

**The Relationship between Internal and External  
Auditors of Local Authorities in England and  
Malaysia**

**By  
Siti Zabedah Saidin**

**Submitted to the University of Sheffield in Fulfillment of  
the Requirements for the Degree of Doctor of Philosophy**

**The University Of Sheffield  
Management School**

**March 2010**

## ACKNOWLEDGMENTS

The whole process of completing this PhD would not have been possible without the backing and cooperation from various individuals. First and foremost, I would like to express my deep and sincere gratitude to both my supervisors, Professor Ron Hodges and Dr. John A. Brierley, for their continuous support of my PhD study, for their patience, understanding, commitment and immense knowledge. Their careful review of the draft chapters and constructive comments, advice and suggestions were invaluable in the writing of this thesis.

I owe my loving thanks to my beloved husband, Hadi, for his incessant love, care and loving support. I also owe my deepest love to my daughter Afini, and my sons Syafiq and Danish for their tolerance and for being independent. Without their patience and understanding it would have been impossible for me to finish this work. My deepest gratitude goes to my mother and my father for offering constant prayers for the success of my study. My special gratitude is due to my brothers and my sister for their encouragement.

I wish to thank Ms. Mandy Robertson for helping me in the administration area from the early stage of my application for study until the completion of this work. Also, I would like to thank the University of Sheffield, particularly the Management School, for accepting me as a PhD Candidate.

I also would like to take the opportunity to thank those people who spent their time and shared their knowledge in completing the questionnaire and undertaking the interviews, which made this study possible.

Finally, I am grateful to the Universiti Utara Malaysia and the Malaysian Government for giving me the opportunity to pursue my study abroad and for providing financial support.

## ABSTRACT

This study examines the relationship between internal and external auditors, with particular emphasis on the co-operation between internal and external auditors, and the reliance of external auditors on the internal audit work, in local authorities. Previous studies indicate that some work has been undertaken to determine the factors that affecting external auditors' reliance on internal auditors' work. However, studies on the relationship between internal and external auditors, in terms of their co-operation, and the impact of such a relationship on the external audit fees are still limited. In addition, all of the previous studies were conducted in the private sector context and so far nothing is known about the relationship between internal and external auditors in the public sector. Thus, the aim of this study is to fill this gap by examining the relationship between two corporate governance mechanisms, namely, internal audit and external audit, and the factors that affect external auditors' reliance on internal auditors' work in two different countries, England and Malaysia.

A mixed method approach, using both quantitative and qualitative methods, has been adopted in this study. Two different surveys of internal and external auditors concerned with their perceptions of the relationship between internal and external auditors were carried out in England and Malaysia. A total of 387 questionnaires were mailed to the Heads of Internal Audit in each of the English local authorities. Another 142 questionnaires were mailed to all the appointed auditors of the local authorities. Similarly, two different questionnaires were used for the Malaysian data collection. A total of 28 questionnaires were mailed to the Head of the Internal Audit Department and another 11 questionnaires were sent to the Directors of National Audit Department (external auditors) of local authorities.

The survey findings indicate that the internal and external auditors in Malaysia perceived that they have a moderate level of co-operation between them, while the internal and external auditors in England perceived their level of co-operation as high. The external auditors in England were able to place reliance on the internal audit work. However, in Malaysia there was no reliance on internal auditors' work by the external auditors, because the internal auditors did not perform work relevant to financial statement audits. The size of the internal audit department, the internal auditors' knowledge of the local authority, and top management support of the internal auditors' work were the significant factors perceived by the internal and external auditors of local authorities in England as affecting the level of external auditors' reliance on internal auditors' work.

This study contributes to the extant literature by providing evidence using primary data from English and Malaysian local authorities. From a practical perspective this study could provide feedback to the relevant government departments and audit bodies on the need for policies that support and enhance the relationship between internal and external auditors.

