

**THE IMPACT OF OVERSIGHT MECHANISMS ON
QUALITY INTERNAL CONTROL AND ITS
RELATIONSHIP WITH FIRM OPERATING
PERFORMANCE**

by

ONG HOCK CHYE

**Thesis submitted in fulfillment of the
requirements for the degree of Doctor of
Philosophy**

June 2007

TABLE OF CONTENTS

	Page
TABLE OF CONTENTS	I
ACKNOWLEDGEMENT	VI
LIST OF TABLES	VII
LIST OF FIGURES	VIII
ABSTRAK	IX
ABSTRACT	X
CHAPTER 1 INTRODUCTION	1
1.1 Background	1
1.1.1 Authoritative Publications on Internal Control	2
1.1.2 Internal Control Oversight	5
1.2 Problem Statement	7
1.2.1 Internal Control Disclosures	9
1.2.2 Audit Committee and Internal Audit Function	9
1.3 Research Objectives	11
1.4 Research Questions	12
1.5 Significance of the Study	13
1.6 Organization of the Remaining Four Chapters	15
CHAPTER 2 LITERATURE REVIEW	16
2.1 Internal Control	16
2.1.1 Internal Control Disclosures	18
2.1.2 Malaysian Internal Control Disclosure Requirements	20
2.1.2.1 Minimum (Mandatory) Disclosure Category	20
2.1.2.2 General (Voluntary) Disclosure Category	22
2.2 Oversight Mechanisms on Internal Control	22

2.3	Audit Committee	23
2.3.1	Characteristics of Effective Audit Committee	24
2.3.1.1	Independence	27
2.3.1.2	Qualification	30
2.3.1.3	Meeting	32
2.4	Internal Audit Function	34
2.4.1	Characteristics of Effective Internal Audit Function	35
2.4.1.1	Independence	42
2.4.1.2	Competence	44
2.4.1.3	Responsibility	47
2.4.1.4	Quality Assurance	49
2.4.1.5	Oversight	50
2.5	Theoretical Research Framework on Oversight Mechanisms	53
2.5.1	Agency Theory	53
2.5.2	Development of Hypotheses	56
2.5.2.1	Audit Committee	56
2.5.2.2	Audit Committee Independence	57
2.5.2.3	Audit Committee Qualification	57
2.5.2.4	Audit Committee Meeting	58
2.5.2.5	Internal Audit Function	59
2.5.2.6	Internal Audit Independence	59
2.5.2.7	Internal Audit Competence	60
2.5.2.8	Internal Audit Responsibility	60
2.5.2.9	Internal Audit Quality Assurance	61
2.5.2.10	Internal Audit Oversight	62
2.5.3	Mandatory and Voluntary Disclosures	62
2.6	Control Variables	64
2.6.1	Size	64
2.6.2	Profitability and Gearing	65
2.7	Operating Performance	66
2.7.1	Financial Measures versus Earnings Management Techniques	67
2.7.2	Theoretical Research Framework on Operating Performance	71
2.7.3	Independent Variables and Hypotheses	71
2.7.3.1	Return on Assets	71
2.7.3.2	Return on Equity	72
	CHAPTER 3 METHODOLOGY	73
3.1	An Overview of the Research Design	73
3.2	Data Source	73
3.2.1	Annual Report	74
3.2.2	Thompson ONE Analytics	75
3.2.3	Mail Questionnaire	75

3.3	Unit of Analysis	78
3.4	Population	78
3.5	Sample Size	79
3.6	Response Rate of the Mailed Questionnaire	80
3.6.1	Analysis of Non-Respondent Companies	81
3.6.2	Effects of Nonresponse Bias	83
3.7	Quantifying the Variables	84
3.7.1	The Dependent Variable – Quality of Internal Control	84
3.7.1.1	Choice of Research Technique	85
3.7.1.2	Measurement of Disclosure	86
3.7.1.3	Pilot Study on Internal Control Disclosure	88
3.7.1.4	Measurement of Mandatory Disclosure	91
3.7.1.5	Measurement of Voluntary Disclosure	94
3.7.1.6	Coding Scheme	96
3.7.1.7	Measurement of Internal Control Total Disclosure	97
3.7.2	The Dependent Variable – Company Performance	99
3.7.3	The Independent Variable - Audit Committee	99
3.7.4	The Independent Variable - Internal Audit Function	100
	CHAPTER 4 RESULTS	104
4.1	Descriptive Statistics	104
4.1.1	Sector Analysis of Final Sample	106
4.1.2	Internal Control	107
4.1.3	Audit Committees	110
4.1.4	Internal Audit Function	111
4.1.5	Operating Performance	111
4.2	Factor Analysis and Reliability of the Mailed Questionnaire	112
4.2.1	Principal Component Analysis	113
4.2.2	Kaiser-Meyer-Olkin Measure of Sampling Adequacy	115
4.2.3	Cronbach's Alpha	116
4.3	Research Hypothesis Three	117
4.3.1	Pearson Correlation	117
4.3.2	Normality	117
4.3.3	Linearity	118
4.3.4	Homoscedasticity	119
4.3.3	Results of Hypothesis Three	119
4.4	Research Hypotheses One and Two	120
4.4.1	Original Regression Equation One	120
4.4.2	Data Transformation – Internal Control	121
4.4.3	Data Transformation – Audit Committee	121
4.4.4	Data Transformation – Internal Audit Function	122
4.4.5	Data Transformation – Summary	124
4.4.6	Regression Equation Two (After Data Transformation)	124

