## INTERNAL AUDIT CHARACTERISTICS, CONTRIBUTION AND EFFECTIVENESS

by

TONG CHUE QUN

Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

#### **ACKNOWLEDGEMENT**

This doctoral study was made possible through the tremendous support from a number of key people within the Univesiti Sains Malayia and all the individuals who participated in answering the questionnaires.

I wish to thank all people who have helped and inspired me throughout the study. I especially wish to thank my supervisor, Professor Dr. Hasnah Haron, for her guidance and motivation during my doctoral study.

My deepest gratitude goes to my family members and friends for their persistent support while I worked on the thesis.

### TABLE OF CONTENTS

Ackı	nowledgen	nent	ii
Tabl	e of Conte	nts	iii
List	of Tables		xi
List	of Figures		xiii
Abst	rak		xiv
Abst	ract		XV
СНА	APTER 1 –	INTRODUCTION	
1.1	Introduct	tion	1
1.2	Backgro	and of the Study	1
1.3	Problem	Statement	4
1.4	Research	Questions	8
1.5	Research	Objectives	9
1.6	Significa	nce of the Study	10
1.7	Definitio	n of Terms	13
1.8	Organiza	tion of the Study	16
СНА	APTER 2	- AN OVERVIEW OF INTERNAL AUDIT, AUDIT COMMITTEE AND INTERACTION BETWEEN INTERNAL AUDIT AND AUDIT COMMITTEE	
2.1	Introduct	tion	18
2.2	History a	and Evolution of Internal Auditing	19
2.3	The Inter	rnational Professional Practice Framework (IPPF)	23
2.4	Internal	Audit Roles	24
	2.4.1	The Assurance and Consulting Role of Internal Audit	27
		2.4.1.1 Assurance Role	28
		2.4.1.2 Consulting Role	29
	2.4.2	Internal Audit's Role in Risk Management	30

		2.4.2.1 Role of Internal Auditor in Enterprise Risk Management	32
	2.4.3	Internal Audit's Role in Control	33
		2.4.3.1 Roles of Internal Auditor in Statement of Internal Control	35
	2.4.4	Internal Audit's Role in Governance	37
2.5	Internal	Audit Characteristics	39
	2.5.1	Competence	40
	2.5.2	Independence and Objectivity	42
	2.5.3	Work Performance	47
2.6	Audit Co	ommittee Characteristics	50
	2.6.1	Audit Committee Independence	50
	2.6.2	Audit Committee Financial Literacy	51
2.7	Interacti	ion between Audit Committee and Internal Audit	51
	2.7.1	Meetings between Audit Committee and Chief Audit Executive	53
	2.7.2	Audit Committee Involvement in Reviewing Internal Audit Programme and Process	54
	2.7.3	Involvement of Audit Committee in Dismissal of Chief Audit Executive	55
2.8	Chapter	Summary	56
СНА	APTER 3	- LITERATURE REVIEW	
3.1	Introd	luction	57
3.2	Theore	retical Research Framework on Internal Audit Effectiveness	57
	3.2.1	Agency Theory	57
	3.2.2	System Theory	60
	3.2.3	Research Framework	61
3.3	Interna	al Audit Effectiveness	62
	3.3.1	Measures of Internal Audit Effectiveness	66

3.4	Interna	l Audit Characteristics	69	
	3.4.1	Competence	72	
	3.4.2	Independence	77	
	3.4.3	Work Performance	80	
3.5	Audit (	Committee Characteristics	85	
	3.5.1	Audit Committee Independence	87	
	3.5.2	Audit Committees' Financial Literacy	90	
3.6	Interact	tion between Audit Committee and Internal Audit	93	
	3.6.1	Meetings Between Audit Committee and Chief Audit Executive	95	
	3.6.2	Audit committee Involvement in Reviewing Internal Audit Programme and Processes	97	
	3.6.3	Involvement in the Dismissal of Chief Audit Executive	98	
3.7	Interna	l Audit Characteristics and Its Effectiveness	99	
3.8	Audit (	Committee Characteristic and Internal Audit Effectiveness		
3.9		eraction between Audit Committee and Internal Audit and Internal dit Effectiveness		
3.10		oution of Internal Audit Function in Risk Management, Control vernance	106	
	3.10.1	Relationship between Internal Audit Characteristics and Its Contribution in Risk Management, Control and Governance	108	
	3.10.2	Influence of Audit Committee Characteristics on Internal Audit Contribution in Risk Management, Control and Governance	110	
	3.10.3	Influence of Interaction between Audit Committee and Internal Audit on Internal Audit Contribution in Risk Management, Control and Governance	113	
	3.10.4	Relationship between Internal Audit Contribution in Risk Management, Control and Governance and Internal Audit Effectiveness	114	
3.11	Chapte	r Summary	119	

### CHAPTER 4 - RESEARCH FRAMEWORK AND METHODOLOGY

4.1	Introduc	tion	120	
4.2	Revised	evised Research Framework		
4.3	Hypothe	ses Development	122	
	4.3.1	Internal audit Characteristics and Its Effectiveness	122	
	4.3.2	Audit Committee Characteristics and Internal Audit Effectiveness	124	
	4.3.3	Interaction between Internal Audit and Audit Committee and Internal Audit Effectiveness	127	
	4.3.4	Internal Audit Characteristics and Internal Audit Contribution in Risk Management, Control and Governance	129	
	4.3.5	Audit Committee Characteristics and Internal Audit Contribution in Risk Management, Control and Governance	134	
	4.3.6	Interaction between Audit Committee and Internal Audit and Internal Audit Contribution in Risk Management, Control and Governance	136	
	4.3.7	Internal Audit Contribution in Risk Management, Control and Governance Roles and Its Effectiveness	138	
	4.3.8	Mediating Effect of Internal Audit Contributions on the Relationship between Internal Audit Characteristics, Audit Committee Characteristics and Interaction between Internal Audit and Audit Committee on Internal Audit Effectiveness	140	
4.4	Research	n Methodology	142	
	4.4.1	Research Design and Model Specification	142	
	4.4.2	Sample and Data Collection	144	
		4.4.2.1 Population	144	
		4.4.2.2 Sample Size	145	
		4.4.2.3 Data Collection	146	
		4.4.2.4 Unit of Analysis	147	
		4.4.2.5 Respondents	147	
	4.4.3	Research Instrument	147	
4.5	Operational Definition and Measurement of the variables			