## TABLE OF CONTENTS

Acknowledgments.....	ii
Abstract.....	iii
Table Of Contents.....	iv
List Of Tables And Figures.....	viii
List Of Abbreviations.....	x
<b>CHAPTER 1 : INTRODUCTION</b>	
1.1 Introduction.....	1
1.2 Corporate Governance.....	3
1.3 Internal Auditing and Internal Control.....	9
1.4 External Auditing.....	16
1.5 Benefits of Co-operation between Internal and External Auditors...	17
1.6 Objectives of the Study.....	20
1.7 Background Information about the Location of the Research.....	22
1.8 Motivation for the Study .....	24
1.9 Organisation of the Thesis .....	26
1.10 Conclusion.....	27
<b>CHAPTER 2 : AUDITING IN LOCAL AUTHORITIES</b>	
2.1 Introduction.....	29
2.2 Local Government System in England.....	29
2.3 Local Government System in Malaysia.....	32
2.4 Auditing of Local Authorities in England.....	35
2.4.1 External Auditing.....	35
2.4.2 Internal Auditing.....	38
2.5 Auditing of Local Authorities in Malaysia.....	40
2.5.1 External Auditing.....	40
2.5.2 Internal Auditing.....	42
2.6 Conclusion.....	46
<b>CHAPTER 3 : LITERATURE REVIEW</b>	
3.1 Introduction.....	47
3.2 Professional Standards and Regulations.....	47
3.2.1 Auditing Standards that Apply to Internal Auditors.....	47
3.2.2 Auditing Standards that Apply to External Auditors.....	52
3.3 Academic Research.....	55
3.3.1 Co-operation between Internal and External Auditors.....	55

3.3.2	Quality of Internal Audit Function.....	56
3.3.3	Factors Affecting External Auditors' Reliance on Internal Auditors' Work.....	58
3.3.4	Extent to which Internal Audit Work is Relied on by External Auditors.....	67
3.3.5	External Auditors' Reliance on Internal Audit Work and Audit Fees.....	69
3.4	Conclusion.....	72

#### **CHAPTER 4 : RESEARCH FRAMEWORK**

4.1	Introduction.....	75
4.2	Objective of the Research Framework .....	75
4.3	Research Propositions and Hypotheses.....	82
4.3.1	Research Propositions for Model 1 – Level of Co-operation.....	82
4.3.2	Research Hypotheses for Model 2 – External Auditors' Reliance on Internal Audit Work.....	87
4.4	Conclusion.....	98

#### **CHAPTER 5 : RESEARCH METHODS**

5.1	Introduction.....	99
5.2	Methods of Data Collection.....	99
5.3	Phase I: Survey-based Approach.....	102
5.3.1	Survey Questionnaire.....	102
5.3.2	Population/Sample for the Study.....	107
5.3.3	English Data Collection.....	109
5.3.4	Malaysian Data Collection.....	111
5.4	Phase II: Interview-based Approach.....	113
5.4.1	English Interviews.....	113
5.4.2	Malaysian Interviews.....	114
5.5	Methods of Data Analysis.....	115
5.5.1	Descriptive Analysis.....	116
5.5.2	Validity Tests.....	116
5.5.3	Multiple Regression Analysis.....	118
5.5.4	Ordinal Regression Analysis.....	121
5.5.5	Other Analysis.....	125
5.5.6	Content Analysis.....	126
5.6	Conclusion.....	126

#### **CHAPTER 6 : RESEARCH FINDINGS - ENGLAND**

6.1	Introduction.....	127
6.2	The Respondents' Background Statistics.....	128
6.3	Model Specification and Variables Measurement for Model 1 (Level of co-operation between internal and external auditors).....	131