4.4.7 Results of Regression Equation Two	125
4.4.8 Summary of Regression Equation Two	129
4.4.9 Results of Hypotheses One and Two	130
4.5 Research Hypothesis Four	130
4.5.1 Normality	131
4.5.2 Analysis of Variance (ANOVA)	131
4.5.3 Size as Control Variable	132
4.5.4 Results of Hypothesis Four	132
4.6 Summary of the Results of Hypotheses Tested	133
CHAPTER 5 DISCUSSION AND CONCLUSION	134
5.1 Recapitulation of the Study's Findings	134
5.2 Discussion of the Results	135
5.2.1 Internal Control Disclosures	135
5.2.1.1 Mandatory and Voluntary Disclosures	136
5.2.1.2 Compliance with Mandatory Disclosures	137
5.2.2 Operating Performance	140
5.2.3 Audit Committee	142
5.2.3.1 Independence and Qualification	143
5.2.3.2 Meeting	143
5.2.3.3 Value Proposition of Audit Committee	144
5.2.4 Internal Audit Function	145
5.2.4.1 Independence	147
5.2.4.2 Responsibility	147
5.2.4.3 Oversight	148
5.2.4.4 Quality Assurance	149
5.3 Implications	149
5.3.1 Implications to Practice	150
5.3.2 Implications to Theory	152
5.4 Limitations	153
5.5 Suggestions for Future Research	154
5.6 Conclusion	155
REFERENCES	156
APPENDIX 1: MAIL QUESTIONNAIRE	169
APPENDIX 2: PRELIMINARY CHECKLIST FOR VOLUNTARY DISCLOSURE ON INTERNAL CONTROL	174
APPENDIX 3: CODING FORM FOR MEASUREMENT OF MANDATORY DISCLOSURE ON INTERNAL CONTROL	178

APPENDIX 4: ANALYSIS OF MANDATORY, VOLUNTARY AND TOTAL DISCLOSURES, AND CLASSIFICATION OF VOLUNTARY DISCLOSURES BY THEMES OF 121 COMPANIES IN THE SAMPLE	180
--	-----

APPENDIX 5: SPSS DESCRIPTIVE TABLES FOR INTERNAL CONTROL DISCLOSURES, AUDIT COMMITTEE, INTERNAL AUDIT FUNCTION, AND OPERATING PERFORMANCE	182
---	-----

ACKNOWLEDGEMENT

This doctoral study was made possible through the tremendous support from a number of key people within the Universiti Sains Malaysia and all the individuals who participated in the interviews and questionnaires. The pursuit of this study has been instrumental in transforming me from an audit practitioner to an academic researcher. It could not have happened without the help of many people over the last five years.

I wish to thank all the people who have helped and inspired me throughout the study. I especially wish to thank my supervisor, Professor Dr. Hasnah Haron, for her guidance during my doctoral study at the Universiti Sains Malaysia. Her perpetual enthusiasm and passion in auditing research have motivated I am sure all her students, including me. Dr. Hasnah was always readily accessible and willing to help her students with their research, which made life as a student researcher with her as a supervisor smooth and rewarding. I was also delighted with the opportunity to interact with Professor Dato' Daing Nasir Ibrahim throughout the duration of this study and privileged in having him as my co-supervisor. Associate Professor Dr. Zainal Ariffin Ahmad deserved special thanks as a counsel on a number of administrative and technical matters on the study.

My deepest gratitude goes to my family members and friends for their unflagging support through many long nights and weekends while I worked on the thesis. This thesis is simply impossible without them. Finally, a vote of thanks to all of my peers and colleagues who put up with me during the last years – I hope I've made you proud!

LIST OF TABLES

	Page
Table 1 Summary of Eight Studies on Internal Audit Function	38
Table 2 Analyses of the Responses from Mailed Questionnaire	82
Table 3 Classification of Themes on Voluntary Disclosures	89
Table 4 Summary of the Research Design	103
Table 5 Descriptive Statistics on the 121 Respondent Companies in the Final Sample	105
Table 6 Sector Analysis of Final Sample and Target Population of Companies	106
Table 7 Analysis of Mandatory Disclosures	107
Table 8 Descriptive Statistics on Q11 to Q28	113
Table 9 Rotated Component Matrix of Q11 to Q28	115
Table 10 Reliability Analysis on Q11 to Q28	116
Table 11 Pearson Correlation on LnICVD and ICMD	118
Table 12 ANOVA Summary for Hypothesis Three	118
Table 13 Coefficients for Hypothesis Three	119
Table 14 Test of Homogeneity of Variances	119
Table 15 Descriptive Statistics on the Final Sample after Data Transformation on Variable	124
Table 16 Correlation Matrix for Linear Regression Model 2	127
Table 17 Model 2 Summary	126
Table 18 ANOVA Summary for Model 2	128
Table 19 Coefficients, Significance at 0.05 Level, and VIF of Variables in Model 2	128
Table 20 ANOVA Summaries for Hypothesis Four	132
Table 21 Summary of Hypotheses Tested	133
Table 22 Extent of Compliance with Mandatory Disclosures	139