	4.5.1	Independ	lent Variable - Internal Audit Characteristics	149
	4.5.2	Independ	lent Variable - Audit Committee Characteristics	151
	4.5.3		dent Variable – Interaction between Audit Committee mal Audit	151
	4.5.4		ng Variable – Contribution of Internal Audit in Risk ment, Control and Governance	152
	4.5.5	Dependir	ng Variables – Internal Audit Effectiveness	153
4.6	Data A	nalysis		155
	4.6.1	Factor A	nalysis	155
	4.6.2	Regressio	on Analysis	157
	4.6.3	Assumpt	ions in Regression Analysis	158
		4.6.3.1	Linearity	158
		4.6.3.2	Normality	159
		4.6.3.3	Homoscedasticity	160
		4.6.3.4	Multicollinearity	160
		4.6.3.5	Outliers	161
	4.6.4	Regressio	on Functions	161
4.7	Chapte	er Summar	у	162
CHA	APTER 5	- RESEA	RCH FRAMEWORK AND METHODOLOGY	
5.1	Introdu	iction		163
5.2	Sample	e Profile		163
5.3	Factor	Analysis a	and Reliability Analysis	164
	5.3.1	Internal A	Audit Characteristics – Work Performance	166
	5.3.2	Audit Co	ommittee Characteristics	169
	5.3.3	Interaction	on between Audit Committee and Internal Audit	170
	5.3.4	Internal A	Audit Contribution	173
	5.3.5	Internal A	Audit Effectiveness	182

5.4	Descri	ptive Statistics of Variables	182	
5.5	Result	Results of Assumptions Test		
5.6	Pearso	on-Moment Correlations	186	
5.7	Hypot	heses Testing	191	
	5.7.1	Hypothesis 1, 2 and 3: Relationships of Independent Variables (Internal Audit Characteristic, Audit Committee Characteristic, Interaction Between Internal Audit and Audit Committee) with Dependent Variable (Internal Audit Effectiveness)	191	
	5.7.2	Hypotheses 4 to 12: Relationships between Independent Variables (Internal Audit Characteristic, Audit Committee Characteristic and Interaction between Audit Committee and Internal Audit) and Mediating Variable (Internal Audit Contribution)	193	
	5.7.3	Hypotheses 13: Relationships of Internal Audit Contribution with Internal Audit Effectiveness	195	
	5.7.4	Hypotheses 14 to 16: Mediating Effects of Internal Audit Contribution: Relationship between Independent Variables (Internal Audit Characteristic, Audit Committee Characteristic, Interaction Between Internal Audit and Audit Committee) and Dependent Variable (Internal Audit Effectiveness)	198	
	5.7.5	Summary of Hypotheses Testing	202	
5.8	Summ	ary of Chapter	207	
CHA	APTER (	6 - DISCUSSION AND CONCLUSION		
6.1	Intro	oduction	209	
6.2	Reca	apitulation of Findings	209	
6.3	Con	ependent Variables (Internal Audit Characteristic, Audit nmittee Characteristic, Interaction between Internal Audit Audit Committee)	212	
6.4		rnal Audit Contribution in Risk Management, Control and ernance	213	
6.5	Cha betv	Impact of Independent Variables (Internal Audit racteristic, Audit Committee Characteristic, Interaction veen Internal Audit and Audit Committee) on Dependent table (Internal Audit Effectiveness)	214	

	6.5.1	Internal	Audit Characteristics	214
		6.5.1.1	Internal Audit Competence	214
		6.5.1.2	Internal Audit Independence	215
		6.5.1.3	Internal Audit Work Performance	216
	6.5.2	Audit Co	ommittee Characteristics	217
		6.5.2.1	Audit Committee Independence	217
		6.5.2.2	Audit Committee Financial Literacy	218
	6.5.3	Interact	ion between Audit Committee and Internal Audit	219
		6.5.3.1	Meeting between Audit Committee and Chief Internal Auditor	219
		6.5.3.2	Audit Committee Involvement in Reviewing Internal Audit Programme and Processes	220
		6.5.3.3	Involvement in the Dismissal of Chief Audit Executive	221
6.6	Charac between	cteristic, en Interna	of Independent Variables (Internal Audit Audit Committee Characteristic, Interaction al Audit and Audit Committee) on Internal Audit Risk Management, Control and Governance	222
	6.6.1	Internal	Audit Characteristics	222
	6.6.2	Audit Co	ommittee Characteristics	224
	6.6.3	Interact	ion between Audit Committee and Internal Audit	226
6.7			Internal Audit Contribution in Risk Management, ernance on Internal Audit Effectiveness	226
6.8	Risk Variab Charac Comm	Manager oles (Intecteristic,	ect of Impact of Internal Audit Contribution in ment, Control and Governance: Independent ernal Audit Characteristic, Audit Committee Interaction between Internal Audit and Audit and Dependent Variable (Internal Audit	228
6.9	Implica	ations of the	he Study	230
	6.9.1	Implicati	ions to Practice	231
	6.9.2	Implicati	ions to Theory	233