6.4	Respondents to the Study.....	132
6.5	Descriptive Statistics for the Constructs in Model 1.....	133
6.6	Co-operation between Internal and External Auditors.....	137
6.7	Validity Tests.....	138
6.7.1	Factor Analysis.....	138
6.7.2	Correlation Analysis.....	140
6.8	The Propositions/Hypotheses Testing.....	141
6.8.1	The Multiple Regression Analysis.....	144
6.8.2	The Results of the Multiple Regression Analysis for the Internal Auditor.....	144
6.8.3	The Results of the Ordinal Regression Analysis for the External Auditor.....	148
6.8.4	Discussion on the Factors Affecting the Level of Co-operation between Internal and External Auditors.....	151
6.9	Interviews Findings.....	156
6.10	Conclusions – Model 1.....	158
6.11	Model Specification and Variables Measurement for Model 2 (External auditors’ reliance on internal audit work).....	159
6.12	Descriptive Statistics for the Constructs in Model 2.....	160
6.13	Correlation Analysis.....	162
6.14	The Multiple Regression Analysis.....	167
6.14.1	The Results of the Multiple Regression Analysis for the Internal Auditor (Model 2).....	168
6.14.2	The Results of the Multiple Regression Analysis for the External Auditor (Model 2).....	170
6.14.3	Discussion on the Factors Affecting the Level of External Auditors’ Reliance on Internal Auditors’ Work.....	175
6.15	Interviews Findings.....	181
6.16	Conclusions – Model 2.....	183
6.17	External Auditors’ Reliance on Internal Audits’ Work and Reduced External Audit Fees and External Audit Work.....	185
6.17.1	Survey Results.....	185
6.17.2	Interviews Findings.....	190
6.18	Conclusion.....	194

## **CHAPTER 7 : RESEARCH FINDINGS IN MALAYSIA AND COMPARISON WITH ENGLAND**

7.1	Introduction.....	196
7.2	The Respondents’ Background Statistics.....	197
7.3	Results.....	200
7.3.1	Descriptive Statistics for the Constructs in Model 1.....	200
7.3.2	Correlation Analysis.....	205
7.3.3	Discussion on the Factors Affecting the Level of Co-operation between Internal and External Auditors.....	212
7.4	Interviews Findings for Malaysia.....	218

7.5	Conclusion.....	230
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**CHAPTER 8 : CONCLUSION**

8.1	Introduction.....	233
8.2	Summary of the Key Stages and Findings of the Study.....	233
8.3	Implication and Contributions of the Study.....	237
8.3.1	Contribution to Research Development.....	240
8.3.2	Contribution to Practice.....	242
8.4	Limitations of the Study.....	245
8.5	Suggestions for Future Research.....	247
8.6	Conclusion.....	249

<b>REFERENCES</b>		<b>251</b>
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**APPENDICES**

Appendix 1	Internal Auditor Survey Questionnaire – England.....	264
Appendix 2	External Auditor Survey Questionnaire – England.....	272
Appendix 3	Internal Auditor Survey Questionnaire – Malaysia.....	280
Appendix 4	External Auditor Survey Questionnaire – Malaysia.....	288
Appendix 5	List of Local Authorities in England.....	296
Appendix 6	List of External Auditors in England.....	300
Appendix 7	List of External Auditors of Malaysian Local Authorities..	301
Appendix 8	The Head of Internal Auditor Covering Letter – England...	302
Appendix 9	External Auditor Covering Letter - England.....	303
Appendix 10	The Head of Internal Auditor Covering Letter – Malaysia..	304
Appendix 11	External Auditor Covering Letter – Malaysia.....	305
Appendix 12	The Spearman’s Rho Correlation Matrix for Internal Auditors in England.....	306
Appendix 13	The Spearman’s Rho Correlation Matrix for External Auditors in England.....	307

