experienced oversight of enterprise risk management (Darlington & Scott, 2002).

The researcher completely assured all participants of anonymity and confidentiality. The researcher made clear to the interviewees that the identity of all the informants and the companies in which they work would not be known by any third party. Additionally, the participants were told that both direct attribution (i.e. participant's name and company's name) and indirect attribution (i.e. a collection of characteristics that might identify a participant or his/her organisation) would not be identifiable in the reports or presentations. The interview information the researcher obtained would be employed for educational and research purposes only. Specifically, the researcher asked participants for permission to record the interview to ensure completeness and accuracy.

During the course of the interviews, the researcher posed open-ended questioning in order to provide the interviewees with wide scope in which to give information. In the interests of obtaining in-depth information, a series of follow up questions and probes were used to ask participants to provide more details when their descriptions were brief, unclear or did not related to certain predetermined key themes

(Gendron, 2001). Probing is necessary in conducting in-depth interviews (Radcliffe, 2010). Probes are questions or comments designed to keep the interviewee talking or for clarification. When the interviewee does not seem to understand the question or goes off the topic, it is necessary to repeat the question. If the interviewee still gives an unclear or incomplete answer, other probes are needed. Following this, the researcher was able to acquire information at a deeper, more focused level, discovering the participants' experiences, ideas, and thoughts that deal with the specific set of predetermined themes into the study. In addition, the research encouraged each interviewee to add any other topics that this study had not covered. Consequently, the participants generally voluntarily provided complementary information.

Following the interview protocol, the researcher asked participants background questions about their current job responsibilities other than being an audit committee chair/member, their professional qualifications, the number of years they had served on the audit committee, the factors that led to their service on the audit committee, and their training experience in relation to risk management or risk management oversight. The researcher then asked participants to describe their audit committee meetings.

Next, the researcher asked open-ended questions to all the participants in order to gain insights into the decision-making process of audit committees when they oversee companies' enterprise risk management. A set of questions covers the following areas of information needed in the field study:

1. Audit committee involvement in the risk oversight process
2. Audit committee's judgement
3. Audit committee's decision-making
4. Audit committee's report

5. Effectiveness of the oversight of risk management

The researcher ended each interview with thanks to the interviewees about their contribution to the study. Additionally, each participant was regularly asked if there were any issues the researcher should have raised but did not, or to criticise anything relating to this study, and the feedback was consistently positive. The participants were asked: 'Are there any issues concerning the audit committee oversight process of risk management that have not been covered in this interview and which you consider important? Please feel free to share your opinions anything important.' The research also reassured all the interviewees of anonymity and confidentiality. In many cases, this was the time to answer questions raised by the interviewees before moving away from the interview. After ending each interview, significant information in relation to the interviews was noted. Throughout the course of the interviews, it seemed to the researcher that most informants generally enjoy sharing their anecdotes, experiences and expertise, and that significantly contribute to this study.

4.5.6 Interview Data Analysis Technique

All of the 21 interviews were recorded using a digital recording device and the researcher subsequently transcribed these recorded interviews by himself as soon as possible after the interview. Using the manual transcription method, the researcher listened to the audio of each interview playing with headphones and transcribed by typing word-by-word, resulting in a total of 180 pages of transcribed interview data. All interviewees were numbered from 01 to 21 for ease of reference. Coincident with this transcription process the researcher also made further reflection notes, in particular for the interviews which contained in-depth information for the certain contexts within the study's focus. These reflection notes were typed while listening to the audio recording of the interviews. As a result, a great deal of time had been consumed by the

transcription process. Following O'Dwyer (2004), the researcher transcribed the interviews himself allowing him a better 'feel' for the data as he progressed and this lead to analysis in depth as the researcher transcribed. In other words, the transcript in hand provides the researcher with an invaluable way of getting a deeper sense of what the text is about (Darlington & Scott, 2002). More importantly, transcription by the researcher along with reading and re-reading several times provides a high degree of faithfulness to the transcription that captures the audio recording and the responses of the interviewers.

In order to produce findings, the information needs to be analysed. There are several ways to conduct qualitative data analysis (Darlington & Scott, 2002; Creswell & Creswell, 2007). However, in practice most methods have common stages. Qualitative data analysis is concerned with reducing large quantities of information, identification of significant ideas and patterns in the text, and formulating a framework for interpreting and communicating the significance of what the text exposes (Patton, 1990:371-372). Sarantakos (2007:6-7) defines qualitative data analysis as "a set of processes and procedures which assist with the description, reduction, transformation, ordering and connection of data, aiming to achieve understanding, interpretation and explanation". Miles and Huberman (1994) and O'Dwyer (2004) point out that the process of qualitative data analysis entails three linked sub-processes: data reduction, data display and data interpretation (conclusion drawing/verification).

In this study, the analysis of the interview transcripts was performed using the procedures and techniques suggested by Gibbins et al. (1990), Miles and Huberman (1994), O'Dwyer (2004) and Harding (2013). The purpose of this qualitative data analysis is to address two research questions:

RQ3: What process do Thai public company audit committees use to fulfil their enterprise risk management oversight responsibility?

RQ4: How do Thai public company audit committees make judgements and decisions when they carry out the oversight of enterprise risk management?

Like O'Dwyer (2004), Beasley et al. (2009b) and Hermanson et al. (2012), this study followed manual methods in coding and analysing the transcripts. The following five stages were performed across the qualitative data analysis in order to produce the findings and draw the conclusion.

Stage 1: Reading and Rereading the Transcripts

In the first stage of analysis, the researcher read the transcripts from beginning to end to get a feel for what they were all about. Along with doing that, the researcher marked, highlighted, underlined and took notes. Following Corbin et al. (2008:163), “[t]he idea behind the first reading is to enter vicariously into the life of participants, feel what they are experiencing and listen to what they are telling us”. More importantly, reading and re-reading transcriptions thoroughly before starting analysis is a technique to strengthen validity. So, this time-consuming process enabled the researcher to see through the details and to the points that are most relevant to the research questions and objectives before developing tentative ideas concerning categories and relationships.

Stage 2: Identifying Initial Themes and Categories

The interview process produced a rich vein of descriptive information. It seemed to the researcher that most of it looked promising and that everything was relevant. After reading and re-reading the transcripts several times, the researcher began with identifying initial themes, concepts and categories which related to the conceptual

framework and research questions of the study. This stage assumed that an inductive approach was being performed and the researcher was seeking to achieve the research objectives (Harding, 2013).

Following Miles and Huberman (1994), the researcher was able to identify some general themes derived from the literature and add more themes and sub-themes as they emerge from the text itself during the process of reading and rereading the transcripts together with written notes. The researcher formed ideas or refined concepts that are grounded in the interview transcripts. The data were organised into categories on the basis of themes and concepts. In addition, the initial themes also involved with the particular topics were addressed in the interview protocol (O'Dwyer, 2004).

Moreover, the researcher relied on the recommendation of Gendron (2009) and Radcliffe (2010) for analysing qualitative data and findings. The researcher considered flexibility and openness in qualitative research. Initial themes were identified as typically relevant to the research questions, and based on the theoretical ideas and the audit committee oversight process literature. The researcher then used a variety of perspectives to enable the researcher's openness in looking for emergent new issues/themes from reading and rereading the transcripts.

In identifying initial themes to address the first question, prior studies on audit committee oversight process (e.g. Spira, 1999a; Gendron et al., 2004; Gendron & Bédard, 2006; Turley & Zaman, 2007; Beasley et al., 2009b; Beattie et al., 2012) offer a particularly large number of relevant themes. In identifying initial themes to address the second question, the theoretical framework provided the most relevant themes, concepts and categories.

Stage 3: Coding the Transcripts

Miles and Huberman (1994:56) define coding as follows:

Coding is analysis. To review a set of field notes, transcribed or synthesised, and to dissect them meaningfully, while keeping the relations between the parts intact, is the stuff of analysis. This part of analysis involves how you differentiate and combine the data you have retrieved and the reflections you make about this information..

Codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study. Codes usually are attached to “chunks” of varying size—words, phrases, sentences, or whole paragraphs, connected or unconnected to a specific setting.

Thus, coding is a data reduction process. A code is a label, index or name the researcher gives to a word or phrase which succinctly captures features of the case which can be employed to create a framework of relational categories for the data in order to explain and understand processes/outcomes/behaviours. As O’Dwyer (2004) suggests, ‘open’ codes are composed to represent/interpret numerous themes. Open coding is performed to break down segments of the text data into smaller units based on specific relevant criteria, and these codes will be used for examining, comparing, conceptualising, and categorising the data.

After identifying initial themes and deciding on the initial list of categories, the researcher followed the procedures used by Gibbins et al. (1990), O’Dwyer (2004) and Beasley et al. (2009b). The coding was undertaken by the researcher, starting with the research objectives and questions, who looked at all transcripts and then picked one of the transcripts which is most relevant to the objectives and questions of the study as the first case to be coded. The researcher read a selected transcript carefully in order to determine the codes aiming for reflection on its core content or meaning (Saldaña,

2013). The researcher went through a selected transcript, marking and highlighting significant words and phrases in selected transcripts. The researcher performed coding on a line-by-line, phrase-by-phrase, sentence-by-sentence and paragraph-by-paragraph basis. Once coding of a selected transcript was finished, the researcher in-depth re-read it again in depth to ensure that they “did not lose sight of the ‘big picture’ in the data as [they] became immersed in coding (O’Dwyer, 2004:396).”

The researcher then moved on to coding another transcript in this manner. As the researcher wrote, marked and highlighted the codes alongside the interview transcripts from the beginning to the end, new codes were created and initial codes were adjusted. Consistent with Parker (2008), key themes, issues, frames, ideas and patterns that occurred, continued, discontinued and re-occurred were identified throughout the entire period of the research via the processes of data collection, transcription, reading transcripts, note writing, subsequent analysis and coding. Indeed, coding “requires reading and rereading, assigning and reassigning codes, placing and replacing codes, refining codes and coded data; the process is iterative and requires the researcher to go back and forth through the data on maybe several occasions, to ensure consistency and coverage of codes and data. Once the initial coding has been undertaken and checked then emergent themes, frequencies of codes, patterns of combinations of codes, key points, similarities and differences, variations and so on can be conducted (Cohen et al., 2011:560-561).”

Stage 4: Thematic Analysis

In the fourth stage, the researcher performed a further analysis of themes in relation to the data, whereby the codes were grouped into categories and sub-categories, with the categories and sub-categories given titles by the researcher. According to Gibson and Brown (2009), when conducting thematic analysis the researcher attempts to

accomplish three goals: the examination of commonalities, the examination of differences and the examination of relationships.

The examining commonality process of thematic analysis is the way in which the researcher examines commonalities within a data set. This process involves seeking ways to combine together all the ideas or concepts that appear related to the same phenomenon, therefore forming categories. These commonalities are then subjected to additional analysis and subdivision.

The examining difference process of thematic analysis refers to the researcher examining the distinctive characteristics across a data set. The goal is to find and analyse the peculiarities and distinctions within a data set, and to investigate their prospective relevance for the particular topic being explored.

The examining relationship process of thematic analysis concerns the researcher's endeavours to examine the interrelationships between the various categories of themes, with a view to eliciting and explaining patterns, behaviours and relationships. This process includes the ways in which the researcher looks at any different code categories that relate to each other, or how specific individual features or distinctions relate to general themes.

Following Gibson and Brown (2009), the researcher performed the examination of commonalities, differences and relationships. The researcher reviewed the list of codes, revised the list of categories and sub-categories, and decided which codes appear in which category and sub-category. The researcher looked for consistency, patterns, commonalities, similarities, differences and relationships. Complete list of codes, categories and sub-categories were used in relation to reflective practice and connect the concepts into the study's theoretical framework (specific for RQ4).

Stage 5: Data Display and Interpretation

In the final stage, the interrelationships of the categories with each other were constructed to establish higher level analytic meanings for addressing the research questions and conceptual matrices were developed to summarise the findings. The data interpretation and description of the interviews are presented in Chapter 7.

4.6 Ethical Considerations

The current research process involved human participants, and therefore needs to be sensitive to ethical considerations. A code of ethics or a standard for conduct provide guidelines for practice to ensure that participants in behavioural studies were protected from harm, discomfort or danger, and that they were assured about privacy and confidentiality (Sommer & Sommer, 2002). Thus, this study relied heavily on the Ethical Procedures for Research of Hull University Business School (HUBS, 2011).

Each participant was provided with a clear description of the study's purpose and advised what was expected of them as a participant. Each participant was also given an assurance of anonymity and informed that the interview transcript will be not examined by other organisation members. Before embarking on the interviews, both the interviewer and interviewee were required to sign the consent form. In addition, a participant may withdraw from the study or discontinue at any time.

4.7 Chapter Summary

This chapter has discussed in detail the use of mixed methods research in this study. It firstly outlines the quantitative research design, including a description of the methods and procedures for the development of the questionnaire survey to collect the quantitative data, the processes of data collection and the data analysis methodologies employed to test the research hypotheses. It is followed by a detailed discussion of the

qualitative research design. It covers a description of the development of the interview protocol, recruitment of the participants, the use of semi-interview methods for collecting the qualitative data and the interview data analysis technique used to produce the findings and draw the conclusion. The results from the quantitative data analysis are presented in the following two chapters, while the findings of the semi-structured interviews are presented in Chapter 7.

CHAPTER 5

Descriptive Data Analysis

5.1 Introduction

The methodology used to test the research hypotheses and to answer the research questions are discussed in the previous chapter. In order to present an appropriate analysis for the data interpretation, the data analysis of this study will be discussed in two parts: the descriptive data analysis and the hypotheses testing. This chapter presents a descriptive analysis (frequency, mode, mean and standard deviation) of survey data. To achieve the first objective, the results of the descriptive statistics of this study focus mainly on answering the Research Question 1: to what extent is there a background of audit committee oversight of enterprise risk management practices within Thai public company audit committees?

The chapter is organised as follows: section 5.2 presents a detailed analysis of the respondents' demographic composition and background information on their companies. Section 5.3 provides descriptive analysis of audit committees' understanding of its company's risk. Section 5.4 describes an analysis of results with respect to audit committees' perception of the risk oversight role. In section 5.5, the findings relating to descriptive analysis of audit committee involvement in the oversight of company risk management are presented. Section 5.6 shows descriptive analysis of audit committees' judgements. Section 5.7 demonstrates descriptive analysis of audit committees' decision choices. Section 5.8 presents descriptive analysis of audit committees' effectiveness. Finally, the chapter summary is provided in section 5.9.

5.2 Respondents' Demographic Composition and Background Information on Their Companies

To provide an overview of the respondents' characteristics, this section presents a description of the sampled audit committee members/chairs that participated in the survey. The survey obtained demographic information frequently used in previous research. The first part of this section begins with self-reported summary information about the characteristics of the respondents, including education, work experience, professional qualifications, gender, age group and position. The reported descriptive statistics in the second part of this section illustrates background information on the respondents' companies.

5.2.1 Respondents' Demographic Composition

Altogether, 88 audit committee chairs/members participated in the survey. Table 5.1 reports demographic information in relation to the survey participants. It can be seen in Panel A that the samples are composed of well-educated people. As expected, more than half of respondents (57.95 percent) have obtained a Master's degree and one-fifth of the samples (20.45 percent) have a doctorate. A total of 17.05 percent have a bachelor's degree and only 1.14 percent of respondents have other education backgrounds.

In order to obtain further insight into the respondents' education, the respondents were asked to provide their education major. According to Panel B, 19.32 percent of the respondents indicated that their last education degree was in accounting, while 17.05 percent have a degree in management. Many (21.56 percent) of the samples reported that they have other education majors. Slightly more than 10 percent of the participants reported having majored in their last education in law, economics and finance.

Panel C reveals that the majority of the participants bring financial and accounting expertise to the audit committee. Three-quarters of the respondents (76.14

percent) reported that they have previous work experience in accounting/auditing/finance or a related area, whereas one-fifth (19.32 percent) has no such experience.

Panel D provides further information about the number of years that participants have experienced in accounting/auditing/finance and related matters. It can be seen that the number of respondents who have experienced between 11 to 20 and 21 to 30 years' experience is equal, accounting for 26.87 percent of 67 respondents, whereas 25.37 percent reported having experience of more than 30 years.

As part of the survey response, respondents were asked to state their professional qualifications. Panel E shows that about one-fifth (21.59 percent) of the respondents are likely to have a professional qualification such as CPA, CIA, CFA, etc.

It is evident from Panel F that significantly more males (82.95 percent) than females (13.64 percent) completed the survey. It could be attributed to the fact that a huge majority of the respondents who had served as audit committee chairs/members of Thai public companies are typically male as compared to female.

Further, the results in Panel G demonstrate that the largest group (42.05 percent) of the respondents are in the 65 years or over age group. The respondents from the age groups of 45—54 and 55—65 years accounted for 21.59 percent and 26.14 percent respectively. Only 6.82 percent were aged less than 45. It is important to note that the respondents of this study are predominantly older audit committee chairs/members with a large majority (more than 68 percent) of respondents are at least 55 years of age.

Table 5.1: Survey Respondent Demographics

	Frequency	Percent
Panel A: Respondent's education (<i>n</i> = 88)		
Bachelor	15	17.05
Master	51	57.95
PhD	18	20.45
Other	1	1.14
Question not answered	3	3.41
Panel B: Major of respondent's last education degree (<i>n</i> = 88)		
Accounting	17	19.32
Marketing	4	4.55
Finance	9	10.23
Management	15	17.05
Economics	10	11.36
Law	11	12.50
Other	19	21.59
Question not answered	3	3.41
Panel C: Do you have any previous work experience in accounting/auditing/finance or related area? (<i>n</i> = 88)		
No	17	19.32
Yes	67	76.14
Question not answered	4	4.55
Panel D: Total number of years of respondent's experience in accounting/auditing/finance or related area (<i>n</i> = 67)		
1 – 10 years	17	25.37
11 – 20 years	18	26.87
21 – 30 years	18	26.87
Over 30 years	6	8.95
Question not answered	8	11.94
Panel E: Do you have any professional qualification (e.g., CPA, CIA, CFA etc.)? (<i>n</i> = 88)		
No	64	72.73
Yes	19	21.59
Question not answered	5	5.98
Panel F: Respondent's gender (<i>n</i> = 88)		
Male	73	82.95
Female	12	13.64
Question not answered	3	3.41
Panel G: Respondent's age group (<i>n</i> = 88)		
Below 45	6	6.82
45 to 54	19	21.59
55 to 64	23	26.14
65 or older	37	42.05
Question not answered	3	3.41

Table 5.1 continued

Table 5.1 continued

Panel H: Position of respondents (<i>n</i> = 88)		
Audit committee chair	33	37.50
Audit committee member	52	59.09
Question not answered	3	3.41

Source: The current study

Based on Panel H, a majority (59.09 percent) of the respondents are audit committee members, while the remainder (37.50 percent) of the respondents have served as audit committee chairs.

5.2.2 Background Information of Respondents' Companies

Company size is characterised by market capitalisation. Table 5.2 provides information about the size of respondents' companies, indicating that a variety of sizes are represented by the respondents to this survey. The corresponding percentage for the largest Thai public companies (Top 50 market capitalisation) that participated in the survey is 17.05 percent. The largest group (37.50 percent) of companies of the participating audit committee chairs/members were from companies with market capitalisation lower than Top 100, while 36.36 percent of the respondents had served on audit committees of companies with market capitalisation between Top 51 to 100.

Table 5.2: Size of Respondents' Companies

Size of company (market capitalization)	Frequency	Percent
Top 50 market capitalisation	15	17.05
Top 51 to 100 market capitalisation	32	36.36
Less than Top 100 market capitalisation	33	37.50
Question not answered	8	9.09
Total	88	100.00

Source: The current study

While most of accounting and finance research exclude financial institution sector from unit of analysis because this sector has a different regulatory regime (e.g.

more stringent regulatory framework) than the other types of sectors, a number of accounting and finance studies, especially using a survey research method include this sector in its unit of analysis. For instance, Graham et al. (2005) survey more than 400 executives to determine the factors that drive reported earnings and disclosure decisions. Graham et al. (2011) survey nearly 600 tax executives to better understand corporate decisions about real investment location, profit repatriation and avoiding accounting income tax expense. More interestingly, Dichev et al. (2013) investigate insights into earnings quality from a survey of 169 CFOs of public companies. In terms of enterprise risk management research, studies of Beasley et al. (2008), Beasley et al. (2010) and Beasley et al. (2015) also include samples from financial institution sector in their studies. These researchers argue that because they inquire about respondents' practices, perceptions, action and thought processes, and decision-making processes, etc. rather than examine using companies' financial data (e.g. Graham et al., 2005), thus, they should be able to incorporate both samples from financial institution sector and other sectors when analysing and testing hypotheses. Consistent with prior research above, the current study includes financial institution sector in the sample as unit of analysis.

Table 5.3 reports the industry distribution of the audit committee companies, suggesting that respondents had served on the audit committee companies in diverse industries. It can be seen that the industries represented by the respondents' audit committee company are dominated by the financial institutions (19.32 percent), followed by property and construction companies (17.05 percent), the industrial sector (12.50 percent), and technology industries (13.64 percent). These industries account for 62.05 percent of the participants. The rest of the respondents that participated in the survey are involved in the resources industry (9.09 percent), followed by consumer products and services industries each with 6.82 percent.

Table 5.3: Industry of Responding Companies

Industry	Frequency	Percent
Ago and food industry	6	6.82
Consumer products	6	6.82
Financial institutions	17	19.32
Industrial	11	12.50
Property and construction	15	17.05
Resources	8	9.09
Services	6	6.82
Technology	12	13.64
Question not answered	7	7.95
Total	88	100.00

Source: The current study

Table 5.4: State of Enterprise Risk Management Maturity

What is the status of your company's risk management programme?	Frequency	Percent
Robust, mature risk management system in place	23	26.14
Risk management system implemented, but requires substantial work	50	56.82
Risk management system in planning/development stage	14	15.91
No active/formal effort to implement risk management system	1	1.14
Total	88	100.00

Source: The current study

To understand a sense of the current state of enterprise risk management maturity, participants were asked to consider the current level of enterprise risk management in their organisations. As seen in Table 5.4, just above one-quarter (26.14 percent) of the respondents in the sample claimed to have a mature and robust risk management system in place. Just over half (56.82 percent) responded to the question by indicating “risk management system implemented, but requires substantial work”, and an additional 15.91 percent described their level of enterprise risk management as

“risk management system in planning/development stage.” Only 1.14 percent responded that there was “no active/formal effort to implement risk management system”.

Given that the respondents represent a variety of types of industries, the results for the status of enterprise risk management maturity are analysed separately by the major industries, including financial institutions, industrials, property and construction, technology, and other industries. The basis of this analysis is consistent with several previous studies in the literature (e.g. Beasley et al., 2005a; Gordon et al., 2009; Paape & Speklé, 2012) on enterprise risk management that have examined the determinants of enterprise risk management implementation. These studies have proposed the type of industry affects the degree of enterprise risk management implementation. Beasley et al. (2005a) find that companies in the banking, education and insurance industries are positively associated with the stage of enterprise risk management at a variety of US and international organisations. Gordon et al. (2009) find that the greater the degree of industry competition confronting a company is positively related to its need for enterprise risk management. In addition, Paape and Speklé (2012) find that companies that operate in the financial sector are more likely to have more sophisticated enterprise risk management systems than other industrial sectors. Thus, it is reasonable to assume that the company’s industrial sector may affect the status of enterprise risk management maturity among Thai public companies.

The findings of the current study are consistent with prior research (e.g. Kleffner et al., 2003; Liebenberg & Hoyt, 2003; Beasley et al., 2005a) that companies in the financial institution sector are especially heavy implementation of enterprise risk management system than other companies in other sectors. As discussed earlier, unlike other sectors, the enforcement of regulation seems to be rather strong in the financial sector. In the meantime, regulators (i.e. the stock exchange and central bank) have been pressing financial companies to improve risk reporting and maintain sound enterprise

risk management system (Kleffner et al., 2003). Moreover, to the extent that the risk management requirements are in fact mandatory for the financial sector, whereas others are being suggested as optional ‘best practices’ (Paape & Speklé, 2012). In addition, Mikes (2009) suggests that the financial sector tends to have advanced risk management tools and techniques compared to other sectors. Accordingly, companies in the financial sector have more implemented enterprise risk management systems than companies in other sectors.

As reported in Table 5.5, many (41.67 percent) of the respondents in the technology industry indicated the status of their companies’ risk management systems as “robust, mature risk management system in place”, whereas a majority of the respondents in property and construction, financial institutions, industrials and other industries responded that while their companies had implemented enterprise risk management programs, the systems still “required substantial work” with 73.33 percent, 64.71 percent, 63.64 percent and 57.69 percent, respectively. The results highlight that while financial institutions are expected to face increasing volumes of increasingly complex of risks, more than other businesses, it is somewhat surprising that a majority of Thai financial institutions do not yet have robust enterprise risk management programmes. It can be seen that financial services are considered to be a heavily regulated industry; however, only 35 percent of the sample claimed to have a robust and mature risk management system in place. Overall, it is important to note that a majority of Thai public companies must be focused on implementing effective enterprise risk management in their organisations.

Size is another company characteristic that has an association with the stage of enterprise risk management. A number of prior studies (e.g. Liebenberg & Hoyt, 2003; Beasley et al., 2005a; Gordon et al., 2009; Desender, 2011; Hoyt & Liebenberg, 2011; Pagach & Warr, 2011; Paape & Speklé, 2012; Farrell & Gallagher, 2015) show that

company size is positively associated with the extent of enterprise risk management implementation. Desender (2011) points out that larger size organisations not only have a varied scope of threats but they are able to add more resources to implement enterprise risk management as well.

In order to analyse a potentially significant variation in the size of the respondent's companies, Table 5.6 breaks down the respondents' company size into three categories of survey respondents. Based on this information, 60 percent of respondents in the Top 50 companies described the company's risk management system as "robust and mature." More than 60 percent of respondents in the Top 51-100 and below stated that the company's risk management system "required substantial work". These results indicate a majority of audit committee chairs/members who had served on audit committees of the largest companies in this study believe their current risk management programmes are relatively mature and robust.

Table 5.5: State of Enterprise Risk management Maturity by Industry

What is the status of your company's risk management programme?	Industries				
	Financial (<i>n</i> =17)	Industrial (<i>n</i> =11)	Property (<i>n</i> =15)	Technology (<i>n</i> =12)	Other (<i>n</i> =26)
Robust, mature risk management system in place	35.29%	18.15%	6.67%	41.67%	30.77%
Risk management system implemented, but requires substantial work	64.71%	63.64%	73.33%	25.00%	57.69%
Risk management system in planning/development stage	-	18.18%	13.33%	33.33%	11.54%
No active/formal effort to implement risk management system	-	-	6.67%	-	-
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Source: The current study

Table 5.6: State of Enterprise Risk management Maturity by Company Size

What is the status of your company's risk management programme?	Size of Companies		
	Top 50 (n=15)	Top 51 – 100 (n=32)	Below Top 100 (n=33)
Robust, mature risk management system in place	60.00%	15.63%	21.21%
Risk management system implemented, but requires substantial work	26.67%	62.50%	66.67%
Risk management system in planning/development stage	13.33%	21.88%	15.00%
No active/formal effort to implement risk management system	-	-	3.03%
Total	100.00%	100.00%	100.00%

Source: The current Study

To gain a perspective on the types of risk that are being overseen by the audit committee, survey participants were asked, “Over which categories of risk does your audit committee have primary oversight responsibility?” As demonstrated in Table 5.7, Thai audit committee chairs/members in the study indicated that their audit committees have primary responsibility for oversight of many areas of risk. On a combined basis, almost 90 percent of the respondents revealed that they have overseen at least three types of risk. A large group (42.04 percent) of the respondents indicated they oversee all major risks in their companies, whereas 28.41 percent reported they have primary responsibility to oversee financial risks, regulatory compliance risks, and operational risks. Slightly less than one quarter responded to the question by considering “financial risks, regulatory compliance risks, operational and strategic risks” as categories of risk which they have monitored. An additional 5.68 percent of the respondents described that they have focused financial risks and regulatory compliance risks. Just about 1 percent of the sample considered the risk oversight responsibility for financial risks only.

Table 5.7: Categories of Risk Audit Committees Have Primary Oversight Responsibility

Over which categories of risk does your audit committee have primary oversight responsibility?	Frequency	Percent
Financial risks only	1	1.14
Financial risks and regulatory compliance risks	5	5.68
Financial risks, regulatory compliance risks, and operational risks	25	28.41
Financial risks, regulatory compliance risks, operational and strategic risks	16	18.18
All major risks	37	42.04
Other	4	4.55

Source: The current study

To find more information about the audit committee focus on the oversight of its enterprise risk management system, participants were asked “Over the past three years, to what extent has the audit committee increased its focus on the oversight of the company’s risk management system?” As shown in Table 5.8, more than half (51.13 percent) of the respondents identified their focus on the oversight of the company’s risk management system as “increased somewhat,” while 44.32 percent stated their committee attempts in focusing on the risk oversight had “increased significantly”. The remainder of responses were “not sure” (1.14 percent) and “not applicable” (1.14 percent). Based on the survey results, it is evident that audit committees of Thai public companies have markedly more focused on their oversight of risk.

Table 5.8: The Degree to which Audit Committees focus on the Oversight of Companies’ Enterprise Risk Management System

Over the past three years, to what extent has the audit committee increased its focus on the oversight of the company’s risk management system?	Frequency	Percent
No increase	2	2.27
Increased somewhat	45	51.13
Increased significantly	39	44.32
Not sure	1	1.14
Not applicable	1	1.14

Source: The current study

Given there are many types of risks (e.g. compliance risk, regulatory risk, strategic risk, operational risk, reporting risk), it is difficult to examine all of them in the current study. Based on two main reasons, only the level of financial risk is focused further. First of all, it is generally assumed that questionnaire length has a significant effect on survey response rate (Burchell & Marsh, 1992; Dillman et al., 2009) and the

researcher was advised by the expertise and supervisor that the questionnaire should not more than five pages in length. As a result, the current study do not investigate respondents' views regarding the level of all types of risks in their companies. In addition, Knechel and Willekens (2006) examine the impact of risks in the determination of audit fees. The authors use the risk measures pertain to 6 types of risks that are common to virtually all organisations and available for the companies' risk disclosures: financial risk, compliance risk, environmental and safety risk, technology risk, internal process risk, and change management risk. Knechel and Willekens (2006) find that only financial risk is significantly associated with audit fees. Thus, only the level of financial risk is examined further in the current study.

To obtain a perspective of the level of financial risk in the audit committees' companies, respondents were asked to identify the level of financial risk in their company compared to other companies in the same industry. As presented in Table 5.9, slightly less than half (47.73 percent) of the respondents considered their companies' financial processes were at "less risk" than other companies, while "about the same" was the second highest answer (44.32 percent). An additional response of just less than 8 percent answered "more risk" to this question.

Table 5.9: Respondents' Views regarding the Level of Financial Risk in Their Companies

As compared to your industry peer firms, your company's financial risk is best described as:	Frequency	Percent
More risk	7	7.95
About the same	39	44.32
Less risk	42	47.73

Source: The current study

Several studies using the meeting frequency proxy deal with an element of audit committee effectiveness (e.g. Menon & Williams, 1994; Abbott & Parker, 2000; Beasley et al., 2000; Zaman et al., 2011). To be effective, an audit committee must be active. Previous research has used the number of audit committee meeting to represent active audit committees and to be a signal of audit committee diligence (Zaman et al., 2011). These survey participants were also asked how many meetings their committees had held over the last year; Table 5.10 shows that a majority of the sample hold 4—6 meetings, with 28.41 percent meeting more than 6 times, and 5.68 percent indicating 1—3 meeting.