6.10	Limitations and Suggestions for Future Research	235
6.11	Conclusion	237
REFERENCES		239
APPI	ENDICES	

APPENDIX A – Survey Questionnaire

 $APPENDIX \ B-Regression \ Analyses$ 

#### LIST OF TABLES

		Page
Table 3.1	Summary of Research Concerning Evaluation of Internal Audit Characteristics	83
Table 3.2	Summary of Research Concerning Internal Audit Contribution in Financial Statement Audit	117
Table 4.1	Measurement of Variables	154
Table 5.1	Summary of Response Rate of the Study	164
Table 5.2	Profile of Respondents	165
Table 5.3	Results of the Principle Component Analysis and Reliabilities Analysis of Internal Audit Work Performance	168
Table 5.4	Results of the Principle Component Analysis and Reliabilities Analysis of Audit Committee Characteristics	170
Table 5.5	Results of the Principle Component Analysis and Reliabilities Analysis of Interaction between Internal Audit and Audit Committee	172
Table 5.6	Results of the Principle Component Analysis and Reliabilities Analysis of Internal Audit Contribution	173
Table 5.7	Descriptive Statistics for Variables	184
Table 5.8	Response Bias Analysis	185
Table 5.9	Pearson Correlation between Independent Variables (Internal Audit Characteristic, Audit Committee Characteristic and Interaction between Audit Committee and Internal Audit), Mediating Variable (Internal Audit Contribution) and Dependent Variables (Internal Audit Effectiveness)	190
Table 5.10	Multiple Regression Results between Independent Variables (Internal Audit Characteristic, Audit Committee Characteristic and Interaction between Audit Committee and Internal Audit) and Dependent Variable (Internal Audit Effectiveness)	192
Table 5.11	Multiple Regression Results between Independent Variable (Internal Audit Characteristic, Audit Committee Characteristic and Interaction between Audit Committee and Internal Audit)) and Mediating Variables (Internal Audit Contribution in RM, CTL, GOV)	195

Table 5.12	Multiple Regression Results between Mediating Variables (Contribution of IA in RM, CTL, GOV) and Dependent Variable (Internal Audit Effectiveness)	197
Table 5.13	Hierarchical Regression Results: Mediating Effect of Internal Audit Contribution in Control (CTL) between Independent Variables (Internal Audit Characteristic, Audit Committee Characteristic, Interaction Between Internal Audit and Audit Committee) and Dependent Variable (Internal Audit Effectiveness)	199
Table 5.14	Hierarchical Regression Results: Mediating Effect of Internal Audit Contribution in Control Effectiveness (CEFF) between Independent Variables (Internal Audit Characteristic, Audit Committee Characteristic, Interaction between Internal Audit and Audit Committee) and Dependent Variable (Internal Audit Effectiveness)	200
Table 5.15	Hierarchical Regression Results: Mediating Effect of Internal Audit Contribution in Control Alignment (CALI) between Independent Variables (Internal Audit Characteristic, Audit Committee Characteristic, Interaction Between Internal Audit and Audit Committee) and Dependent Variable (Internal Audit Effectiveness)	202
Table 5.16	Summary of Hypotheses Tested	203

#### **TABLE OF FIGURES**

	TABLE OF TIGURES	Page
2.1	Evolution of internal auditing definition	21
3.1	Research Framework	62
4.1	Revised Research Framework	121

# CIRI-CIRI AUDIT DALAMAN, SUMBANGAN DAN KEBERKESANAN ABSTRAK

Audit dalaman menjadi alat yang penting dalam membantu sesebuah organisasi mencapai objektifnya apabila dilaksanakan secara berkesan. Organisasi dengan aktiviti-aktiviti audit dalaman adalah lebih mampu untuk mengenal pasti risiko perniagaan dan ketidakcekapan dan ketidakberkesanan sistem, mengambil tindakan pembetulan yang sesuai, dan akhirnya menyokong penambahbaikan yang berterusan. Oleh itu, keberkesanannya perlu dipantau untuk mengekalkan dan meningkatkan kredibiliti audit dalaman. Oleh itu, objektif kajian ini adalah menyiasat sumbangan dan keberkesanan audit dalaman dan faktor-faktor seperti ciri-ciri audit dalaman, ciri-ciri jawatankuasa audit dan interaksi antara audit dalaman dan jawatankuasa audit. Kajian ini berdasarkan data yang dikumpul dengan menggunakan kaji selidik melalui mel. Soal selidik telah diguna untuk mengumpul data dan sampel sebanyak 172 telah diterima daripada syarikat yang tersenarai di Bursa Malaysia. Hasil kajian menunjukkan bahawa keberkesanan audit dalaman yang berkaitan dengan kecekapan audit dalaman, prestasi kerja audit dalaman dan penglibatan jawatankuasa audit dalam pemecatan CAE. Hasil kajian menunjukkan bahawa semakin tinggi sumbangan audit dalaman dalam kawalan semakin tinggi keberkesanan dibawa oleh audit dalaman. Selain itu, terdapat bukti yang menunjukkan bahawa hubungan yang kuat antara kecekapan audit dalaman, prestasi kerja dan penglibatan jawatankuasa audit dalam pemecatan CAE dengan keberkesanan audit dalaman adalah disebabkan oleh sumbangan audit dalaman di dalam kawalan yang berfungsi sebagai pengantara.