## LIST OF TABLES AND FIGURES

<b>Tables</b>	<b>Pages</b>	
Table 2.1	Local Authorities in England	30
Table 2.2	Functions of Local Authorities in England	31
Table 2.3	Local Authorities in Malaysia	33
Table 2.4	Malaysian Local Authorities with Internal Audit Function	45
Table 3.1	Ranking of Factors Used by External Auditors in Evaluating the Internal Audit Function	66
Table 5.1	Sample Description and Response Rate (England)	111
Table 6.1	Background Information of the Internal Auditors (England)	129
Table 6.2	Background Information of the External Auditors (England)	130
Table 6.3	Descriptive Statistics for Internal Auditors	134
Table 6.4	Descriptive Statistics for External Auditors	135
Table 6.5	T-test for Internal and External Auditors	136
Table 6.6	Level of Co-operation between Internal and External Auditors (England)	137
Table 6.7	Rotated Component Matrix for Internal Auditor	139
Table 6.8	Rotated Component Matrix for External Auditor	139
Table 6.9	The Pearson Product Moment Correlation Matrix for Internal Auditors	142
Table 6.10	The Pearson Product Moment Correlation Matrix for External Auditors	143
Table 6.11	A Summary of Standard Multiple Regression Analysis for Internal Auditors	145
Table 6.12	Logistic Regression Analysis for Internal Auditors	147
Table 6.13	Recoding of Responses Score	149
Table 6.14	Ordinal Regression Analysis for External Auditors	150
Table 6.15	Descriptive Statistics for Internal Auditors	161
Table 6.16	Descriptive Statistics for External Auditors	163
Table 6.17	The Pearson Product Moment Correlation Matrix for Internal Auditors	165
Table 6.18	The Pearson Product Moment Correlation Matrix for External Auditors	166
Table 6.19	A Summary of Standard Multiple Regression Analysis for Internal Auditors	169
Table 6.20	Logistic Regression Analysis for Internal Auditors	171
Table 6.21	A Summary of Standard Multiple Regression Analysis for External Auditors	173
Table 6.22	Logistic Regression Analysis for External Auditors	175
Table 7.1	Background Information of the Internal Auditors in Malaysia	199

Table 7.2	Background Information of the External Auditors in Malaysia	200
Table 7.3	Descriptive Statistics for Internal Auditors in Malaysia	202
Table 7.4	Descriptive Statistics for External Auditors in Malaysia	204
Table 7.5	The Spearman's Rho Correlation Matrix for Internal Auditors in Malaysia	206
Table 7.6	The Spearman's Rho Correlation Matrix for External Auditors in Malaysia	211
<b>Figures</b>		
Figure 1.1	Relationship between Internal Control, Corporate Governance and Internal Audit	2
Figure 4.1	The Conceptual Model for Model 1	79
Figure 4.2	The Conceptual Model for Model 2	81
Figure 5.1	Method of Data Collection	102

## LIST OF ABBREVIATIONS

ACCA	Association of Chartered Certified Accountants
AICPA	American Institute of Certified Public Accountants
APB	Auditing Practices Board
AS	Auditing Standard (USA)
AUS	Auditing Standard (Australia)
CIMA	Chartered Institute of Management Accountants
CIPFA	Chartered Institute of Public Finance and Accountancy
COSO	Committee of Sponsoring Organisations
GIAS	Government Internal Audit Standards
ICAEW	Institute of Chartered Accountants in England and Wales
ICAS	Institute of Chartered Accountants of Scotland
IFAC	International Federation of Accountants
IIA	Institute of Internal Auditors
ISA	International Standards on Auditing
ISPPIA	International Standards for the Professional Practice of Internal Auditing
MIA	Malaysian Institute of Accountants
MICPA	Malaysian Institute of Certified Public Accountants
PCAOB	Public Company Accounting Oversight Board
SAS	Statement of Auditing Standards
UK	United Kingdom
USA	United States of America