LIST OF FIGURES

		Page
Figure 1	Theoretical Framework of Oversight Mechanisms (Audit Committee and Internal Audit Function) on the Quality of Internal Control	53
Figure 2	Theoretical Framework of the Quality of Internal Control on Operating Performance	71

KESAN MEKANISME PENGAWASAN KE ATAS KUALITI KAWALAN DALAM DAN PERHUBUNGANNYA DENGAN PRETASI OPERASI FIRMA

ABSTRAK

Kajian ini meneliti perhubungan di antara penzahiran mandatori dan sukarela berkenaan kawalan dalaman, termasuk perhubungan di antara jawatankuasa audit dan fungsi audit dalaman ke atas mutu kawalan dalaman untuk syarikat-syarikat yang tersenarai di Bursa Malaysia (BM). Kajian ini juga meneliti perhubungan di antara mutu kawalan dalaman ke atas prestasi operasi. Kajian menggunakan teori agensi sebagai teori asas yang menyatakan penzahiran kawalan dalaman sebagai alat yang digunakan oleh pemegang saham untuk mengawasi mutu kawalan dalaman yang direka oleh pihak pengurusan. Kajian menggunakan analisa kandungan untuk mengukur mutu kawalan dalaman. Soal selidik telah dihantar kepada 181 syarikat yang tersenarai di Bursa Malaysia dan kajian telah menerima maklumbalas dari 141 syarikat. Maklumat dari soal selidik di guna untuk mengutip data berkenaan fungsi audit dalaman, dan maklumat dari laporan tahunan syarikat diguna untuk mengutip data berkenaan jawatankuasa audit dan prestasi operasi. Kajian mendapati perhubungan yang positif di antara penzahiran mandatori kawalan dalaman dengan penzahiran sukarela kawalan dalaman. Ini bermakna lebih tinggi pematuhan keperluan dengan penzahiran mandatori Bursa Malaysia, maka lebih tinggi penzahiran sukarela. Di antara dua mekanisme pengawasan lembaga, kajian tersebut mendapati perhubungan penting di antara fungsi audit dalaman dan mutu kawalan dalaman tetapi tidak menemui perhubungan signifikan di antara jawatankuasa audit dengan mutu kawalan dalaman. Juga, kajian tidak mendapati perhubungan yang signifikan di antara mutu kawalan dalaman dengan prestasi operasi.

THE IMPACT OF OVERSIGHT MECHANISMS ON QUALITY INTERNAL CONTROL AND ITS RELATIONSHIP WITH FIRM OPERATING PERFORMANCE

ABSTRACT

This study examines the relationship between mandatory and voluntary disclosures on internal control, as well as the relationships between audit committee and internal audit function on the quality of internal control of public listed companies on Bursa Malaysia. The study also examined the relationship between the quality of internal control on operating performance. It used agency theory as the underpinning theory, which postulated internal control disclosure as a tool shareholders used to monitor the quality of internal control designed by management. The study employed content analysis for measuring the quality of internal control. Questionnaires were sent to 181 public listed companies on Bursa Malaysia and the study received responses from 141 companies. Questionnaires were used to collect the data on internal audit function and annual reports were used to collect the data on audit committee and operating performance. The study found a significant relationship between mandatory and voluntary disclosures on internal control. This meant complying with the mandatory disclosure of Bursa Malaysia leads to higher voluntary disclosures. Of the two board oversight mechanisms, the study found a significant relationship between internal audit function and the quality of internal control but did not find a significant relationship between audit committee and the quality of internal control. Also, the study did not find as well a significant relationship between the quality of internal control on operating performance.

CHAPTER 1

INTRODUCTION

This is the first of five chapters of the thesis. This chapter described the background, problem statement, objectives and questions, and significance of the study.

1.1 Background

Recent reported cases of multibillion-dollar fraudulent corporate accounting and reporting scandals have refueled public policy debates on internal control. It is an issue of considerable interest to policy makers involved in corporate governance issues. A basic assumption of public policy debate on corporate governance is that internal control improves the quality of financial reporting and reduces governance problems. Internal control in essence is intertwined with and directly affected by the dynamics of corporate governance. Shareholders use internal control as a tool to protect their interests in the company. Internal control is intended to assure shareholders that significant weakness in the design or operation of internal control, which could adversely affect a company's ability to meet its objectives, is prevented or detected early. Inseparable from the system of internal control are the oversight by audit committee and internal audit function. Yet, given the increasing attention on internal control, there was little empirical evidence on the effect of two internal control oversight mechanisms on the quality of internal control and the effect of the quality of internal control on operating performance.

1.1.1 Authoritative Publications on Internal Control

The development of legislations on internal control has been progressive. Diverse interest groups on internal control in the United Kingdom (U.K.) and the United States (U.S.) have, over the past decades, claimed that internal control improves financial reporting and is beneficial to capital providers and other stakeholders (Deumes, 2000).

In the U.K., the collapses of the Bank of Credit and Commerce International (BCCI) and the Maxwell Empire sparked widespread concern that led to the creation of the Cadbury Committee. The Cadbury Committee recommended listed companies to report on the effectiveness of internal financial control, while the Rutteman Committee provided guidance on how the board should review and report. Subsequent legislations issued after the Cadbury Committee such as the Hempel Committee, the Combined Code, as well as the Turnbull Committee have reiterated their recommendations in support of internal control.