### INTERNAL AUDIT CHARACTERISTICS, CONTRIBUTION AND EFFECTIVENESS

#### ABSTRACT

Internal auditing becomes an important tool in helping an organization achieve its objectives when effectively implemented. Organizations with internal audit activities are better able to identify business risks and system inefficiencies and ineffectiveness, take appropriate corrective action, and ultimately support continuous improvement. Therefore its contribution and effectiveness must be monitored in order to maintain and enhance internal audit's credibility. The objectives of this study are, therefore, to investigate contribution and effectiveness of internal audit and its determinants such as internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee. The study was based on data collected using mail survey. Questionnaires were used to collect data and the sample was obtained from 172 Malaysian listed companies in Bursa Malaysia. The finding showed that the internal audit effectiveness generally is at average level and internal audit contributed the most in internal control. The result revealed that the effectiveness of internal audit is associated with the internal audit competence, work performance of internal audit and involvement of audit committee in dismissal of CAE. The results indicated that the higher the internal audit contribution in control leads to higher internal audit effectiveness. Besides, there is evidence suggesting that the strong relationship between internal audit competence, work performance and involvement of audit committee in dismissal of CAE with internal audit effectiveness is due to internal audit contribution in control which functions as the mediator.

#### **CHAPTER 1**

#### INTRODUCTION

#### 1.1 Introduction

This chapter introduces the research agenda of this study. It outlines the background of the study, statement of the problem, research objectives, research significance, definition of terms and organization of the remaining chapters.

#### 1.2 Background of the Study

In recent years the importance of good corporate governance has received significant public and regulatory attention after the high profile corporate collapses (Coram, Ferguson & Moroney, 2006). The economic crisis 1997 - 1998 had resulted public listed companies to experience a dramatic and tremendous drop in share prices by more than half (KLSE Annual Report, 1999) and it has exposed serious weaknesses in corporate governance practices in Malaysia namely, weak financial structure, over-leveraging by companies, lack of transparency, disclosure and accountability. Weak corporate governance was due to poor implementation of corporate governance practice instead of law reforms (Coram, Ferguson & Moroney, 2006). To be in line with the concern of corporate governance, the regulatory bodies and authorities in Malaysia have taken few steps to improve the corporate governance such as the introduction of the Malaysian Code of Corporate Governance in 2000 (revised in 2007)(hereafter MCCG), which was then followed by the Bursa Malaysia Revamped Listing Requirement in 2001 and Guidelines on Internal Audit Function

for Public Listed Companies in 2002. These enacted reforms with the aim to promote and improve corporate governance in public listed companies in Malaysia.

The reforms do recognize the role of the internal auditor in restoring user confidence and achieving an entity's goals. Bursa Malaysia (formerly known as Kuala Lumpur Stock Exchange, KLSE) has recognised the importance of internal audit as key governance function and highlighted that its roles are closely linked with audit committees. The revised MCCG (2007) recognises the importance of internal audit by requiring all companies to have an internal audit. Both of these reforms have put internal audit in lime-light as one of the means of improving risk management and governance, and critical to preserving and enhancing stakeholder value. Given the perceived importance of internal audit as part of good corporate governance, these changes are likely to enhance the role and value of internal audit (Coram, Ferguson & Moroney, 2006). When it comes to adding value to the company, there should be no better resource than internal auditing.

In consistent with the reforms, the role of internal audit shifts from validating financial controls into internal control, risk management and governance in 1999 with the new definition of internal auditing by International Professional Practice Framework (hereafter IPPF). With this evolution, organizations may rely upon internal auditing for improvements in the organization's risk management and governance to improve performance and accomplish its objectives. It is clear that internal auditing has never been more valuable with its contribution in risk management, control and governance. Internal auditing has increasingly been viewed by regulators, directors of listed companies as one of the solutions to a perceived

breakdown in the systems of business reporting, internal control and ethical behaviour (Bailey, Gramling & Ramamoorti, 2003). Internal auditor can provide unfiltered information to directors and bring control orientation and mindset that can nicely complement the views of senior executives and board members (Gramling & Hermanson, 2007).

For an organization that search for long-term corporate success, it must steer the internal audit to excellence and underscore its ability to deliver distinctive value to the company, otherwise there is little point setting up the function. Therefore, maintaining an effective internal audit is very critical to the management as it provides monitoring function to assess the effectiveness of control, risk management and governance. IPPF emphasises on the internal audit independence, competence and quality of work performance in enhancing the internal audit contribution and effectiveness. MCCG requires the head of internal audit report directly to the audit committee and internal audit function should be performed impartially, proficiency and due professional care in order to uphold internal audit independence and competence. In this regard, research has documented that internal audit is influenced by audit committee and its interaction with audit committee. For example, an effective audit committee has an important role in supporting the work of internal audit and maintaining its quality (Beasley, Carcello and Hermanson, 1999). Therefore, in this study, it is argued that the contribution and effectiveness of internal audit is a function of: internal audit characteristics, audit committee characteristics and interaction between audit committee and internal audit. Internal audit contribution in this study is defined as the extent of roles played by internal audit in risk management, control and governance whereas internal audit effectiveness is

defined as the outcome of the work done. However there was little empirical evidence of such determinants is reflected in term of higher contribution and effectiveness of internal audit.

#### 1.3 Problem Statement

Well-known corporate failures such as Enron, Tyco, WorldCom, Parmalat, Transmile and Megan Media together with the challenges brought about by increased globalization and competition, stakeholder expectations and regulatory scrutiny have caused most of the investing community to urge for more effective internal audit to improve the risk management, control and governance and no longer just on financial and operational audits. Therefore no internal audit can be successful unless it is contributing in risk management, control and governance. In response to these calls, revised MCCG (2007) and the Bursa Malaysia Revamped Listing Requirement (2001) have recognised the importance of internal audit. Due to its importance and continuous escalation to the management process, it is essential to ensure that internal auditing conforms to high quality standard (Dittenhofer, 2001). Since then, internal audit has developed and improved in compliance with the International Professional Practices Framework (IPPF) (2008)<sup>1</sup> of internal auditing and MCCG to maximize the value that can be delivered. This has resulted in more qualified people performing internal auditing tasks in a more skilful manner. This effort is providing considerable progress in achieving higher effectiveness in the internal auditing activity (Dittenhofer, 2001).