Table 5.10: Number of Audit Committee Meetings

How many audit committee meetings did your company hold last year?	Frequency	Percent
1-3 meetings	5	5.68
4-6 meetings	58	65.91
More than 6 meetings	25	28.41

Source: The current study

5.3 The Audit Committee’s Understanding of Its Company’s Risk

Fundamentally, audit committee members need to have a solid knowledge background of the company, its operation, its key risks and its industry when performing their risk oversight to ensure that the company’s risk management framework is thorough and effective. In the survey, one of the questions is designed to obtain information about the respondents’ understanding of the company’s risk. The question contains five statements with a corresponding five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) in which participants could indicate their strength of agreement with each statement. The statements address the various aspects of profound

risk knowledge, as audit committee members should gain this knowledge as part of the risk oversight role. Table 5.11 presents a summary of statistics for all the respondents who answered the question. The results show that more than 90 percent of the respondents strongly agreed or agreed that they have a better understanding of “the company’s business model and industry” and “the company’s risks and internal control environment”. Furthermore, just above 80 percent strongly agreed or agreed with the statement that they “fully understand the company’s accounting industry practices and financial reporting process”, while over 70 percent strongly agreed or agreed that they are “very familiar with the company’s business model and industry”. The results also reveal that the respondents all rated each of the five statements with a mode value of 4. In terms of mean ratings, the average ratings of four in five statements have a mean score above 4.00, except the statement “I fully understand the company’s complex business transactions and significant contracts”, which has a mean score slightly below 4.00, indicating a majority of the respondents either strongly agreed or agreed that their understanding related to the company’s risk could be place a relatively high.

Table 5.11: Level of Respondents' Understanding of the Company's Risk (Responses, % of 88)

Statement	Frequencies			Overall		
	Strongly disagree or disagree (1 or 2)	Neutral 3	Strongly agree or agree (4 or 5)	Mode	Mean	Standard Deviation
I am very familiar with the company's business model and industry.	-	8 (9.09)	80 (90.91)	4	4.22	0.60
I fully understand the company's risks and internal control environment.	-	8 (9.09)	80 (90.91)	4	4.16	0.57
I fully understand the company's policies and procedures for detecting fraud and illegal acts.	1 (1.14)	16 (18.18)	71 (80.69)	4	4.06	0.70
I fully understand the company's complex business transactions and significant contracts.	2 (2.27)	23 (26.14)	63 (71.59)	4	3.91	0.75

Source: The current study

5.4 Audit Committees' Perceptions of the Enterprise Risk Management Oversight Role

With respect to audit committees' perceptions of the enterprise risk management oversight role, participants were asked the extent to which they agreed with statements regarding the role of their committee in terms of fulfilling the oversight responsibility of enterprise risk management. The participants were required to rate each statement by using a five-point scale ranging from "strongly disagree" (given a numerical representation of 1) to "strongly agree" (a numerical representation of 5). Table 5.12 reports a summary of the statistics regarding audit committees' perceptions of the oversight responsibility of enterprise risk management.

Participants perceived the highest level of enterprise risk management oversight role in "the audit committee contributes to the governance process and enterprise risk management by providing reliable information to stakeholders" (mean response of 4.26), followed by "the role of the audit committee in the oversight of the risk management process is seen as a critical role in the integrity of financial reporting" (mean response of 4.00), and "beyond meeting the integrity of the company's accounting and reporting practices and financial statements, the audit committee considers the oversight of risk management as first priority" (mean response of 3.99). Of the four items, audit committee chairs/members appeared to perceive the least level of enterprise risk management oversight role in "the audit committee plays an important role with respect to enterprise risk management" (mean response of 3.85), compared to other statements.

In terms of percentages, 87.85 percent of the participants strongly agreed or agreed that "the audit committee contributes to the governance process and enterprise risk management by providing reliable information to stakeholders", whereas the percentage of participants that strongly agreed or agreed with the remaining three statements varied from 72.73 percent to 79.55 percent.

Table 5.12: Audit Committees' Perceptions of the Risk Oversight Responsibility (responses, % of 88)

Statement	Frequencies			Overall		
	Strongly disagree or disagree (1 or 2)	Neutral (3)	Strongly agree or agree (4 or 5)	Mode	Mean	Standard Deviation
Beyond meeting the integrity of the company's accounting and reporting practices and financial statements, the audit committee considers the oversight of risk management as first priority.	3 (3.41)	17 (19.32)	68 (77.28)	4	3.99	0.81
The role of the audit committee in the oversight of the risk management process is seen as a critical role in the integrity of financial reporting.	4 (4.54)	14 (15.91)	70 (79.55)	4	4.00	0.77
The audit committee plays an important role with respect to enterprise risk management.	4 (4.54)	20 (22.73)	64 (72.73)	4	3.85	0.84
The audit committee contributes to the governance process and enterprise risk management by providing reliable information to stakeholders.	2 (2.27)	9 (10.23)	77 (87.50)	4	4.26	0.73

Source: The current study

5.5 Audit Committee’s Activities in Overseeing the Company’s Enterprise Risk Management

The goal for this section of the study is to determine which techniques the audit committee used when overseeing the company’s risk management programme. These findings shed light on the practices of audit committees in a specific area of enterprise risk management oversight. The techniques contained in the survey were identified by reviewing the best practices for the audit committee, practical guidelines of professional firms (e.g., KPMG, PwC, EY and Deloitte), and academic literature on audit committees. Based on this review as well as interviews with 11 audit committee members, 16 techniques were identified to be important for the audit committee when carrying out its risk oversight responsibility. Participants were unable to amend or change the list of techniques provided. Participants were asked “How frequently does your audit committee use the following technique to oversee the company’s risk management?” All participants were provided with a list of 16 techniques and required to indicate the frequency of the listed techniques when performing their work with respect to the oversight of the company’s risk management at their current audit committee position by checking each the techniques on a scale of 1 (never) to 5 (always).

Table 5.13 presents summary statistics for the 16 techniques that the audit committees frequently use to oversee the company’s enterprise risk management. The three techniques that most participants either always or almost always used, with over 90 percent consist of: 94.31 percent of audit committee chairs/members always or almost always (responses of 5 and 4) “assess whether the internal audit department submits its plan to the audit committee for approval on a timely basis (at least annually) and as appropriate when updates are required”; 93.18 percent always or almost always “evaluate whether the internal control and risk management reports information is

Table 5.13: Audit Committee's Activities in Overseeing the Company's Enterprise Risk Management (Responses, % of 88)

<i>To oversee the company's risk management system we would...</i>	Frequencies			Overall		
	Never or rarely (1 or 2)	Occasionally (3)	Always or almost always (4 or 5)	Mode	Mean	Standard Deviation
learn about how the company's compliance programme implements its <i>enterprise risk management</i> , which applies across the organization.*	9 (10.23)	27 (30.68)	51 (57.99)	4	3.61	0.96
review whether the internal audit department have a risk-based audit plan based on a risk assessment accepted and approved by the board.	3 (3.41)	5 (5.68)	80 (90.91)	4	4.27	0.81
assess whether the internal audit department submits its plan to the audit committee for approval on a timely basis (at least annually) and as appropriate when updates are required.	1 (1.14)	4 (4.55)	83 (94.31)	5	4.60	0.63
evaluate whether the internal control and risk management reports information is reliable.	1 (1.14)	5 (5.68)	82 (93.18)	4	4.35	0.64
discuss the audit findings with the internal audit director at formal meetings on a regular basis.	1 (1.14)	8 (9.09)	79 (89.77)	5	4.53	0.71
conduct annual evaluations assessing the effectiveness and competence of the internal audit department.	1 (1.14)	7 (7.95)	80 (90.91)	5	4.49	0.69
seek the external auditor's views on the effectiveness of the company's risk management process.	2 (2.27)	12 (13.68)	74 (84.09)	4	4.23	0.77
discuss the audit results with the external auditor at formal meetings on a regular basis.	1 (1.14)	11 (12.50)	76 (86.36)	5	4.45	0.76

provide formal evaluations of the external auditor as well as regular feedback.	3 (3.41)	8 (9.09)	77 (87.50)	4	4.26	0.81
obtain an understanding of the extent of control testing by internal and external auditors and consider whether internal control and risk management recommendations made by internal and external auditors have been implemented by management.	14 (15.90)	26 (29.55)	48 (54.55)	3	3.59	1.15
evaluate whether the information the audit committee receives from management contains the appropriate level of detail and whether issues are explained clearly and whether discussion with internal and external auditors corroborates the information.	2 (2.27)	9 (10.23)	77 (87.50)	4	4.14	0.73
schedule regular sessions with and without the internal audit team, the external auditor and management.	1 (1.14)	7 (7.95)	80 (90.91)	5	4.48	0.69
schedule regular sessions with various members of management, such as the CFO, controller, general counsel and others as appropriate.	3 (3.41)	16 (18.18)	69 (78.41)	5	4.19	0.90
consider private audit committee sessions both before and after meetings with the internal auditor, the external auditor and management.	5 (5.68)	14 (15.91)	69 (78.41)	4	4.05	0.88
review whether the risk disclosure in the financial statements and in the related forms to be submitted to the stock exchange or the SEC are appropriate, robust and understandable.	-	7 (7.95)	81 (92.05)	4	4.34	0.62
conduct an annual committee self-evaluation, considering what the committee could have done better and what the audit committee needs to do next year.	6 (6.82)	11 (12.50)	71 (80.68)	5	4.16	0.98

*There is one respondent that did not answer this question.

Source: The current study

reliable”; and 92.05 percent always or almost always “review whether the risk disclosure in the financial statements and in the related forms to be submitted to the stock exchange or the SEC are appropriate, robust and understandable”. It can be seen that the first and second techniques that the audit committee always or almost always used was associated with audit committees’ undertaking with regard to the internal audit.

Respondents averaged a mean value of 4.0 or above on 14 out of 16 techniques, whereas the two lowest rated techniques have a mean score less than 4.0. Based on mean response, the eight highest rated techniques that the participants frequently use are:

1. Assess whether the internal audit department submits its plan to the audit committee for approval on a timely basis (at least annually) and as appropriate when updates are required (mean response of 4.60)
2. Discuss the audit findings with the internal audit director at formal meetings on a regular basis (mean response of 4.53)
3. Conduct annual evaluations assessing the effectiveness and competence of the internal audit department (mean response of 4.49)
4. Schedule regular sessions with and without the internal audit team, the external auditor and management (mean response of 4.48)
5. Discuss the audit results with the external auditor at formal meetings on a regular basis (mean response of 4.45)
6. Evaluate whether the internal control and risk management report information is reliable (mean response of 4.35)
7. Review whether the risk disclosure in the financial statements and in the related forms to be submitted to the stock exchange or the SEC are appropriate, robust and understandable (mean response of 4.34)

8. Review whether the internal audit department have a risk-based audit plan based on a risk assessment accepted and approved by the board (mean response of 4.27)

More interestingly, six of the eight highest mean rating techniques that the participants frequently used all relate to audit committee discharging their responsibilities with respect to the internal audit.

5.6 Audit Committee's Judgement Competence

The participants were asked the extent to which they agreed with statement about the audit committee's judgement competence. For each statement, a five-point Likert scale with 1 representing "strongly disagree" and 5 representing "strongly agree" was provided for the participants to indicate their responses. Table 5.14 shows survey evidence on the extent to which audit committees made judgement with respect to the audit committee oversight of enterprise risk management. Just above 90 percent of audit committee chairs/member strongly agreed or agreed that their committees are "the right size and bring requisite knowledge, abilities and skills to the oversight of risk management" and 84.08 percent strongly agreed or agreed that "the CEO and senior management proactively assess and manage the company's exposure to risk." Slightly below 80 percent of the participants strongly agreed or agreed that "the company's system of risk management processes is functioning effectively", whereas about three-quarters (76.13 percent) strongly agreed or agreed that "the external auditors are professional and have the qualifications and experience for auditing a wide range of risks." Surprisingly, while 39.77 percent of the participants strongly agreed or agreed, 37.50% strongly disagreed or disagreed that "the internal auditors are experts in internal control and risk management, and do not need to be trained".

Table 5.14: Audit Committee's Judgement Competence

Statement	Frequencies			Overall		
	Strongly disagree or disagree (1 or 2)	Neutral 3	Strongly agree or agree (4 or 5)	Mode	Mean	Standard Deviation
My audit committee is the right size and brings requisite knowledge, abilities and skills to the oversight of risk management.	-	8 (9.09)	80 (90.91)	4	4.30	0.63
The internal auditors are experts in internal control and risk management, and do not need to be trained.	33 (37.50)	20 (22.73)	35 (39.77)	2	3.06	1.25
The external auditors are professional and have the qualifications and experience for auditing a wide range of risks.	4 (4.55)	17 (19.32)	67 (76.13)	4	4.05	0.88
The company's system of risk management processes is functioning effectively.	1 (1.14)	17 (19.32)	70 (79.54)	4	4.02	0.69
The CEO and senior management proactively assess and manage the company's exposure to risk.	5 (5.68)	9 (10.23)	74 (84.09)	4	4.03	0.76

Source: The current study

Based on the mean response of 4.30, participants judged to a high degree that their audit committees are “the right size and bring requisite knowledge, abilities and skills to the oversight of risk management”. The external auditors, the CEO and senior management, and the company’s system of risk management processes were judged by the participants to have mean scores of 4.05, 4.03 and 4.02 respectively. Again, participants judged to a low extent the idea that “the internal auditors are experts in internal control and risk management, and do not need to be trained” with a mean value of 3.06 (mode = 2) compared to other judgement-related questions. It is interesting to note that these survey participants frequently used six out of the eight highest mean rating techniques associated with audit committee involvement in the internal audit function. However, almost 40 percent of the participants strongly disagreed or disagreed that “the internal auditors are experts in internal control and risk management, and do not need to be trained”. This provides some evidence that there is a need for improvement in the internal audit function within their organisation.

5.7 Audit Committee’s Perception of the Quality of Enterprise Risk Management

In terms of perception of the quality of enterprise risk management, survey participants were asked the extent to which they agreed with statements regarding their audit committees receiving the necessary resources and information from internal auditors, external auditors and management. They were also asked the extent to which they agreed with statements regarding his or her committee enhancing the company’s overall risk management process and no significant risks are overlooked.

As shown in Table 5.15, more than 80 percent of the participants strongly agreed or agreed that: “the audit committee enhances the company’s overall risk management processes” (85.23 percent), “the CEO and senior management provide the

comprehensive, reliable information the audit committee need to perform effective risk oversight and sufficient agenda time is allocated to the discussion of the company's risks with the appropriate company individuals" (84.09 percent), and "the internal audit department adequately provides concrete evidence to the audit committee to evaluate the effectiveness of risk management" (82.95 percent). Slightly less than 80 percent strongly agreed or agreed that: "no significant risks are overlooked" (78.41 percent) and "the external auditors provide substantial evidence to the audit committee on any areas related to risk management to evaluate the effectiveness of risk management" (77.27%). In terms of mean score, the range of mean responses was very narrow with a high value varied between 4.05 and 4.24.

Table 5.15: Audit Committees' Perceptions of the Quality of Enterprise Risk Management

Statement	Frequencies			Overall		
	Strongly disagree or disagree (1 or 2)	Neutral 3	Strongly agree or agree (4 or 5)	Mode	Mean	Standard Deviation
The internal audit department adequately provides concrete evidence to the audit committee to evaluate the effectiveness of risk management.	4 (4.55)	11 (12.50)	73 (82.95)	4	4.06	0.76
The external auditors provide substantial evidence to the audit committee on any areas related to risk management to evaluate the effectiveness of risk management.	3 (3.41)	17 (19.32)	68 (77.27)	4	4.05	0.80
The CEO and senior management provide the comprehensive, reliable information the audit committee need to perform effective risk oversight and sufficient agenda time is allocated to the discussion of the company's risks with the appropriate company individuals.	1 (1.14)	13 (14.77)	74 (84.09)	4	4.15	0.70
The audit committee enhances the company's overall risk management processes.	-	13 (14.77)	75 (85.23)	4	4.24	0.69
No significant risks are overlooked.	4 (4.50)	15 (17.06)	69 (78.41)	4	4.06	0.82

Source: The current study

5.8 Audit committee's effectiveness

Indeed, the term “audit committee effectiveness” has been widely used in both academic and practitioner communities. In particular, various studies in the literature on audit committees have defined/measured audit committee effectiveness in a number of ways. However, there is no consensus on its definition and meaning (e.g. Kalbers & Fogarty, 1993; Spira, 1998; DeZoort et al., 2002; Cohen et al., 2004; Turley & Zaman, 2004; Gendron & Bédard, 2006; Bédard & Gendron, 2010). According to Kalbers and Fogarty (1993, 1998), effectiveness is regarded as the competency with which the audit committee performs its specific oversight responsibilities. They consider “audit committee effectiveness as a complex concept for which the substance that underlies the form of procedures must be examined” (Kalbers & Fogarty, 1993:25). In the context of this study, audit committee effectiveness is concerned with the role of the audit committee oversight of enterprise risk management. This current study adapted multiple items used by Grinaker et al. (1978b) and Kalbers and Fogarty (1993, 1998) to measure the dimensions of audit committee effectiveness.

It should be noted that although the respondents of the current study were asked to evaluate their committees in relation to the effectiveness of audit committee in overseeing companies' enterprise risk management system, the study does not focus specifically on either of these as a primary variable in the hypotheses testing. In fact, as with all self-reported data, there is a potential for common method biased (CMB) resulting the same method or part of method being used for multiple measurements such as perception of the importance of ERM and judgement competence (Podsakoff & Organ, 1986; Podsakoff et al., 2003). Following the recommendations of Lindell and Whitney (2001) and Williams et al. (2010) the current study employs a marker variable technique to test the threat of CMB (see Section 6.3). According to Lindell and Whitney

(2001) and Williams et al. (2010), a marker variable should be theoretically unrelated with the constructs under study. As a consequence, this study a priori decided to include the construct ‘audit committee’s effectiveness’ into the questionnaire survey for the purpose of detecting CMB. Based on the reason above, the study, therefore, does not include audit committee effectiveness in the theoretical framework for testing hypotheses.

As can be seen in Panel A of Table 5.16, just over 80 percent of audit committee chairs/members strongly disagreed or disagreed that their committee achieve “very little in overseeing the company’s risk management”. In other words, they believe that their committees had accomplished a relatively large amount in overseeing the company’s risk management”. Over three-fourths (76.14 percent) of the participants strongly agreed or agreed that their committees had served an important need in those companies in terms of risk management oversight. Meanwhile, 70.45 percent strongly agreed or agreed that committees which had performed risk management oversight in the company they had served proved to be very effective. It is interesting to note that just under half of the participants strongly agreed or agreed with the statements: “the risk oversight performance of this audit committee is probably better than most other audit committees” (44.31 percent) and “other audit committees would do well to use this audit committee as a model for the risk management oversight” (44.32 percent).

Regarding mean score, because the first statement is a negative statement, it therefore had a low mean response of 1.89. The remaining four statements had mean scores varying from 3.33 to 3.90. This study also asked participants to indicate to what extent their committees achieve the goal of risk management oversight: on a scale of 1 to 10, with 10 representing the highest level and 1 indicating the lowest level, “how well do you believe the audit committee accomplished the responsibility of risk management

Table 5.16: Effectiveness of Audit Committees

Panel A

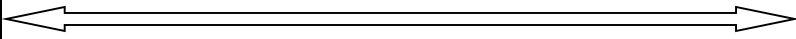
Statement	Frequencies			Overall		
	Strongly disagree or disagree (1 or 2)	Neutral 3	Strongly agree or agree (4 or 5)	Mode	Mean	Standard Deviation
The audit committee accomplishes very little in overseeing the company's risk management.	71 (80.68)	13 (14.77)	4 (4.55)	2	1.89	0.86
As regards risk management oversight, the audit committee serves an important need in this company.	5 (5.68)	16 (18.18)	67 (76.14)	4	3.90	0.86
The audit committee's oversight of risk management in this company is very effective.	7 (7.95)	19 (21.60)	62 (70.45)	4	3.81	0.83
The risk oversight performance of this audit committee is probably better than most other audit committees.	12 (13.64)	37 (42.05)	39 (44.31)	3	3.34	0.92
Other audit committees would do well to use this audit committee as a model for the risk management oversight.	11 (12.50)	38 (43.18)	39 (44.32)	3	3.33	0.88

Source: The current study

Table 5.14 continued

Table 5.14 continued

Panel B

	Frequencies										Overall		
	Lowest									Highest	Mode	Mean	Standard Deviation
	1	2	3	4	5	6	7	8	9	10			
On a scale of 1 to 10, with 10 representing the highest level and 1 indicating the lowest level, how well do you believe the audit committee has accomplished the responsibility of risk management oversight?	-	-	1 (1.14)	3 (3.41)	-	9 (10.23)	13 (14.77)	44 (50.00)	12 (13.64)	6 (6.82)	8	7.73	1.32

Source: The current study

oversight?” As shown in Panel B of Table 5.16, overall, audit committee chairs/members in this survey believe that their audit committee had performed effectively (mean = 7.73; mode = 8) in the oversight of enterprise risk management.

5.9 Chapter Summary

This chapter presents descriptive analysis (i.e. frequency, mode, mean and standard deviation) of the data obtained from the questionnaire survey. The results in this chapter focus on answering the first research question: to what extent is there a background of audit committee oversight of enterprise risk management practices within Thai public company audit committees? Also, this basic data set was used for the statistical analysis in the next chapter in order to test the hypotheses.

The results reveal that just above a quarter of the participants in the sample believe that companies in which they had worked as part of the audit committee have mature and robust risk management systems in place, while more than half of the survey audit committee chairs/members indicate that their companies have implemented risk management systems, but they require substantial work. 42 percent of the respondents indicated they oversee all major risks in their companies, whereas 28 percent reported they have primary responsibility to oversee financial risks, regulatory compliance risks, and operational risks. A majority of the participants perceived a relatively high level of risk oversight role. Six of the eight highest mean rating techniques that the participants frequently used in oversight of enterprise risk management all relate to audit committee involvement in the internal audit function. However, almost 40 percent of the participants strongly disagreed or disagreed that “the internal auditors are experts in internal control and risk management, and do not need to be trained”. A majority of the participants believe that their audit committees, internal auditors, external auditors and management enhance companies’ risk management programmes. In addition, on

average, audit committee chairs/members in this survey believe that their audit committee had performed effectively in oversight of enterprise risk management.

The next chapter presents the hypotheses testing results.

CHAPTER 6

Hypotheses Testing

6.1 Introduction

Based on the data collected from the questionnaires, the previous chapter illustrated the results of the descriptive data analysis. The aims of this chapter are to explain all the steps undertaken in the measurement of constructs used for the current study and present the statistical findings relating to the hypotheses that were proposed in Chapter 3. This chapter is structured as follows: Section 6.2 begins with an overview of the research objectives and hypotheses. Section 6.3 discusses an assessment of common method bias. The measurement of constructs and assessing the dimensionality are described in section 6.4. The statistical methods used for testing the hypotheses and the findings are presented in sections 6.5 and 6.6, respectively. Section 6.7 provides a discussion of the findings. Finally, a summary of the chapter is presented in section 6.8.

6.2 Overview of Research Objective and Hypotheses

Research Objective 2: To examine how audit committee members' perceptions of the oversight of enterprise risk management and oversight activities influence their judgement competence and perceptions of the quality of enterprise risk management system.

To achieve this objective, the following hypotheses were investigated. These hypotheses are developed on the basis of the theoretical framework, which underpin the process thinking model (Rodgers, 1991; 1992; Rodgers & Housel, 2004; Foss & Rodgers, 2011) and psychological theories of information processing, perception,

judgement and decision-making (Tushman & Nadler, 1978; Gibson, 1988; Luthans, 1998; Blanchette & Richards, 2009; Huczynski & Buchanan, 2013) as provided in Chapter 3.

Hypothesis 1: Audit committee members' perceptions of the high importance of enterprise risk management oversight will be positively related to their judgement competence.

Hypothesis 2: Audit committee members' perceptions of the high importance of enterprise risk management oversight will be positively related to their perceptions of the high quality of enterprise risk management.

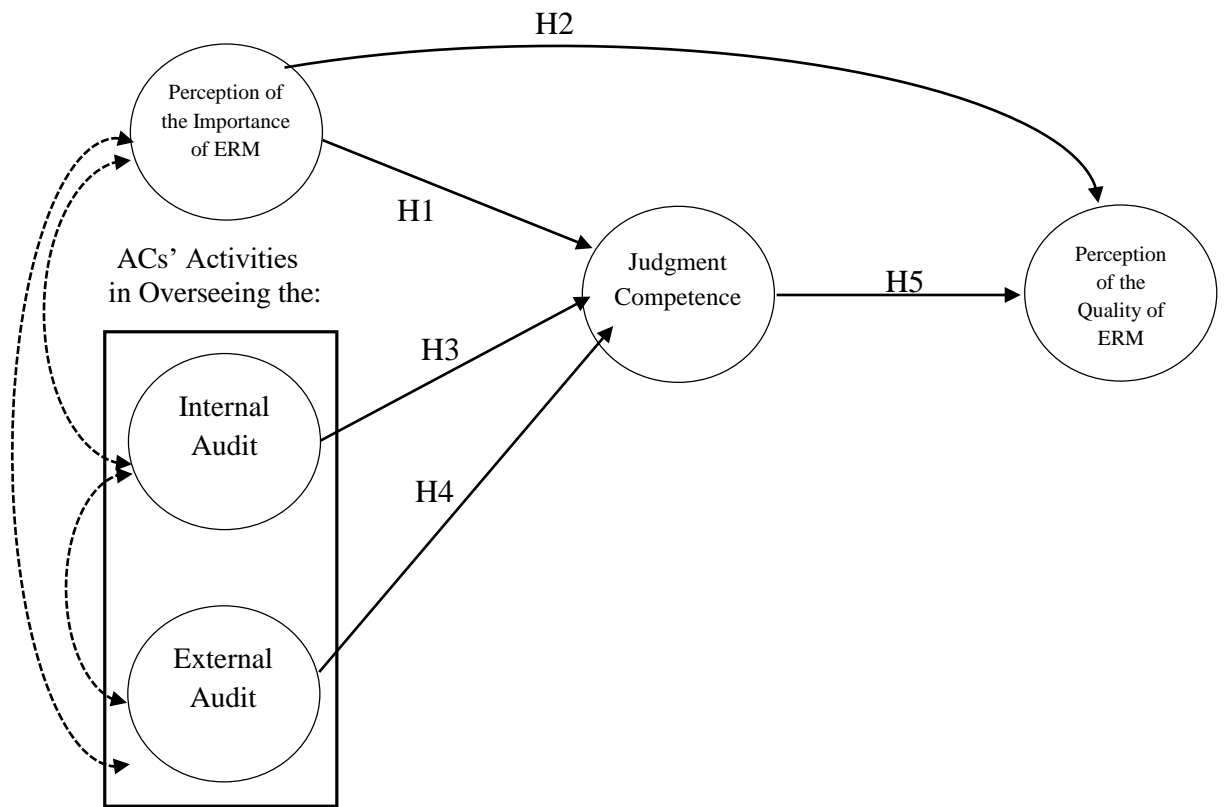
Hypothesis 3: Audit committee members' activities in evaluating the internal audit function will be positively related to their judgement competence.

Hypothesis 4: Audit committee members' activities in evaluating the external audit function will be positively related to their judgement competence.

Hypothesis 5: Audit committee members' judgment competence will be positively related to their perceptions of the quality of enterprise risk management.

The hypotheses are summarized graphically in Figure 6.1.

Figure 6.1: Hypothesized Relationships



Source: The current study

6.3 Common Method Bias

Given that both the independent and dependent variables were obtained through self-reports, common method bias (CMB) was considered for the study. According to Bagozzi and Yi (1991), common method variance (CMV) or common method bias refers to variance or bias “that is attributable to the measurement method rather than to the construct of interest. The term ‘method’ refers to the form of measurement at different levels of abstraction such as the content of specific items, scale type, response format, and the general context (Fiske 1982:81-84). For example, methods can be specific to an item (e.g. item wording) that is similar to specific or unique factors in classical test score theory but different from common method factors (e.g. scale type). At a more abstract level, method effects might be interpreted in terms of response biases

such as halo effects, social desirability, acquiescence, leniency effects, or yea- and nay-saying” (Bagozzi & Yi, 1991:426).

Following the recommendations of Podsakoff et al. (2003), this study controlled for method biases in two ways. Firstly, the current study attempted to remedy the severity of method bias in the design of the study’s procedures by dividing the measurement of the independent and dependent variables, protecting the respondent’s anonymity, and counterbalancing the order of the measurement items. Secondly, data analysis techniques were conducted to control for method variance problems. A Harman’s one-factor test was performed on the measurement items to assess the issue of CMB. The results of the test yielded seven factors, the largest of which accounts for 38.13 percent of the variance, suggesting the threat of CMB in the model to be low.

While Harman’s one-factor test method has some weaknesses and is never fully able to resolve this issue, the correlation-based marker variable technique was also performed to check for CMB as suggested by Lindell and Whitney (2001) and the procedure used by Malhotra et al. (2006). Theoretically, a marker variable should be unrelated to at least one construct in the study (Malhotra et al., 2006; Bagozzi, 2011). To address CMB, a scale that is theoretically unrelated to the constructs under the study should be included in the questionnaire before starting the data collection. However, it is possible to identify a marker variable in a post hoc technique¹⁴. Particularly, Lindell and Whitney (2001:115) suggest that “the smallest correlation among the manifest variables provides a reasonable proxy of CMV”. Accordingly, the lowest correlation marker variable (R_M) collected during the survey administration was identified. This study regarded the scale “the risk management oversight performance of this audit

¹⁴ Post-hoc technique (Latin, meaning “after this”) means to analyse the results of research data. For example, post-hoc pairwise comparisons are commonly performed after significant effects have been found when there are three or more levels of a factor. After an ANOVA, a researcher may know that the means of response variable differ significantly across factor, but a researcher do not know which pairs of the factor levels are significantly different from each other. At this point, it can be conducted pairwise comparisons.

committee is probably better than most other audit committees” in the section of VI. Effectiveness of the questionnaire to be a marker variable. After adjusting for CMB, the average value of adjusted correlations was found to decrease to 0.086. The results of the partial correlation matrices were compared indicating that all significant correlations remain significant after the partial correlation adjustment. These results provide evidence that a common method bias is not a significant threat in this study. The results of the Harman’s one-factor test and marker variable test for CMB are presented in Appendix C.

6.4 Measurement of Constructs and Assessing the Dimensionality

In measuring the five constructs used for this study, all latent constructs are assumed as reflective constructs. For reflective constructs, indicators are conceptualised as reflections or manifestations of an underlying construct. In other words, latent constructs cause the measured variables. Under a reflective measurement model, indicators are interchangeable and changing certain reflective indicators does not alter the underlying concept of the construct and does not cause dire substance in terms of conceptual misspecification. With the first step of the construct quality assessment procedure, the dimensionality of the individual constructs of the study was assessed. Unidimensionality is defined as each measure reflecting only one single latent construct without significantly reflecting any other construct (Gefen, 2003). Anderson et al. (1987) point out that accomplishing unidimensional measurement is a critical criteria in theory testing and development research. According to Hattie (1985:49), the importance of unidimensionality is that “a set of items forming an instrument all measure just one thing in common is a most critical and basic assumption of measurement theory”.