# **CHAPTER 1:**

## **INTRODUCTION**

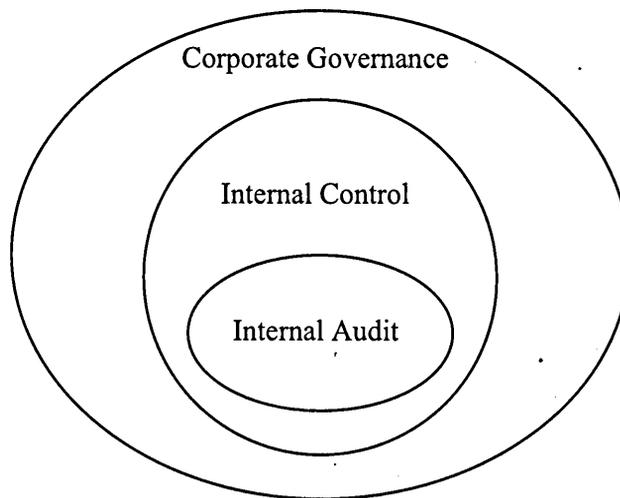
### **1.1 Introduction**

As organisations grow in size and complexity, internal controls are required to manage and monitor progress towards achieving their strategic objectives. In addition, organisations have statutory obligations to meet and internal controls are required to identify, meet and monitor compliance with these obligations (CIPFA, 1994). Further, organisations face a wide range of financial, administrative and commercial risks, from both internal and external sources. Consequently, organisations need a sound internal control system to identify, evaluate and control these risks (CIPFA, 1994).

The concept of internal control has received increasing attention in public policy debates on auditing and corporate governance (Maijoor, 2000). Internal control has been established as one dimension of corporate governance. For example, the International Federation of Accountants (IFAC, 2000) has recommended that a framework of internal control should be established and the effectiveness of internal controls should be published in the organisation's annual report as part of the corporate governance framework. IFAC (2000) also suggested the establishment of an effective internal audit function as part of the framework of internal control. In Malaysia, the Malaysian Code on Corporate Governance (Finance Committee on Corporate Governance, 2000) includes a principle that

the board of a listed company should maintain a sound system of internal control to safeguard shareholders' investments and the company's assets. Figure 1.1 summarises the relationship between the three elements: internal control, corporate governance and internal audit. Based on Figure 1.1, corporate governance is concerned with the structures and processes for decision making, accountability, control and behaviour in organisations. Internal control as a subset of the corporate governance structure is important because in most cases fraudulent practices and irregularities arise from weaknesses in the internal control system (Haron, 2004). Internal auditing helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance process. Thus, good corporate governance can be achieved with the assistance of internal auditors.

**Figure 1.1: Relationship between internal control, corporate governance and internal audit.**



The aim of this thesis is to examine the relationship between internal and external auditors, with particular emphasis on the co-operation between internal and external auditors, and the reliance of external auditors on the internal audit work in local authorities.

This chapter provides general information about the study. The next two sections (Sections 1.2 and 1.3) explain the concepts of corporate governance, internal control and internal audit as discussed in Figure 1.1 above. Section 1.4 discusses the role of external auditing. Section 1.5 provides discussion on the benefits of co-operation between internal and external auditors. Section 1.6 discusses the research objectives and outlines the research questions. Section 1.7 provides background information about the study and Section 1.8 discusses the motivation and significance of the study. Section 1.9 summarises a brief presentation of the structure of the thesis and the last section concludes the chapter.

## **1.2 Corporate Governance**

Corporate governance has been a subject of discussion at least since the release in the USA of the Cohen Commission Report (AICPA, 1978), and the National Commission on Fraudulent Financial Reporting (Treadway Commission, 1987). Due to the lack of a consistent definition of internal control, the Committee of Sponsoring Organisations (COSO) in the USA made an effort to redefine internal control and issued the COSO internal control framework, which is an important concept for all internal auditors (COSO, 1992). As risk management has become

one of the important factors in improving corporate governance (COSO, 1992), COSO (2004) developed a new model of internal control framework to effectively identify, assess and manage risk. In order to ensure that internal control continues to operate effectively, COSO (2009) developed a guidance to monitor the internal control system by providing fundamental principles of effective monitoring and clarifying the monitoring component of internal control. It is hoped that organisations applying the concepts set forth in this guideline could improve the efficiency and effectiveness of their internal control systems.

In the UK, the report of the Committee on the Financial Aspects of Corporate Governance (known as the Cadbury Report) was issued in 1992. The purpose of the Report (Cadbury, 1992) was to review those aspects of corporate governance relating specifically to financial reporting and accountability. The report focuses on the control and reporting function of the board of directors and on the role of auditors. In order to strengthen corporate governance through the role of internal control, CIPFA (1994) re-emphasised the importance of the internal control system and outlined a framework for the effective internal control of public service organisations.