\_

<sup>&</sup>lt;sup>1</sup> The International Professional Practices Framework (IPFF) has been revised in 2010 and became effective on 1 January 2011.

Internal auditing is developing as a substantial element of corporate governance in both the public and the private sectors (Dittenhofer, 2001). It has become so important that a value added internal audit in risk management, control and governance is believed to be able to ensure organizational effectiveness, and subsequently accomplishment of an organization objectives and goals. The more internal audit involves in risk management, control and governance, the higher contribution in these three areas and more effective of internal audit.

A study of 380 publicly-listed companies, titled 2002 Survey on Internal Audit Function of Public Listed Companies in Malaysia (IIA Malaysia, 2003) reveals that 58 percent of respondent companies had established their own internal audit. However, according to IIA Malaysia president Walter Sandosam, an IIA survey 2006 found that only 11% of the public-listed companies did not have an internal audit and they were mainly second board and Mesdag companies (The Star, 2 August 2008). This initiative has indicated that companies have made significant investment in internal audit with the hope of increasing the value add by internal audit to help organizations enhance performance through improved effectiveness, efficiency and flexibility. However, what happened in Transmile, Megan Media and Multi-Code Electronic Industries in 2007 and 2008 has put the profession under scrutiny, and left a big question mark on the internal audit contribution and effectiveness. These recent corporate scandals have shed somewhat unfavourable light on internal audit. Why the internal auditors failed to detect the fraud and blow the whistle? Contrary to these incidences, the preliminary results from Gramling and Hemenson (2007) research study in U.S. showed that most respondents view the internal audit is effective and adding value to an organization. Despite with the efforts to improve the corporate governance, the problem of corporate governance still persist in Malaysia and this leaves our understanding the relationship factors contributing to internal audit contribution and effectiveness unclear. Is the establishment of internal audit is required by statute or due to its potential value to the company? Or due to the findings of internal audit is not respected or ineffective of the corporate mechanism? A number of recent studies (Gramling et al., 2004; Carcello et al., 2005; Sarens and De Beelde, 2006) call for further research into the contribution and effectiveness of the IAF from the perspectives of key corporate governance parties. Considering the limited research conducted on internal audit contribution and effectiveness and the contradicted result of previous research, the assumed beneficial economic effects of internal audit can be questioned. The present study aims to contribute to the literature by responding to these calls. The roles of the internal audit has received heighten attention and if internal auditing is to gain recognition as a profession, their key activities must be consistently viewed as adding value. Thus, organizations that recognise the importance of internal audit will equip the internal audit with appropriate authority and resources, maintain an independent, knowledgeable and active audit committees that interact with internal audit to maximize its contributions and effectiveness. According to Mihret and Yismaw (2007), audit committee support is one of the most frequently cited factors of internal audit effectiveness as audit committees is crucial in providing the internal audit with an appropriate environment and support system. In turn, audit committee significantly relies on internal audit to perform its duties. Internal audit has been viewed as audit committee eyes and ears about what is going on within an organisation. According to Mazlina et al. (2006) more independent, competent and interactive audit committee is likely to take actions within their span of control that may result in greater roles or contribution of internal

audit activities, which in turn would enhance internal audit effectiveness. Audit committee assume important responsibilities with respect to internal audit, such as reviewing the internal audit programme and ensuring the adequacy of the scope of internal audit activities. As such, audit committees have the potential to enhance the contribution and effectiveness of the internal audit (Mazlina et al., 2006). According to IPPF a strong working relationship between internal audit and the audit committee is essential for each to fulfil its corporate governance responsibilities.

This study adopts the 'input-process-output' model instead of using the 'input-output' model in the relationship (CMA, 2002). Inputs are the conditions that exist prior to group activity, whereas processes are the interactions and activity among group members. Outputs are the results of group activity that are valued by the organization. Design of internal corporate governance mechanism of a firm is based on company's need, it is expected that the mechanisms would have some impact on the roles played by internal audit (a proxy of internal audit contribution). Internal audit needs to perform three roles namely risk management, control and governance, therefore the extent of internal audit plays these three roles would influence their effectiveness.

This study is important because while internal auditing has gained increasing importance in recent years as an important corporate governance mechanism (Carcello, Hermanson, and Raghunandan, 2005), surprisingly little is known about the contribution and effectiveness as well as the factors that are associated with the contribution and effectiveness. Thus, the purpose of this study is to obtain insights about internal audit contribution and effectiveness as well as its determinants.

#### 1.4 Research Questions

Given the problem statement described in the preceding section, this study aims to investigate the relationship between internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee with internal audit contribution and effectiveness. This study hopes to answer the main research question as follows:

Do internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee enhance internal audit effectiveness?

Specifically, the following specific research questions have been developed:

- 1. How effective is the internal audit in Malaysia?
- 2. How does internal audit contribution in risk management, control and governance?
- 3. What are the relationships between internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee with internal audit effectiveness?
- 4. What are the relationships between internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee with internal audit contribution to risk management, control and governance?
- 5. What is the relationship between internal audit contribution in risk management, control and governance and internal audit effectiveness?

6. Does internal audit contribution in risk management, control and governance mediate the relationship between internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee and internal audit effectiveness?