In order to achieve unidimensional measurement, this study followed the procedures recommended by Churchill (1979), Gerbing and Anderson (1988), Segars

(1997) and Hinkin (1998). Cronbach's alpha and exploratory factor analysis are used to test the unidimensional measurement properties of the study variables (Bouwens & Van Lent, 2007; Hair et al., 2010). Cronbach's alpha is an assessment of internal consistency; that is, how closely associated a set of items (indicators) are as a group. It represents a measure of scale reliability. Nonetheless, a high value of alpha does not indicate that the measure is unidimensional. In order to further measuring internal consistency, the researcher needs to provide evidence whether the scale in question is unidimensional. Thus, exploratory factor analysis is used to check dimensionality (Hinkin, 1998). Fundamentally, the use of factor analysis as a data unidimensional technique is based on having a conceptual basis for any observed variables analysed. In the subsequent sections, each measure construct in the study is extended to analyse the internal consistency reliability and dimensionality of the constructs.

6.4.1 Perception of the Importance of Enterprise Risk Management

In order to construct the measure of *perception of the importance of ERM*, four items were developed based on interviews with audit committee members, and the underlying academic and practice literature. Respondents were asked to indicate the extent to which an individual perceived the importance of the audit committee's oversight role in enterprise risk management. Each was rated on five-point Likert scales ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Table 6.1 displays Cronbach's alpha values and the results of factor analysis for *perception of the importance of ERM* scales. The alpha coefficient for the four items is 0.801, indicating that the indicators of the perception construct have relatively high internal consistency. For investigating the dimensionality of the scale, the four items measuring perception were analysed using principal component analysis. The goal of data unidimensionality is achieved by

Table 6.1: Cronbach's Alpha and Factor Analysis of Perception of the Importance of ERM Scales

Quest. Items	Item Wording	Factor Loadings
PIE1	Beyond meeting the integrity of the company's accounting and reporting practices and financial statements, the audit committee considers the oversight of risk management as first priority.	0.847
PIE2	The role of the audit committee in the oversight of the risk management process is seen as a critical role in the integrity of financial reporting.	0.774
PIE3	The audit committee plays an important role with respect to enterprise risk management.	0.807
PIE4	The audit committee contributes to the governance process and enterprise risk management by providing reliable information to stakeholders.	0.735
Eigenvalue		2.509
Cumulative variance		62.714%
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.725
Bartlett's Test of Sphericity	Approx. Chi-Square	112.556
	df	6
	Sig.	0.000
Cronbach's alpha		0.801

Note: Extraction method: Principal Component Analysis.
One component extracted.

Source: The current study

defining where individual items are grouped and then viewed not for what they represent individually, but for what they represent collectively in expressing a concept. As can be seen, factor analysis reveals that the items load on a single factor as expected. All of the loadings of items are above 0.70, ranging from 0.735 to 0.847. The eigenvalue for the factor is 2.509. The Bartlett's test of sphericity is significant (sig. < 0.000). The value of the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy is 0.725, which is above the 0.6 standard (Hair et al., 2010). These statistics confirm the

suitability of the data for factor analysis. Moreover, the cumulative variance shows that the factor accounts for 62.71 percent of the total variance, suggesting the measure is unidimensional. Combining all these results together leads to the conclusion that the scale indicators for the construct of perception have an adequate internal consistency reliability and are unidimensional.

6.4.2 Audit Committees' Oversight Activities

Because previous findings on the audit committee literature are largely unavailable for certain techniques used by audit committees in overseeing companies' enterprise risk management. In addressing audit committee involvement in oversight of enterprise risk management, this study therefore developed the list of 16 techniques based on the preliminary interviews with 11 audit committee chairs/member, the extant audit committee literature (Gendron et al., 2004; Gendron & Bédard, 2006; Beasley et al., 2009b) and practical guidelines of professional firms (e.g. KPMG, PwC, EY and Deloitte). Although the internal audit function and external audit function have been identified as two parties with which audit committees are most involved, this study, however, chooses to explore a broad range of techniques that audit committees may frequently employ when audit committees oversee companies' enterprise risk management. According to a practice development perspective, audit committees are not involved only with the internal and external audit functions in carrying out the oversight of enterprise risk management. Indeed, they are also involved with several members of management, such as the CFO, controller, and general counsel etc. This is consistent with the preliminary interviews with audit committee members, conducted when the pre-test was undertaken, which indicated that audit committees were typically involved with a number of parties in an organisation when they discharged their responsibility in overseeing a company's risk management. Based on the set of 16

techniques, respondents were asked “How frequently does your audit committee use the following techniques to oversee the company’s risk management?”, and these items were scored from 1 (“never”) to 5 (“always”).

Conway and Huffcutt (2003) point out that exploratory factor analysis is appropriate for reducing a large set of observed variables to a smaller set of variables and to confirm that the scale or subscale is unidimensional. Once exploratory factor analysis is undertaken, the loadings of each item on the factors should be examined to identify the underlying structure of the variables. According to Hair et al. (2010) and Hinkin (1998), a significant loading refers to a loading above 0.40. Any items that do not have adequate factor loading are marked as candidates for deleting. Moreover, items with cross-loadings greater than 0.40 should be excluded from the analysis. As Table 6.2 shows, component analysis factor matrices of the 16 items reveal four factors. It appears that OVA1 cross-loads on factors 1 and 4, and OVA10 also cross-loads on factors 3 and 4. Consistent with Hair et al. (2010) and Elbashir et al. (2011), when items from the measurement list have high cross-loadings (greater than or closer to the threshold of 0.40), the course of action taken is to delete those items from the analysis. Also Hinkin (1998:112) notes that “the researcher should retain only those items that clearly load on a single appropriate factor”. Thus, OVA1 and OVA10 are removed.

In terms of content validity, Hinkin (1998:112) states that “[t]he number of factors to be retained depends on both underlying theory and quantitative results. The researcher should have a strong theoretical justification for determining the number of factors to be retained, and the examination of item loadings on latent factors provides a confirmation of expectations... The objective is to identify those items that most clearly represent the content domain of the underlying construct.” As can be seen, the item OVA15 [*“Review whether the risk disclosure in the financial statements and in the related forms to be submitted to the stock exchange or the SEC are appropriate, robust*

and understandable”] loaded on factor 1. However, it does not match well with the content domain of the underlying construct compared to other items in the same construct. Accordingly, OVA15 is excluded.

In addition, the items OVA11 [*“Evaluate whether the information the audit committee receives from management contains the appropriate level of detail and whether issues are explained clearly and whether discussion with internal and external auditors corroborates the information”*] and OVA12 [*“Schedule regular sessions with and without the internal audit team, the external auditor and management”*] load on factor 2 are also subjected to content validity considerations. Even though these two items seem to be associated with OVA7, OVA8 and OVA9, they however do not clearly represent the content domain of the underlying construct. As a result, OVA11 and OVA12 are discarded from the analysis.

Regarding OVA13, OVA14, and OVA16, they are considered for further analysis. Based on Nunnally (1978), acceptable levels of reliability for exploratory research are at least 0.60. The Cronbach’s alpha value of the three items is 0.59 indicating these items did not meet acceptable levels of reliability and hence the items were excluded. Although they are constructed to analyse with PLS-SEM, the measurement model indicates that the items should be removed from the analysis because they do not meet the established requirements of PLS-SEM.

After the first analysis, the remainder of the items are resubmitted to another round of factor analysis. As presented in Panel B of Table 6.2, with eight items remaining, two factors are found to provide a factor structure. Statistics for the Bartlett’s test of sphericity are significant (sig. = 0.000) and the KMO measure of sampling adequacy is greater the 0.60 criterion (Hair et al., 2010). These statistics indicate that the eight items were suitable for factor analysis to be applied. The first factor consists of

five items (OVA2, OVA3, OVA4, OVA5 and OVA6). All of the loadings of the five items are above 0.50, ranging from 0.551 to 0.817. The eigenvalue for the factor is 3.779. The percentage of variance shows that the first factor accounts for 47.22 percent of the total variance. The Cronbach's alpha is 0.827, which indicates high internal consistency. These items relate to the audit committee involvement in the internal audit function. The first factor therefore was labelled *Internal Audit*. The second factor comprises three items (OVA7, OVA8 and OVA9). All of the loadings of the three items are greater than 0.70, varying between 0.733 and 0.845. The eigenvalue for the factor is 1.397. It explains 17.46 percent of the variance. The Cronbach's alpha is 0.764, providing reasonable support for the use of the summed measure in the analysis. These items were related to the audit committee involvement in the external audit function. Accordingly, the second factor is labelled *External Audit*.

Table 6.2: Factor Analysis of Audit Committees' Oversight Activities

Panel A: Varimax-rotated component analysis factor matrices: full sets of variable

Quest. Items	Item Wording	Factor 1	Factor 2	Factor 3	Factor 4
OVA1	Learn about how the company's compliance programme implements its enterprise risk management, which applies across the organization.	0.412	0.017	0.255	0.696
OVA2	Review whether the internal audit department have a risk-based audit plan based on a risk assessment accepted and approved by the board.	0.807	0.021	0.079	0.278
OVA3	Assess whether the internal audit department submits its plan to the audit committee for approval on a timely basis (at least annually) and as appropriate when updates are required.	0.777	0.146	0.092	-0.079
OVA4	Evaluate whether the internal control and risk management reports information is reliable.	0.611	0.303	0.103	0.296
OVA5	Discuss the audit findings with the internal audit director at formal meetings on a regular basis.	0.665	0.351	0.395	-0.086
OVA6	Conduct annual evaluations assessing the effectiveness and competence of the internal audit department.	0.548	0.249	0.385	-0.315
OVA7	Seek the external auditor's views on the effectiveness of the company's risk management process.	0.343	0.733	0.037	0.067
OVA8	Discuss the audit results with the external auditor at formal meetings on a regular basis.	0.204	0.822	0.019	0.150
OVA9	Provide formal evaluations of the external auditor as well as regular feedback.	-0.024	0.557	0.125	0.354
OVA10	Obtain an understanding of the extent of control testing by internal and external auditors and consider whether internal control and risk management recommendations made by internal and external auditors have been implemented by management.	0.010	0.320	0.621	0.417
OVA11	Evaluate whether the information the audit committee receives from management contains the appropriate level of detail and whether issues are explained clearly and whether discussion with internal and external auditors corroborates the information.	0.169	0.648	0.234	0.170

OVA12	Schedule regular sessions with and without the internal audit team, the external auditor and management.	0.130	0.756	0.234	-0.63
OVA13	Schedule regular sessions with various members of management, such as the CFO, controller, general counsel and others as appropriate.	0.059	0.328	0.625	0.143
OVA14	Consider private audit committee sessions both before and after meetings with the internal auditor, the external auditor and management.	0.220	0.077	0.666	0.228
OVA15	Review whether the risk disclosure in the financial statements and in the related forms to be submitted to the stock exchange or the SEC are appropriate, robust and understandable.	0.619	0.256	0.181	0.165
OVA16	Conduct an annual committee self-evaluation, considering what the committee could have done better and what the audit committee needs to do next year.	0.199	-0.038	0.719	-0.052
Eigenvalue		5.995	1.722	1.385	1.121
% of variance		37.470%	10.762%	8.656%	7.004%
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			0.794		
Bartlett's Test of Sphericity		Approx. Chi-Square	596.248		
		df	120		
		Sig.	0.000		

Source: The current study

Table 6.2 continued

Table 6.2 continued

Panel B: Varimax-rotated component analysis factor matrices: reduced sets of variable

Quest. Items	Item Wording	Factor 1	Factor 2
OVA2	Review whether the internal audit department have a risk-based audit plan based on a risk assessment accepted and approved by the board.	0.774	0.089
OVA3	Assess whether the internal audit department submits its plan to the audit committee for approval on a timely basis (at least annually) and as appropriate when updates are required.	0.817	0.088
OVA4	Evaluate whether the internal control and risk management reports information is reliable.	0.551	0.372
OVA5	Discuss the audit findings with the internal audit director at formal meetings on a regular basis.	0.782	0.319
OVA6	Conduct annual evaluations assessing the effectiveness and competence of the internal audit department.	0.750	0.124
OVA7	Seek the external auditor's views on the effectiveness of the company's risk management process.	0.345	0.733
OVA8	Discuss the audit results with the external auditor at formal meetings on a regular basis.	0.208	0.845
OVA9	Provide formal evaluations of the external auditor as well as regular feedback.	-0.031	0.814
Eigenvalue		3.779	1.397
% of variance		47.222%	17.464%
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.799	
Bartlett's Test of Sphericity		Approx. Chi-Square	276.889
		df	28
		Sig.	0.000
Cronbach's alpha for each factor		0.827	0.764

Note: Extraction method: Principal Component Analysis.

Rotation method: Varimax with Kaiser Normalization.

Two components extracted.

Source: The current study

6.4.3 Judgement Competence

Judgement competence is measured by using three items adapted from Foss and Rodgers (2011) and two newly developed items. Respondents were asked to indicate the extent to which they agree or disagree with statements relating to: (1) his/her committee size, abilities, and skills; (2) the quality and skills of internal auditors; (3) the quality and skills of external auditors to oversee a company's risk management; (4) the effectiveness of the company's risk management system; and (5) whether the CEO and senior management proactively assess and manage the company's exposure to risk. These five items are intended to load primarily on a single factor.

As shown in Table 6.3, the results of the principal components analysis reveal two factors whose eigenvalues are greater than one. The Bartlett's test of sphericity is significant (sig. = 0.000). The result of the KMO measure of sampling adequacy is 0.625. These statistics confirmed the factorability of the five items. The first factor consists of three items (JUD1, JUD2 and JUD3). As mentioned above, these three items are adapted from Foss and Rodgers (2011). All of the loadings of the three items are greater than 0.40, ranging from 0.420 to 0.899. The factor captures 48.30 percent of the explained variance. The eigenvalue for the factor is 2.415. The Cronbach's alpha is 0.673.

Conversely, it is expected that the two new items load on a different factor. All of the loadings of the two items are more than 0.80, ranging from 0.853 to 0.899. The eigenvalue for the factor is 1.110. It explains 22.20 percent of the variance and obtained a reliability estimate of 0.768. The preliminary analysis of the two items seems to be suitable for further analysis with PLS-SEM. Thus, they are constructed to analyse with PLS-SEM. After PLS-SEM is performed, the measurement model indicates that JUD4

and JUD5 items do not meet the rules of thumb (see Figure 6.2) for assessing the measurement of PLS-SEM. As a result, JUD4 and JUD5 are excluded from the analysis.

It can be concluded that only JUD1, JUD2 and JUD3 are summed to form the construct *Judgement competence* for use in the analysis.

Table 6.3: Cronbach's Alpha and Factor Analysis of Judgement Competence Scales

Quest. Items	Item Wording	Factor 1	Factor 2
JUD1	My audit committee is the right size and brings requisite knowledge, abilities and skills to the oversight of risk management.	0.420	0.263
JUD2	The internal auditors are experts in internal control and risk management, and do not need to be trained.	0.883	0.104
JUD3	The external auditors are professional and have the qualifications and experience for auditing a wide range of risks.	0.899	0.159
JUD4	The company's system of risk management processes is functioning effectively.	0.225	0.853
JUD5	The CEO and senior management proactively assess and manage the company's exposure to risk.	0.078	0.899
Eigenvalue		2.415	1.110
% of variance		48.297%	22.199%
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.625	
Bartlett's Test of Sphericity		Approx. Chi-Square	121.926
		df	10
		Sig.	0.000
Cronbach's alpha for each factor		0.673	0.768

Note: Extraction method: Principal Component Analysis.
Rotation method: Varimax with Kaiser Normalization.
Two components extracted.

Source: The current study

6.4.4 Perception of the Quality of Enterprise Risk Management

Five survey scales were developed to measure the construct of *perception of the quality of ERM*. Three questions were asked to the respondents to indicate the extent to which their decision-making related to the adequacy, relevance, and reliability of information provided by: (1) internal auditors; (2) external auditors; and (3) management. Two items were asked to indicate to what extent an audit committee chair/member believed that: (1) his or her committee enhances the company's overall risk management process; and (2) no significant risks are overlooked. All ratings were made on a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The results of principal component analysis and Cronbach's alpha are presented in Table 6.4. The coefficient alpha has a value of 0.906, suggesting that the indicators of the measure have relatively high internal consistency. Looking at the factor analysis results, only one component was extracted. The loadings of four items (PQE1, PQE3, PQE4 and PQE5) are above 0.70, ranging from 0.709 to 0.823. Only the loading of DEC2 is just below the 0.70. However, it is still included for the analysis. The eigenvalue for the factor is 3.655. The Bartlett's test of sphericity is significant (sig. = 0.000). The value of the KMO statistic is 0.868, which is within the acceptable range suggesting that the sets of items met the basic requirements for factor analysis. Specifically, the explained variance shows that the factor accounts for 73.107 percent of the total variance, suggesting the measure is unidimensional. Collectively, these tests indicate that the scale indicators for the construct of decision choice have an adequate internal consistency reliability and are unidimensional.

Table 6.4: Cronbach's Alpha and Factor Analysis of Perception of the Quality of ERM Scales

Quest. Items	Item Wording	Factor Loadings ¹
PQE1	The internal audit department adequately provides concrete evidence to the audit committee to evaluate the effectiveness of risk management.	0.823
PQE2	The external auditors provide substantial evidence to the audit committee on any areas related to risk management to evaluate the effectiveness of risk management.	0.681
PQE3	The CEO and senior management provide the comprehensive, reliable information the audit committee need to perform effective risk oversight and sufficient agenda time is allocated to the discussion of the company's risks with the appropriate company individuals.	0.715
PQE4	The audit committee enhances the company's overall risk management processes.	0.728
PQE5	No significant risks are overlooked.	0.709
Eigenvalue		3.655
Cumulative variance		73.107%
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.868
Bartlett's Test of Sphericity	Approx. Chi-Square	274.374
	df	10
	Sig.	0.000
Cronbach's alpha		0.906

Note: Extraction method: Principal Component Analysis.
One component extracted.

Source: The current study

6.5 Data Analysis via Structural Equation Modelling

In this study, the hypotheses were tested with structural equation modelling (SEM) using partial least squares (PLS) technique. The study employed SmartPLS 3.2 with bootstrapping as a resampling method (500 random samples) to estimate the

measurement model (relating the latent constructs and their observed indicators) and the structural model (which specifies the relationships between latent constructs along with the significance of the path coefficients). As discussed in Chapter 4, PLS is a component-based structural equation modelling technique that aims to maximise latent variable explanation while minimizing measurement errors. Moreover, PLS is able to simultaneously test the measurement model and the structural model. Similar to covariance-based structural equation modelling techniques, PLS typically performs model assessment in two sequent stages:

1. Assessment of measurement model
2. Assessment of structural model

Following the suggestions of Chin (1998b), Hulland (1999) and Hair et al. (2014), the reliability (individual item reliability and composite reliability) and validity (convergent and discriminant validity) of the measurement model is first evaluated to ensure that the constructs' measurements are reliable and valid before examining the nature of the relationships between the constructs in the structural model. Accordingly, the assessment of the measurement model is first discussed, followed by the examination of the hypothesised relationships in the structural model.

6.5.1 Assessing the Measurement Model

After assessing the measurement of each individual construct in the study and the PLS—SEM estimation procedure is completed, the next step is to assess the measurement model. It is important to note that the structural model results are not examined unless the reliability and validity of the constructs have been established. Meeting the rules of thumb for assessing measurement models is essential to ensure that the PLS—SEM results obtained are truly representative of the sample and that the study obtains the best results possible. Thus, any serious violations of the rules of thumb must

be detected and corrected if all possible. The four criteria to be addressed for the measurement model are internal consistency reliability, indicator reliability, convergent validity, and discriminant validity. For the purposes of the measurement model assessment, Table 6.1 summarises the rules of thumb concerning evaluating the overall model quality.

Figure 6.2: Rules of Thumb for Assessing Measurement Models

1. Indicator reliability: the indicator's outer loadings should be higher than 0.708. Indicators with outer loadings between 0.40 and 0.70 should be considered for removal only if the deletion leads to an increase in composite reliability and average variance extracted (AVE) above the suggested threshold value.
2. Internal consistency reliability: composite reliability should be higher than 0.708 (in exploratory research, 0.60 to 0.70 is considered acceptable). Consider Cronbach's alpha as a conservative measure of internal consistency reliability.
3. Convergent validity: an AVE should be higher than 0.50.
4. Discriminant validity:
 - An indicator's outer loadings on a construct should be higher than all its cross loadings with other constructs
 - The square root of the AVE of each construct should be higher than its highest correlation with any other construct (Fornell-Larcker criterion).

Source: Hair et al. (2014:107)

Outer loading, Cronbach's alpha and composite reliability are used to assess individual indicator and internal consistency reliability. To evaluate convergent validity, the outer loadings of the indicators and the average variance extracted (AVE) are examined. Additionally, discriminant validity is assessed by examining the Fornell-Larcker criterion and each indicator's cross loadings on a construct.

The following sections discuss the assessment of the measurement model by examining individual indicator reliability, internal consistency, reliability, convergent validity and discriminant validity.

6.5.1.1 Reliability Assessment—Individual Indicator Reliability

Reliability refers to the consistency of a measure. A measure is reliable (in the form of test-retest reliability) if it is able to produce consistent outputs under consistent conditions. The internal consistency reliability is commonly used as a measure of reliability (Hair et al., 2014). Thus, individual indicator (item) reliability and internal consistency reliability are assessed for the reliability of the constructs in the measurement model.

Firstly, the size of the outer loadings on a construct provides evidence of individual indicator reliability. High outer loadings indicate that the associated observed variables (indicators) have much in common, which is captured by the construct. As guidelines, indicator's outer loadings of 0.708 or higher are regarded as satisfactory (Hair et al., 2014). Generally, 0.7 is considered close enough to 0.708 to be acceptable. The five constructs for this study contain 20 indicators or items: perception (PIE1-PIE4), internal audit (OVA2-OVA6), external audit (OVA7-OVA9), judgement (JUD1-JUD3), and decision choice (PQE1-PQE5). All five constructs are reflective constructs. Table 6.5 illustrates the outer loading of all indicator variables. As can be seen, the lowest outer loading obtained is 0.714 (OVA2), while the highest outer loading is 0.911 (PQE1). All indicators' outer loadings are well above the critical level of 0.708. Therefore, this establishes the individual indicator reliability of the measurement model in the study.

Table 6.5: Outer Loadings of the Indicators

Constructs Indicators	Perception	Internal audit	External audit	Judgement	Decision choice
PIE1	0.851				
PIE2	0.775				
PIE3	0.798				
PIE4	0.740				
OVA2		0.714			
OVA3		0.728			
OVA4		0.732			
OVA5		0.860			
OVA6		0.795			
OVA7			0.793		
OVA8			0.843		
OVA9			0.829		
JUD1				0.761	
JUD2				0.731	
JUD3				0.827	
PQE1					0.911
PQE2					0.847
PQE3					0.841
PQE4					0.834
PQE5					0.836

Source: The current study

6.5.1.2 Reliability Assessment—Internal Consistency Reliability

Internal consistency reliability of the measures is then examined. For PLS-SEM assessment of reflective measurement models, Hair et al. (2014) recommend that composite reliability is more appropriate to be a measure of internal consistency reliability than Cronbach's alpha because Cronbach's alpha is sensitive to the number of indicators in the construct and its limitation in the population. Internal consistency reliability is an assessment of reliability used to judge the degree of consistency of results between multiple measurements of a variable. If the correlations between the indicators (items) are large, it means that the individual indicators or items of the scale measuring a construct are similar in their scores. Cronbach's alpha is the traditional criterion for internal consistency and a widely used measure. Generally, the lower limit

for Cronbach's alpha is 0.70, even though it may decrease to 0.60 in exploratory research. Hair et al. (2014) suggest that Cronbach's alpha may be used as a conservative measure for examining internal consistency reliability. In terms of the PLS—SEM assessment of the measurement model, composite reliability seems to be more appropriate to evaluate internal consistency reliability. Both Cronbach's alpha and composite reliability vary between 0 and 1, with higher values representing higher levels of reliability. In particular, Nunally and Bernstein (1994) suggest that composite reliability values between 0.70 and 0.90 are desirable for more advanced stages of research, while values between 0.60 and 0.70 are acceptable in exploratory research.

Table 6.6 presents Cronbach's alpha and composite reliability. The value of Cronbach's alpha is between 0.680 and 0.908. All the Cronbach's alpha values exceed the threshold of 0.70. The only exception is the indicator *Judgement Competence*. Nonetheless, with a Cronbach's alpha of 0.680, this indicator is only slightly below the 0.70 standard. As stated above, composite reliability is considered a more suitable criterion of reliability for the context of PLS—structural equations modelling. As reported in Table 6.6, the composite reliability of *Perception of the Importance of ERM*, *Internal Audit*, *External Audit*, *Judgement Competence*, and *Perception of the Quality of ERM* yield values of 0.870, 0.877, 0.862, 0.818 and 0.931 respectively. It can be seen that the composite reliability values for all constructs in the model are well above the required minimum level of 0.70. Taken together, the evidence supports the reliability of the measurement model.

Table 6.6: Cronbach's Alpha and Composite Reliability

Latent construct	Cronbach's alpha	Composite reliability
Perception of the importance of ERM	0.801	0.870
Internal audit	0.830	0.877
External audit	0.767	0.862
Judgement competence	0.680	0.818
Perception of the quality of ERM	0.908	0.931

Source: The current study

6.5.1.3 Validity Assessment—Convergent Validity

Convergent validity is the extent to which an indicator (item) correlates positively with other indicators that purport to measure the same construct. High correlations here demonstrate that the indicator is measuring its intended concept. In order to evaluate whether the measured construct is highly correlated with a measure of the same construct, the average variance extracted (AVE) is used to assess convergent validity. The AVE is the degree to which the variance of its indicators or observed variables are explained by the latent construct. The AVE varies from 0 to 1; it is defined as the proportion of the total variance that is due to the latent variable. According to Chin (1998b) and Hulland (1999), as a guideline the AVE should be at least 0.5. An AVE of 0.5 or more indicates that the latent construct explains 50 percent or more of the variance in the indicators or observed variables, on average. As a result, convergent validity on the construct level is established. In contrast, if an AVE is less than 0.5, it means that more error remains in the indicators than the variance as explained by the construct, on average. Thus, the validity of the individual indicators, as well as the construct, is questionable.

Based on the criterion above, each constructs' AVE is examined to assess the convergent validity. The AVE estimates are shown in Table 6.7, that *Perception of the Quality of ERM* has the highest value of 0.730, followed by *External Audit* (0.675), *Perception of the Importance of ERM* (0.627), *Judgement Competence* (0.600), and *Internal Audit* (0.590). All composite reliability values above 0.50 indicate an adequate convergent validity for the measurement model.

Table 6.7: Average Variance Extracted (AVE)

Latent construct	AVE
Perception of the importance of ERM	0.627
Internal audit	0.590
External audit	0.675
Judgement competence	0.600
Perception of the quality of ERM	0.730

Source: The current study

6.5.1.4 Validity Assessment—Discriminant Validity

Discriminant validity is the opposite of convergent validity, referring to the extent to which a measure is not related to other constructs from which it is supposed to differ. It involves demonstrating the indicators of one construct converge or “hang together,” but also a lack of correlation with another construct that purports to measure different concepts (Hair et al., 2014). Thus, the results of two constructs measuring uncorrelated concepts should show low or no correlation, which implies that a construct is unique and captures phenomena not represented by other constructs in the measurement model. There are two common ways of evaluating discriminant validity. First, discriminant validity is assessed by examining the cross-loadings of the constructs and analysing the inter-construct correlations. To establish discriminant validity, cross loadings of a construct on the associated construct should be higher than all of its loadings on other constructs (Hair et al., 2011). If the presence of cross loadings exceeds the indicators’ outer loadings, this indicates a lack of distinctiveness and displays potential problems in establishing discriminant validity. The second approach for establishing discriminant validity is based on the logic that a construct should explain its observed variables (indicators) better than it explains any other construct. The Fornell-Larcker criterion is widely used to assess discriminant validity, by comparing the square root of the AVE estimates with the latent variable correlations. Specifically, discriminant validity is

established if the square root of each construct's AVE is larger than its highest correlation with any other construct.

For assessing the loadings of the constructs, the outer loadings and cross-loadings for measurement indicators are shown in Table 6.8. As can be seen, from a total of 20 indicators in the measurement model, one indicator had outer loading more than 0.90, nine indicators had outer loadings in the range > 0.80 to < 0.90 , and 10 indicators had loadings in the range > 0.70 to < 0.80 . It reveals each measurement indicator's outer loading on the related construct is greater than all of its cross-loadings on other constructs. This indicates that all constructs exhibit appropriate discriminant validity.

Specifically, discriminant validity is assessed by comparing the square root of AVE estimates for each construct with the inter-construct correlations related with that construct based on the approaches recommended by Fornell and Larcker (1981). Table 6.9 reports the square roots of the construct's AVE in the diagonal and the correlation coefficients among the framework constructs in the lower left triangle. As expected, all constructs are positively significant associated to one another ($p < 0.001$). The square root of all constructs' AVEs are greater than all other cross-correlations. In summary, overall these tests show that discriminant validity is established for the measurement model.

Table 6.8: Cross-Loadings for measurement indicators

Latent constructs	Indicators	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Perception of the importance of ERM	PIE1	0.851	0.561	0.227	0.375	0.452
	PIE2	0.775	0.412	0.153	0.258	0.464
	PIE3	0.798	0.448	0.321	0.256	0.444
	PIE4	0.740	0.540	0.291	0.280	0.437
Internal audit	OVA2	0.482	0.714	0.247	0.260	0.543
	OVA3	0.375	0.728	0.274	0.210	0.441
	OVA4	0.459	0.732	0.478	0.377	0.632
	OVA5	0.568	0.860	0.433	0.389	0.601
	OVA6	0.475	0.795	0.258	0.428	0.505
External audit	OVA7	0.244	0.489	0.793	0.284	0.475
	OVA8	0.231	0.431	0.843	0.288	0.423
	OVA9	0.282	0.248	0.829	0.416	0.453
Judgement competence	JUD1	0.423	0.482	0.327	0.761	0.585
	JUD2	0.171	0.204	0.287	0.731	0.383
	JUD3	0.202	0.304	0.340	0.827	0.435
Perception of the quality of ERM	PQE1	0.517	0.716	0.483	0.581	0.911
	PQE2	0.559	0.555	0.536	0.635	0.847
	PQE3	0.414	0.566	0.523	0.536	0.841
	PQE4	0.396	0.546	0.422	0.405	0.834
	PQE5	0.502	0.664	0.356	0.473	0.836

Source: The current study

Table 6.9: Inter-construct correlations and square root of average variance extracted statistics^a

Latent construct	Perception	Internal Audit	External Audit	Judgement	Decision Choice
Perception of the importance of ERM	0.792				
Internal audit	0.621***	0.768			
External audit	0.312***	0.450***	0.822		
Judgement competence	0.372***	0.456***	0.414***	0.774	
Perception of the quality of ERM	0.567***	0.715***	0.548***	0.627***	0.854

*** indicate significance at the $p < 0.001$ level.

^a Diagonal elements are the square roots of the average variance extracted statistics.

Source: The current study

6.5.2 Assessing the Structural Model

After much diagnostic information and the reliability and validity of the measurement model estimates are established, this section continues assessing the structural model that represents the underlying concept of the path model. The importance of assessing the structural model is to determine how well empirical data support the theoretical framework and to establish the structural model's validity. Assessment of the PLS structural model and hypotheses can be performed by examining: (1) the variance accounted for by the antecedent constructs (R^2); and (2) the significance of the path coefficients (Lee et al., 2011).