In the U.S., successively over the last two decades starting with the Cohen Commission, the Securities and Exchange Commission, the Treadway Commission, the U.S. Congressman Ron Wyden of the House Oversight and Investigations Subcommittee (Verschoor, 1991), the *Federal Deposit Insurance Corporation Improvement Act of 1991*, the Committee of Sponsoring Organizations of the Treadway Commission, the Public Oversight Board, and more recently the *Sarbanes-Oxley Act of 2002* have recommended the strengthening of internal control. Under the *Sarbanes-Oxley Act*, management and external (independent) auditors of public companies in the U.S. are required to report on the effectiveness of internal

control over financial reporting.

Likewise in Malaysia, Bursa Malaysia requires its public listed companies listed on its stock exchanges to report the state of internal control to shareholders. The requirements of internal control disclosures in Malaysia followed more closely the requirements of the Turnbull report in the U.K. rather than the requirements of the *Sarbanes-Oxley Act of 2002*, Section 404, and the Public Company Accounting Oversight Board (PCAOB) Standard No. 2 in the U.S. One fundamental difference between the Malaysian and U.S. internal control disclosure requirement is an internal control report in Malaysia is a written statement by the board of directors, whereas an internal control report in the U.S. is a written statement by management. This meant in Malaysia board of directors provide the assertions on internal control to shareholders whereas, in the U.S. management (rather than board of directors) provide the assertions on internal control to shareholders.

There are three other fundamental differences between the Malaysian and U.S. internal control requirements. First, the Malaysian boards do not have to opine on whether the internal control is effective but in the U.S. management (not boards) have to opine on the effectiveness of internal control but only as it relates to financial reporting. Second, the reporting period of the internal control report in the U.S. is at a point in time (e.g., at December 31, 2005) whereas, in Malaysia the report covers the entire reporting period from the commencement date to the approval date of the company's financial statements. Third and lastly, external (independent) auditors in the U.S. are required to express two opinions on the company's internal controls to shareholders: first, an opinion on management's

assessment of the effectiveness of internal controls over financial reporting; and second, an opinion on the effectiveness of internal controls over financial reporting. In Malaysia, external auditors do not have to opine on the effectiveness of internal control to shareholders and management do not have to assert on the effectiveness of internal control.

Nevertheless, external auditors of public listed companies in Malaysia are required to provide a report to the board of directors (not to shareholders) on the board's statement of internal control that is to be included in the annual report to shareholders. The report of the external auditors should contain a clear written expression of negative assurance. This meant that based on the review by the external auditors, in accordance with the Malaysian Institute of Accountants *Recommended Practice Guide 5, Guidance for Auditors on the Review of Directors' Statement on Internal Control* (RPG 5), nothing has come to the external auditors attention that causes them to believe that the board's statement of internal control included in the annual report is inconsistent with their understanding of the process the board of directors has adopted in the review of the adequacy and integrity of internal control.

The RPG 5 does not require external auditors to consider whether the board's statement of internal control covers all risks and controls, or to form an opinion on the effectiveness of the risk and control procedures. Also, the RPG 5 does not require external auditors to consider whether the processes described to deal with material internal control aspects of any significant problems disclosed in the annual report will, in fact, remedy the problems. Also, the report of the external auditors on the board's statement of internal control was not intended to be a document to be included in the annual report,

it was provided only to the board of directors. Shareholders do not have ready access to the external auditors' report on the review of the board's statement of internal control.

1.1.2 Internal Control Oversight

A discussion on internal control oversight would need to be preceded by a definition of internal control. Bursa Malaysia, through the *Statement on Internal Control: Guidance for Directors of Public Listed Companies*, defines internal control as "...a process, effected by a company's board of directors and management, designed to provide reasonable assurance regarding the achievement of the company's objectives." It is intended to ensure effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulations (Treadway Commission, 1987). Ideally, internal control is intended to reduce the risk of fraudulent transactions because internal control failure could lead to major fraudulent corporate accounting and reporting scandals, whose occurrences tend to be sporadic as least in Malaysia.

Internal control oversight is the activities and efforts performed at key levels of a company that are responsible for effective functioning of internal control throughout the company (Root, 1998). Invariably, the interested parties in internal control oversight include shareholders, board of directors and board committees, and internal auditors. Shareholders are its ultimate beneficiaries, but the role of shareholders is primarily passive as it is impractical for shareholders to be involved directly in internal control even though they have a clear interest. Shareholders are not in the same position

as board of directors who, as indicated by *the Malaysian Code on Corporate Governance (Malaysian Code)*, bears the overall responsibility for maintaining internal control to safeguard shareholders' investment and company's assets. The board, by virtue of its oversight responsibility, is able to get a closer look at how management implements internal control in the company. Further, the board is also more likely to be knowledgeable on internal control concepts and authoritative literature on internal control than shareholders.

Under the *Malaysian Code*, the board can delegate its power and authority for monitoring internal control to an audit committee of the board. The board's delegation makes its audit committee the highest level of authority on internal control. Thus, from an internal control standpoint, the role of the board involves delegation of its responsibility to an audit committee, oversight of the audit committee, and ultimately, acceptance of the risks inherent in such a role. Consequently, only an audit committee is involved in internal control as the role of the board while critical would not be extensive in the terms of process involvement. To discharge its delegated responsibility on internal control, the audit committee needs to understand management's approach to internal control and be satisfied that the approach is appropriate for the company. The audit committee may seek whatever assistance it believes necessary on internal control from an internal audit function.