#### 1.5 Research Objectives

The difficult economic times and high competition have led to management simply cannot ignore the issues of internal audit contribution and effectiveness after making significant investment in improving internal audit and the urge for good corporate governance from stakeholders.

Therefore the research objectives of this study are:

- 1. To examine the level of effectiveness of internal audit and contribution of internal audit in risk management, control and governance.
- To determine the relationship between internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee on internal audit effectiveness.
- To determine the relationship between internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee on internal audit effectiveness.
- 4. To determine the relationship between internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee on internal audit contribution in risk management, control and governance.

- 5. To determine the relationship between internal audit contribution in risk management, control and governance on internal audit effectiveness
- 6. To determine whether internal audit contribution in risk management, control and governance mediates the relationship between internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee on internal audit effectiveness.

#### 1.6 Significance of the Study

It is important to understand the research issues outlined above for several reasons. This study is expected to contribute to the theoretical, methodological and the practice of the internal audit profession. From the practical perspective, evidently, empirical studies on the internal audit effectiveness are very limited especially from this region. Therefore limited study references are available for companies to be used as future guidance in evaluating and improving internal audit contribution and effectiveness.

The findings may enable researchers i.e. scholars and internal auditors, to understand how the prominent agency theory can be applied as the basis for theoretical framework of this study. The theoretical framework is developed to provide more insight on the contributing factors that affect the internal audit contribution and effectiveness. Consequently, this study may contribute to the body of literature by extending the needs for more empirical internal audit researches in the future.

This study adds to the growing body of international literature concerned with linkages between various corporate governance mechanisms namely audit committee Although a significant amount of academic research has and internal audit. examined the contributing factors that affect internal audit contribution in financial statement audit, there is limited study that has simultaneously investigated the impact of internal audit characteristics, audit committee characteristics and the interaction between internal audit and audit committee on contribution of internal audit in risk management, control and governance. Moreover, the results of the previous studies are inconsistent and the only direct relationship is tested. Thus, the main contribution is the inclusion of internal audit contribution in risk management, control and governance as a mediating variable on the relationship between internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee on the internal audit effectiveness. A greater understanding of these relationships can help to improve the working relationship among the parties in order to derive the maximum value from internal audit. Besides that, this study also explores for the first time the impact of internal audit contribution in risk management and governance on internal audit effectiveness. Internal audit characteristics, audit committee characteristics and interaction between internal audit and audit committee are directly or indirectly related to internal audit effectiveness and its contribution in risk management, control and governance. However, these two relationships have not been studied although the importance of the relationships being repeatedly discussed in prior research. Therefore, from a practical perspective, this study intend to provide feedback to the regulators (e.g. MCCG, Bursa Malaysia and Institute of Internal Audit Malaysia) on the need for policies that support and enhance the internal audit status in an organization and the symbiotic relationship

between the audit committee and the internal audit. As such, the result will provide guidance on investing in internal audit. At the same time, the internal auditor can use the results of this study to better coordinate and direct their work efforts and increase their usefulness, productivity, efficiency and effectiveness. In addition, the results may prove useful to internal auditing professionals and professional organizations that are tasked with the responsibility of formulating training programs for internal auditor in an effort to help them improve the focus and delivery of their services to stakeholders especially audit committee and board of directors.

Furthermore, the methodological contribution of this study is to develop new measurements for internal audit characteristics, audit interaction between internal audit and audit committee and internal audit effectiveness based on IPPF and audit committee characteristics based on MCCG.

The significance of this study added to the slim body of knowledge in the internal audit profession in Malaysia. The measures of internal audit characteristics can be used not only to provide a gap analysis between current state and leading practices but can also be utilized to assist in creating a blueprint for future improvements. Moreover, the analytical process of creating and validating quality attributes may strengthen the standard audit process, providing a bridge between the IPPF and the audit department's own, more specific audit methodology.

This research findings may offer the internal auditor a way into a discussion of the modern role for internal audit and a new paradigm for increasing the effectiveness of internal audit activity within an organization. Finally, it establishes a base line from

which further research may be warranted sometime in the future to measure changes as the profession continues to grow.

This study is conducted with a view to understand where the internal audit profession in Malaysia is today, amidst the changing regulatory and business landscape, and stakeholder expectations. The results of this study will help to shed some light and improve the internal audit practices and performance in Malaysia. The findings would be useful to practitioners, members of audit committees, board of directors, shareholders, academician and other stakeholders.

#### 1.7 Definitions of Terms

For the purpose of this study, the following terms will be utilized:

- Add Value: Value is provided by improving opportunities to achieve organisational objectives, identifying operational improvement, and / or reducing risk exposure through both assurance and consulting services (IIAM, 2008).
- 2. Assurance Services: An objective examination of evidence for the purpose of providing an independent assessment on risk management, control, or governance processes for the organisation. (IIAM, 2008).
- 3. Board: A board is an organisation's governing body. (IIAM, 2008).
- 4. Charter: The charter of the internal audit activity is a formal written document that defines the activity's purpose, authority, and responsibility. (IIAM, 2008).
- 5. Chief Audit Executive: Top position within the organisation responsible for internal audit activities. (IIAM, 2008).