As discussed earlier, unlike covariance-based structural equation modelling (e.g. LISREL, EQS), the PLS estimation technique is not based on the covariance matrix and does not presume that the data are normally distributed (Chin, 1998b; Hair et al., 2011). Therefore, any overall goodness-of-fit measures are not used to assess the structural model. Rather, the R^2 is regarded the more suitable statistic for assessing the overall predictive accuracy of the structural model (Hair et al., 2014).

In running the PLS algorithm, the path coefficients are calculated for the structural model relationships, but t -tests are not produced as part of the PLS algorithm to assess the significance of the path coefficients because the underlying data is not assumed to be a multivariate normal distribution (Barclay et al., 1995b). Instead, both R^2 and t -value statistics are obtained by means of bootstrapping. The bootstrapping technique is a nonparametric and distribution-free method for calculating the prediction-oriented measures of PLS (Chin, 1998b). In bootstrapping procedure, Hair et al. (2014:130-132) explain that "a large number of subsample (i.e. bootstrap samples) are drawn from the original sample with replacement. Replacement means that each time an observation is drawn at random from the sampling population, it is returned to the

sampling population before the next observation is drawn (i.e. the population from which the observations are drawn always contains all the same elements). Therefore, an observation for a certain subsample can be selected more than once or may not be selected at all for subsample”. With this technique, the path coefficients of the structural model and the resulting R^2 values of the endogenous latent variables are obtained in order to enable the statistical testing of the hypothesis and provide confidence intervals for all parameter estimates.

The following sections describe the assessment of the structural model carried out in this study.

6.5.2.1. The Explanatory Power of the Structural Model

In the PLS structural model, the explanatory (predictive) power or nomological validity of the structural model is measured by the R^2 value for the dependent (endogenous) construct (Barclay et al., 1995b; Hulland, 1999). Given the R^2 value is obtained based on an iterative sequence of ordinary least squares regressions, it represents the degree of the dependent (endogenous) variable’s variance explained by the independent variables similar to regression analysis. Accordingly, the R^2 value is used to interpret the predictive power of the structural model in the same manner as the results of ordinary regression analysis (Barclay et al., 1995b). The R^2 value ranges between 0 and 1 with greater values indicating greater degree of predictive accuracy. Hair et al. (2014:175) note that “[i]t is difficult to provide rules of thumb for acceptable R^2 values as this depends on the model complexity and the research discipline.” Falk and Miller (1992) suggest that the R^2 value for endogenous variables should be at least 0.10. An R^2 value ≥ 0.10 ensures that the amount of variance in the endogenous (dependent) constructs explained by all of the exogenous (independent) constructs has practical, as well as, statistical and significance (Falk & Miller, 1992; Lee et al., 2011).

Using SmartPLS 3.2, the R^2 values for the dependent variables in the structural model were derived by performing a bootstrapping procedure with 500 subsamples. Table 6.10 presents the R^2 values for the individual dependent variables defined in the proposed theoretical model. This study consists of the two dependent variables: *Judgement* and *Decision Choice*. The R^2 of the structural model used to measure the main effects of the Judgement construct is 0.273 and the Decision Choice construct is 0.522. These results reveal that 27.30 percent of the Judgement construct variance and 52.20 percent of the Decision Choice construct variance are explained by the structural model of this study. It can be observed that the percentage of variance explained of the construct Decision Choice is relatively high. Consistent with Barclay et al. (1995b)'s suggestion, the structural model of the present study has merit in that it explains over 25 percent of the variance in both Judgement (27.30 percent) and Decision Choice (52.20 percent). Moreover, the results of the R^2 values for the two constructs exhibit that both values of R^2 satisfied the requirement for the 0.10 cut-off value (Falk & Miller, 1992; Lee et al., 2011) indicating that the explanatory power of the model is substantial for the latent constructs to be judged adequate.

Table 6.10: R^2 Values of the Dependent (Endogenous) Constructs

Construct	R^2 value
Judgement competence	0.273
Perception of the quality of ERM	0.522

Source: The current study

6.5.2.2. Assessment of Significance of the Hypotheses

Due to the PLS algorithm estimation procedure computing the path modelling coefficients for the partial ordinary least squares regression models in both the measurement model and the structural model, the individual path coefficients of the PLS structural model are interpreted in the same way as standardised beta coefficients

of ordinary least squares regressions (Hair et al., 2011). Path coefficients are estimated path relationships for the structural model (i.e. between the latent constructs in the model). They correspond to standardised betas in a regression analysis and indicate whether the direction of the casual relationship is either positive or negative.

The t -value is used to test whether the relationships are significant or not. In terms of structural model assessment, the p value is the probability of error for assuming that a path coefficient is significantly different from zero. In applications, the p value of a path coefficient and a significant level chosen prior to the analysis are compared in order to test whether the path coefficient is statistically significant. Path coefficients that are not significant or demonstrate signs contrary to the hypothesised direction do not support a proposed hypothesis, while significant path coefficients indicating the hypothesised direction empirically support the proposed hypothesised relationship. In this study, bootstrapping with 500 subsamples was performed by using SmartPLS 3.2 software to obtain t -tests for testing the statistical significance of the path coefficients in the five hypothesised relationships.

Table 6.11 presents the results of the PLS structural model for the study. The significance of the path coefficients are examined via the corresponding t -values and p -values from the bootstrapping samples. As can be seen, four hypotheses out of five are significant. Hypotheses 2 and 5 are highly statistically significant at the 0.001 significant level (p -value = 0.000). Hypothesis 4 is statistically significant at the 0.01 significant level (p -value = 0.007). Hypothesis 3 is statistically significant at the 0.05 significant level (p -value = 0.032). However, this analysis does not find a significant to support Hypothesis 1, as the p -value of the causal relationship is greater than 0.05 (p -value = 0.345).

The findings of the hypotheses testing of the study are described in detail in section 6.6.

Table 6.11: PLS Structural Model Results

Hypothesis		Hypothesized direction	Path coefficient (β)	<i>t</i> - statistic	<i>p</i> -value	Support of hypothesis
H1	Audit committee members' perceptions of the oversight of risk management will be positively related to their judgement.	Perception of the importance of ERM → Judgement competence +	0.131	0.939	0.348	Not supported
H2	Audit committee members' perceptions of the oversight of risk management will be positively related to their decision choices.	Perception of the importance of ERM → Perception of the quality of ERM +	0.388	3.960	0.000***	Highly supported
H3	Audit committee members' involvement in the internal audit function will be positively related to their judgement.	Internal audit → Judgement competence +	0.259	2.155	0.032*	Supported
H4	Audit committee members' involvement in the external audit function will be positively related to their judgement.	External audit → Judgement competence +	0.257	2.713	0.007**	Supported
H5	Audit committee members' judgement will be positively related to their decision choices.	Judgement competence → Perception of the quality of ERM +	0.483	5.317	0.000***	Highly supported

*, **, *** Indicate that the coefficient is significant at the $p < 0.05$, $p < 0.01$, and $p < 0.001$ level, respectively.

Source: The current study

6.6 Hypotheses Testing

The second objective of this study aims to improve understanding of the decision making process of audit committees when they discharge their responsibility of enterprise risk management oversight in the context of Thailand. Based on the research framework theorised in the current study, five hypotheses are developed. The hypotheses are tested with PLS technique, a component-based SEM method. In order to test these hypotheses, this study undertakes the analysis in a series of steps. Before performing the empirical analyses with PLS technique, the psychometric properties of the measures are assessed (in section 6.4). SmartPLS 3.2 is used to estimate the measurement and structural models. The bootstrapping method for the 88 cases is undertaken with 500 samples in order to estimate the path coefficients and their significant levels along with the explained variance of the endogenous variables (R^2). Conducting the assessment of the measurement and structural models are provided in section 6.5. Overall, the results of the measurement model indicate that the model has adequate validity and reliability. Also, the results of the structural model reveal that 27.30 percent of the Judgement construct variance and 52.20 percent of the Decision Choice construct variance are explained by the model, suggesting that the model has good predictability. Table 6.11 reports the results of the structural path coefficients along with the significance of these coefficients for each of the hypotheses of interest, and provides evidence broadly consistent with the proposed theoretical model.

To address the first hypothesis, the relationship between audit committee members' perceptions of the oversight of risk management and their judgement was examined. Hypothesis 1 predicts that audit committee members' perceptions of the importance of enterprise risk management oversight will be positively related to their judgement competence. Unfortunately, the data do not provide evidence to support that

audit committee members' perceptions of the importance of enterprise risk management oversight affect their judgement competence. Although the relationship between audit committee members' perceptions of the importance of enterprise risk management oversight and their judgement competence is positive (coefficient = 0.131), it is statistically insignificant ($t = 0.939$; $p = 0.348$), contrary to the prediction in Hypothesis 1.

Hypothesis 2 predicts that audit committee members' perceptions of the importance of enterprise risk management oversight will positively affect their perceptions of the quality of enterprise risk management. The coefficient for the pathway between audit committee members' perceptions of the importance of enterprise risk management oversight and their perceptions of the quality of enterprise risk management is positive and very strongly statistically significant (coefficient = 0.388; $t = 3.960$; $p < 0.001$). This significant result is interpreted as consistent with the concept of perceptual system that explains the manner in which perception gives rise to individual behavioural responses when making a decision (Mullins & Hicks, 2002; Blanchette & Richards, 2009).

Hypothesis 3 predicts that audit committee members' activities in overseeing the internal audit function has a positive relationship to their judgement competence. As predicted, the association between audit committee members' activities in overseeing the internal audit function and their judgement competence is positive and statistically significant (coefficient = 0.259; $t = 2.155$; $p = 0.032$). The results indicate that audit committee members who were closely involved in overseeing the internal auditing of risk management oversight had enhanced their judgement competence.

Hypothesis 4 states that audit committee members' activities in overseeing the external audit function will be positively related to their judgement competence.

Consistent with the expectation, the results show a significant positive relationship between audit committee members' activities in overseeing the external audit function and their judgement competence (coefficient = 0.257; $t = 2.713$; $p = 0.032$). Also, the findings indicate that audit committee members who were closely involved in overseeing the external auditing of risk management oversight had enhanced their judgement competence.

Hypothesis 5 posits that audit committee members' judgement competence will be positively related to their perceptions of the quality of enterprise risk management. The results show that the relationship between audit committee members' judgement competence and their perceptions of the quality of enterprise risk management is positive and also very strongly significant in the statistical sense (coefficient = 0.483; $t = 5.317$; $p < 0.001$). This result supports Hypothesis 5 and indicates that audit committee members' judgement competence affects their perceptions of the quality of enterprise risk management when accepting guidelines and policies to govern the process by which risk assessment and management is undertaken.

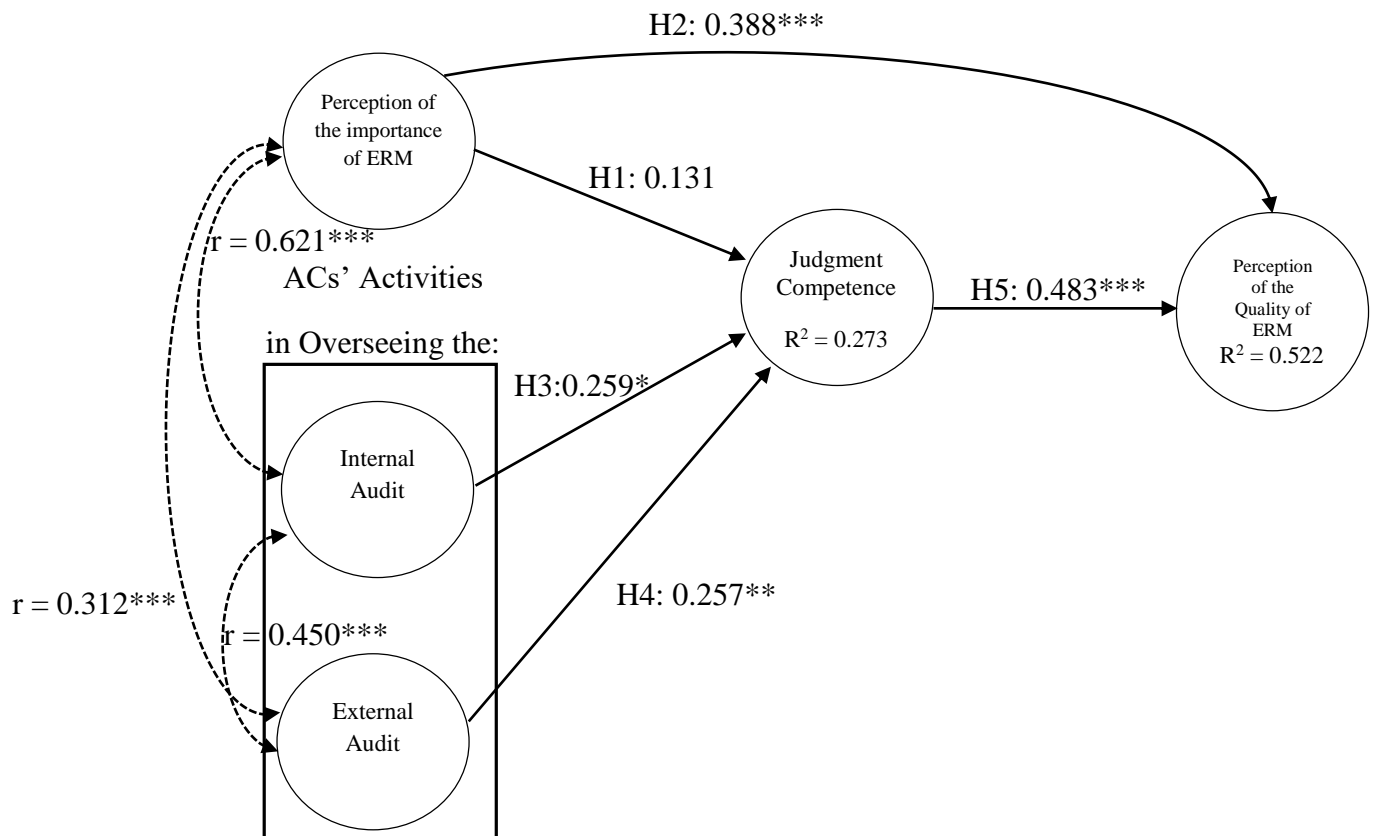
Figure 6.2 demonstrates the results of a path diagram of the hypothesised relationships between the research model's constructs.

6.7 Discussion of Findings

The decision-making process is a complex phenomenon to examine. Nonetheless, because decisions made by the audit committees can affect an organization's governance as a whole, the study's aims here is to investigate the decision-making process of the audit committee. While audit committees have many responsibilities within an organization, the current study focuses on the way the audit committee carries out its specific oversight responsibility within its organization, namely the oversight of

enterprise risk management. An extensive review of the audit committee literature and psychological theories of information processing, perception, judgement, and decision-making are integrated to the theoretical model in order to capture several aspects of the decision-making process of audit committees in Thailand, a non-Western context.

Figure 6.3: Results of Estimating PLS Regressions



*, **, *** Indicate that the coefficient is significant at the $p < 0.05$, $p < 0.01$, and $p < 0.001$ level, respectively.

Dashed lines represent correlation (r) between constructs.

Source: The current study

Specifically, the second research objective of this study is to test a decision-making model for when individual audit committee members discharge their responsibility of enterprise risk management oversight. To fulfil this objective, a set of hypotheses was developed on the basis of the theoretical framework. To empirically investigate the causal relationships, hypotheses testing was conducted by examining the standardised structural coefficients, t -values and p -values. The findings of the testing of

the hypotheses are detailed in Section 6.6. It demonstrates that out of five hypotheses in the research model of the current study, four are statistically significant. This section discusses key findings from the testing of the hypotheses.

Perception of the Importance of ERM Oversight—Judgement Competence and Perception of the Importance of ERM Oversight—Perception of the Quality of ERM Pathways

Based on a psychological perspective, how individual audit committee chairs/members perceive the importance levels of enterprise risk management oversight responsibility is the root of their actions and decision-making (Mullins & Hicks, 2002). Relying on the theoretical framework, this study expected perception to be positively related to both judgement and decision choice. The **Perception of the Importance of ERM Oversight → Judgement Competence** pathway depicts the relationship between audit committee chairs/members' perception of the importance of ERM oversight and their judgement competence, while the **Perception of the Importance of ERM Oversight → Perception of the Quality of ERM** pathway represents the relationship between audit committee members' perception of the importance of ERM oversight and their perception of the quality of ERM.

As shown in Table 6.11 and Figure 6.2, although the Perception of the Importance of ERM Oversight → Judgement Competence pathway displays a positive relationship, this study finds no significant impact of perceived higher levels of oversight responsibility for enterprise risk management on audit committees' judgement competence, contrary to the initial expectation. However, consistent with prediction from the theoretical framework, the Perception of the Importance of ERM Oversight → Perception of the Quality of ERM pathway displays a positive relationship and significance. The results suggest that the perception of the importance of ERM

oversight responsibility appears to be important through impacting the perception of the quality of ERM pathway. This implies that audit committees who perceived higher levels of oversight responsibility of enterprise risk management displayed a positive impact on their perception of the quality of ERM.

The results fail to support the prediction of Hypothesis 1 that perception of the importance of ERM oversight affects judgement competence, whereas Hypothesis 2 addressing the direct effect of perception of the importance of ERM oversight on perception of the quality of ERM is supported. As stated above, given the complexity of the process thinking, this study cautions that the findings do not necessarily disconfirm the perceived importance of the oversight responsibility of enterprise risk management that influences audit committees' judgement competence. One plausible explanation for the findings can be interpreted along the lines of the psychological theory of perception. Indeed, among the contextual factors that influence perception is group dynamics. A number of studies have indicated that an individual's perception can be influenced by the opinions of others (Mills & Wilson, 2001). For instance, experiments by Moscovici and Mugny (1983) show that a majority of subjects' perceptions can be influenced by a minority opinion. In the context of the audit committee operation, it is true that the audit committee typically performs its duties as a group. Given that the goal of oversight over enterprise risk management is presumably shared by all members of the committee, one would expect consensus among members. Therefore, this suggests that an individual audit committee member's perception of the group can be influenced by the other members' opinions. Accordingly, this possible explanation would suggest that perception is more complex than expected according to the initial theoretical development. To advance our knowledge of the decision-making process, this study suggests that a more direct measure of the audit committee's judgement and perceived specific responsibility should be used in future research.

It is useful to consider the findings of the present study in the context of prior studies. It appears that this study is not alone in providing evidence of a non-significant association in the Perception of the Importance of ERM Oversight → Judgement Competence pathway. In terms of auditors' decisions, Rodgers and Housel (2004) demonstrate that auditors' perceptions of environmental risk management do not have a statistically significant effect on either their judgement or decision choice. They argue that auditors are more likely to rely on the traditional financial information (i.e. profitability, liquidity and leverage) during the processes of judgement and making-decisions. Although auditors consider environmental risk information (the non-traditional information) through their perceptual filters, they did not submit it into judgement processes for analysis of situation-specific solutions prior to rendering a decision. In the context of line managers' decision-making processes, the results of Foss and Rodgers (2011) are contrary to the findings of the current study. Foss and Rodgers (2011) demonstrate that managers' perceptions have a significant influence on their judgement, whereas they find a lack of significance in the relationship between managers' perceptions and their decisions. Drawing on the psychological theory of perception, findings from this study together with previous studies suggest whether perception will affect a particular individual's decision-making processes to be influenced by other factors: first, internal factors in relation to the state of each individual (i.e. experience, learning and personality); and the environment and influences external to each individual (i.e. the specific nature of his or her organisation) (Mullins & Hicks, 2002; Huczynski & Buchanan, 2013).

This study, however, does not examine audit committee chairs/members' perceptual inaccuracies. The results of the non-significant relationship between perceptions and decisions in the present study raise the question of whether audit committee chairs/members' perceptions are inaccurate. In fact, literature on the

decision-making process suggests that the accuracy of perception is an important function in decision-making processes (e.g. Hilton & Swieringa, 1981; Hilton et al., 1981; Mezas & Starbuck, 2003; Pillai, 2010). Inaccurate perceptions could lead to inappropriate judgements and decisions, which in turn could result in ineffective organisational practices (Huczynski & Buchanan, 2013). Interestingly, Mezas and Starbuck (2003:15-16) find that managers' perceptions are often wrong regarding their organisation and its environment. Mezas and Starbuck (2003:15-16) point out that "an organisation would be unrealistically optimistic to assume that misperceptions can never cause harm. Well-intended efforts to produce improvements can yield unexpected disappointments that waste resources or make troublesome situations worse. Managers who have inaccurate perceptions may lose out to competitors who see opportunities more clearly". Therefore, it will be important for future studies to examine the accuracy of perception in terms of the audit committee to develop a better understanding of the audit committee oversight practices.

Audit Committees' Oversight Activities—Judgement Competence— Perception of the High Quality of ERM Pathway

As demonstrated in Figure 6.2, the **Internal Audit → Judgement Competence** pathway displays the relationship between the audit committees' activities in overseeing the internal audit function and their judgement competence. The **External Audit → Judgement Competence** pathway depicts the relationship between the audit committees' activities in overseeing the external audit function and their judgement competence, and the **Judgement Competence → Perception of the Quality of ERM** pathway exhibits the relationship between the audit committees' judgement competence and their perception of the quality of ERM.

Consistent with expectations, the study find that the audit committees' judgement competence mediates the association between the audit committees' activities in overseeing the internal and external audit functions, and its perception of the quality of ERM. This study specifies a mediator (judgement competence) through which audit committees' oversight activities influences perception of the quality of ERM. The findings suggest that an audit committee member who was closely involved in the internal and external auditing of risk management oversight would display enhanced judgement competence, which would in turn contribute significantly to his or her perception of the quality of ERM. These findings support both the underlying theory on the interactions between the audit committee, the internal audit function and the external audit function (e.g. DeZoort et al., 2002; Cohen et al., 2004; Abbott et al., 2010; Bédard & Gendron, 2010) as well as being consistent with prior audit committee judgement research (DeZoort, 1998).

As stated earlier in the previous chapters, the audit committee literature has established the importance of the internal and external audit as part of the resource component of audit committee effectiveness (e.g. DeZoort et al., 2002; Bédard & Gendron, 2010). Audit committees typically receive information from internal and external auditors along with management, consequently they judge and make decisions about it. Audit committees themselves are required to make complex decisions. For instance, they must: (1) judge the content of reports provided to users; (2) decide whether internal auditors adequately provides concrete evidence to them to evaluate the effectiveness of risk management; and (3) decide whether external auditors provide substantial evidence to them on any areas with respect to risk management to assess the effectiveness of risk management. The quality of these decisions, among others, would determine the success of audit committees. Consistent with the arguments of Libby (1981), decision-making is an intrinsic part of the practice of accounting. In terms of the

audit committee, decision-making is critical for audit committees' operation and their involvement in several difficult oversight duties. The findings indicate that to perform effective enterprise risk management oversight, individual audit committee members try to clarify that audit reports and information provided by internal and external auditors are adequate, relevant and reliable. More importantly, the findings of the current study are consistent with the fundamental concept of the resource component of audit committee effectiveness (DeZoort et al., 2002; Cohen et al., 2004; Bédard & Gendron, 2010); an adequate size, the abilities and skills of the audit committee, and the quality and skills of internal and external auditors are viewed as particularly important in the judgement stage, which influences audit committee members in making a decision.

Overall, the findings of the current study suggest that if audit committee members themselves are not aware of their oversight responsibility for enterprise risk management, they appear to be less likely to get involved in performing enterprise risk management oversight. Therefore, perceiving the importance of the oversight role in enterprise risk management is crucial for audit committee members. In other words, this study argues that audit committee members who perceived lower levels of the importance of the risk oversight role may have less proactive drive to carry out such oversight, which could affect their decisions. Consequently, organizations may experience the unexpected negative outcomes from making a decision through audit committees when audit committee members are not yet aware of their responsibility in overseeing enterprise risk management. It is noteworthy that audit committee members with a high level of perceived risk oversight responsibility are more likely to have high levels of decision-making in the context of performing enterprise risk management oversight.

6.8 Chapter Summary

The purpose of this chapter is to test the hypothesized relationships as developed in Chapter 3. The component-based PLS technique was used for both the assessment of the measurement scales and the test of the proposed research hypotheses. In the PLS structural model, the relationships between constructs that were hypothesized in the theoretical framework show that four out of five hypotheses are supported. The first hypothesis (H1) that project perception of importance of ERM has a positive impact on judgement competence is not supported. The second hypothesis (H2) is supported and indicates that a higher level of perception of the importance of ERM is significantly and positively associated with perception of the quality of ERM. The findings reveal the existence of a positive significant relationship between higher levels of audit committee's activities in overseeing the internal audit function and judgement competence supporting the third hypothesis (H3). Also, the fourth hypothesis (H4) is supported and indicates that a greater level of audit committee's activities in overseeing the external audit function is positively related to judgement competence. Finally, the results show the relationship between judgement competence and perception of the quality of ERM is positively significant supporting the fifth hypothesis (H5).

CHAPTER 7

Qualitative Findings

7.1 Introduction

The qualitative approach employed in this study aims to accomplish the last two objectives of the research (see Chapter 3, section 3.2). Specifically, it seeks to answer the following two research questions:

RQ3 What process do Thai public company audit committees use to fulfil their enterprise risk management oversight responsibility?

RQ4 How do Thai public company audit committees make judgements and decisions when they carry out the oversight of enterprise risk management?

This chapter presents the qualitative findings of the interviews with 21 Thai audit committee chairs/members. A semi-structured interview approach was adopted for interviewing participants focusing on the audit committees' operation regarding their role when performing the oversight of enterprise risk management. Interviewees described their experiences by responding to the questions included in the interview protocol (see Appendix B). In order to produce the findings, the interview data were analysed employing procedures and techniques suggested by Gibbins et al. (1990), Miles and Huberman (1994), O'Dwyer (2004) and Harding (2013) that were outlined in section 4.5.6. This chapter is organised into four sections. The first section describes background information about the interviewees, who were serving on audit committees at the time of the interviews. The next section provides detailed analyses of the processes Thai public company audit committees use to fulfil their enterprise risk management oversight responsibility. These are then followed with the findings of how

Thai audit committees make judgements and decisions when they carry out the oversight of enterprise risk management. The chapter ends with the summary of the core results of the qualitative research.

7.2 Interviewee Profile

Due to all participants being strictly guaranteed anonymity and confidentiality both for them and the companies which they served as audit committee chairs or members, their individual characteristics and associated companies were presented in aggregate. For the sake of anonymity, the identity of the audit committee participants has been protected and they will be identified as AC with the numbers 1, 2, 3 ..., as summarised in Tables 7.1, 7.2 and 7.3, a total of 21 semi-structured interviews with audit committee chairs/members were conducted and transcribed. In addition, at the time of the interview with the interviewee AC16, the researcher was allowed joint interview with the chief audit executive. Excepting the chief audit executive, the interviews consisted of face-to-face interviews with 19 participants and telephone interviews with two participants. These chairs/members informants that participated in this study included some with a high profile, the most influential and knowledgeable individuals involved in developing corporate governance and audit committee schemes in the context of Thailand. Thus, gaining interviews with these individual chairs/members contributes remarkably to the quality and relevance of the data gathered. Of these, seven interviewees were serving on boards of nine major Thai public companies at the time of the interviews (nine companies are classified as among the 50 largest companies listed based on the SET measured by their market capitalisation).

Table 7.1 provides a breakdown of the interviewed participants' characteristics. Fifteen of the interviewees were males, while the remaining six were females. The majority of interviewees had a Master's degree (57 percent). Thirty-eight percent of the

interviewees had public accounting experience and they were certified public accountants (CPAs).

Table 7.1: Characteristics of Interviewed Participants

Individual characteristics ^a	<i>n</i>	Percent
Gender:		
Male	15	71
Female	6	29
Educational background:		
Bachelor	2	10
Master's	12	57
Ph.D.	7	33
Experience:		
Public accounting experience	8	38
Prior experience as a chief audit executive	3	14
Chief executive officer	5	24
Chief financial officer	3	14
Accounting/finance professor	7	33
Regulator	2	10
Professional certification:		
Certified public accountant	8	38
Certified internal auditor	2	10
Certified financial analyst	2	10

Note: ^a The statistics are based on the full group of 21 interviewees.

Source: The current study

Table 7.2: Participant Industry

Industry distribution	Position in audit committee in which interviewee was serving at the time of interview		
	chair	member	Total
Tourism and leisure	3	-	3
Food and agribusiness	4	3	7
Transportation and logistics	1	3	4
Energy and utilities	1	2	3
Banking and financial services	4	1	5
Retail	2	-	2
Media and telecommunications	4	3	7
Manufacturing	3	4	7
Property development and construction	6	1	7
Total	28	17	45

Source: The current study

As presented in Tables 7.2 and 7.3, the participants of this study are from a variety of industries and sizes. It can be seen that the industry distribution of the sample

participated in this study is broad. The primary industries were property development and construction, media and telecommunications, food and agribusiness, and manufacturing. They are then followed with banking and financial services, and transportation and logistics. Nine interviewees served as audit committee chairs/members for companies in SET50¹⁵ and six of the interviewees served on audit committees of the corporate boards in SET51-100 companies. As exhibited in Table 7.3, the duration of the interviews varied from 19 minutes to 94 minutes with a mean time of 46 minutes. The 21 interviewees of this study were serving on the audit committees of between one and four public companies, resulting in 45 different public companies being referred to during the interviews. Seventeen of the 21 interviewees were serving on two or more audit committees, while four were serving on only one audit committee. In addition, 17 of the 21 interviewees were serving as the committee chair of 28 public companies and 12 were serving as the committee member of 17 public companies. The interviewees had between more than two and 15 years of corporate audit committee experience; the average experience was more than nine years.

The range of corporate governance experience of individual participants as well as the wide range of different types of size and industries represented allowed this study to obtain a rich, all-round perspective on the exploration of audit committee practice with respect to the oversight of enterprise risk management. Participants reflected on this experience and it appears that the amount of data being collected was enormous and wide-ranging significantly among participants.

The next sections will present the findings of the in-depth interviews organised into themes.

¹⁵ SET50 refers to the 50 largest companies listed on the Stock Exchange of Thailand (SET) measured by their market capitalisation and SET51-100 is the next largest group of between 51 and 100 companies based on their underlying market capitalisation.

Table 7.3: Background Information on Interviewees

No.	Date of interview	Interviewee Code	Interview duration (minutes)	Number of years of corporate AC experience	Position in audit committee in which interviewee was serving at the time of interview			Company size classified by the SET*			
					chair	member	Total	SET50	SET51-100	Other	Total
1	19 February 2014	AC 1	37	> 5	-	2	2	-	-	2	2
2	26 February 2014	AC 2	63	> 10	2	-	2	-	1	1	2
3	27 February 2014	AC 3	31	> 7	-	2	2	-	-	2	2
4	27 February 2014	AC 4	46	> 2	1	1	2	-	1	1	2
5	3 March 2014	AC 5	58	> 14	2	1	3	2	-	1	3
6	5 March 2014	AC 6	56	> 14	2	-	2	1	-	1	2
7	5 March 2014	AC 7	94	> 12	2	1	3	1	1	1	3
8	11 March 2014	AC 8	29	> 3	1	-	1	-	-	1	1
9	20 March 2014	AC 9	52	> 10	2	2	4	-	-	4	4
10	24 March 2014	AC 10	50	> 15	2	-	2	1	-	1	2
11	29 March 2014	AC 11	32	> 15	3	-	3	-	1	2	3
12	1 April 2014	AC 12	44	> 5	1	1	2	-	-	2	2
13	7 April 2014	AC 13	43	> 13	1	1	2	1	-	1	2
14	9 April 2014	AC 14	47	> 8	1	-	1	1	-	-	1
15	26 April 2014	AC 15	39	> 10	1	2	3	2	-	1	3
16	10 June 2014	AC 16	42	> 10	2	-	2	-	-	2	2
17	27 June 2014	AC 17	41	> 6	-	1	1	-	-	1	1
18	30 June 2014	AC 18	59	> 10	2	-	2	-	1	1	2
19	1 July 2014	AC 19	58	> 14	2	1	3	-	1	2	3
20	2 July 2014	AC 20	19	> 9	1	-	1	-	-	1	1
21	3 July 2014	AC 21	53	> 10	-	2	2	-	-	2	2
Total					28	17	45	9	6	30	45

*SET50 is a group of the 50 largest companies listed on the SET measured by their market capitalisation; SET51-100 is the next largest group of between 51 and 100 companies based on their underlying market capitalisation and the other is the remaining listed companies.