Corporate governance is also seen as an important issue following the collapse of Enron and WorldCom. It received growing attention because of inherent weaknesses in financial reporting exposed during periods of economic disorder and financial crisis (Haron, 2004). It has also paved the way for management and

organisations to focus more on internal control, including internal auditing, to enable them to prevent corporate misconduct and protect shareholders' interests. In addition, good corporate governance may help to ensure better corporate performance (Haron, 2004).

Strong corporate governance has been considered as an important element for enhancing the long term value of stakeholders in the business environment (Cohen and Hanno, 2000). Lewit (2000) considers strong corporate governance to be more than good business practice – it is a key component of market control. There is no single definition of corporate governance. Most of the definitions available are concerned with the control and structures of the organisation (Hodges et al., 1996). Cohen and Hanno's (2000) view of corporate governance is focused on the control environment and control activities. They defined corporate governance as:

...those oversight activities undertaken by the board of directors and audit committee to ensure the integrity of the financial reporting process (p. 7).

The Cadbury Report (1992, p.14), states that corporate governance is:

...the system by which companies are directed and controlled. Boards of directors are responsible for the governance of their companies. The shareholders' role in governance is to appoint the director and the auditors and to satisfy themselves that an appropriate governance structure is in place. The responsibilities of the board include setting the company's strategic aims, providing the leadership to put them into effect, supervising the management of the business and reporting to shareholders on their stewardship. The board's actions are subject to laws, regulations and the shareholders in general meeting.

The Malaysian Code on Corporate Governance ((Finance Committee on Corporate Governance, 2000, p. 22) defined corporate governance as:

... [the] process and structure used to direct and manage the business and affairs of the company towards enhancing business prosperity and corporate accountability with the ultimate objective of realising long term shareholders' value, whilst taking into account the interests of other stakeholders.

This definition emphasises that corporate governance is a process and structure that should exist in an organisation in order to achieve the organisation's objectives and to maintain the interest of stakeholders. In the corporate sector, the prime responsibility for corporate governance lies with the Board of Directors. Good corporate governance can be achieved if the organisation has a Board of Directors which takes the interests of the shareholders to heart, conducts its work with diligence and care, and complies with relevant legislation. Poor corporate governance may result in poor financial reporting, unreliable financial information, and inaccurate decision-making (Haron, 2004).

#### *Governance in the Public Sector*

The above discussion relates primarily to the private sector. Governance in the public sector, however, is quite different. Political objectives and processes that are an inherent part of public sector policy-making contribute to the difference between them (Hodges, 2005). The difference is also due to the diverse nature of performance objectives and measurement used in public services. For example, the term 'bottom line' as a measure of profitability is not applicable in the public sector.

CIPFA (1995, p. 4) refers to corporate governance as:

... [the] structures and processes for decision making and accountability, controls, and behaviour, at the top of organisations. In the private sector the focus is on the board. In the public services 'the board' is sometimes difficult to identify and define, but the decisions and actions, and behaviour of top policy-makers and managers are equally, if not more, critical.

The report on aspects of corporate governance in the public services was issued by the Committee on Standards in Public Life (the Nolan Committee) (1995).

The Nolan Report outlined seven general principles of good corporate governance; selflessness, integrity, objectivity, accountability, openness, honesty and leadership. By combining principles from the Cadbury Report and the Nolan Report, CIPFA (1995) issued a corporate governance framework for public service bodies. This framework outlines the principles and standards of good corporate governance that can be applied equally to all types of public services. Three dimensions of corporate governance in this framework include the organisation's structures and processes, financial reporting and internal controls, and standards of behaviour. According to this framework, one of the essential elements of an effective internal control system is ensuring an effective internal audit function.