- 6. Competence: The quality of being adequately or well qualified physically and intellectually (http://wordnet.princeton.edu/perl/webwn?s=competence).
- 7. Compliance: Conformity and adherence to policies, plans, procedures, laws, regulations, contracts, or other requirement (IIAM, 2008).
- 8. Internal Audit Contribution: The extent of roles that internal audit play in risk management, control and governance.
- 9. Consulting Services: Advisory and related client service activities, the nature and scope of which are agreed with the client and which are intended to add value and improve an organisation's governance, risk management, and control processes without the internal auditor assuming management responsibility. Examples include counsel, advice, facilitation and training (IIAM, 2008).
- 10. Control: Any action taken by management, the board, and other parties to manage risk an increase the likelihood that established objectives and goals will be achieved. (IIAM, 2008).
- 11. Internal Audit Effectiveness : A measure of performance of internal audit which is the outcome of work done
- 12. Financial Expertise: Individual had obtained education and experience in accounting, finance and supervisory (Sarbanes-Oxley Act, 2002).
- 13. Governance: The combination of processes and structures implemented by the board in order to inform, direct, manage and monitor the activities of the organisation toward the achievement of its objectives (IIAM, 2008).

- 14. Independence: The freedom from conditions that threaten objectivity or the appearance of objectivity. (IIAM, 2008).
- 15. Internal Auditing: Internal auditing is an independent, objective assurance and consulting activity designed to add and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes (IIAM, 2008).
- 16. Internal audit quality: Internal audit quality is a function of the objectivity, competence, and work performed of the internal auditors (Maletta, 1993).
- 17. Objectivity: An unbiased mental attitude that allows internal auditors to perform engagements in such a manner that they have an honest belief in their work product and that no significant quality compromises are made. (IIAM, 2008).
- 18. Risk: The possibility of an event occurring that will have an impact on the achievement of objectives. Risk is measured in terms of impact and likelihood (IIAM, 2008).
- 19. Symbiotic Relationship: relationship between two entities which is mutually beneficial for the participants of the relationship.

  (http://www.learnthat.com/define/view.asp?id=338)
- 20. Risk Management: A process to identify, assess, manage, and control potential events or situations, to provide reasonable assurance regarding the achievement of the organisation's objective (IIAM, 2008).

21. Work Performance: A process or procedures that includes audit planning, performing engagement and communicating audit results (IIAM, 2008).

#### 1.8 Organization of the Study

This study is organized into six chapters. Chapter 1 provides the background of the study, problem statement, research questions, research objectives, research significance, definition of terms and organisation of the remaining chapters.

Chapter 2 includes the history and evolution of internal auditing, International Professional Practices Framework (IPPF), the roles of internal auditors, and internal audit characteristic. The discussion elaborates the assurance and consulting roles of internal audit in control, risk management and governance.

Chapter 3 contained the literature review and previous research that are related to internal audit effectiveness, internal audit characteristic, audit committee characteristic, interaction between internal audit and audit committee and internal audit contribution in control, risk management and governance. It reviews some empirical studies on the relationship between internal audit characteristic, audit committee characteristic, and internal audit effectiveness.

Chapter 4 described the research framework and methodology used in the study. Hypothesis, research design, sample and data collection, research instrument, operational definition and measurement of the variables, method of data analysis are discussed in this chapter.

Chapter 5 reports the results obtained from the data analysis used in this study. This chapter discusses the preliminary analyses, descriptive statistics, correlation analyses, regression analyse and an interpretation of the statistical findings.

Chapter 6 includes a comprehension discussion of the findings and results of this study which summarise and discuss the major findings to provide further insights on the findings of prior research. This chapter also explains the theoretical and practical implications of this study. Lastly, it discusses the limitations, suggestion for future research and conclusion.

#### **CHAPTER 2**

# AN OVERVIEW OF INTERNAL AUDIT, AUDIT COMMITTEE AND INTERACTION BETWEEN INTERNAL AUDIT AND AUDIT COMMITTEE

#### 2.1 Introduction

This chapter described the history and evolution of internal auditing to look at the changing roles of internal auditors and The International Professional Practice Framework (IPPF) <sup>1</sup> and Malaysia Code of Corporate Governance (MCCG) to discuss the internal audit roles, internal audit characteristic, audit committee characteristic and the interaction between internal audit and audit committee.

The development and advancement of internal auditing are left mostly to the Institute of Internal Auditors that responsible issuing IPPF. The IPPF has improved over the years and in more recent years; some significant changes have occurred for instance, the roles of internal audit, attribute and performance standards of internal auditing. Therefore, in addition to discuss previous studies, this study will include the IPPF which are regarded as best current practices and other relevant guidelines on internal auditing in the discussion for better understanding in forming the theoretical framework and measurements of this study.

18

.

<sup>&</sup>lt;sup>1</sup> The International Professional Practices Framework (IPFF) has been revised in 2010 and became effective on 1 January 2011.

#### 2.2 History and Evolution of Internal Auditing

Many people have long held the view that the only thing internal auditors do is to check other peoples' work and report the mistakes they make. This is one of the widespread misperceptions about internal auditing. This might due to internal audit activities in control have a long history and well documented. The earliest records ever audited were Babylonian clay tablets about 5,000 years ago. The world's first auditor may have created the tiny marks on the clay tablets next to inventories. The dot, checks and tick marks portray a system of verification. One scribe prepared summaries of transactions; another verified those assertions. Internal control, systems of verification and concept of division of duties probably originated at that time. Early Chinese, Egyptian, Hebrew and Persian records indicate similar systems The Greeks' records show that transactions required authorization and verification. While ancient Rome employed 'hearing of accounts.' One official would compare his records with those of another. This oral verification was designed to keep official in charge of funds from committing fraudulent acts (Lee, 2004).

By the time of the Middle Kingdom of the Nile, the Pharaoh's deputy was overseeing the storage of grains. Auditing was a matter of reperforming the work of others. Systems were very simple, and auditing meant observing, counting and double-checking records. Internal auditing did not change much nearly 5000 years. In some countries where modern internal auditing is just now being introduced, reperformance is still the mainstay of the auditor.

During 13<sup>th</sup> century, an expanding Italian commerce demanded more sophisticated record keeping. Double entry bookkeeping was developed by a priest, Lucia Pacioli.