Source: The current study

7.3 What Process Do Thai Public Company Audit Committees Use to Fulfil Their Enterprise Risk Management Oversight Responsibility?

This section addresses the process that Thai public company audit committees use to fulfil their enterprise risk management oversight responsibility. The main findings are carried out as a series of semi-structured interviews. This research discovered 11 themes of the audit committee oversight risk management process from the interviews. Eleven themes are discussed in this section as follows:

1. Scope of risk oversight
2. Risk oversight as a collective process
3. Understanding of business and risks
4. Scepticism
5. Focus on high-risk, high-impact
6. Challenging and forcing
7. Use of specialists
8. Giving advice and recommendations
9. Providing support and assistance
10. Informal processes
11. Follow-ups

7.3.1 Scope of Risk Oversight

One of the major challenges for audit committees in discharging their risk oversight responsibility is the question of how much risk oversight is enough. The interview data has revealed that the nature and scope of an audit committee's involvement in risk oversight depends upon the size and complexity of a company, the industry in which it is operating and whether a separate risk committee is established. In all cases the audit committees were knowledgeable of the laws, regulations and guidelines governing the operation of audit committees in terms of the jurisdictions of how much risk oversight his or her audit committee should perform. For example, an audit committee chair noted:

‘Risk oversight is stated in the audit committee charter. The content of working scope depends on the guideline determined by SET. Based on the guideline from SET, we learn what relates to us and what relates to others. We sometimes argue that the audit committee charter makes us interfere with the working of the risk management committee. It should not be written like that because it is out of our scope of working. What relates to CG [*corporate governance committee*] or RM [*risk management committee*] should be assigned to CG or RM not AC [*audit committee*].’ (AC 2)

The above quotation reflects on how her committee scoped risk oversight responsibility, typically charging risk oversight based on the regulator's guideline. Nonetheless, there were differences in the scope of risk oversight between small companies and larger companies. The following includes some of the examples regarding the scope of risk oversight from an audit committee chair's perspective.

‘In a big enterprise, audit and risk management committees are separated and different. For a smaller one, in contrast, the two committees are combined and generally there is only an audit

committee. In this case, the audit committee is concerned with risk and also very much take care of risk oversight. By law, the SET and the SEC have required independent directors to join in the audit committee, and the audit committee is established by the board of directors to be the representative of the board of directors. The status of the risk management committee, in contrast, depends on each company. It may be established by the board of directors and monitors different risks such as compliance, operating or financial risks. A bank, for instance, will have a risk management committee to monitor risks in exchange rates, interest rates and so on. Audit committees actually emphasize financial and operating risks. For a larger enterprise, operational risk is monitored by risk management committees who monitor whether the company complies with its regulation and so on. We, therefore, do not mix up the scope of working between audit and risk management committees. For a small company, an audit committee monitors everything, but in most big enterprises, the risk management committee is under management's supervision, not the board of directors. Indeed, there are no criteria or rules determining that the risk management committee must be an independent committee because it sometimes includes independent directors and management while an audit committee must be independent committee.' (AC 18)

In terms of small companies, boards of directors were often delegated the risk oversight responsibility to audit committees:

'The audit committee reviews all key risks but we emphasize on financial risks because they are important movements influencing profit and loss particularly affecting shareholders.' (AC 13)

As another example, an audit committee chair explained:

'Everything depends on the audit committee. We monitor financial risks and other significant risks, check if the company's operation complies with the regulations, manual and procedures and find out

why they do not comply with these. The audit committee in this company must review many things. We will oversee the completeness of financial statements and the company's activities with respect to risk management and internal control, give our notice or advice and warn the board of directors of something wrong.' (AC 18)

In contrast to small companies, large companies establish a separate risk management committee, enables the board of directors to primarily assign the responsibility of risk oversight and risk management.

'The audit committee do not take care of risk management but we need to make sure of all internal control systems and financial data accuracy. Risk oversight is, however, a responsibility of the audit committee, though generally it is the direct responsibility of the risk management committee.' (AC 12)

A chair of an audit committee provided more details that:

'The risk management committee is responsible for reducing risks and evaluating risk levels. If risk levels are high, they are shown in red numbers in the reports. They must try everything to reduce these risks. They will report their risk reduction plan to us every quarter. They have to report to us, although the risk management committee are not under the audit committee. The audit committee is independent and wants to know the progress of the company's risk management. Though they [*risk management committee*] are responsible for reporting directly to the board of directors, we ask them to bypass the report to us first because we want to make sure that the company is working and trying to manage risks properly. Anyway, they report directly to the board of directors. When we get the reports, we will give them some notices. These notices will be recorded in the minutes of the meetings of the audit committee which will be passed to MD [*managing director*] later. In a year, we have a meeting with the board of directors seven to eight times or every two months. They will be informed of the risk management progress.' (AC 7)

It is interesting to note that financial institutions experienced high volume and complexity of risk more than any other industry. All participants in the financial sector expressed they preferred to see the companies adopt a quantitative approach in handling risk more than a qualitative approach and their scope of risk oversight emphasises financial risk to a much greater extent:

‘When we talk about risk in the financial data and financial statements, it means generally that risk factors should be shown as number. Actually there are a variety of risks such as compliance, fraud or credit risks. We can classify them as financial, operational, strategic and compliance risks. We [*audit committee*] don’t focus on operational risk so much but we usually get reports. For the financial institute, we must consider risk assessment, its monitoring, managing risks or methods with which they calculate the financial risks that they [*risk management committee*] must report us.’ (AC 2)

Another audit committee chair explained:

‘Risk management has existed for three to four years. [*Bank name*] is the first one to establish a risk management committee. We separate and set up a risk management committee. The risk management committee monitors and sets up a risk management system. You [*risk management committee*] design the system and must make sure that the system runs effectively. Risks in financial institution are very complicated. We had told directors at [*bank name*] that risk management is a big deal. In the past, management took care of risk management strictly. They can’t avoid focusing on risk management. They take care of all risks including credit risk and other risks carefully. Directors at the bank discussed risk management and concluded that there must be a separate risk management committee and designated management to take care of this. They have to make sure that there is an effective risk management system in place. Anyway, overseeing key risks are still our [*audit committee*] responsibility. Regarding risk oversight responsibility, it would be

stated clearly between the two committees because we are a bank business and risk oversight is very important for this business. Furthermore, their [*risk management committee*] members consisted of executives but we ask an audit committee member to be a member of risk management committee as well.’ (AC 6)

To sum up, given that audit committee oversight of risk management has recently emerged. Therefore, there is no clear framework or conceptual approach of how much risk oversight should be carried out by audit committees. The scope of risk oversight among the participants in this study showed that their committees’ scope of risk oversight responsibility tended to vary widely based on the nature of the company and the industry in which it operates. In small companies, most of participants mentioned a broader scope of risk oversight but they are more comfortable with their understanding of the companies’ risks. In contrast to small companies, participants from large companies would appear to have a narrow scope of risk oversight, but their operations are particularly affected by the high volume and complexity of risk, specifically in financial sector.

7.3.2 Risk Oversight as a Collective Process

An audit committee is composed of a group of individuals who work together for the achievement of a common goal (Sapsed et al., 2002). Clearly, an audit committee is a team and team-working is expected from a committee. The fundamental characteristic of a risk oversight task is apparently its collective process. It needs a committee to integrate individual knowledge into collective knowledge working on risk oversight processes. Consistent with Maznevski (1994) and Midler (1995), it appears from all the interviewees’ responses that in order to perform risk oversight effectively diversity of competences, specialisations, and experiences are necessary for a committee. As explained by several participants:

‘People with various experiences join the audit committee team. It is so helpful because members have got different points of view. It is not only one person’s responsibility. Furthermore, do not assume that it’s only the audit committee’s responsibility. The cooperation between audit committee, the board, management and employees is the success of the organization. They must work and cooperate. If the audit committee think this is the board of directors’ direction, we must discuss it in the board meeting. It’s not the success of the audit committee only. The audit committee is just a part of the board of directors and the board is subject to the response of shareholders. In order to work successfully, we must cooperate with the management, internal auditors and external auditors. This is what we must do to make it happen. That’s the reason why [company name] is accredited as audit committee of the year, because of strong teamwork.’ (AC 2)

‘Audit committee members are sharing their experience when we perform risk oversight. Nobody knows everything. Learning about the system gives us better understanding and allow us to know more people. When accountants serve on audit committees, they must learn something different from accounting for a better understanding.’ (AC 9)

‘We must discuss and share reasons. Ideas are possibly different because we have different backgrounds. We must convince them and share ideas.’ (AC 15)

‘Although I am a lawyer, I have long experience in accounting and auditing fields and have much recent accounting knowledge. I know its important points, how to read the financial statements, and I know what the key risks of the company are. We also have an accounting background member in the audit committee. He will review all numbers if they reconcile. He notices that financial information possibly shows different numbers from the appendix or remarks. He is so careful and helpful.’ (AC 18)

Interestingly, AC 2 pointed out that cooperation is essential. It is not only working jointly within the committee; rather, the notion of cooperation means “the cooperation among audit committee, the board, management and employees” that goes beyond cooperation among committee members. It should be noted that the collective process is a process of collective competence (Melkonian & Picq, 2010). Many participants in this study indicated that members with industrial specialisations contribute certain competences in overseeing a particular area of risk and are capable of ensuring that certain areas of risk are monitored properly. This is consistent with Balsam et al. (2003) and Cohen et al. (2014) suggesting that audit committee members with industrial specialisations significantly contribute to improving audit committee effectiveness; specifically, members who are both accounting and industry specialists perform better than those with only accounting expertise. An audit committee chair shared this view, as follows:

‘For this automotive part company, the chair of audit committee is a former CEO and is also an engineer. So he has different ideas and aspects. Two out of three team members specialize in automotive industry. They have worked with automotive plant for many years and have insight of the operation. When they oversee risks, they focus on operational risks very closely, and I trust their careful analysis and monitoring. For another company, one member was a lawyer and the other is a former physician. I have been promoted as the chair this year and they have different aspects to mine. I fulfil the audit committee’s requirements in the accounting and finance areas and it makes the committee elements better.’ (AC 7)

Importantly, all participants exhibited that a certain level of accounting and financial literacy with at least one member of the audit committee is crucial for addressing accounting and financial reporting risks. Participants said the following:

‘Audit committees must have at least one member with good accounting and finance knowledge or else they can’t identify accounting or financial errors, key financial risks and analysis of the impact of risks facing the company effectively. Members with accounting and financial backgrounds are able to review financial risks in details, to assess whether it is complete and understandable. I must say that audit committees work the hardest with the same benefits. We work really hard because they must review different risks carefully in a short period. Then, we discuss with auditors what should be revised and improved. It is a tough responsibility for members with accounting backgrounds in overseeing financial risks.’ (AC 15)

‘Two out of three independent audit committee members have good knowledge of accounting and auditing, work hard and dare to ask. I think it is good because we can discuss or clarify any doubts relating to key risks and it is the advantage of *[company name]*’s audit committee. For what I’ve seen, accountants are very careful and suspicious and specialize in accounting principles. It is important for them to ask probing questions about risks. These are good qualifications for auditors. To be honest, I am not as careful as them. I do not consider many details but look at the whole picture. Specializing in accounting principles and being careful and considering details are essential for risk oversight.’ (AC 4)

‘Internal and external audit experience is very helpful. My job is very much concerned with this knowledge. Initially, I had been a bank examiner at the Bank of Thailand and audited different banks around the country for more than 10 years. After that, I quit and formed an internal audit team at *[bank name]*. When I was promoted, I had supervised 400 subordinates and been promoted as an executive vice president. My previous experience enables me to understand the whole bank operating system, significant risk profiles and compare them with other companies. It is not too hard when conducting risk oversight.’ (AC 13)

Given there are several types of risk which audit committees need to oversee; the findings show that team-working is an significant factor in the audit committee oversight processes. It can be argued that the success of audit committees' risk oversight lies on the ability to combine competences, specialisation and experiences as a collective process in order to perform risk oversight.

7.3.3 Understanding of Business and Risks

In order to deal with risk oversight, the participants showed that they began with obtaining an understanding of the company and the industry in which it operates. Most of the interviewees developed an understanding of the nature of the company from the company's reports, documents and publications.

'To understand key risks you must be able to identify strengths or weaknesses of a company, you must read and analyse its financial statements and reports. The most important thing is the atmosphere of business management in that company. You must be aware if it [*a company*] is under the owner's supervision.' (AC 18)

As seen from the above quotation that participant also considered '*atmosphere of business management*' to be an important environment for obtaining familiarity with the company. The following are additional examples of participants' views on developing an understanding of business and risks:

'In order to do our job, we must understand the business prior to performing the oversight task. Preparation through understanding and learning the company's business activities are an important part of our responsibilities. Understanding of the business is very important and consists of different elements. We must understand the business transactions well before we ask probing questions and give comments. It doesn't mean that we always agree with the data but most the

important is that we have discussed on what we agree or disagree before we conclude anything.’ (AC 2)

‘You must understand the business very well, what the risk factors, errors or frauds of that business are.’ (AC 6)

‘I think good business experience and understanding are very important because it eases our working. Without good knowledge and understanding of the business, we do not understand the overall structure because different businesses have different structures.’ (AC 7)

‘In my opinion, you must understand the business first, so then you can identify its risks. Based on my experience, when we have audit committee members who know and understand the business well, things will be okay and smooth. If we don’t understand the business enough, we can’t carry out effective oversight and put forward good comments at the end.’ (AC 12)

‘Audit committees must have good knowledge of the business they are overseeing because different businesses have different attributes. They must study very well. [*Company name*] group of companies, for example, include different factories. Their activities are not much different but their projects have got different criteria. Trading businesses are different in terms of strategies and supervision. If audit committees do not understand the business well enough, it is risky to discharge their responsibilities.’ (AC 13)

‘We must understand these companies’ natures, activities, weaknesses and risks. These risks include risks in operation, production, information system, exchange rate, currency, estimation, stock and inventory and so on. When we understand their working system, we will be able to identify significant risks.’ (AC 19)

One of the most interesting findings in this study is that many interviewees indicated that they seek to understand the top management’s risk philosophy and the company’s risk appetite through conversations with the key management:

‘It is very important that we do our homework or prepare ourselves in terms of business and financial understanding, learning the company’s activities and its background. We must understand the business.

Different industries have got different tricks and key risks.

Importantly, you should talk to the management about the company’s appetite for risks. I would ask them [*management*] to tell me how they run their business in detail, what are their views on the company’s risk appetite and try to understand it.’ (AC 8)

Another audit committee chair explained:

‘When you carry out oversight duties in a company, firstly, you must obtain an understanding of the business by reading the company information to understand how they establish the business, its business structure, its organizational chart, its working procedure and its policies. It is important that you must understand the company through reading the financial statements and talking to the top management. You must talk to the CEO. If the CEO can’t tell you anything, I must say it is hard to work with him successfully.’
(AC 10)

The above quotations are consistent with Cohen et al. (2002b) that management is the core driver of corporate governance. Indeed, management plays a critical role in enterprise risk management processes and setting the tone at the top. The findings suggest that the participants paid attention to obtaining an understanding of the extent to which management had been creating and maintaining the tone at the top, especially the management role in risk management processes.

Many participants said that another helpful technique in building knowledge of the company is a tour of the plant and offices. In visiting the factories, the audit committees would learn and observe the facilities and activities of various locations. Furthermore, this approach would allow an opportunity to meet and talk to the key

personnel working at the plant. Developing an understanding of the company by visiting factories and branches is illustrated by the following examples:

‘For us, we visited factories in Prajeenburi, Chantaburi and Surat Thani when we served on the audit committee of a food business. I think the tours enable us understand the company and the business we are serving.’
(AC 9)

‘When we visited factories, we went to the production lines to learn about different activities and processes. In doing this, we have a better and more complete idea of how to take care of our oversight tasks.’
(AC 13)

‘We visited branches in the countries at least twice a year. I am not an internal or external auditor. I am a chair of the audit committee working on behalf of the board of directors, so my visit needs not to be a surprise visit.’ (AC 14)

As expected, the research data had revealed that different sizes of company and the nature of the industry tend to affect the way in which the participants obtain knowledge of the company and its risks. The participants of the small companies would appear to obtain an understanding of the business more easily than the participants from the large companies. The following statement addresses a perspective from an audit committee member who serving at a small company:

‘I understand the company’s risks quite well because I’ve been working here for six years. We have seen a pattern of different problems such as world market price, external economic or political impacts. They are controllable and uncontrollable. It is quite obvious. It’s not like there are some industries for whom it is hard to identify risks. For this industry, trading is a significant risk.’ (AC 17)

In contrast, many participants from large companies mentioned that some concerns in their opinion were difficult to obtain an understanding of the complexity of business operations and processes. Evidence can be found in the following example:

‘After the Enron case, there are many problems and new financial instruments. To tell you the truth, I do not understand about new financial products since they are bundles. I admit that we can’t monitor all aspects of the company’s risks completely because their financial transactions always change. There is quite a lot of complication in terms of financial products and derivatives that are more complicated every day.’ (AC 5)

In summary, the way in which audit committee chairs/members obtained an understanding of a company’s business, its environment and its risks appeared to be similar to external auditors “obtain the bulk of their knowledge *directly from the client*” (Hirst & Koonce, 1996:462). The findings highlight that developing a sufficient understanding of the business and its environment is an important process within the risk oversight task, because the understanding established a frame of reference for the audit committees to use in developing expectations and assessing key risks for the companies prior to performing risk oversight tasks (Hirst & Koonce, 1996; Kranacher et al., 2010).

7.3.4 Scepticism

The findings from interviews show that a number of interviewees had applied a form of ‘scepticism’ when they carried out risk oversight. For instance, as an audit committee member remarked:

‘We do not work on a day-to-day operation basis. When we see something wrong or anything suspected, we must know how to ask a proper question to the right one. Necessary skills for performing

oversight tasks include the ability to observe, presumptive doubt and questioning.’ (AC 1)

A remark from this audit committee member reflects the concept of ‘scepticism’ in the auditing literature that professional scepticism is an “essential personal attitude” for professional public accountants (Hurt et al., 2013). Importantly, the findings in this study are consistent with Gendron et al. (2004), in which audit committee members adopt “a smell-test process” in evaluating financial information and risk. In applying scepticism, audit committee members are assumed to be recognise when things seem to be “off” or do not pass the “smell test” (Hurt et al., 2013). According to Nelson (2009), the two underlying components of professional scepticism consist of sceptical judgement and sceptical action. In the context of audit committee risk oversight process, sceptical judgement is exercised by a member when recognising that a potential risk may exist and more tasks or effort is necessary. Sceptical action happens when his or her behaviour is changed based on sceptical judgement and eventually results when he or she acts sceptically (e.g. asks probing questions). In other words, sceptical judgement will change a member’s behaviour. Once he or she acts on the judgement, sceptical action occurs and that will change the amount or nature of evidence available to an audit committee (Nelson, 2009). Reflecting on how an audit committee chair exercises scepticism, the following is an example:

‘Audit committee members must be good observer, with a questioning mind and be able to pick up things quickly. Audit committees must observe things promptly, especially when looking for something wrong. They must pay good attention and care, work carefully, and love learning about new things and follow up the results. We must accept that there are always hindered risks in the financial field. We, therefore, must be very careful when we study the numbers. We always ask if the number may be overestimated, how come it is, there

should different ratios. These numbers are for comparison. Financial report data are compared between different years and different periods. We must study these numbers and ask wise questions in order to have a better understanding and analysis.’ (AC 6)

Applying sceptical action, a chair reported:

‘We always crossed check by asking different people. For example, we start with asking management and then personnel concerned with the issue. We must understand their transactions in order to ask the right questions. Questions we asked include their process compliance or the reason why their number increased or decreased more than expectation and so on.’ (AC 8)

Overall, the data indicate that the audit committee practice of exercising sceptical judgement and sceptical action is similar to the work of Gendron et al. (2004) and Gendron and Bédard (2006). When overseeing risk management, most participants maintained a questioning mind and made a critical assessment of the evidence taken.

7.3.5 Focus on High-Risk, High-Impact

It is widely accepted that there are several types of risk facing an organisation. Indeed, these risks have very different profiles. When conducting risk oversight, the data indicated that participants paid careful attention on emphasising the high risks that could have high potential effects on the companies. A chair of an audit committee has these accounts to share:

‘There are several kinds of risk throughout the organization. We will inspect especially key risks that will impact the company seriously or where there is a high likelihood. Based on my experience, these are details we had already known from reading the reports, but we don’t discuss all the risks. Within a two-and-a-half hour meeting, it is so short, and we discuss only the significant risks that have high potential impact and find a scenario to solve them.’ (AC 14)

Clearly, the above account suggests that the chair had taken high risk profiles seriously. Also, looking at the responses from various audit committee chairs/members in this study, they reflect a discourse of high risk as “the high degree of seriousness” and “the high potential impact” affecting their companies. These are the most significant factors that mean audit committees place greater focus on centralised overseeing than with medium and low risks. In addition, as can be seen from the above quote, it implies that time constraints make it impossible for audit committees to oversee every level of risk. As a result, such constraints determine high risk profiles as the priority of audit committees that are in need of oversight. It is important to note that the way in which audit committees intensively emphasised high-risk profiles is consistent with the results of Sarens et al. (2009). Along similar lines, many participants have remarked:

‘We must focus on high risk first. With respect to risks in the meeting, management, internal and external auditors report high risks first and then follow with medium and low risks. In some cases, they possibly have different ideas from us. We sometimes argue that their medium risk is high in our opinion.’ (AC 1)

‘In the financial industry, we agree there are hindered risks all the time otherwise some big firms would not have gone bankrupt. When we review numbers in the reports, we must be very careful about high risks. I mean we must know and make sure that the company has an effective risk management in place to deal with those risks.’
(AC 2)

‘The audit committee is aware of overseeing fraud risks. It is certainly the first risk to be inspected in order to prevent corruption and other problems. We must concentrate on high risks that affect the company’s performance. All shareholders must be protected and taken care of because we are an independent committee. Specifically, minority shareholders must be protected from being cheated. On

behalf of the independent audit committee, we are always aware of the high risk likelihood, its impact and what to do; otherwise, there will be serious problems.’ (AC 6)

‘I primarily focus on high risks, what items there are, how they (*managers*) manage these risks, why turnover or numbers change a lot, how come this is, which numbers dropped a lot.’ (AC 7)

‘Different businesses have different risks: for example, the risk of an insurance company is risk in insurance. If it is high risk, we must pay more attention and know all the high risks. We encourage management to weigh these risks, calculate their cost and find out how much risk influences their bottom line.’ (AC 11)

‘It depends on its impact. We must focus on which risk is more serious than the others and then pay your careful attention to it.’ (AC 15)

In sum, the participants generally exhibited that time constraint factors weighed heavily on their deliberations on placing oversight on the high risk series. More importantly, focusing more attention on high risks that could have a big impact or high potential to affect the achievement of a company’s objectives raises a discourse around the audit committee’s “duty of care.” From this perspective, the audit committee oversight of risk is one way of exercising care to ensure that high risk profiles have received adequate attention and oversight.

7.3.6 Challenging and Forcing

Previous studies regarding the operation of audit committees generally find that a willingness to act, to challenge management and concerned parties, is invaluable to a committee (Kalbers & Fogarty, 1993; Cohen et al., 2002a; Gendron et al., 2004; Gendron & Bédard, 2006; Beasley et al., 2009b). All interviewees’ responses from this study highlighted that the way in which it typically occurs when audit committees

challenge and force management, and on occasion concerned parties when undertaking risk oversight. The following statements from participants demonstrate this view:

‘When they [*auditors and management*] told us these are the risks, we asked them back. It reminded them to reconsider whether our warning is correct or exaggerated and what indicator should be used to measure and handle risks. They must become aware of what the real problem is not only identifying the risk. They are supposed to come up with a proper and subjective measurement or indicator or they can’t track which risk to reduce or which risks are more serious. To be honest, I was dissatisfied with the internal audit sometimes. For instance, its report was not written clearly. In the meeting, I would be very happy if they could answer our questions clearly.’ (AC 2)

‘We are waiting for the report on the company’s risk appetite and so on to monitor what shall be audited later on. We must be reassured whether the risk management system is okay and is followed. We monitor different processes and regulations. The internal audit is directly responsible for evaluating risk management processes and they [*internal auditors*] must coordinate with the risk management committee and report to us [*audit committee*]. Our audit committee do not only co-operate with internal audits when we oversee risk, rather we invite concerned parties to explain different things, such as compliance risks as explained by the compliance team or IT-transformation as explained by the information technology unit. Further to the IT-transformation at [*bank name*], we and the Bank of Thailand are keeping an eye on it, so they must report what they are doing or what plan they are changing. We sometimes invite the company’s lawyer to discuss lawsuits and risk of each case.’ (AC 6)

‘We asked in-depth questions, actually, and discuss ideas such as why they don’t try this and that or is this good enough or not.’ (AC 8)

‘We must let the management know about our concerns. Indeed, I have worked here for many years, so I am barely concerned with anything. In case there is any concern, especially with key risks, I will

certainly let the management know and ask how they would deal with these risks in the meeting, without hesitation.’ (AC 10)

‘Since I am a chair of the committee, I must acknowledge everything sooner. It doesn’t mean following it every month but showing up in the meeting to force everybody to work. A meeting is held once a month. Audit committee members are very careful to ask questions. We ask many in-depth questions carefully. If somebody can’t answer the question or report some progress, it seems like he or she is irresponsible.’ (AC 14)

‘For example, the internal audit reported significant risk to us. If it is a serious issue and the CEO is supposed to deal with it, we would invite the CEO into our meeting and ask him about the issue. In many cases, we inform the CEO that the internal audit is going to audit the issue and need cooperation from his subordinates.’ (AC 16)

Upon consideration of the above statements, along with the interview data, it appears that most participants were careful to ask “the right questions” and “in-depth questions”. Additionally, as AC 14 stated, “If somebody can’t answer the question or report some progress, it seems like he or she is irresponsible”, which implies that the quality of responses is assessed by audit committee members. The findings are consistent with previous findings (Gendron et al., 2004; Gendron & Bédard, 2006; Beasley et al., 2009b; Cohen et al., 2010) that audit committee members ask diligent questions and evaluate the quality of responses provided by managers, auditors and other concerned parties in order to establish their perceived effectiveness.

Moreover, most participants seemed to be well-prepared before asking questions. These findings can be linked to the themes ‘understanding of business and risks’ and ‘scepticism’. Based on the interview data, it can be argued that the understanding of business and risks in conjunction with reading reports and

information provided by auditors and management enable audit committee members to establish a frame of reference within which they exercise sceptical judgement prior to and throughout the risk oversight processes. As a consequence, the extent to which audit committee members ask diligent questions and evaluate the quality of responses are forms of sceptical action. Drawing on Nelson (2009), when the understanding (evidential input) and sceptical judgements translate into sceptical actions, both impact on virtually all aspects of the oversight processes, and then can reflect the amount or nature of evidence (evidential outcome) available to the audit committee.

Interestingly, the interviewees' responses also revealed that in asking diligent questions, many participants did not only ask an auditor or manager at the time. Rather, in some cases they had asked questions of two or more people from different departments at the meeting in order to compare and contrast information. The following quote provides an illustration:

‘Regarding to [*bank name*], the Bank of Thailand requires external auditors to report to us about IT [*information technology*] control systems. So we required IT personnel to explain what happened to the repeated weakness. This was not the first time the internal audit found the key risks in the system. In the past, the auditor and IT personnel would answer the question in different meetings and we had not got the sufficient answers we wanted. In order to overcome this issue, we invited both of them to the same meeting and asked them what really happened.’ (AC 2)

In summary of this section, when looking across different interview responses, the process of challenging and forcing is critical for audit committees in overseeing risk management. When challenging and forcing managers, audit committee members typically asked in-depth questions.

7.3.7 Use of Specialists

For companies that have a complex and high risk profile, the interviewees in this study perceived that risk is more complicated and that risk management is a complex system. Similar to Gendron and Bédard (2006) and Beasley et al. (2009b), most of interviewees admitted that they faced some uncomfortable situations while charged with risk oversight and sometimes they seemed to be less confident in their ability to oversee risk management. Basically, in order to fulfil the risk oversight responsibility, the audit committee needs to be satisfied that the company have effective risk management processes in place. However, when the participants in this study realised that they may lack the capability necessary to oversee certain key risks, they often would consult with experts. In addition, if auditors could not provide them sufficient evidence, they would hire specialists to obtain assurance with respect to the key risks concerned. The following quotes provide an illustration:

‘We use different experiences of our team members to oversee different risk issues. However, sometimes we hire experts to help our team and guide us in terms of risk oversight. The most serious risk is being unaware of our risk. If we do not see or cannot identify our risk, serious loss or damage may happen.’ (AC 2)

‘In case that we have no idea of risks facing the company, in the past we consulted external specialists.’ (AC 6)

In many cases, specialists were hired to evaluate the quality of the companies’ risk management system and help the internal audits in development and implementation of sound risk management practices. This is illustrated by the following quotes:

‘In my opinion, audit committee members are not experts in all areas of risks. We are just like normal people. In case we oversee risks of

[company name], we must discuss with the internal auditor first. The internal auditor knows what significant risks are and asks our advice. With our knowledge together with information taken, we help them find the way to handle these risks. If we consider that the internal audit has limited ability to deal with a key risk area, in the past, we recruited an expert to help with this and the expert's salary was at the company's cost." (AC 10)

"I am trying to improve the internal audit in handling risk management since our personnel are not experienced. It seems like their knowledge regarding risk is limited. Indeed, we were not satisfied with the reports. As a result, we hired a consultant to help them. So far, they have done very good reports. We are quite satisfied with their reports and their role in the risk oversight." (AC 11)

"The charter has assigned us to oversee the company's risk management system. If auditors are not qualified to review those risks, the committee is subject to recruit a consultant." (AC 16)

To sum up, in situations in which audit committees experienced complex significant risks existing for a number of different reasons, they are more likely to employ specialists to facilitate them in the risk oversight processes. In addition, specialists are more likely hired when there is a need to assess companies' risk management processes and to provide assistance to the internal audits.