An internal audit function is defined by the *International Standards for the Professional Practice of Internal Auditing* as "...a department, division, team of consultants or other practitioner(s) that provides independent, objective assurance, and consulting services designed to add value and improve an organization's operations." The head of internal audit function is

typically an executive position within a company. An internal audit function can positively affect the migration of audit committee's approach on internal control because it is expected to possess expertise on internal control. Its role becomes much more significant as boards and audit committees become more accustomed to relying on its work as an independent source of opinions and information on internal control. At the same time, to be an effective partner, an internal audit function requires audit committee to oversee its budget approval process and policies regarding hiring, evaluation, training, and termination of audit staff. Absent a symbiotic relationship between audit committee and internal audit function, internal control oversight might not be as effective.

1.2 Problem Statement

A shareholder in a public listed company, whether an individual investor or an investing company, has the option to quit by selling its shares in the company. According to Thillainathan (1999), "...for a shareholder to rely on the exit route to protect himself and recover his investment, the regulatory regime in Malaysia must ensure that all material information that shareholders need to make decisions are disclosed on a full and timely basis..." Such disclosure includes information on the quality of internal control. There is no known or published study on the quality of internal control of Malaysian public listed companies, except for a study by Fadzil, Haron and Jantan (2005) that examined internal control in Malaysia using the five COSO internal control components. Also, there is no published study on the extent by which public

listed companies comply with the mandated disclosures on internal control required by Bursa Malaysia.

1.2.1 Internal Control Disclosures

The *Malaysian Code* envisages public listed companies to maintain a system of internal control to safeguard shareholders' investment and company's assets. The mechanism a public listed company uses to inform shareholders on internal control is by reporting the state of internal control in compliance with the Listing Requirements of Bursa Malaysia. Such reporting makes internal control disclosures to be the only monitoring tool available for shareholders to assess the state of internal control in a public listed company for shareholders to be assured on the continued safety and soundness of their investments in the company.

Internal control disclosures typically include disclosures on risk management, internal control, external auditors, internal audit function, audit committee, and internal control opinion. As a consequence, it is no longer enough for public-traded companies to take a minimalist approach on internal control disclosures particularly since five years have passed since the introduction of internal control disclosures. This meant internal control disclosures on mundane statements describing internal procedures that lack context and relevance. Internal control disclosures that contain vague disclosures of unclear meaning or that contain sweeping, albeit, confusing statements and assurances on internal control leads one to wonder about the dubious utility of these reports. Omissions and errors of mandatory internal control disclosures could raise questions of disclosure adequacy and possible

allegations of lack of due care by boards. Thus, if internal control disclosures are to continue to be effective monitoring tool for shareholders, the disclosures should be reliable, informative, and useful to whom they are directed as well as comply with the mandated disclosures of the Listing Requirements of Bursa Malaysia (i.e., mandatory disclosures). Useful and informative internal control disclosures are more likely to result in a company with sound internal control than in a company with inadequate internal control (Root, 1998).

1.2.2 Audit Committee and Internal Audit Function

Audit committee and internal audit function were introduced in the *Malaysian Code* to address agency problems in public listed companies. Agency theory deals with the problem of an agent acting on behalf of the principal. With the delegation of authority to an agent, the agent may take actions that are not in the principal's best interests (i.e., acts of self-interest on the part of the agent but are unknown to the principal). The goal of oversight mechanisms in an agency relationship is to constrain the agent from acting improperly and provide it with incentives to act appropriately. In a public listed company, agency theorists view the company (the firm) as a "nexus of contracts" between shareholders (principal) and management (agents for the principal). Management are contractually bound to work for shareholders' best interests but if management know that they will not be monitored and potentially punished, management may exert less effort than possible (shirking) or take advantage of company's resources for their own personal benefit (Hess and Impavido, 2003).

The success of audit committee and internal audit function in their oversight roles is unclear. Audit committees and internal audit function do exist in some form in public listed companies. But, they may not be operating as soundly as intended by regulations. Lack of competency, lack of understanding, resistance to change, and entrenched thinking on internal control are among the reasons for this state in the initial years (Root, 1998). Typically after the initial years of struggling with the implementation of internal control, companies gain experience as well as competence to enable internal control to mature to higher levels. Similarly, over time, audit committee and internal audit function also gain more experience and competence in their roles. Five years have passed since Bursa Malaysia introduced internal control reporting to public listed companies listed on its exchanges. Boards can no longer argue that they acted diligently if they failed to design audit committee and internal audit function that perform adequately to all the specified duties required of their roles. Such roles include the duty to inquire into the adequacy of the company's internal control, both in theory and in practice, and to take actions to minimize the possibility that internal control can be overridden by management, thereby resulting in undetected fraud.

Much of the prior studies on internal control have focused on the characteristics of audit committees and internal audit function in isolation of the other, and often not on their effects on internal control and operating performance. The motivation for these prior research was due to new legislations on internal control and corporate governance released over the years by interest groups on internal control, such as security regulators, accounting and auditing professions, academia, and independent

commissions.