Every transaction is entered as both a debit and a credit. This system helped merchants control transactions with customers and suppliers and allowed them to monitor the work of employees.

Prior to 1941, internal auditing was basically a clerical function. Much of the record keeping at that time was performed manually, auditor were needed to check the accounting records in order to discover error or fraud. Modern internal auditing began to evolve in 1941 when the Institute of Internal Auditors (IIA) was formed. With the founding of the IIA, internal audit practice began the move toward becoming a profession, including agreement among practitioners about the role of internal auditing and its basic concepts and practices. The first guidance came with the issuance of the Statement of the Responsibilities of the Internal Auditor in 1947. It defined the scope of internal auditing was focused primarily on financial matters. World War II led The Institute of Internal Auditors and the profession grew swiftly. By 1957 internal auditing objectives had been broadened to include numerous services to management regarding to review and evaluation of operation as well. The growth of conglomerates and multinational companies required internal auditors to perform a greater service than just performing the financial audit. Internal auditors are then expanding the scope of internal auditing to review the adequacy of corporate procedures and practices in operation to ensure managerial economy, efficiency and effectiveness. Over the years, the Statement of the Responsibilities of the Internal Auditor was periodically revised (1957, 1971, 1976, 1981, and 1990) until its replacement in 1999 by the current definition. It is clear that the internal audit has gone through a number of stages in its development.

According to Morgan (1979) historically, internal audit has been viewed as a monitoring function, the "organizational policemen and watchdog", tolerated as a necessary component of organizational control but deemed subservient to the achievement of major corporate objectives. Internal auditors were viewed as playing a relatively narrow role in their organization, with limited responsibility in the total managerial spectrum.

Figure 2-1 indicates the recognition of internal auditing in its changing role by considering important revisions in The Institute of Internal auditors' *Statement of Responsibilities of Internal Auditing*.

Today, supported by variety of private sector accounting organizations, including the American Institute of Certified Public Accountants (AICPA), the American Accounting Association (AAA), the Financial Executives Institute (FEI), the Institute of Internal Auditors (IIA), and the National Association of Accountants (NAA), internal audits have become an important component of many business's operations management system. Now, internal auditing is essential in helping an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance process. According to Sawyer and Vinten (1996), the functions of internal audit will be transformed from single ones to multiple ones. Internal audit will be transformed from its traditional examination of authenticity of financial information, compliance with laws and regulations and security of assets to check the reasonableness and effectiveness of economic resources development and utilization. Internal audit will serve the modern enterprise system and become an important part of modern

management work. Internal audit was now poised to enter all key parts of an organization.

#### 1947

Internal auditing deal primarily with accounting and financial matters but it may also property deal with matters of an operating nature.

#### 1957

Internal auditing is an independent appraisal activity within an organization for the review of accounting, financial, and other operations.

#### 1971

Internal auditing is an independent appraisal activity within an organization for the review of operations as a service to management.

#### 1990

Internal auditing is an independent appraisal function established within an organization to examine and evaluate its activities as a service to the organization.

#### 1999

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 process.

Figure 2.1 Evolution of internal auditing definition

Source: The Internal Auditing Handbook, Pickett, K.H.S (2003)

As in the latest definition of internal auditing, the internal auditing work encompasses beyond the traditional areas of internal control assurance and compliance to include risk management and governance. Risk management is a developing area and governance is the least developed of the three areas as compared to control. In addition to provide assurance services as the core focus, consulting services are provided at the specific request of a member of management in the organization due to the skill sets and objectivity of internal auditing.

#### 2.3 The International Professional Practices Framework (IPPF)

The International Professional Practices Framework (IPPF) of internal auditing represents the collective knowledge of the internal audit profession and contains what is considered to be the essential elements of the effective delivery of internal audit services. The IPPF was revised in 2010 and the updated version will be effective on 1 January 2011. The revised IPPF does not have much change except minor changes in the wordings and explanation which will be highlighted in later discussion. Therefore this study is still relevant as the content of IPPF is maintained.

The purposes of IPPF are to delineate basic principles that represent the practice of internal auditing as it should be, provide a framework for performing and promoting a broad range of value-added internal audit activities, establish the basis for the evaluation of internal audit performance and foster improved organisational processes and operation. The IPPF consists of Attribute Standards, Performance Standards, and Implementation Standards. The Attribute Standards address the characteristics of organisations and parties performing internal audit activities. The Performance Standards describe the nature of internal audit activities and provide

quality criteria against which the performance of these services can organisations that vary in purpose, size, complexity, and structure; and by persons within or outside the organisation as such the IPPF is written to be generic enough to apply to any internal audit.

Internal audit are encouraged to comply with the IPPF if the responsibilities of internal auditors are to be met. Internal auditors are encouraged to report that their activities are "conducted in accordance with the IPPF." However, internal auditors may use the statement only if assessments of the quality improvement programme demonstrate that the internal audit activity is in compliance with Standards.

Although the internal audit activity should achieve full compliance with the Standards and internal auditors with the Code of Ethics, there may be instances in which full compliance is not achieved. When non-compliance impacts the overall scope or operation of the internal audit activity, disclosure should be made to senior management and the board (IIAM, 2008).

#### 2.4 The Internal Audit Roles

When the internal audit profession was emerging in the 1940's, the scope of internal auditing and the reporting relationship was rather simple. The role of internal auditor was described as the eyes and ears of management to ensure that shareholders as well as stakeholders' interests are being taken care of. However, the growing concerns over financial controls, management fears of fraud, an increased need for organizational efficiency, increase usage of information technology, environmental awareness and changes in legislation have had an impact on the development of