7.3.8 Giving Advice and Recommendations

The previous findings of this study indicate that a number of sceptical actions were translated into several aspects of the risk oversight processes, including members working together as a team, challenging and forcing auditors and management, emphasizing high-risk, high-impact, and using specialists. It is not possible to generalise, but the responses from this study suggest that most interviewees have a high level of agreement that one of the important objectives of the audit committee oversight

of risk management is to contribute to the improvement of risk management processes. In order to do so, audit committees would be involved in two constructive processes: (1) giving advice and recommendation, and (2) providing support and assistance. With respect to the first constructive process, they would consider giving advice and recommendations in order to improve and strengthen the internal audit function and enterprise risk management programme. These interviewees offered their views:

‘The reason why fraud happens is concerned with personnel’s carelessness which is followed with lawsuits. We, therefore, suggest them how to correct this mistake. The company must learn from the mistake, train personnel and strengthen internal controls. A risk management system is essential, and also helpful by showing high significant risks to be make people aware on the monitor. We generally advise management of any concerns and suggest additions to improve risk management processes.’ (AC 6)

‘In the meeting, we consider key risks carefully and we often suggest a different idea for dealing with the risks. I suggest what they *[auditors and management]* lack instead of asking why they do this and don’t do that. Anyway, it’s sharing ideas and experience.’ (AC 14)

‘We are the ones who remind them *[auditors and management]* how to be careful. When we suggest or propose different solutions, the risk management team will take care of it later on.’ (AC 15)

‘Since the audit committee play an important role in risk oversight, so MD *[managing director]* places great emphasis on our work. We will command or give them advice for what to improve or correct because they don’t want us to report that in the board of directors meeting and embarrass them.’ (AC 18)

‘In my opinion, while we act as an oversight body which ensures checks and balances on the company’s financial reporting processes, at the same time, we are also supposed to promote company success

and progress, and encourage management to do their best. My committee aims to accomplish both roles. When we have some concerns, we will let management know. For instance, we remind them that they do something too fast or too riskily. It is not proving that management do something wrong. It is too optimistic. I still believe that every executive wants his company to be successful, but he may overlook some risks. Our duty is to remind him.’ (AC 16)

It is noticeable from the above quote by AC 16 that the audit committee was perceived as an oversight body which was carrying out a checks and balances role.

7.3.9 Providing Support and Assistance

In addition to the preceding constructive engagement process, audit committees would be involved in the constructive engagement of auditors and management in providing support and assistance. The following are some examples from the interviewees regarding the providing support and assistance processes:

‘We don’t ask probing questions or challenge them only but we also encourage, praise and provide our comments them. With our suggestions, they can improve their job with a broader view, since working people sometimes do not reconsider their job or have a narrow vision. We encourage them to consider their work with a bird’s eye view in order to consider the different aspects influencing their job and improve it. These are actually management’s duties. They [*managers*] have long experience in management and understand their role in the organization. We learn their strengths and weaknesses. Their strengths are beneficial for the company and we appreciate them greatly. At the same time, they have some weaknesses and we learn if they are serious issues, key risks or their intention would affect the company, we will suggest them for correction.’ (AC 14)

‘For example in Russia, we know that Russian companies usually have many problems, including high risks and making no profit. When we arrived there, they were very worried and scared. We motivated them to make a profit and hope they can do it this year.’ (AC 15)

‘We are also helping by telling internal auditors that they are valuable. Also, we encourage them to prove what they can do for the company.’ (AC 16)

‘Internal audit committees must be aware that some staff in the company feel that we are pulling them to pieces. We must make them feel important to the company and point out the advantages of having the internal audit. Rather, we encourage the internal audit to prove that they can help management in identifying problems or preventing the company from damaging the working system or risks.’ (AC 19)

In summary, findings highlight that while several sceptical actions (members working together as a team, challenging and forcing auditors and management, emphasizing high-risk, high-impact, and using specialists) are essential for the audit committee in conducting risk oversight in order to ensure that a company’s risk management processes are functioning effectively. There are two constructive processes suggested by participants from this study: (1) giving advice and recommendations, and (2) providing support and assistance. Nonetheless, it should be noted that audit committee members need to consider the balance between independence, oversight and constructive engagement roles when conducting risk oversight.

7.3.10 Informal Processes

While formal audit committee meetings are expected to take place when undertaking risk oversight, most interviewees exhibited that they employed several informal techniques in carrying out risk oversight outside formal meetings. As an audit committee chair stated:

‘After the meeting, we have lunch together. In the case of this financial institute, sometimes, heads of different functions were invited to lunch with us. They are the key personnel in the organization and the lunch is a chance to get to know and share ideas with each other. They share their concerns with us while we ask them to explain their role relating to risk. Importantly, it’s good to know each other more. We sometimes tell the department heads that an IA [*internal audit*] had found something out of ordinary, ask what their ideas are, and warn them. Anyway, it is not so serious that it will ruin the good atmosphere, but it is sharing ideas. We think it is a good way to learn about the management so we can learn about their thoughts or attitudes and we can provide our suggestions to the heads who take responsibility for those functions.’ (AC 2)

Another audit committee chair remarked:

‘When there is something unusual, we sometimes contact each other via email amongst the audit committee group. We meet each other at the meetings of the audit committee, independent committee and the bank’s board of directors. Typically, we have met three times a month. After the meeting, we have lunch and discuss pending issues. Sometimes the president will suggest what we must do. It is an informal discussion that enables us to get everything done properly before the next meeting. It is better than sending different emails. Executives here are quite open they will learn or work it out and send us emails or make a phone call. It is very good I think.’ (AC 6)

These comments emphasise a significant level of informal processes. Similar results were found by Gendron and Bédard (2006), Turley and Zaman (2007), Beasley et al. (2009b) and Wu et al. (2014). As a consequence, it is evident that the results support the existing literature on the use of informal processes by the audit committee to achieve the fulfilment of its oversight goals and objectives. Many interviewees’ responses suggest that the audit committee chairs/members would normally prefer the communication in the formal processes to be “friendly” and “not too serious”. In

addition to informal processes, one audit committee chair noted that “I encourage everybody to talk freely about what he or she is concerned with (AC 7)”. More interestingly, many interviewees demonstrated that an additional value of informal processes is to build and maintain “a good relationship” between the audit committee and the personnel who participated with the committee. The evidence is supported by the statement below:

‘We mostly talk about something excluded from the agenda informally. They (*managers and internal auditors*) are happy to talk and ask for our suggestions. It doesn’t mean everything is informal. We talk seriously if it is about key risks, but I want to come out of the meeting friendly and informal. If there is a significant issue, we [*audit committee*] will specify in the agenda of the next meeting to invite a manager or someone else where necessary. We may have lunch together first, before the meeting and discuss the issue. This is the way to create a good relationship.’ (AC 9)

The importance of the formal processes is also agreed to by an audit committee chair:

‘This is my working style. I do not adhere to formality so much. I will be more than glad if my subordinates talk or discuss with me. I am not a serious audit commit chair. I am glad to talk about personal issues or about work if I am available. Being so strict or so formal is not good for work, since a good relationship with the team will facilitate better work. Having a good relationship enables me to learn about their characteristics, thoughts and opinions.’ (AC 7)

The above accounts imply that “a good relationship” would affect the way in which audit committees and their concerned parties work together, which in turn may reflect on their performance. It should be noted that the findings are consistent with the existing academic literature regarding the nature and extent of good communication between the audit committee and various parties in the governance structure (DeZoort et

al., 2002; Cohen et al., 2004; Beasley et al., 2009b). In particular, Cohen et al. (2007) argue that the effectiveness of communication between audit committees and various parties potentially impacts on the overall financial reporting quality, internal controls, control environment, risk oversight, and external auditor's performance.

To conclude on informal risk oversight processes, despite the fact the formal processes are important in order for audit committees to fulfil their oversight responsibility, the effectiveness of risk oversight is not solely achieved through formal operations and processes (Turley & Zaman, 2007). Rather, using informal processes would allow audit committees to carry out enquiries into the areas of risk which are uncommonly brought up during meetings (Gendron & Bédard, 2006) and the benefits of informal oversight processes enabled by flexibility of conducting. Hence, both formal and informal processes are essential to the audit committee oversight of risk management.

7.3.11 Follow-ups

To follow-up the key risk series, responses from the interviews showed that all audit committees would assign the internal audit as a main follower in helping audit committees achieve their risk oversight objectives, especially in providing comfort to them. This is consistent with Sarens and De Beelde (2006) and Sarens et al. (2009) that the internal audit function is a comfort provider to the audit committee. The data illustrated that in many cases when audit committees encountered considerable discomfort, they would seek comfort by employing one or more oversight techniques. For instance, they would consider using either challenging and forcing, giving advice and recommendations, providing support and assistance, or informal processes. As concluded by one audit committee chair:

‘We will let them answer because it is the pending agenda. The recommendation will specify whose responsibility is on the record as the pending agenda. It [*follow-up agenda*] is the third agenda of every meeting. Everybody [*auditors and management*], therefore, must prepare his or her report and submit it for the meeting. Progress must be reported at every meeting. All assignments are recorded: whose assignment each is and following up with that person. If they do nothing or make minimal progress, I will repeat the follow up every time we have a meeting. I also ask if they want any help but I do not complain or criticise them for being lazy. I will inform them of something new and add more comments because I think everybody is mature and responsible. I am not supposed to go on small details. My task is to explain the reason, assign the job, listen to their problem and give advice. When I give them advice, they are expected to learn more and improve their work performance.’ (AC 14)

It can be noted from the above statement that the audit committee used different methods to ensure that risk management procedures had been done appropriately when removing or reducing potentially high risks from the company. Additionally, although the internal auditor had been designated as a main follower, the audit committee would call management to report them when they need concrete evidence on whether management was taking actions to address significant risks properly. At this point it should be noted that the above response highlights a discourse of audit committees seeking comfort, and the internal audit function is a major source of comfort (Sarens et al., 2009). In the same vein, other participants pointed to the follow-up process:

‘We will include our suggestions in the AC memorandum. Actually it does not only concern risks but every concerned issue. It is often giving our comments. We certainly document it as a memorandum. The internal auditor’s responsibility is to follow-up in the next meeting if they take an action especially for the urgent issues. Our

follow-up places much more emphasis on the high risks previously reviewed and offers a way to solve the problem. We not only monitor the progress but ask the opinions of internal auditors too.’ (AC 2)

‘We will give them [*internal auditors*] comments about something not yet followed up, what the problems are or what is to be done. These will be concluded in the table and reported to us every meeting.’ (AC 3)

‘We [*audit committee member*] attended the board meeting of the bank every month. If we saw any issues to be flagged, we would let the secretary [*chief audit executive*] know and ask her to report in the next audit committee meeting.’ (AC 6)

‘Internal auditors usually follow up and report to us so we acknowledge all meetings. When we get the progress report, we will review and provide feedback accordingly.’ (AC 13)

In summary, risk management systems are on-going processes; the follow-up process is the way in which audit committees provide a sustained focus on the quality of risk management systems, and offer an on-going assessment for the improvement and straightening of sound risk management practices.

The next section presents the findings of how Thai audit committees make judgement and decisions when they carry out the oversight of enterprise risk management.

7.4 How do Thai Audit committees make Judgements and Decisions when they carry out the Oversight of Enterprise Risk Management?

Drawing on Rodger’s decision-making process model (Rodgers, 1991; 1992; Rodgers & Housel, 2004; Foss & Rodgers, 2011), this study proposes a theoretical framework (see Chapter 3) to analyse how audit committees make judgement and decision in the context of enterprise risk management oversight. While the second objective of this

study is to test a decision-making process, the fourth objective aims to inductively develop a better understanding of the processes of Thai audit committees in making judgement and decision when they perform the oversight of enterprise risk management. The next sub-sections will present the findings of the research from interviews.

7.4.1 Perception

Audit committees at publicly held companies are primary responsible for oversight the integrity of companies' financial reporting processes as well as oversight of the internal and external auditors. As mentioned in Chapter 2, risk management oversight responsibility has been emerging as a new challenge role of audit committees. According to Beasley, Branson, and Hancock's (2015) report on the current state of enterprise risk oversight in the U.S., for which they conducted annual surveys from 2008 to 2014, approximately 60 per-cent of corporate boards have delegated the responsibility of risk oversight to the audit committee. Specifically, the survey findings of this study show that 21 per-cent of respondents indicated they were not involved in the oversight of enterprise risk management. As a result, 79 per-cent of respondents reported that the boards of directors of Thai public company have delegated risk oversight responsibility to the audit committee.

The evidence from in-depth interviews with 21 Thai audit committee chairs/members illustrated that all of them perceived the risk oversight role as important. However, most of interviewees also perceived risk oversight responsibility as a major challenge task. In fact, there are a number of factors can affect the achievement of company's enterprise risk management. In discharging risk oversight responsibility, many audit committee chairs/members underscored that stakeholders should not place higher expectations with respect to risk oversight on the audit committee only. One

audit committee chair suggested that because audit committee members are not “superheroes”, the following quote illustrate this view:

‘I think risk oversight is useful for public companies. It is like a check and balance mechanism. Audit committee members are not executives or majority shareholders. The question is how to prevent risks from the company and shareholders. Though you are satisfying needs of executives and majority shareholders, you don’t forget about minority shareholders since they are parts of you. We must consider carefully and care about shareholders, specifically minority shareholders. I think audit committee can help much with this. However, to have an audit committee, you must understand that we [*audit committee members*] are not superheroes. We are the ones who help and monitor your work and key risks. The company’s management have got better data and internal auditor has got a better tool than us. We just help you monitor. This is fact. Executives are responsible to prepare financial statements, they know everything. External auditor is a professional who knows different audit methods and has better tool than us. We sometimes have 4 or 8 meetings a year. We typically just ask questions in order to monitor risks and risk management. Shareholders should not perceive that everything is complete when they have an audit committee. It is not like that but it’s another check and balance system on the company’s financial reporting and risk management processes.’ (AC 16)

Consistent with Gendron and Bédard (2006), Beasley et al. (2009b) and Sarens et al. (2009), the data of this study exhibit that although most of interviewees perceived the importance of risk management oversight, they felt uncomfortable about this role. Nonetheless, a vast majority of interviewees expressed that they had a willingness to perform risk oversight tasks and indicated a commitment to substantive oversight rather inattentively provided “rubber stamp” for undertaking risk oversight. Clearly, interviewees perceived managing risk as management’s responsibility, whereas they

charged the risk oversight process. Below are the perceptions of interviewees regarding risk oversight role:

‘Audit committee do not manage risk by ourselves but oversee different risk management practices in our organization as required. Further to our charter, it says what we should oversee risk and we revise the charter every year because there are new laws, different duties and something new all the time.’ (AC 6)

‘Actually, CEO works on a full time basis while the audit committee works on part time basis but the audit committee take responsibility all the time. All of us are independent directors which mean we do not deal with day-to-day work but monitor and check what benefits they get from what we do. They appreciate our knowledge and suggestion. This means they accept our suggestion and implement it. We are proud to do something good for the organization though we do not work with them all the time. This is what I think as our performance for the organization.’ (AC 9)

‘Principally, audit committee are not responsible for implementing risk management. It is the executive’s duty. The committee just make sure that they have reliable risk management plan and implementation effectively, and we review their operation every three months. Our review will be reported to the board of directors. Risk management depends on the company management. Though I am a chair of the audit committee, I must accept that I am dissimilar to the managers who work every day. I have got different duty from management. I supervise audit committee. Members have been assigned risk oversight responsibility and it is a part of the charter.’ (AC 11)

‘Risk and risk management are very important because it means survival of the company. We must make sure how much we evaluate their risk, if it covers all aspects, how much each risk influences to the company and how to manage risk. In my opinion, we have been monitoring it for a long time but we have not considered different factors possible to be risk. In fact, it becomes important because it

may affect the business and it seems to me the most important facing the company today.’ (AC 15)

More interestingly, interviewees enumerated numerous benefits of risk oversight performed by audit committees. Evidence on the extent to which audit committees can make a contribution to enterprise risk management can be found in the following statements:

‘Risk oversight is useful because it could confirm or ensure the executives that different risks would be managed and monitored effectively and promptly. We did identify which were key risks, how much they were or they were in yellow and red zone or not. Although these are mostly the task of risk committee but we need to take care.’ (AC 6)

‘With respect to risk oversight, it provides the second opinion because the risk management committee might overlook some key issues. In many cases they had their own ideas how to deal with risk, while audit committee had different ideas about that. I didn’t say who is smarter or more careful than the other. Executives may overlook some financial and accounting risks because they consider all aspects of risk.’ (AC 14)

‘At first, we are not only audit committee to make sure proper risk management processes in place. We are also providing reliable information to the executives. You may not see what we are doing because we are independent directors who did not involve with the work completely. We also act like a consultant to feed comment from outside in. I also do like this when I am a consultant of other companies. How can we improve their operations? I, therefore, think audit committee is playing an important role as a consultant to the business but making decision is executives’ duty.’ (AC 17)

‘Since audit committee is independent committee, its role is working independently, directly and extensively. It is different from risk management committee which most of them are executive and

includes CEO as a chairman. Though risk management committee primarily take care of all risks but we are subject to raise key risk issue to discuss if we think it is important.’ (AC 18)

Based on the concept of perception, individuals process information inputs into responses involving feelings and resulting action (Mullins & Hicks, 2002).

Considerably, Mezias and Starbuck (2003) argue that the quality or accuracy of individuals’ perceptions, however, has a significant effect on his or her responses to a given situation. Within the perceptual process arena, it can be argued that audit committee members who perceived fewer levels of the risk oversight role may have less proactive drive to carry out such oversight, which could affect their judgement and decision. Therefore, perceiving the importance of risk oversight role is essential for audit committee members. To conclude the perception topic, it is difficult to generalise, but the analysis data from the audit committee chairs/members interviewed for this study indicate that they became aware of risk oversight responsibility and interpreted a number of benefits contributed by them in terms of performing risk oversight tasks.

7.4.2 Audit Committees’ Activities in Overseeing the Internal Audit

As mentioned earlier in section 7.3.11, the internal audit function is essential in facilitating the audit committee. It plays a vital role to assist the committee in overseeing all component of the company’s enterprise risk management programme. Also, the interviewees’ responses highlight that the extent of the audit committee involvement in the internal audit function is relatively high in the risk oversight processes. Here is the illustrative statement:

‘In this company, most of risk management oversight tasks are included in the internal control function. Internal auditors develop risk-based audit plans prior to auditing. Three year audit plans are developed based on a risk-based approach. We [*audit committee*] are

aware of high, medium and low risks. So, high and medium risks must be audited every year, every two or three years for low risks respectively. We want three-year plan because we want to see the overall picture and audit plan must be reviewed every year as roll over... This year, the company is implementing a new IT system. CFO is required to report what changes to do with us. Internal auditors must report us any key risks relating to the changing IT system. If the accounting system must be changed, we must make sure that the system has been protected from any risks. In case of changing new software, we carefully consider if there are any significant risks. Every department, therefore, must report us. We will review and give suggestion based on the evidence.’ (AC 11)

Most interviewees asserted that they were largely involved in the internal audit in order to carry out risk oversight. The findings indicate that the level of audit committee’s confidence in the risk oversight processes depend on the quality of the internal audit function. The interviewees generally exhibited that the internal audit function with higher quality would allow audit committees easily to work with, which in turn increase their confidence in the risk oversight processes thereby identifying and addressing key risks facing their companies in a timely manner. As three audit committee chairs remarked:

‘When internal auditors find something important, especially high risk they will directly and promptly report to the managing director and report to the chair of audit committee. The chair of audit committee will examine what action has been done. The internal auditors audit key risks based on their plan. Although they randomly audit risks to prevent damage to the system, for high risk, the internal auditors must be careful all components relating to the high risk.’ (AC 19)

‘There are many problems if internal control is weak. It could be that different risks possibly happen. An effective internal control function is crucial in risk oversight processes. In my opinion, a strong internal

audit team helps reduce risk and straighten risk management system.’
(AC 10)

‘Based on my experience, the internal audit becomes an important tool of the shareholders in international companies being managed by professional management. Board of directors is responsible for taking care of corporate compliance and policy implementation strictly. All systems in these different branches or affiliates of the company are the same and comply with good governance principles having the internal audit and audit committee accordingly.... Yes, of course. They [*internal auditors*] report us in every the audit committee meeting. Generally, we discuss about the financial statements, key risks, problem identifications and solutions. In fact, they (*internal auditors*) had discussed with managing director before reporting us. They report the audit results to the audit committee quarterly and we discuss the audit reports in the meeting. We will review how important it is and whether it is necessary to be proposed or reported to the board of director... That is why internal control and good governance are important at the top of the list... For the company I am serving on the audit committee. Management often asks the internal audit to help them. This means they appreciate the importance of the internal audit. In my opinion, if the company ignores the internal audit, it means the company is weak. Strong and good company usually ask the internal audit to inspect some projects they concern. They realised that the internal control is an important tool for good management and this happens only in effective management companies.’ (AC 18)

Within risk oversight processes, it is apparent from the data that audit committees had become closely involved in the internal audit function more than the external audit function or other parties. As noted by Gramling et al. (2004), when audit committees are seeking at ways to better discharge their responsibilities for overseeing the company, they are more likely to place more expectations relying on the internal audit function as one of the primary resources to assist in their responsibilities for ensuring quality of corporate governance.

It should be noted here that clear and established scope of work between the internal and external auditors are important. While external auditors are generally required to plan and perform the audit based on the professional standards, internal auditors have a wider scope of auditing beyond external auditors. This may be seen clearly in the definition of internal auditing provided by the Institute of Internal Auditors: *Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes* (IIA, 2011). Consistent with Gramling and Myers (2006), the data show that the internal audit function was used by the audit committee in five enterprise risk management related assurance activities: providing assurance on risk management processes, providing assurance that risks are assessed correctly, evaluating risk management processes, assessing the reporting of key risks and reviewing the management of key risks. More interestingly, many interviewees underscored that the internal audit function was typically asked to audit insights into areas of risk that beyond the scope of work of the external audit function. In most cases audit committees asked the internal audit to play a greater role in auditing key risks of companies' operations. Evidence can be found in the following quotes:

‘Further to auditing the company’s financial reporting processes, the internal audit is also responsible for auditing the company’s risk management system. Actually, the reports of internal audit are not the same as the external auditor’s reports. In order to audit risks, they [*internal auditors*] audit more than 200 systems of the company and make monthly progress reports. They are required to report the audit results of to the audit committee quarterly...We [*audit committee members*] are responsible for evaluating the whole internal control system and risk management system. They [*internal auditors*]

perform risk-based systems auditing in the internal control and risk management in terms of COSO 2013, and carry out audit to make sure whether the company's operation comply with the law and regulations. They must make sure that there is no any error or risks that potentially impact the company. Audit program will depend on the audit committee and the next year audit plan will be approved by the end of this fiscal year... The internal audit duties are not overlapped with the external auditor. They [*internal auditors*] need to read the external auditor's audit plan and discuss in detail with the external auditors in developing their plan. They need to discuss their plan with the audit committee as well. While the internal audit generally focused more on operation risks, the external audit focused much more on financial risks. For this company, the internal audit performs audit all branches around the country. In contrast, the external auditors do not audit all branches; rather they use a sampling approach.' (AC 14)

'Scope of working of the internal and external auditors are not overlapped but they are like jigsaw pieces. For example when internal auditors have a notice or concern in a business unit, we may ask external auditor to reconfirm or add something in the interim review by external auditor and ask internal auditor to cross-check the issue. Board of directors can raise significant issues of risk in the meeting by using external and internal auditors as tools... Audit process here started with the scope of the internal audit plan what areas should be audited, develop risk-based audit plan, and assign who is the person in charge, what significant risks and important issues found, summary for the internal audit supervisors to clarify. After that, they will prepare a draft to confirm the final reports prior to submit the audit reports to the executives. The final report then will be sent to the audit committee quarterly for the meeting. In my idea, ambitious or irrelevant comments mean comments that do not generate value added for the management. During the meeting, we must let them [*internal auditors*] know before sending their reports to the executive next times. After the meeting, internal audit team will follow up and I will

talk to them what should be improved. If audit committee have different ideas or addition, internal auditors will follow up and report to both the audit committee and executives. Also, the audit committee's suggestion or notice is sent to executives.' (AC 21)

Overall, since the audit committee is delegated the risk oversight task by the board of directors to ensuring robust the company's risk management, the internal audit function is one of the primary resources to assist the committee in discharging its risk oversight responsibility. Within the realm of risk oversight processes, the findings reveal that the internal audit function played a significant role in supporting the audit committee through the provision of assurance as to whether the risk management system implemented by management is effective and being functioned as intended. In terms of the decision-making process, the degree to which the audit committee involvement in the internal audit function is the information acquisition process (Foss & Rodgers, 2011), exercising sceptical action (Nelson, 2009; Hurtt et al., 2013) and seeking comfort (Sarens et al., 2009) that influence the audit committee's judgement and decision.

7.4.3 Audit Committees' Activities in Overseeing the External Audit

Basically, audit committee involvement in external audit is the process by which audit committee discharge their responsibilities to oversee the quality of external audit function (DeZoort et al., 2002; Cohen et al., 2004; Bédard & Gendron, 2010). At the first glance, many participants from this study exhibit that they often examine the auditor's independence, as one audit committee chair stated:

'At the first time we met external auditors, we discussed with them and want them to show how independence they are. They must demonstrate that they are completely independent and do not have any conflict of interest with anybody in this organisation.' (AC 10)

In addition, at an early stage, many experienced audit committee chairs/members suggested that they would let external auditors know without reservation about their expectation regarding the audits for the financial reporting processes in general and key risks facing their organisation:

‘I used to be an auditor, so I know when they will submit the audit plan. The plan then will be examined by the committee. Generally, their plans are risk-based audit plans. I, therefore, let them know my expectation frankly, in turn they should let us know what concern they have and, what key risks they found and want to carry out audits. We don’t want to waste the time at the meeting. We don’t want any pending issues be halted. They are subject to identify all areas of risk problems. We always discuss with the auditors frankly in any key risks they found.’ (AC 7)

It appears from the majority of participants that what they need the most from the external auditors was the most serious problems or key risks the company was experiencing, as an audit committee member put it:

‘We had asked them to let us know significant risks and communicate with us all the time. This is the important thing. If we do not communicate with auditors, it may cause difficulty. It is possible. I think it is better to have a clear understanding. I used to be an internal auditor, so I think fact is the best. I think if we had better acknowledge the key risks affecting the company and solve the problem. It would be better than ignoring it and makes the problem more serious.’ (AC 21)

Upon consideration of the above quote, it should be noted that communication between the audit committee and the external audit is critical. Many participants highlighted better communication between audit committees and external auditors is invaluable for the audit committee operation. This is consistent with Cohen et al. (2007)’s suggestion that the nature and the extent of communications between the audit

committee and the external auditor can affect overall financial reporting quality, internal controls, control environments, significant risks and both the performance of audit committee and auditor. As an audit committee chair said:

‘Communication with auditors is essential. We must have a good relationship with external auditor. To communicate certain risks frankly, they explain what significant risks are in the financial statements, what are important to pay special attention or what goes wrong.’ (AC 10)

To this point, the research data have revealed that the external auditors play different substantially roles from the internal auditors. As stated in the proceeding section, whereas internal auditors are assigned to oversee a broader range of risks, external auditors are generally designed “to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by error or fraud (SAS 1, AU 110, , 1972).” The primary goal of external auditors emphasis on issuing an opinion on *financial statements* (Arens et al., 2008). As a consequence, the types of risk that external auditors provide assurance to audit committee significantly are material misstatements and, financial and fraud risks in the financial statements. In this study, the data exhibited that the external audit function was largely used by audit committees to be a valuable component of risk oversight processes which provides assurance in area of financial and fraud risks, as one participant explained:

‘External auditors generally conduct their audits in accordance with the professional standards. In terms of risk, they carry out their audits and generally report us about financial and fraud risks that affect the quality of the financial statements. They do not audit all types of risk. Our internal auditors focus on operation risks more than financial risks.’ (AC 2)

If audit committees desire external auditors to address broader aspects of risk in areas other than their scope of work, it will consider as a special audit. As two audit committee chairs marked:

‘The scope of work of external auditors is specified by law or regulation. We have got an engagement letter that notifies what duties they will do for us. For other tasks out of the engagement letter will be charged accordingly and we must talk about this first in order to avoid problem.’ (AC 6)

‘External auditors need to follow their professional standards but we can assign our internal audit team to oversee risks that we concern. In case we assign additional jobs to the external auditors, it will cost the company as special audit fee.’ (AC 15)

Taken together, the external audit function plays a key role in providing assurance to the audit committee that the financial statements are free of material misstatement, whether caused by errors and fraud. Unlike internal auditors, external auditors have a clear defined role that is required by law. With respect to the risk oversight processes, external auditors typically carry out an audit for areas of financial and fraud risks, while internal auditors review a broader range of risks than those for external auditors performing. Again, in terms of the decision-making process, the degree to which the audit committee involvement in the external audit function is the information acquisition process (Foss & Rodgers, 2011), exercising sceptical action (Nelson, 2009; Hurtt et al., 2013) and seeking comfort (Gendron et al., 2004; Gendron & Bédard, 2006) that influence the audit committee’s judgement and decision.

7.4.4 Judgement and Decision Processes

Judgement is the process by which individuals implement to analyse and assess information and determine the alternatives of possible occurrence of various outcomes

(Blanchette & Richards, 2009). Decision makers proceed to rate each likelihood on each criterion before making a decision. In terms of risk oversight processes, audit committees are required to analyse, weigh, sort, and classify information to reach a decision or to draw a conclusion. According to Rodgers' decision-making process model (Rodgers, 1991; 1992; Rodgers & Housel, 2004; Foss & Rodgers, 2011), audit committee members will make a judgement based on two components: (1) perceptions of the risk oversight responsibility and (2) involvement in the internal and external audit functions (information provided by internal and external auditors).

Decision represents the process whereby decision makers chose one from various options (Blanchette & Richards, 2009). Fundamentally, decision makers implement their ability to select the best alternative solution or course of action to ensure that a decision follows their intended objectives. As a consequence, the solution with the highest expected value should be selected as their decision choice.

Typically, judgements are made in coming to a decision (Glover & Prawitt, 2012). In the judgement and decision making studies, judgement and decision elements can be examined in the combined processes in terms of the decision-making process (Bonner, 1999, 2008). Accordingly, to address how Thai audit committees make judgement and decision in the context of enterprise risk management oversight, the findings from the interviews are presented in the combined decision-making process.

Looking at the interview data, it is apparent that perceptions of the risk oversight responsibility were heavily translated into involvement. The analysis data exhibited positive perceptions of the risk oversights task appeared to drive decision makers get involve closer in the internal and external audit functions. Relying on Rodgers' (1991, 1992) decision-making process model, involvement is an important prerequisite of decision makers prior to reaching a decision. Both involvements in the internal and

external audit functions are essential due to ensuring that there is an on-going oversight of risk management and the significant information is acquired to use for deciding whether a risk management system is being functioned effectively.

Since the audit committee is responsible for the risk oversight responsibility, it is expected to have a vital role in risk oversight processes. Importantly, their involvement is influenced by their perceptions of the risk oversight responsibility. Regardless perception, it ranges from positive, to neutral and to negative (Mullins & Hicks, 2002; Huczynski & Buchanan, 2013; Smith et al., 2013). All kinds of perception, nonetheless, shape their interactions, communications and involvements in the processes of risk oversight and in turn result in their decision-making process. It is evident from the analysis data that the positive levels of perception influenced decision makers' behaviour in the risk oversight process, which is consistent with the perceptual process (Bruner & Tagiuri, 1954; Gibson, 1988).

Within the risk oversight processes, the audit committees need to collect the information required to make a judgement whether the company's risk management processes was in place and functioning effectively prior to reach a decision or make a conclusion. As reported earlier, the findings show that experienced audit committee chairs/members involved in the internal and external audit functions seriously thereby conducting the oversight in a number of ways.