These studies tend to focus on the role and relevance of audit committees and internal audit function. For example, prior studies on audit committees tend to concentrate on issues related to the formation, composition, roles, and benefits of audit committees; and prior studies on internal audit function tend to concentrate on the demand for internal audit or examine it narrowly from the internal-external audit relationship for financial statement audit. These studies on audit committee and internal audit function have pointed to the relevance of a cohesive, well orchestrated, cooperative linkage between audit committees and internal audit function but few attempts were made to assess their influence on internal control and operating performance.

Therefore, this study investigates the quality of internal control and its relationships with two key oversight mechanisms and operating performance. The newness of the rejuvenated roles of audit committees and internal audit function on internal control could explain the lack of research on these two oversight mechanisms on the quality of internal control.

1.3 Research Objectives

Despite growing support on internal control, published research in this area has been descriptive (O'Reilly-Allen, 1997). Except for the recent flux of studies on internal control post *Sarbanes-Oxley Act of 2002* in particular on the U.S. descriptive approach on implementing the Section 404 internal control requirements, there is no published study on the implementation of the Malaysian “the comply or explain” approach of implementing internal control

by public listed companies on Bursa Malaysia. Further, while various interest groups on internal control have prescribed and stressed the importance of audit committee and internal audit function as oversight mechanisms on internal control, their significance on internal control is also largely unknown.

The objectives of this study were:

- To examine the implementation of internal control disclosure in terms of its relationships between mandatory and voluntary disclosures.
- To determine the relationship between the key characteristics of audit committee on the quality of internal control.
- To determine the relationship between the key characteristics of internal audit function on the quality of internal control.
- To determine the relationship between quality of internal control on operating performance.

1.4 Research Questions

On the basis of the research background, this study was guided by five research questions:

1. What is the association between mandatory and voluntary disclosures of internal control information to shareholders?
2. Can quality of internal control be conceptualized and subsequently be measured by using disclosure of internal control practices?
3. What are the pertinent characteristics of audit committee and their relationships with the quality of internal control?
4. What are the pertinent characteristics of internal audit function and their relationships with the quality of internal control?

5. What is the association between quality of internal control and operating performance?

The study carried out five steps to answer the research questions and examine the research objectives. First, it undertook a literature-based research to establish the criteria for assessing the quality of internal control using internal control disclosures. Second, it identified through literature review the pertinent characteristics of effective audit committee and internal audit function. Third, it tested empirically; through hypotheses testing, the effects of pertinent characteristics of audit committee and internal audit function on the quality of internal control. Fourth, it considered other external factors that might have an impact on the quality of internal control such as whether the company's is a member of the Institute of Internal Auditors Malaysia or use external auditors from major auditing firms. Fifth and lastly, it used financial profitability ratios as proxies of operating performance to examine the relationship of operating performance to the quality of internal control.

1.5 Significance of the Study

Cynicism still looms among shareholders on the value proposition of audit committee and internal audit function, the two oversight mechanisms of internal control, against corporate failures. The cynicism precipitates largely from the perception that companies establish audit committees and internal audit function merely to comply with stock exchange listing rules rather than their intended value to shareholders against corporate failures. Failure to address this perception early might lead to the belief that audit committee and

internal audit function exist for their form rather than substance and adds little or no value to internal control and company performance. A strong regulatory regime needs to be assured that the presence of audit committee and internal audit function, although motivated initially by regulations, are operating to protect shareholders' interests.

This study proposed changes to strengthen existing regulations on internal control and help reduce or validate skepticism on the value proposition of audit committee and internal audit function. The study also identified significant characteristics of audit committee and internal audit function, and provided a disclosure checklist for comprehensive voluntary internal control disclosures.

Further, this study ascertained whether there was a significant relationship between the quality of internal control and company performance. Also, this study extend the literature on internal control by providing further insights on the effects of two oversight mechanisms of internal control on the quality of internal control as well as the impact of operating performance on the quality of internal control in a “comply or explain” approach regulatory environment. Also, by determining the oversight mechanisms of internal control that impacts the quality of internal control, the results of the study will enable benchmarking by countries that are at the early, transition, or advanced stages of implementing the internal control disclosures as a monitoring tool to protect shareholders' interests in a “comply or explain” approach regulatory environment.

1.6 Organization of the Remaining Four Chapters

Chapter 2 contained the literature review of the study. It introduced the theoretical research framework, and elaborated on the underpinning theory, the hypotheses tested, as well as the variables examined within the research framework.

Chapter 3 contained the research methodology of the study. It described the research design that included data source and justification, unit of analysis, population and sample size, measurement of key variables, construction of the mail questionnaire, response rate, and effects of nonresponse bias.

Chapter 4 discussed the results of the study. It provided a profile of respondent companies, descriptive statistics of the original data including a sector analysis of the final sample, and results of the hypotheses tested.

Chapter 5 presented the discussion and conclusion of the study. It consisted of a recapitulation of the study, discussion of the results, consistency or otherwise of the results with prior research, implications and limitations, suggestions for future research, and conclusion.

CHAPTER 2

LITERATURE REVIEW

In Chapter 1, reference was made to the need for examining the effects of two oversight mechanisms of internal control on the quality of internal control as well as the impact of operating performance on the quality of internal control. This chapter introduced the theoretical research framework, and elaborated on the underpinning theory and assumptions, the hypotheses tested, as well as the variables examined within the research framework.