Similar to Dane and Pratt (2007) and Huang and Pearce (2015), the interviewees in this study portrayed that their judgement and decision processes in the context of enterprise risk management oversight as the application of complex domain-relevant schemas. Through the processes by which audit committees used to oversee a company's risk management system that presented in Section 7.3 in collaboration with involvements in the internal and external audit functions allowed them to acquire the

critical information for making judgements about the quality and quality of evidence providing to support their decision on the effectiveness of a company's risk management system.

Interestingly, the interviewees' responses highlighted that the interviewees made a judgement influenced by the information taken from the risk oversight processes and perceptions of the risk oversight task. This findings are supported by the work of Huang and Pearce (2015) that demonstrates that decision makers make a holistic judgement based on two components: information and perception. With respect to information, this study' findings is consistent with previous research that the audit committees acquired large amounts of information from both formal and informal channels ((Turley & Zaman, 2007; Beasley et al., 2009b) to make judgements and decisions. They typically processed all the information based on their experience (Dane & Pratt, 2007), whereas their perceptions influenced them thereby providing distinct frames for action and making a decision (Huang & Pearce, 2015). With regard to action, a number of actions of the audit committee chairs/members appeared in several steps of the oversight of enterprise risk management processes.

The analysis data illustrated that interviewees primarily relied on information they acquired through the oversight process and largely relied on their experience, the quality of the internal and external audit functions as well as trust a company's governance system when they made judgements and decisions, which is consistent with previous research (Gendron et al., 2004; Gendron & Bédard, 2006; Beasley et al., 2009b; Sarens et al., 2009). This is confirmed by the following quotes:

‘Chief audit executive of this company is so experienced, so we trust his skill and experience very much.’ (AC 1)

‘I must say we are happy with the audit committee team. The committee include former professional executive and others that make their ability to solve the problem effectively. They are experienced. Before you become directors [*company name*], it also carefully check your profile. If you are not good enough, you can’t become an audit committee member. The board emphasises on this very much and put the effort to recruit qualified people... The committee become stronger now. I conclude that being audit committee at this company make me sleep well. I am not worried anything... They are auditors from a big 4. External auditors are quite tough. We rather trust them because they are very experienced.’ (AC 6)

‘I am quite sure with the company’s risk management system because we are very careful for overseeing the system. Also, it has a risk management committee to take care of the system as well. The risk committee members are very active, so we don’t worry about identifying risk, assessing risk, managing risk and so on.’ (AC 7)

‘I personally think I am proud of being an audit committee member. I’m proud that these two companies that I’m serving on the audit committee have got very careful about risk management. I think their risk management systems are effective as well. In addition, both [*big 4 name*] and [*another big 4 name*] had spent much time auditing the two companies and we are quite trust them.’ (AC 10)

‘I am happy. If I am not happy, I won’t work with them for 10 years. They listened to me well. They didn’t refuse my suggestions. They understood that my suggestions are good for them. It was like a warning for them to aware of different key risks and they followed my suggestions. So I have nothing to worry.’ (AC 20)

In the final stage of the decision-making process, most of audit committee chairs/members from this study appeared to acknowledge a willingness to accept various unforeseen risks that they may overlook (Tversky & Kahneman, 1991; Huang &

Pearce, 2015). Because they did everything they can for overseeing a company's risk management system. As three audit committee chair remarked:

'It will be very great if we know what key risks we ignore. We did our best, didn't we? We never let it go if we know that we are overlooking some significant risks. There is confidence in the scope of risk oversight we did but it doesn't mean we do nothing. If you ask about confidence, there must be confidence. Unless you don't trust the company' governance, you shouldn't be with them or work for them, right?' (AC 2)

'The company' risk management systems are developed by international company so there is nothing worrying about. It doesn't mean zero problems; I rather mean they can control their risk quite well. I think it is so far so good. Since the company has good system... They [*auditors and management*] can answer our questions. They didn't seem to be struggle with our questions and we asked as outsider so they must take that through process... I think it is impossible to oversee cover universal kinds of risk. We make sure that we did our best. We had asked all probing questions that we should ask but everything is possible... Those do not relate to the company may cause problem to the company, so I think we must accept it if we did our best.' (AC 8)

'I think we have not ignored important risks and we did our best effort already.' (AC 9)

'Risk management is the responsibility of everybody in the organization. Executives are subject to realise risk in his section no matter effect size it is. He or she must know what risk is around. This is what we are trying to make sure that they have realised... In relation to more serious risks for the organization, it must be discussed in the board meeting which we must spell it out and focus on it... Anyway, on the proper time, I will remind them [*executives*] what to improve or make amendments. Since I am not an employee or

executive, what I want to do is putting my best effort for their good sake.’ (AC 14)

In summary, the findings reveal that positive perceptions of the risk oversight task affect the level of audit committee involvement in the internal and external function thereby audit committee chairs/members were driven by perception to conduct the risk oversight tasks in a number of actions in order to acquire the critical information to make judgements and decisions. In the decision-making process, the findings highlight that they did use all information available for them together with positive perceptions of the risk oversight for reaching a decision or making a conclusion. Within the decision-making process, it appears that the decision makers from this study exhibited relying largely on their experience, the quality of the internal and external audit functions as well as trust in a company’s governance system. At the end, they demonstrated a willingness to accept their decisions under unknown conditions.

7.5 Chapter Summary

This chapter reports the findings of the interviews according to the interview protocol regarding the audit committee oversight of enterprise risk management. The qualitative findings are structured in two sections.

The first section addresses what process do Thai public company audit committees use to fulfil their enterprise risk management oversight responsibility. The data from this study uncovered eleven processes that audit committees utilised to perform the risk oversight task: (1) scope of risk oversight, (2) risk oversight as a collective process, (3) understanding of business and risks, (4) scepticism, (5) focus on high-risk, high-impact, (6) challenging and forcing, (7) use of specialists, (8) giving advice and recommendations, (9) providing support and assistance, (10) informal processes, and (11) follow-ups.

The second section addresses how the extent of audit committees makes judgement and decision when they carry out the oversight of enterprise risk management. Relying on the Rodgers' (1991, 1992) decision-making process model, the responses exhibited that all of interviewees perceived the risk oversight responsibility as important. It appeared that such positive perceptions of the risk oversight task influence audit committee chairs/members of this study to get involve closer in the internal and external audit functions. With regard to the decision-making process, the findings of this study are consistent with Huang and Pearce (2015) that show that decision makers make a holistic judgement based on two components: information and perception.

CHAPTER 8

Conclusion and Implications

8.1 Introduction

This final chapter presents the conclusion of the thesis and aims to reflect on the extent to which the objectives of the study have been accomplished. The chapter is structured as follows. It begins by drawing the conclusions in line with the research objectives.

The second section reports the significant implications of this research for both academics and practitioners. The chapter ends with the limitations of this research and suggests possible areas of future research.

8.2 Conclusions Relating to the Research Objectives

Research Objective 1: *To understand the extent of a background of audit committee oversight of enterprise risk management practices within Thai public company audit committees.*

The present study targeted Thai-listed companies' audit committees who were involved in the oversight of enterprise risk management programs. Surveys of Thai audit committee chairs/members were conducted to gain backgrounds of audit committee oversight of enterprise risk management practices within Thai public companies in May 2014. One hundred sixteen questionnaires were received from audit committee members surveyed, providing an initial response rate of 25 percent. Four responses were excluded due to missing data, leaving a response rate of 24 percent. Out of 112 responses, 24 respondents (21 percent) indicated that they were not involved in the oversight of enterprise risk management. As a result, the final sample contains 88 audit committee members (78 percent).

Most of the respondents (42 percent) were 65 year-old or older. Out of 88 respondents, 83 percent were male. 38 percent of the respondents were an audit committee chair, while 59 percent of the respondents were an audit committee member. Among those, 17 percent had served on the audit committee for Top 50 market capitalizations, 36 percent had been in their current positions for Top 51 to 100 market capitalizations, and 38 percent were from less than Top 100 market capitalizations. The industries with the highest response rates were Financial Institutions (19 percent), Property and Construction (17 percent), Technology (13 percent), and Industrials (12 percent). These characteristics are consistent with respondents occupying the hierarchical positions this study expected to address the research questions and revealed no indication of systematic bias.

The findings highlight that just over half of respondents (57 percent) described their level of enterprise risk management as risk management system implemented, but requires substantial work, whereas slightly more than one-quarter (26 percent) claimed to have a mature and robust risk management in place. The analysis data demonstrate that while financial institutions are expected to face volumes of increasingly complex risks, more than other businesses, it is somewhat surprising that a majority of Thai financial institutions do not yet have robust enterprise risk management systems.

With respect to perspectives on the types of risk that had been overseen by audit committees, on a combined basis, nearly 90 percent of the respondents revealed that they have overseen at least three types of risk. A large group (42 percent) of the respondents indicated they oversee all major risks in their companies, whereas 28 percent reported they have primary responsibility to oversee financial risks, regulatory compliance risks, and operational risks. More than 90 percent of the respondents

strongly agreed or agreed that they have a better understanding of the company's business model and industry and the company's risks and internal control environment.

Respondents perceived the highest level of risk oversight role in the audit committee contributes to the governance process and enterprise risk management by providing reliable information to stakeholders, followed by the role of the audit committee in the oversight of the risk management process is seen as a critical role in the integrity of financial reporting, and beyond meeting the integrity of the company's accounting and reporting practices and financial statements, the audit committee considers the oversight of risk management as first priority.

With regards to oversight techniques which the audit committee often used when overseeing the company's risk management programme, six of the eight highest mean rating techniques that the participants frequently used in oversight of enterprise risk management all relate to audit committee involvement in the internal audit function.

Finally, just above 90 percent of audit committee chairs/members strongly agreed or agreed that their committees are the right size and bring requisite knowledge, abilities and skills to the oversight of risk management. More than 80 of the respondents strongly agreed or agreed that the audit committee enhances the company's overall risk management processes Overall, audit committee chairs/members in this survey believe that their audit committee had performed effectively (mean = 7.73 based on a scale of 1 to 10) in the oversight of enterprise risk management.

Research Objective 2: *To examine how audit committee members' perceptions of the oversight of enterprise risk management and oversight activities influence their judgement competence and perceptions of the quality of enterprise risk management system.*

This study considers the process thinking of audit committees as an important issue: audit committees' actions and thoughts can affect an organization's governance as a whole. To understand how audit committee members' actions and thoughts when carrying out enterprise risk management oversight, this research combine a review of the audit committee literature and psychological theories of information processing, perception, judgment and decision-making with the theoretical model to systematically investigate the aspects of the process thinking of Thai audit committee members. Given the limitations of public information on the audit committee oversight process of risk management, this study carries out its investigation through the use of questionnaires. The theoretical model was tested with structural equation modelling (SEM) using the partial least squares (PLS) method.

Contrary to expectations, the results indicate no significant impact of perceived higher levels of oversight responsibility for enterprise risk management on audit committees' judgment competence. Given the complexity of the process thinking, this study suggests that a more direct measure of the audit committee's judgment competence and perceived specific responsibility should be used in future research to advance knowledge of the process thinking.

As expected, the results show that audit committees who perceived higher levels of oversight responsibility of enterprise risk management displayed a positive impact on their perception of the quality of enterprise risk management.

Consistent with expectations, the results show that the audit committees' judgment competence mediates the association between the audit committees' activities in overseeing the internal and external audit functions, and its perception of the quality of enterprise risk management. This study specifies a mediator (judgment competence) through which audit committees' oversight activities influences perception of the

quality of enterprise risk management. The results suggest that an audit committee member who was closely involved in the internal and external auditing of enterprise risk management oversight would enhance their judgement capability, which would in turn contribute significantly to his or her decision-makings.

Research Objective 3: *To describe process elements used by audit committees in performing the oversight of enterprise risk management.*

Enterprise risk management is an integrated approach to risk management, contrary to a silo approach that strategic, operational, compliance and financial risks each is being managed separately in their own divisions or “silos”. Basically, enterprise risk management must be driven from the top of the organisation, especially involvement by the board of directors. Overall direction of the board is to create and implement the right environment and the structures for enterprise risk management to operate effectively. In terms of the right environment, the board is responsible for establishing the tone at the top for embracing of enterprise risk management by senior management and others throughout the organisation (Beasley et al., 2010). While acknowledging that the board is also responsible for overseeing a company’s enterprise risk management, the survey results from this study together with previous studies (e.g. Beasley et al., 2008; Beasley et al., 2010; Beasley et al., 2015) indicate that most boards call for the audit committee to oversee management’s enterprise risk management practices. This is consistent with several regulatory requirements in the United Kingdom, the United States and Thailand which require audit committees to discuss guidelines and policies to govern the process by which risk management is achieved and to review a company’s key financial risk exposures as well as other significant risks (SET, 1999; NYSE, 2004; FRC, 2014).

The qualitative approach was undertaken in this study to examine the process that Thai public company audit committees use to fulfil their enterprise risk

management oversight responsibility. The interviews were carried out with Thai audit committee chairs/members primarily during the period between February and July 2014 in Bangkok. The interviews varied in length between 19 minutes and 94 minutes. All interviews were undertaken by the first author in the Thai language. The set of interviewees in this study consisted of 21 audit committee chairs/members. The current study followed closely manual methods suggested by O'Dwyer (2004), Beasley et al. (2009b) and Hermanson et al. (2012) in coding and analyzing the interviews. Eventually, this research uncovered 11 themes of the audit committee oversight risk management process from the interviews, as follows:

1. Scope of risk oversight

Establishing the scope of risk oversight is necessary for audit committees, because there is no clear framework or conceptual approach of to what extent how much risk oversight should be carried out by audit committees. Many participants reported that relating laws, regulations and guidelines governing the operations of audit committees would be used in terms of the jurisdictions of to what extent how much risk oversight his or her audit committee should perform. The findings demonstrate that the nature and scope of an audit committee's involvement in risk oversight tended to vary widely based on the nature of the company and the industry in which it operates. In small companies, most of participants mentioned a broader scope of risk oversight but they are more comfortable with their understanding of the companies' risk. In larger companies, the participants appeared to have a narrow scope of risk oversight, but their operations are particularly affected by the high volume and complexity of risk, especially in financial sector. The findings of the current study are consistent with prior research (e.g. Kleffner et al., 2003; Liebenberg & Hoyt, 2003; Beasley et al., 2005a) that companies in the financial institution sector are especially heavy implementation of

enterprise risk management system than other companies in other sectors. Unlike other sectors, the enforcement of regulation seems to be rather strong in the financial sector. In the meantime, regulators (i.e. the stock exchange and central bank) have been pressing financial companies to improve risk reporting and maintain sound enterprise risk management system (Kleffner et al., 2003). Moreover, to the extent that the risk management requirements are in fact mandatory for the financial sector, whereas others are being suggested as optional 'best practices' (Paape & Speklé, 2012).

2. Risk oversight as a collective process

The findings show that in order to perform risk oversight effectively diversity of competences, specialisations, and experiences are necessary for an audit committee. To be useful, these individual knowledge need to be integrated into collective knowledge working when carrying out risk oversight tasks. In addition, cooperation between the audit committee, board, management and employees were seen by many participants as an important part in the risk oversight processes.

3. Understanding of business and risks

To conduct risk oversight tasks, several participants indicated that they began with obtaining an understanding of the company and the industry in which it operates. Most of the interviewees developed an understanding of the nature of the company from the company's reports, documents and publications. More interestingly, interviewees also indicated that they seek to understand the top management's risk philosophy and the company's risk appetite through conversations with the key management. Different sizes of company and the nature of the industry tended to affect the way in which the participants obtain knowledge of the company and its risks. The participants of the small companies seemed to obtain an understanding of the business more easily than the

participants from the large companies. Hence, developing a sufficient understanding of the business and its environment is an important process within the risk oversight task, because the understanding established a frame of reference for the audit committees to use in developing expectations and assessing key risks for the companies prior to performing risk oversight tasks (Hirst & Koonce, 1996; Kranacher et al., 2010).

4. Scepticism

The data indicate that a number of interviewees had applied a form of ‘scepticism’ when they carried out risk oversight tasks. This is consistent with the concept of ‘scepticism’ in the auditing literature that professional scepticism is an “essential personal attitude” for professional public accountants. In particular, Nelson (2009) suggests that foundational components of professional scepticism consist of sceptical judgement and sceptical action. The findings suggest that participants in this study exercised sceptical judgement and sceptical action when undertaking risk oversight tasks in a number of ways. Sceptical judgement was exercised by participants when recognising that a potential risk may exist and more tasks or effort was necessary. Sceptical action happened when his or her behaviour was changed based on sceptical judgement and eventually results when he or she acted sceptically (e.g. ask probing questions). In other words, sceptical judgement will change a member’s behaviour. Once he or she acts on the judgement, sceptical action occurs and that will change the amount or nature of evidence available to an audit committee (Nelson, 2009).

5. Focus on high-risk, high-impact

In order to perform risk oversight tasks, several participants paid careful attention on emphasising the high risks that could have high potential effects for the companies. High-risk was considered to be “the high degree of seriousness” and “the high potential

impact” affecting their companies. These are the most significant factors that mean audit committees place greater focus on centralised overseeing than with medium and low risks. Furthermore, participants indicated that costs and time constraints make it impossible for audit committees to oversee every level of risk.

6. Challenging and forcing

The findings of this study are largely consistent with previous studies (Kalbers & Fogarty, 1993; Cohen et al., 2002a; Gendron et al., 2004; Gendron & Bédard, 2006; Beasley et al., 2009b) that audit committee chairs/members from this study asked in-depth questions and evaluated the quality of responses provided by managers, auditors and other concerned parties when they performed risk oversight duties. The findings highlight that the process of challenging and forcing is critical for audit committees in overseeing risk management and the extent to which audit committee chairs/members asked the in-depth questions and assessed the quality of responses are forms of sceptical action.

7. Use of specialists

In situations which participants experienced complex significant risks existing for a number of different reasons, they were more likely to employ specialists to facilitate them in the risk oversight processes. Additionally, specialists were more likely hired when there was a need to assess companies’ risk management processes and to provide assistance to the internal audits.

8. Giving advice and recommendations

The findings show that most interviewees in this study had a high level of agreement that one of the important objectives of the audit committee oversight of risk management is to contribute to the improvement of a company’s enterprise risk

management practices. The way in which audit committees often granted to improve and strengthen enterprise risk management programme was giving advice and recommendations primarily to management and internal auditors in order to enhance their risk management practices and their monitoring of the firm's key risk exposures. As a consequence, giving advice and recommendations are considered as the first constructive process in this study.

9. Providing support and assistance

In addition to giving advice and recommendation, the findings show that most participants would be involved in the constructive engagement of internal auditors and management in providing support and assistance with respect to the improvement of a company's enterprise risk management practices. In this study, providing support and assistance is considered as the second constructive process.

10. Informal processes

It is evident that the findings support the extant literature (e.g. Turley & Zaman, 2007; Beasley et al., 2009b; Sarens et al., 2013; Zaman & Sarens, 2013) on the use of informal processes by the audit committee to accomplish the fulfilment of its oversight objectives. Despite the fact formal processes are essential for audit committees to fulfil their oversight responsibility, the effectiveness of risk oversight is not solely achieved through formal operations and processes (Turley & Zaman, 2007). Rather, using informal processes would enable audit committees to conduct enquiries into the areas of risk which are uncommonly brought up during meetings (Gendron & Bédard, 2006) and the benefits of informal oversight processes facilitated by the flexibility of undertaking. Hence, both formal and informal processes are important to audit committees in the enterprise risk management oversight processes.

11. Follow-ups

The findings highlight that all audit committees would assign the internal audit as a main follower in helping audit committees achieve their risk oversight objectives, especially in providing comfort to them. This is consistent with Sarens and De Beelde (2006) and Sarens et al. (2009) that the internal audit function is a comfort provider to the audit committee. The data demonstrated that in many cases when audit committees encountered considerable discomfort, they would seek comfort by employing one or more oversight techniques. For instance, they would consider using either challenging and forcing, giving advice and recommendations, providing support and assistance, or informal processes in the follow-ups stage in order to ensure that risk management procedures had been done appropriately.

Research Objective 4: *To explain the ways in which audit committees make judgement and decision when they carry out the oversight of enterprise risk management.*

This objective aims to inductively develop a better understanding of the Thai audit committees' process in making judgement and decision when they perform the oversight of enterprise risk management. Drawing on Rodgers' decision-making process model (Rodgers, 1991; 1992; Rodgers & Housel, 2004; Foss & Rodgers, 2011), this study proposes a theoretical framework to analyse how audit committees make judgement and decision in the context of enterprise risk management oversight.

1. Perception

The evidence from semi-structured interviews with 21 Thai audit committee chairs/members revealed that all of them perceived the risk oversight role as important, which is consistent with the results reported earlier. Most of interviewees also perceived risk oversight responsibility as a major challenge task. Similar to the literature on audit

committee (Gendron & Bédard, 2006; Beasley et al., 2009b; Sarens et al., 2009), although most of interviewees perceived the importance of risk management oversight, they felt uncomfortable about this role. Nonetheless, a vast majority of interviewees expressed that they had a willingness to perform risk oversight tasks and indicated a commitment to substantive oversight rather inattentively provided “rubber stamp” for undertaking risk oversight.

2. Audit Committees’ Activities in Overseeing the Internal Audit

Consistent with prior studies, the internal audit function is essential in facilitating the audit committee throughout the risk oversight process. The findings exhibit that it plays a vital role to assist the committee in overseeing all component of the company’s enterprise risk management programme. Most interviewees asserted that they were largely involved in the internal audit in order to carry out risk oversight. Importantly, the results indicate that the internal audit function with higher quality would enable audit committees easily to work with, which in turn increase their confidence in the risk oversight processes thereby identifying and addressing key risks facing their companies in a timely manner. Interestingly, the results highlight that the internal audit function was typically asked to audit insights into areas of risk that beyond the scope of work of the external audit function. In most cases audit committees asked the internal audit to play a greater role in auditing key risks of companies’ operations.

3. Audit Committees’ Activities in Overseeing the External Audit

Many experienced audit committee chairs/members participated in this study indicated they would let external auditors know without reservation about their expectation regarding the audits for the financial reporting processes in general and key risks facing their organisation. In assessing the quality of external auditors, many participants

reported that they often examine the auditor's independence. The research data reveal that the external auditors play different substantial roles from the internal auditors in the risk oversight process. External auditors typically carried out an audit for areas of financial and fraud risks, while internal auditors conducted an audit for a broader range of risks than those for external auditors performing.

4. Judgement and Decision Processes

The findings reveal that perceptions of the risk oversight responsibility were heavily translated into involvement, thereby positive perceptions of the risk oversight task appeared to drive audit committee chairs/members (decision makers) get involve closer in the internal and external audit functions. Based on Rodgers' decision-making process model, involvement is an important prerequisite of decision makers prior to reaching a decision. Both involvements in the internal and external audit functions are essential due to ensuring that there is an on-going oversight of risk management and the significant information is acquired to use for deciding whether a risk management system is functioning effectively.

The findings underscored that the interviewees made a judgement influenced by the information taken from the risk oversight processes and perceptions of the risk oversight task. This findings are supported by the work of Huang and Pearce (2015) that demonstrates that decision makers make a holistic judgement based on two components: information and perception. With respect to information, this study' findings is consistent with previous research that the audit committees acquired large amounts of information from both formal and informal channels ((Turley & Zaman, 2007; Beasley et al., 2009b) to make judgements and decisions. They typically processed all the information based on their experience (Dane & Pratt, 2007), whereas their perceptions influenced them thereby providing distinct frames for action and making a decision

(Huang & Pearce, 2015). With regard to action, a number of actions of the audit committee chairs/members appeared in several steps of the oversight of enterprise risk management processes.

Consistent with previous research (Gendron et al., 2004; Gendron & Bédard, 2006; Beasley et al., 2009b; Sarens et al., 2009), audit committee chairs/members from this study primarily relied on information they acquired through the oversight process and largely relied on their experience, the quality of the internal and external audit functions as well as trust a company's governance system when they made judgements and decisions. However, in the final stage of the decision-making process, most of the interviewees appeared to acknowledge a willingness to accept various unforeseen risks that they may overlook (Tversky & Kahneman, 1991; Huang & Pearce, 2015). Most of the interviewees exhibit that because they did everything they can for overseeing a company's enterprise risk management system. Thus, they demonstrate a willingness to accept their decisions under unknown conditions.

The next section discusses about the current study's implications to theory.

8.3 Implications to Theory

This study makes several important contributions to the audit committee literature. Prior research has largely overlooked a possible focus on the fact that the audit committee's actions and thought processes are critical to its contribution to the governance of its organization. As an effort to systematically investigate important aspects of the audit committee's decision-making process using survey and interview data, this research confirmed the value and promise of studying the decision-making process of audit committees and the factors that affect their decision-making. More importantly, this study directly responds to recent calls to conduct research using a variety of theories

concerning audit committees and governance to gain a better understanding of certain audit committee processes (Kalbers & Fogarty, 1998; Cohen et al., 2002b; Cohen et al., 2007; Beasley et al., 2009b). In addition, this research provides insights into audit committees' decision-making process and the process elements used by audit committees in performing the oversight of enterprise risk management that are relevant to the growing literature on corporate governance.

This study offers a significant contribution to opening the “black box” of the audit committee operation in the context of its oversight of enterprise risk management. Although previous research has examined oversight processes performed by audit committees (e.g. Spira, 1999a; Spira, 2002; Gendron et al., 2004; Gendron & Bédard, 2006; Turley & Zaman, 2007; Beasley et al., 2009b), there remains a need to explicitly consider the nature of risk oversight tasks in which audit committees should perform. This study sheds light on what process used by audit committees when carrying out risk oversight tasks in order to fulfil their responsibilities. Based on the findings, in essence, this study argues that audit committees should consider 11 process elements when performing risk oversight duties: establishing the scope of risk oversight, working as a team, understanding of business and risks, exercising scepticism, focusing on high-risk, high-impact, challenging and forcing auditors and management, using of specialists, giving advice and recommendations, providing support and assistance, performing informal processes, and follow-ups.

Taken together, the findings from this study highlight the potential value of processes employed by audit committees and underscore the factors that enable audit committee members to engage in making a decision by focusing on the specific responsibility of audit committees in performing risk management oversight. Accordingly, this research contributes to the audit committee literature in providing

insights into the factors and processes that shape the audit committees operation and its decision-making in a certain area of the oversight process of enterprise risk management. Given the increasing applications of enterprise risk management programmes in several organisations, the risk oversight is considered as an essential part in providing assurance on the effectiveness of an organisation's risk management. More importantly, it appears that risk oversight tasks carried out by audit committees have become offering meaningful continuous improvement and strengthening practices for the enterprise risk management system.

The next section discusses about the current study's implications to practice.

8.4 Implications to Practice

This research has implications for regulators, whereby providing significant evidence from field study regarding meaningful knowledge on the action and thought processes carried out by Thai audit committee members in oversight area of enterprise risk management. Typically, regulators (e.g., the Stock Exchange of Thailand and the Securities and Exchange Commission) have concerned on the quality of work done by audit committees. Therefore, they should be interested in the findings of this research, specifically where results represent the particular issues addressed in their requirements, for instance, suggesting to improve risk reporting and maintain sound enterprise risk management system for public companies. A better understanding, through the findings can inform regulators in seeking ways in which they can promote the substance of the audit committee's oversight as well as future policy in relation to the role of audit committees.

In addition, a better understanding of how audit committees oversee enterprise risk management are useful to investors, auditors, boards of directors, professional

bodies, audit committee themselves, and other stakeholders. Given the fact that the decisions of the audit committee have significant impacts not only on its organisation and shareholders but also on all stakeholders. The findings also provide important implications for those who are concerned with the audit committee's work, in which enhancing oversight of enterprise risk management would allow organisations to minimise the consequences to the greatest extent possible of a negative occurrence affecting the welfare of stakeholders.

The results suggest that if audit committee members themselves are not aware of their oversight responsibility for enterprise risk management, they appear to be less likely to get involved in performing risk oversight. Therefore, perceiving the importance of the oversight role in enterprise risk management is crucial for audit committee members. It can be argued that audit committee members who perceived lower levels of the enterprise risk management oversight role may have less proactive drive to carry out such oversight, which could affect their decisions. Consequently, organizations may experience the unexpected negative outcomes from making a decision through audit committees when they are not aware of their responsibility in overseeing enterprise risk management. The findings imply that audit committee members with a high level of perceived enterprise risk management oversight responsibility are more likely to have high levels of decision-making in the context of performing enterprise risk management oversight. Further, the findings indicate that to perform effective enterprise risk management oversight, individual audit committee members need to clarify that audit reports and information provided by internal and external auditors are adequate, relevant, and reliable. Importantly, the findings are consistent with the fundamental concept of the resource component of audit committee effectiveness (DeZoort et al., 2002; Cohen et al., 2004; Bédard & Gendron, 2010); an adequate size, the abilities and skills of the audit committee, and the quality and skills of internal and external auditors

are particularly important in the judgment stage, which influences audit committee members in making a decision.

The findings from this study can also guide organizations and audit committee members in the dynamic economic world on how to make effective decisions. To enhance judgment and consequently decision -making, audit committees need to be careful with oversight of internal and external audit functions. Members need to get involved in these functions to ensure that both internal and external auditors adequately provide the relevant and reliable information their committee needs to perform effective enterprise risk management oversight.

More importantly, it can be suggested that if the enterprise risk management is an organization's goal, there is a value in supporting the audit committee oversight through seeking feedback concerning the companies' enterprise risk management program by monitoring the internal and external audit functions. For organizations, such a monitoring process may have dual benefits: it not only helps them to ensure that the organization's system of risk management processes is being functioned effectively, but it may also be a way of improving their system and helping them accomplish their objectives in enterprise risk management. Organizations wishing to improve their risk management systems should, therefore, consider supporting audit committees with adequate resources to carry out effective risk oversight.

The next section discusses about limitations and suggestions for future research.

8.5 Limitations and Suggestions for Future Research

The contributions of this study discussed above should be interpreted in light of its limitations. Additionally, a number of issues in need of further research are provided.

Firstly, even though audit committee oversight of risk management is a common responsibility in many cultural settings, this study recognises that Thailand, a developing country, may differ from developed countries in numerous ways. For instance, Thoopsamut and Jaikengkit (2009) examine the associations between audit committee characteristics, audit firm size and earnings management in quarterly financial reports of listed companies in Thailand. Thoopsamut and Jaikengkit (2009) find an association between the average tenure of audit committees and quarterly earnings management; however, neither audit committee characteristics nor audit firm size demonstrated a significant association with quarterly earnings management. Furthermore, Kiatapiwat (2010) failed to find a significant relationship between audit committees with strong corporate governance characteristics and earnings quality. The evidence suggest that the high characteristics of the audit committee did not play a significant role in mitigating earnings management in Thai listed companies which was inconsistent with prior research in Western literature and recommendations by regulators. While this study provides useful insights on the state of the role of audit committees among publicly listed companies in Thailand when they carry out the oversight of enterprise risk management system, it does not investigate the relationship between enterprise risk management oversight and earnings management. Thus, future research is required to shed further light on this issue. Due to there has been raising concerns about earnings management and earnings quality in Thailand and around the globe (e.g. Bédard et al., 2004; Davidson et al., 2005; Baxter & Cotter, 2009; Thoopsamut & Jaikengkit, 2009; Kiatapiwat, 2010; Dichev et al., 2013). Further research might highlight the importance of the impact of enterprise risk management on earnings management.

Secondly, because of time and funding constrains, the current study employed a cross-section research design, which was conducted at a point in time and did not

examine the enterprise risk management oversight activities performed by audit committees over time. It would be valuable to conduct a more comprehensive longitudinal study over a long time period. A longitudinal approach might provide evidence to gain a richer understanding of audit committee oversight of enterprise risk management practices for a long period of time.

Thirdly, as indicated in Chapter 4 and 5, the current study has not incorporated the effectiveness of audit committee in overseeing its company's enterprise risk management system in the theoretical framework that was developed in Chapter 4. Indeed, audit committee members' evaluation of the effectiveness of the company's risk management system and all types of risks is an important issue that exhibits a need for future research to examine in depth on why and how audit committees' perceptions of the oversight of enterprise risk management and oversight activities influence their judgement competence and the effectiveness of the company's risk management system. Thus, further research is required to examine audit committee effectiveness in the area of enterprise risk management oversight. Perhaps more research in this area could offer new insights into the audit committee oversight process.

Fourthly, enterprise risk management oversight in general appears to be more relevant to settings in which audit committee members are aware of the importance of such a responsibility than in settings in which members were less careful in performing enterprise risk management oversight. In addition, differences in government regulations, economic environment and firm size may affect the decision-making process of audit committees in terms of enterprise risk management oversight. Therefore, it might be interesting to investigate the decision-making process of audit committees and processes used by audit committees in performing the oversight of enterprise risk management in other settings.

Finally, the tasks of audit committee oversight of enterprise risk management are critical to have a deeper understanding of how audit committees in other countries perform the oversight of enterprise risk management. Because regulators and other corporate governance proponents around the world have placed higher expectations on the audit committee in terms of oversight of its enterprise risk management (Beasley et al., 2010). Future research could take a look at the perception of regulators and related stakeholders within the corporate governance mosaic about audit committee oversight of enterprise risk management (Cohen et al., 2004). Importantly, it is surprising that previous studies suggested that a number of corporate boards did not assign formal responsibility of enterprise risk management oversight to the audit committee (Beasley et al., 2010; Beasley et al., 2015). Also, one out of five audit committee chairs/members in this study indicated that they did not oversee their company's risk management program. Thus, it would be interesting to study why this is, what they do instead and what could be the difference between the audit committee and other committees in overseeing enterprise risk management.

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HULL UNIVERSITY BUSINESS SCHOOL

Cottingham Road, Hull,
UK, HU6 7RX



23 May 2014

Dear Sir/Madam:

You are invited to participate in a study titled *'The Role of Audit Committees in Thailand: A Case of Audit Committee Oversight of Risk Management.'* My name is Dej-anan Bungkilo. I am a PhD candidate at the University of Hull, UK and a lecturer at Mae Fah Luang University, Thailand. As a doctoral candidate at the University of Hull, I am collecting data for my thesis, under the supervision of Professor Waymond Rodgers. The purpose of this study is to gain knowledge in the area of audit committee responsibility in overseeing listed companies' risk management in Thailand. The usefulness and potential positive outcomes of the study will depend upon the honesty and care with which you answer the questions. The following questions and answers should help you to determine whether or not you are willing to participate.

What can you do to help?

By taking 15 to 20 minutes out of your busy day to answer the questions on the attached survey, you will be providing the valuable input that we need from real audit committee members currently serving at Thai listed companies. So far, there has been little to no research in corporate governance on the audit committee oversight process in a Thai context. In order to advance the research area of the actual audit committee operation, we need to hear from you. Moreover, your answers will help us, in part, to understand what audit committee members can do to make a more positive corporate governance environment for their companies, especially the work of the audit committee in reviewing and evaluating the company's risk assessment and management process to ensure that guidelines and policies to govern the process by which this is undertaken. I hope that audit committees in Thailand will be able to benefit directly from this research.

Will your answers be confidential?

Absolutely! All completed surveys will be mailed directly to me at Mae Fah Luang University. Only my advisor (Professor Rodgers) and I will view your responses to this survey. Participation in this project is entirely voluntary. All data will be treated with the strictest confidence and will only be used for the purposes of this study. All questionnaires will be destroyed immediately after the data is entered into the computer. If the information you provide is published, you will not be identified in any written work, since the data will be aggregated prior to presentation.

What if you have questions or require additional information?

If you have any questions or concerns, please feel free to contact me at +66 (0)91779 1018 or at D.Bungkilo@2011.hull.ac.uk or Professor Waymond Rodgers at +44 (0)1482 463 3136 or W.Rodgers@hull.ac.uk. Additionally, if you would like a copy of the summary, please contact me at either the telephone number or the e-mail address above.

Please return the completed questionnaire using a reply paid envelope by **25 June 2014** to provide me adequate time to analyse the results.

Thanks in advance for your help!

Yours sincerely,

Dej-anan Bungkilo
PhD Candidate
The University of Hull

QUESTIONNAIRE SURVEY

TITLE: The Role of Audit Committees in Thailand: A Case of Audit Committee Oversight of Risk Management

PLEASE NOTE: I assure you that all responses will be held in strict confidence. Responses will be used only in aggregate, so your individual responses are not identified. I estimate that the survey will take you about **15-25 minutes**. If you have any questions about this survey, please e-mail Dej-anan Bungkilo (D.Bungkilo@2011.hull.ac.uk).

Please complete the questionnaire below and send it back to me in the enclosed postage-paid envelope by **25 June 2014**.

I. Background Information

In order to solicit feedback that is most relevant to the study, the next series of questions will ask for general background information about your experiences regarding the audit committee oversight of risk management. (Please ✓)

- 1. Are you an audit committee member who is knowledgeable about your committee's experience in overseeing the listed company's risk management, including the audit committee reviewing the company's risk management policies with respect to the wider aspects of risk management system?**

☐ Yes ☐ No (SKIP TO SECTION VII)

- 2. What is the status of your company's risk management programme?**

- ☐ Robust, mature risk management system in place
☐ Risk management system implemented, but requires substantial work
☐ Risk management system in planning/development stage
☐ No active/formal effort to implement risk management system

- 3. Over which categories of risk does your audit committee have primary oversight responsibility?**

- ☐ Financial risks only
☐ Financial risks and regulatory compliance risks
☐ Financial risks, regulatory compliance risks, and operational risks
☐ Financial risks, regulatory compliance risks, operational, and strategic risks
☐ All major risks
☐ Other (please specify).....

- 4. How many audit committee meetings did your company hold last year?**

☐ 1-3 meetings ☐ 4-6 meetings ☐ More than 6 meetings

- 5. Over the past three years, to what extent has the audit committee increased its focus on the oversight of the company's risk management system?**

☐ No increase ☐ Increased somewhat ☐ Increased significantly ☐ Not sure ☐ Not applicable

- 6. As compared to your industry peer firms, your company's financial risk is best described as:**

☐ More risk ☐ About the same ☐ Less risk

7. As an audit committee member, please indicate your opinion.

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am <i>very</i> familiar with the company's business model and industry.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I <i>fully</i> understand the company's risks and internal control environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I <i>fully</i> understand the company's policies and procedures for detecting fraud and illegal acts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I <i>fully</i> understand the company's complex business transactions and significant contracts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I <i>fully</i> understand the company's accounting industry practices and financial reporting process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

II. PERCEPTION No. 1

8. Do these statements agree/disagree with your audit committee's views?

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Beyond meeting the integrity of the company's accounting and reporting practices and financial statements, the audit committee considers the oversight of risk management as first priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The role of the audit committee in the oversight of the risk management process is seen as a critical role in the integrity of financial reporting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The audit committee plays an important role with respect to enterprise risk management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The audit committee contributes to the governance process and enterprise risk management by providing reliable information to stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III. Oversight Activities

9. How frequently does your audit committee use the following techniques to oversee the company's enterprise risk management? Please check the number that best represent your technique on each statement.

<i>To oversee the company's enterprise risk management system we would...</i>	Never				Always
	1	2	3	4	5
learn about how the company's compliance programme implements its <i>Enterprise Risk Management</i> , which applies across the organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
review whether the Internal Audit Department have a risk-based audit plan based on a risk assessment accepted and approved by the board.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
assess whether the Internal Audit Department submits its plan to the audit committee for approval on a timely basis (at least annually) and as appropriate when updates are required.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
evaluate whether the internal control and risk management reports information is reliable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
discuss the audit findings with the Chief Audit Executive at formal meetings on a regular basis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
conduct annual evaluations assessing the effectiveness and competence of the Internal Audit Department.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
seek the external auditor's views on the effectiveness of the company's risk management process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IV. JUDGEMENT COMPETENCE

11. Given your experience, these next questions ask about your audit committee's judgement.

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My audit committee is the right size and bring requisite knowledge, abilities and skills to the oversight of risk management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The internal auditors are experts in internal control and risk management, and do not need to be trained.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The external auditors are professional and have the qualification and experience for auditing a wide range of risks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The company's system of risk management processes is functioning effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The CEO and senior management proactively assess and manage the company's exposure to risk.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

V. PERCEPTION No. 2

12. Given your experience, these next questions ask about your audit committee's decision.

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The internal audit department adequately provides concrete evidence to the audit committee to evaluate the effectiveness of risk management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The external auditors provide substantial evidence to the audit committee on any areas related to risk management to evaluate the effectiveness of risk management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The CEO and senior management provide the comprehensive, reliable information the audit committee need to perform effective risk oversight and sufficient agenda time is allocated to the discussion of the company's risks with the appropriate company individuals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The audit committee enhances the company's overall risk management processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No significant risks are overlooked.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VI. EFFECTIVENESS

13. As an audit committee member, please rate the extent to which you agree/disagree with the following statements.

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The audit committee accomplishes <i>very little</i> in overseeing the company's risk management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As regards risk management oversight, the audit committee <i>serves an important need</i> in this company.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The audit committee's oversight of risk management in this company is <i>very effective</i> .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The risk management oversight performance of this audit committee is probably <i>better than</i> most other audit committees.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other audit committees would do well <i>to use this audit committee as a model</i> for the risk management oversight.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. On a scale of 1 to 10, with 10 representing the highest level and 1 indicating the lowest level, how well do you believe the audit committee accomplished the responsibility of risk management oversight? Please indicate your answer by circling the appropriate number below.

1 2 3 4 5 6 7 8 9 10

VII. RESPONDENT'S INFORMATION

15. Your last educational degree:

- ☐ Bachelor
 ☐ Master
☐ PhD
☐ Other (please specify).....

16. Major of your last education degree:

- ☐ Accounting
 ☐ Marketing
☐ Finance
 ☐ Management
☐ Economics
 ☐ Law
☐ Other (please specify).....

17. Do you have any previous work experience in Accounting/Auditing/Finance or related area?

- ☐ Yes
 ☐ No

If yes, please specify total number of years of such experience:years

18. Do you have any professional qualification (e.g. CPA, CIA, CFA etc.)?

- ☐ Yes
 ☐ No

If yes, please specify the qualification:

19. Gender:

- ☐ Male
 ☐ Female

20. Your age group:

- ☐ BELOW 45
☐ 45 TO 54
☐ 55 TO 64
☐ 65 OR OLDER

21. How many years have you been serving as an audit committee member?

..... years

22. Are you the audit committee chair?

- ☐ Yes
 ☐ No

23. Size of your company based on market capitalisation:

- ☐ SET TOP 50
☐ SET 51 - 100
☐ SET BELOW 100

24. Industry of your company:

<input type="checkbox"/>	Agribusiness; Food & Beverage
<input type="checkbox"/>	Fashion; Home & Office Products; Personal Products & Pharmaceuticals
<input type="checkbox"/>	Banking; Finance & Securities; Insurance
<input type="checkbox"/>	Automotive; Paper & Printing Materials; Industrial Materials & Machinery; Steel; Petrochemicals & Chemicals; Packaging
<input type="checkbox"/>	Construction Material & Services; Property Development, Fund & REITs
<input type="checkbox"/>	Energy & Utilities; Mining
<input type="checkbox"/>	Commerce; Transportation & Logistics; Media & Publishing; Professional Services; Tourism & Leisure; Health Care Services
<input type="checkbox"/>	Electronic Components; Technology; Information & Communication

25. Do you have any other comments?

26. If you would like to receive a copy of the results of this research study please provide your e-mail address. Your e-mail will not be shared with anyone.

E-mail address:

VIII. FOLLOW-UP

When writing about the results of this survey, I would like to talk with audit committee members to add real-world examples to their stories. Would you be willing to discuss your views and experience with me regarding the audit committee oversight of risk management?

- ☐ Yes
 ☐ No

If you check **yes**, please provide your contact information below. **Confidentiality will be strictly assured.**

Name:

E-mail address:

Phone:

Mobile Phone:

YOUR PARTICIPATION IN THIS SURVEY IS GREATLY APPRECIATED.

Please now put your completed questionnaire in the envelope provided, seal and post it by

25 June 2014

The Role of Audit Committee in Thailand: A Case of Audit Committee Oversight of Risk Management

บทบาทของคณะกรรมการตรวจสอบในประเทศไทย:

กรณีคณะกรรมการตรวจสอบปฏิบัติหน้าที่ตรวจสอบการ
บริหารความเสี่ยง

Semi-Structured Interview Protocol

a study conducted by
Dej-anan Bungkilo

Part 1: Personal Information and Organizational Attributes

1. นอกเหนือจากการทำหน้าที่คณะกรรมการตรวจสอบปัจจุบันท่านทำงานอะไร
What are your current job responsibilities other than being an audit committee member?
2. ท่านมีคุณวุฒิวิชาชีพไหม (เช่น CPA CFA เป็นต้น)
What are your professional qualifications?
3. ท่านปฏิบัติหน้าที่เป็นคณะกรรมการตรวจสอบมานานเท่าไร
How long have you been serving as an audit committee member?
4. ท่านเข้ามาเป็นคณะกรรมการในบริษัทนี้ได้อย่างไร และทำไมท่านถึงได้รับการทาบทามให้เข้าร่วมเป็นคณะกรรมการตรวจสอบ
How are you identified to serve on a corporate board, and why are you asked to join the audit committee?
5. ท่านเคยอบรมเกี่ยวกับการบริหารความเสี่ยงหรือการตรวจสอบการบริหารความเสี่ยงมาก่อนหรือไม่ ถ้าเคย กรุณาอธิบาย
Do you have any formal training in risk management or risk management oversight? If yes, please describe.

Part 2: Audit Committee Meetings

1. คณะกรรมการตรวจสอบของท่านประชุมกันบ่อยเพียงใด นานเท่าใดในแต่ละครั้ง และใคร(กลุ่มใด)บ้างที่เข้าร่วมประชุมกับท่าน
How often do your audit committee meet, for how long, and which groups are included in meetings?
2. วาระการประชุมของคณะกรรมการตรวจสอบมีการจัดทำอย่างไร เมื่อไหร่ และโดยใคร
How, when, and by whom are the agendas for audit committee meetings prepared?
3. เวลาที่ใช้ในการปฏิบัติหน้าที่ (ทั้งในระหว่างการประชุมและกิจกรรมนอกการประชุม) มีการเพิ่มขึ้นในรอบ 3 ปีที่ผ่านมาหรือไม่ หากเวลาที่ใช้เพิ่มขึ้นอะไรคือสาเหตุ
Had the amount of time spent (both in meetings and out of meetings activity) increased in the past two years? If there has been an increase what has been the cause of this?
4. หัวข้อระเบียบวาระการประชุม agenda items
 - a. ในชุดข้อมูลที่ท่านได้รับก่อนการประชุม คนที่กำหนดข้อมูลควรมีในวาระการประชุมคือใคร
Who determines the information included in the information packet received before committee meetings?
 - b. ท่านได้รับข้อมูลนั้นเมื่อใด
When is the information packet received?
 - c. ชุดข้อมูลนั้นคือข้อมูลอะไรบ้าง
What information is included in the packet?
 - d. คณะกรรมการตรวจสอบสอบทานข้อมูลนั้นอย่างไร
How do audit committee members review the information?
 - e. ในขณะที่ท่านทำการสอบทานข้อมูล ท่านค้นหาอะไร
What are you looking for as you review the information?

Part 3: Audit Committee's Perception of Risk and Risk Oversight

1. นอกเหนือจากการประชุมว่าด้วยความเชื่อถือได้ของการบัญชี วิธีปฏิบัติกรรายงาน และงบการเงินของบริษัท คณะกรรมการตรวจสอบเห็นว่าการตรวจสอบการบริหารความเสี่ยงมีความสำคัญเป็นอันดับแรก ใช่หรือไม่
Beyond meeting the integrity of the company's accounting and reporting practices and financial statements, does your audit committee considers the oversight of risk management as first priority?

2. ในรอบสามปีที่ผ่านมา คณะกรรมการตรวจสอบของท่านได้มุ่งเน้นการปฏิบัติหน้าที่ตรวจสอบการบริหารความเสี่ยงเพิ่มขึ้น ใช่หรือไม่ หากมีเพิ่มขึ้นอะไรเป็นสาเหตุของสิ่งนี้

Over the past three years, to what extent has the audit committee increased its focus on the oversight of the company's risk management system? If there has been an increase what has been the cause of this?

3. บริษัทได้รับประโยชน์จากคณะกรรมการตรวจสอบในการปฏิบัติหน้าที่ตรวจสอบการบริหารความเสี่ยงของบริษัทอย่างไร

How does the company benefit from the audit committee in overseeing the company's risk management?

4. คณะกรรมการบริษัทมอบหมายหน้าที่การตรวจสอบการบริหารความเสี่ยงแก่คณะกรรมการตรวจสอบมากจนเกินไปหรือไม่ โปรดอธิบาย

Is the board over-delegating the risk management oversight function to the audit committee? Please describe.

5. ทักษะประเภทใดที่มีความจำเป็นในการปฏิบัติหน้าที่ตรวจสอบการบริหารความเสี่ยงองค์กร

What types of skills are needed to oversee enterprise risk management?

6. ในภาพรวม เมื่อกล่าวว่าคุณมีความเข้าใจความเสี่ยงทางการเงินที่สำคัญ ๆ ของกิจการ ท่านสบายใจมากน้อยเพียงใด

On an overall basis, how comfortable are you that you understand the company's key financial risks?

Part 4: Audit Committee Involvement in the Risk Oversight Process

1. บริษัทมีแนวปฏิบัติและนโยบายที่เกี่ยวกับการประเมินความเสี่ยงและการบริหารความเสี่ยงหรือไม่

Does the company have guidelines and policies with respect to risk assessment and risk management?

2. ความเสี่ยงประเภทใดที่คณะกรรมการดำเนินการสอบทาน

What kinds of risk are reviewed by the audit committee?

3. กรุณาอธิบายบทบาทของคณะกรรมการตรวจสอบที่เข้าไปเกี่ยวข้องกับกระบวนการตรวจสอบการบริหารความเสี่ยง

Could you please describe to what extent does the role of the audit committee get involved in the oversight process of risk management?

4. ลำดับขั้นตอนมีอะไรบ้างเมื่อคณะกรรมการตรวจสอบดำเนินการตรวจสอบการบริหารความเสี่ยงของบริษัท

What steps are taken by the audit committee in overseeing the company's risk management?

- a. อะไรคือลักษณะการทำงานตามปกติระหว่างคณะกรรมการตรวจสอบกับแผนกตรวจสอบภายใน

What is the nature of the audit committee's interaction with internal audit?

- b. อะไรคือลักษณะการประชุมและการสื่อสารที่เกิดขึ้นระหว่างคณะกรรมการตรวจสอบและผู้สอบบัญชีภายนอก
What is the nature of meetings and other communications between the audit committee and the external auditor?
 - c. อะไรคือลักษณะการทำงานตามปกติระหว่างคณะกรรมการตรวจสอบกับผู้บริหาร
What is the nature of the audit committee's interaction with management?
 - d. มีผู้มีส่วนเกี่ยวข้องอื่น ๆ ที่มีส่วนร่วมระหว่างการปฏิบัติหน้าที่ของคณะกรรมการตรวจสอบในการตรวจสอบการบริหารความเสี่ยงของบริษัทอีกหรือไม่
Are there other participants who get involve during the audit committee oversee the company's risk management?
5. กระบวนการหรือชนิดของความเสี่ยงอะไรที่คณะกรรมการตรวจสอบต้องให้ความสนใจเป็นพิเศษ
What processes or types of risk require special attention by the audit committee?
6. เมื่อท่านพบความน่าจะเป็นที่เพิ่มขึ้นอย่างมีสาระสำคัญของความเสี่ยง อะไรคือสิ่งที่คณะกรรมการตรวจสอบดำเนินการหลังจากนี้
Once you observe a material heightened likelihood of risk, what does the audit committee do next?
7. ข้อเสนอแนะเพื่อการปรับปรุงระบบการบริหารความเสี่ยงที่เสนอแก่ผู้บริหารมีการจัดทำอย่างไร
How recommendations are made to management to improve the system of risk management?
8. คณะกรรมการตรวจสอบมีการดูแลและติดตามการลงมือดำเนินการแก้ไขปรับปรุงจุดอ่อนของการควบคุมของผู้บริหารอย่างไร
How does the audit committee monitor and follow up management's implementation of any corrective actions for control weaknesses?
9. สิ่งที่คุณพิจารณาตรวจสอบพูดคุยหรือแบบส่วนตัวกับผู้ตรวจสอบภายใน ผู้สอบบัญชีภายนอก และผู้บริหาร ทั้งก่อนและหลังการประชุม ท่านพิจารณาส่วนนี้หรือไม่
Do you consider private audit committee sessions both before and after meetings with the internal auditor, the external auditor and management?
10. คณะกรรมการตรวจสอบเชื่อมั่นได้อย่างไรว่าระบบการบริหารความเสี่ยงของบริษัทใช้การได้ดีเหมาะสมแล้ว
How does the audit committee ensure that the company's risk management system is being done properly?

Part 5: Audit Committee's Judgement

1. เมื่อกล่าวว่าคณะกรรมการตรวจสอบของท่านมีขนาดที่เหมาะสม นำมาซึ่งความรู้ ความสามารถและทักษะที่จำเป็นต่อการปฏิบัติหน้าที่ตรวจสอบการบริหารความเสี่ยง ท่านสบายใจมากน้อยเพียงใด
How comfortable is your audit committee that it is the right size, bring requisite knowledge, abilities and skills to the oversight of risk management?

2. ท่านคิดเห็นอย่างไรเกี่ยวกับความสามารถของผู้ตรวจสอบภายในและบทบาทของพวกเขาในการบริหารความเสี่ยง

How do you feel about the capability of the internal auditors and their role in risk management?

- a. ผู้ตรวจสอบภายในมีความรู้เกี่ยวกับการควบคุมภายในและการบริหารความเสี่ยงเพียงพอหรือไม่

Do they have sufficient knowledge of internal control and risk management?

- b. ผู้ตรวจสอบภายในต้องได้รับการฝึกอบรมเพิ่มเติมหรือไม่

Do they need to be trained?

3. ท่านรู้สึกว่าคุณสอบบัญชีภายนอกมีคุณสมบัติวิชาชีพ ได้รับการฝึกอบรม และมีประสบการณ์สำหรับการตรวจสอบความเสี่ยงอย่างทั่วถึงหรือไม่

To what extent do you feel that the external auditors are adequately qualified, trained and experienced for auditing a wide range of risks?

4. ท่านรู้สึกอย่างไรเกี่ยวกับระบบการบริหารความเสี่ยงของบริษัทนี้ มันเป็นระบบที่ทำงานอย่างมีประสิทธิภาพหรือไม่

How do you feel about the company's risk management system? Is it functioning effectively?

5. ท่านรู้สึกอย่างไรเกี่ยวกับบทบาทของประธานเจ้าหน้าที่บริหารและผู้บริหารระดับสูงในการบริหารความเสี่ยงและการควบคุมภายใน

How do you feel about the role of the CEO and senior management in risk management and internal control?

Part 6: Audit Committee's Decision Making

1. ท่านพึงพอใจหรือไม่อย่างไร ในเรื่องผนวกควบคุมภายในให้หลักฐานที่หนักแน่นเพียงพอแก่คณะกรรมการตรวจสอบเพื่อประเมินประสิทธิผลของการบริหารความเสี่ยง

How satisfied are you that the internal audit department adequately provides concrete evidence to the audit committee to evaluate the effectiveness of risk management?

2. ท่านพึงพอใจมากน้อยเพียงใด ในประเด็นที่ว่าผู้สอบบัญชีภายนอกให้หลักฐานที่มีสาระสำคัญแก่คณะกรรมการตรวจสอบในทุก ๆ ประเด็นที่สัมพันธ์กับการบริหารความเสี่ยงเพื่อประเมินประสิทธิผลของการบริหารความเสี่ยง

How satisfied are you that the external auditors provide substantial evidence to the audit committee on any areas related risk management to evaluate the effectiveness of risk management.

3. ท่านพึงพอใจมากน้อยเพียงใด ในประเด็นที่ว่าประธานกรรมการบริหารและผู้บริหารระดับสูงให้ข้อมูลที่สมบูรณ์ เชื่อถือได้ แก่คณะกรรมการตรวจสอบที่ต้องปฏิบัติหน้าที่ตรวจสอบความเสี่ยงให้มีประสิทธิภาพ และเวลาในระเบียบวาระการประชุมได้มีการจัดสรรอย่างเพียงพอเพื่อการถกเรื่องความเสี่ยงของบริษัทกับบุคคลากรของบริษัทอย่างเหมาะสม

How satisfied are you that the CEO and senior management provide the comprehensive, reliable information the audit committee need to perform effective risk oversight and sufficient agenda time is allocated to the discussion of the company's risks with the appropriate company individuals?

4. ท่านมั่นใจได้อย่างไรว่าไม่มีความเสี่ยงที่มีนัยสำคัญถูกมองข้าม

How could you ensure that no significant risks are overlooked?

Part 7: Audit Committee's Report

1. รายงานของคณะกรรมการตรวจสอบมีการจัดทำอย่างไร เมื่อไหร่ และโดยใคร

How, when, and by whom is the audit committee's report prepared?

2. ทำไมการตรวจสอบการบริหารความเสี่ยงควรถูกเปิดเผยในรายงานของคณะกรรมการตรวจสอบ

Why the oversight of risk management should be disclosed in the audit committee's report?

3. คณะกรรมการตรวจสอบสอบทานรายงานนั้นอย่างไร

How does the audit committee review the report?

4. คณะกรรมการตรวจสอบได้มีการประชุมกับคณะกรรมการบริษัทและผู้บริหารระดับสูงก่อนที่จะมีการเผยแพร่รายงานของคณะกรรมการตรวจสอบหรือไม่

Does the audit committee have meetings with the board of directors and top management prior to publish the audit committee's report?

Part 8: Effectiveness of the Oversight of Risk Management

1. ประสิทธิภาพของการตรวจสอบการบริหารความเสี่ยงมีการประเมินอย่างไร

How is the effectiveness of the oversight of risk management assessed?

2. เมื่อกำหนดช่วงคะแนนเป็น 1 ถึง 10 โดย 10 แทนค่าของระดับสูงที่สุด และ 1 บ่งชี้ค่าระดับต่ำสุด ท่านเชื่อว่าคณะกรรมการตรวจสอบของท่านนั้นปฏิบัติหน้าที่ในการตรวจสอบการบริหารความเสี่ยงบรรลุตามวัตถุประสงค์มากน้อยเพียงใด โปรดอธิบาย

On a scale of 1 to 10, with 10 being the best, how well do you believe the audit committee accomplished the responsibility of risk management oversight? Please explain.

Part 9: Other Questions

1. ควรมีการจัดตั้งคณะกรรมการบริหารความเสี่ยงแยกต่างหากหรือไม่

Should a separate risk management committee be established?

2. การอบรม คุณสมบัติวิชาชีพ หรือประสบการณ์อะไรที่เหมาะสมสำหรับการเป็นกรรมการในคณะกรรมการตรวจสอบที่จะทำให้การปฏิบัติหน้าที่การตรวจสอบความเสี่ยงนั้นบรรลุภารกิจที่ได้รับมอบหมาย

What training, qualifications or experience are appropriate for audit committee members dealing with a wide range of risks to accomplish its mission?

Part 10: Concluding Questions

1. คำแนะนำอะไรที่ท่านจะฝากถึงคณะกรรมการตรวจสอบอื่นที่กำลังปฏิบัติหน้าที่ตรวจสอบการบริหารความเสี่ยงของบริษัทในขณะนี้

What advice would you give other audit committees that are overseeing a company risk management system?

2. อะไรที่ท่านจะกล่าวได้ว่า คือองค์ประกอบหรือคุณลักษณะที่สำคัญของกลยุทธ์การตรวจสอบการบริหารความเสี่ยงที่ดีสำหรับคณะกรรมการตรวจสอบของท่าน

What would you say is the key elements and attributes of a good risk management oversight strategy for your audit committee?

3. มีประเด็นอื่น ๆ หรือไม่ ที่เกี่ยวข้องกับกระบวนการตรวจสอบการบริหารความเสี่ยงของคณะกรรมการตรวจสอบที่ยังไม่ครอบคลุมในการสัมภาษณ์ครั้งนี้ และสิ่งที่ท่านพิจารณาเห็นว่าสำคัญ กรุณาเล่าแบ่งปันความคิดเห็นที่สำคัญเหล่านั้น

Are there any issues concerning the audit committee oversight process of risk management that have not been covered in this interview and which you consider important? Please feel free to share your opinions of such an importance.

End of Interview

APPENDIX C: Common Method Bias Testing

Panel A: The Harman's one-factor test

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.860	38.131	38.131	8.860	38.131	38.131
2	1.935	9.215	51.406			
3	1.442	6.864	58.271			
4	1.329	6.329	64.600			
5	1.086	5.172	69.772			
6	.926	4.410	74.183			
7	.759	3.613	77.796			
8	.634	3.019	80.815			
9	.571	2.719	83.534			
10	.511	2.433	85.967			
11	.446	2.123	88.091			
12	.380	1.809	89.899			
13	.345	1.641	91.541			
14	.307	1.463	93.003			
15	.281	1.340	94.343			
16	.257	1.225	95.569			
17	.242	1.151	96.719			
18	.223	1.061	97.780			
19	.191	.909	98.689			
20	.147	.699	99.389			
21	.128	.611	100.000			

Extraction Method: Principal Component Analysis.

Panel B: The Results of Marker-Variable Analyses

Marker variable analysis to evaluate common method bias

	Without CMB	With CMB	Difference		
r_M	0.000	0.149			
Factors					
PIE → IN	0.621	0.555	0.066	6.145	***
PIE → EX	0.312	0.192	0.120	1.799	*
PIE → JUD	0.372	0.262	0.110	2.503	**
PIE → PQE	0.567	0.491	0.076	5.199	***
IN → EX	0.450	0.354	0.096	3.486	***
IN → JUD	0.456	0.361	0.095	3.566	***
IN → PQE	0.716	0.666	0.050	8.237	***
EX → JUD	0.414	0.311	0.103	3.021	***
EX → PQE	0.548	0.469	0.079	4.894	***
JUD → PQE	0.627	0.562	0.065	6.259	***
Average			0.086		

Notes: r_M = shared correlation resulting from CMB; PIE = perception of the importance of ERM; IN = internal audit function; EX = external audit function; JUD = judgement; PQE = perception of the quality of ERM.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed).

Marker-Variable Technique: Under the framework of marker-variable assumption, a CMB-adjusted correlation between the variables under investigation, r_A , will be computed by partialling out r_M from the uncorrected correlation, r_U . In particular, with a sample size of n , r_A and its t -statistic can be calculated as follows:

$$r_A = \frac{r_U - r_M}{1 - r_M}, \quad (1)$$

$$t_{\alpha/2, n-3} = \frac{r_A}{\sqrt{(1 - r_A^2)/(n - 3)}}. \quad (2)$$

Using Equations (1) and (2), investigators can examine the impact of CMB on the magnitude and significance of a correlation.