2.1 Internal Control

As stated in Chapter 1, public policy debates on internal control are premised on the assumption that it improves the quality of financial reporting and reduces governance problems. However, internal control is not directly observable by shareholders because it comprises a set of activities within a company. Shareholders may have little or no incentive to monitor actively internal control and are unlikely to be fully informed about the extent or quality of internal control (Deumes & Knechel, 2005). If shareholders perceive that information is credible and relevant, internal control disclosures can serve as a monitoring mechanism that mitigates the agency problem in public listed company.

Prior studies on internal control have supported the relevance of internal control disclosures as a monitoring tool on internal control for shareholders and have focused on two dimensions: examining the substance

and variety of voluntary internal control disclosures in annual reports; and determining the usefulness of internal control disclosures to users of financial statements (El-Gazzar & Fornaro, 2003; O'Reilly-Allen & McMullen, 2002; Hermanson, 2000). For example, Deumes and Knechel, 2005; Willis and Lightle (2000) and El-Gazzar & Fornaro (2003) analyzed the different types of assertions contained in internal control disclosures; and Wallace (1981) analyzed the content of internal control disclosures of municipal government reports. Hermanson (2000) analyzed the demand for internal control disclosures by surveying disparate user groups. He found that internal control disclosures might serve to motivate both management and audit committee to focus their attention on enhancing internal control. Wallace and White (1996) found that senior management at companies with internal audit function focused primarily on aspects of financial controls (versus operational controls) and those at larger firms were more likely to publish internal control disclosures.

McMullen, Raghunandan and Rama (1996) found that although smaller firms had a higher incidence of financial reporting problems than larger firms, the incidence was lower when senior management at such companies published internal control reports. McMullen et al. (1996) offered two reasons why internal control disclosure can enhance internal control. First, it can increase the internal control awareness of management, which in turn lead to greater attention being paid by management to internal control. Second, it can lead to better internal control because it helps to communicate the tone at the top by sending a clear message within the company about the expected control environment. The tone at the top meant the corporate control

environment, which the Treadway Commission (1987) claimed to be an important factor contributing to effective internal control.

2.1.1 Internal Control Disclosures

Proponents of internal control disclosures, such as the American Institute of Certified Public Accountants and the U.S. Government Accountability Office, believe internal control disclosures strengthen a company's internal control. The increasing number of cases that deceitful management manipulated financial reporting has revitalized, once again, the value of internal control disclosures as a monitoring tool to protect shareholders' interests. Internal control disclosures can be designed to provide information on internal control that is useful and valuable to shareholders. Shareholders need to know about the adequacy of a company's internal control to help them evaluate the continued safety and soundness of their investments in the company. Root (1998) pointed out that useful and informative internal control disclosures are more likely to result in a company with sound internal control than in a company with inadequate internal control.

Internal control disclosure is risky but the risk varies inversely with the level of internal control attained (Root, 1998). For a company that has attained high level of internal control, such disclosure is an opportunity to showcase that quality. This can contribute to differentiating the company from its peers as an investment of choice for its shareholders as well as prospective shareholders. For companies that are not so advantaged such disclosures by others can help to motivate efforts to improve internal control

to more competitive levels. In that, it could provide an impetus towards greater levels of excellence, which is a desirable outcome for the companies affected and their shareholders. This perspective is consistent with the basic assumption that a company that chooses to disclose extensively on internal control is hypothesized to be seeking a higher level of internal control for the welfare of its shareholders. It is prudent then, to infer that a company with extensive internal control disclosures is assumed to have a higher quality of internal control than a company with less extensive internal control disclosures.

Internal control disclosures contained in annual reports is a suitable surrogate (proxy) on the quality of internal control when direct measures are unavailable. Recent studies examining internal control from the perspectives of *the Sarbanes-Oxley Act* have used internal control disclosures published by public companies as proxy for quality of internal control (Bedad, 2006; Ogneva, Subramanyam & Raghunandan, 2006; Ashbaugh-Skaife, Collins & Kinney, 2006; and Ge & McVay, 2005). The usage of disclosures as a measure on the quality of internal control of public listed companies is premised on two assumptions. First, public listed companies have the resources to develop and implement comprehensive internal control that provide shareholders with assurances on the validity of the internal operating processes and accuracy of financial reports. Second, public listed companies use disclosures as a monitoring tool to gain shareholders' confidence on their responsibilities on internal control.

2.1.2 Malaysian Internal Control Disclosure Requirements

In Malaysia, it was not until 2001 that Bursa Malaysia requires public listed companies to report the state of internal control to their shareholders. Public listed companies are required to ensure disclosures on internal controls contain adequate information to enable an informed assessment on internal control. This meant that Bursa Malaysia places the onus on the board to ensure internal control disclosures provide meaningful, high-level information and do not give misleading impression. It requires the board to disclose in the internal control report if it failed to conduct a review of the company's internal control, and also requires the company to comply with the *Statement on Internal Control: Guidance for Directors of Public Listed Companies (the SIC)*. The SIC is a document that provides guidance to directors on internal control disclosures. The requirement to comply with the SIC now limits the freedom that companies have on internal control disclosures. Internal control disclosures required by Bursa Malaysia to be contained in annual report can be categorized to two broad categories, a minimum disclosure category (paragraphs 40, 41, and 42 of the SIC) and a general disclosure category (paragraph 43 of the SIC).

2.1.2.1 Minimum (Mandatory) Disclosure Category

Under the minimum disclosure category, paragraph 43 states that where a board cannot make one or more of the disclosures in paragraphs 40, 41, and 42, it should state this fact and provide an explanation. The eight minimum disclosure items and their related paragraphs in the SIC are:

- There is an ongoing process for identifying, evaluating, and managing the

significant risks faced by the company (paragraph 40).

- The process has been in place for the year under review (paragraph 40).
- The process is regularly reviewed by the board (paragraph 40).
- The process accords with the internal control guidance in the *Statement on Internal Control: Guidance for Directors of Public Listed Companies* (paragraph 40).
- The process the board (where applicable, through its committees) has applied to review the adequacy and the integrity of the system of internal control (paragraph 41).
- The process that the board has applied to deal with material internal control aspects of any significant problems disclosed in the annual report (paragraph 41).
- The board acknowledges that it is responsible for the company's system of internal control and for reviewing its adequacy and integrity (paragraph 42).
- The board explains that such a system of internal control is designed to manage rather than eliminate the risk of failure to achieve business objectives and can only provide reasonable and not absolute assurance against material misstatement or loss (paragraph 42).

The eight minimum disclosure items promulgated by Bursa Malaysia for public listed companies listed on its stock exchanges are consistent with the disclosures proposed by the Institute of Chartered Accountants in England and Wales (ICAEW) for public listed companies listed on the London Stock Exchange.

2.1.2.2 General (Voluntary) Disclosure Category

Under the general disclosure category, there is only one item. Para 43 of the SIC states that the board may wish to provide any additional information in the annual report to assist understanding of the company's risk management processes and system of internal control. This meant that general disclosures are disclosures in excess of the minimum disclosure items. The inclusion of a general disclosure category by Bursa Malaysia suggests that disclosures that go beyond the minimum disclosure items are a way of signaling to shareholders the company's commitment of maintaining effective internal control to safeguard shareholders' investment and company's assets. By requiring a minimum disclosure category (i.e., mandatory disclosure) and a general disclosure category (i.e., voluntary disclosure), Bursa Malaysia has ingeniously provided an enlightened way for management to communicate to shareholders voluntarily how they are running the business. Voluntary disclosure provides an opportunity for management to reduce information asymmetry by disclosing more information on internal control to shareholders and at the same time deal with the concern in an agency relationship that managers are not acting for the interests of shareholders. No general disclosure category, other than the minimum disclosure category, was proposed by the ICAEW in its *Internal Control Guidance for Directors on the Combined Code*.

2.2 Oversight Mechanisms on Internal Control

As stated in Chapter 1, the key oversight mechanisms on internal control in a public listed company are audit committee and internal audit

function. This study examined both oversight mechanisms on internal control as no one single oversight mechanism could be a panacea for addressing the misalignment of interests between managers and shareholders in an agency relationship. It was Ho (2003) who argues that no one single mechanism is a governance panacea and suggests that it is desirable to have a system of overlapping checks and balances.

2.3 Audit Committee

This section discussed the role of audit committee on the quality of internal control. The genesis of audit committee suggests that its inclusion in internal control oversight was part of the reaction to corporate abuses. Kalbers and Fogarty (1993) noted that instances of fraudulent financial reporting, defalcations, accounting method choice abuses, and opinion shopping served as evidence that management was not effectively accountable to the board. The audit committee was an attempt to specifically designate responsibility for internal control, to provide a reporting structure for insiders that would circumvent managerial retribution, and to supervise relations with the external auditor and internal auditors. In fact, the *Malaysian Code* unambiguously states that the board is ultimately responsible for internal control. But the *Malaysian Code* recognizes that the board will normally delegate to management the task of establishing and maintaining internal control. The delegation by the board does not end its responsibility on internal control to shareholders. The board is required to review the adequacy and integrity of internal control after due and careful enquiry of the information

and assurances provided to it by management. In reality, the board is more likely to delegate the review to its audit committee.

An audit committee is defined as a board committee comprising of directors of the company who are appointed by the board to the audit committee. The board delegation makes its audit committee the single focal point on internal control. The board delegation also makes the audit committee a guardian to the board (as well as shareholders) on internal control. By analogy, an audit committee plays a critical role on internal control. This meant that audit committee has to review the company's internal control to ensure that management has made appropriate disclosures in the internal control report. In doing so, the board has to ensure that the composition of its audit committee members possesses the necessary skills, technical knowledge, objectivity, and understanding of the company to undertake the review. The study by Raghunandan, Rama and Read (2001) provided empirical support on the importance of audit committee composition. In the study, Raghunandan et al. (2001) affirmed that audit committees comprised solely of independent directors and with at least one member having an accounting or finance background are more likely to have longer meetings with the head of internal audit function; provide private access to the head of internal audit function; and review the proposals and results of the internal audit function.

2.3.1 Characteristics of Effective Audit Committee

Audit committee effectiveness has been examined in many ways (Archambeault & DeZoort, 2001; Lee, Mande & Ortman, 2004; Krishnan,