Rhodes (1994) provides six different meanings of governance in the public sector. One of them is governance as 'corporate governance', which refers to the systems by which organisations are directed and controlled, and has been used to

identify fundamental principles such as openness, integrity and accountability that should underlie the activities of public sector bodies.<sup>1</sup>

With respect to local government, CIPFA/SOLACE (2001) published a framework on 'Corporate Governance in Local Government: A Keystone for Community Governance'. This framework provides guidance to local authorities to assess how well they were meeting their corporate governance responsibilities. Since 2001, development and reform have changed the local government picture and in the light of which, in 2007, CIPFA/SOLACE (2007) produced a new governance framework document "Delivering Good Governance in Local Government". The Framework is intended to be followed as best practice for developing and maintaining a local code of governance and for discharging accountability for the proper conduct of public business, through the publication of an annual governance statement (AGS) that will make the adopted practice open and explicit. The Framework reinforces the fact that good governance relates to the whole authority and should not be seen as a Finance or Policy responsibility.

The preparation and publication of an AGS in accordance with the Framework is necessary to meet the statutory requirement for authorities to conduct a review at least annually of the effectiveness of their system of internal control and to

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<sup>1</sup> The other five meanings of governance are: 1) governance as 'the minimal state'; 2) governance as 'the new public management'; 3) governance as 'good governance'; 4) governance as 'a socio-cybernetic system' and 5) governance as 'self-organising networks'.

prepare a Statement on Internal Control (SIC) in accordance with proper practices. It also requires the findings of the review to be considered by a Committee of the Council.

The CIPFA/SOLACE Annual Governance Framework represents good practice and the AGS (that part of the new CIPFA/SOLACE governance framework that subsumes the SIC) is a requirement of the Accounts and Audit Regulations. In addition, the process of reviewing risk assessment which is declared in the AGS is a vital mechanism in ensuring proper governance and transparent decision making.

### **1.3 Internal Auditing and Internal Control**

Auditing is an important process that helps to ensure accountability and to safeguard an organisation's assets and money. Auditing is the process by which a competent, independent person accumulates and evaluates evidence about quantifiable information related to a specific economic entity (Messier and Boh, 2004). In general, auditing can be divided into two forms; internal and external auditing. Although both types share some similarities, there are some areas where internal and external auditing differs.

Internal auditing refers to a systematic approach to examine the activities and processes of an organisation. Specifically, internal auditing is an appraisal function established within an organisation to examine and evaluate its activities

as a service to the organisation. The role of internal auditing is determined by management and its objectives vary according to the requirements of management (Galloway, 2002).

Internal control is the most important and fundamental concept that an internal auditor must understand in reviewing both operational and financial areas of the organisation (Moeller, 2005). A good basic understanding of the nature of control and the overall control process is important for internal auditors in order to effectively review the internal controls. CIPFA (1994 p. 2) defines internal control as:

The whole system of controls, financial and otherwise, established in order to provide reasonable assurance of effective and efficient operations; reliable financial information and reporting; and compliance with laws and regulations.

Internal control is management's responsibility (CIPFA, 1994). That is, management must ensure that the organisation's activities are conducted effectively and efficiently. Although the responsibility for reviewing the effectiveness of internal control lies with management, they may rely on the internal auditor's review of the organisation's internal control system. The Auditing Practices Board (APB)'s Auditing Guideline: 'Guidance for Internal Auditors (APB, 1990, p.67) defines internal audit as:

... an independent appraisal function established by the management of an organisation for the review of the internal control system as a service to the organisation. It objectively examines, evaluates and reports on the adequacy of internal control as a contribution to the proper, economic, efficient and effective use of resources.

The above definition itself suggests that internal audit activity may lead to the strengthening of internal control as required by the management (APB, 1990). It is the responsibility of the internal auditor to review, appraise and report on the systems of internal control that have been established within an organisation (CIPFA, 1994).

The Institute of Internal Auditors (IIA) (2001) provided a wider definition of the scope of internal auditing. It defined internal auditing as:

... an independent appraisal function established within an organisation to examine and evaluate its activities as a service to the organisation. The objective of internal auditing is to assist members of the organisation in the effective discharge of their responsibilities. To this end, internal auditing furnishes them with analyses, appraisals, recommendations, counsel and information concerning the activities reviewed.

The above definition has broadened the scope of internal auditing not only to review the internal control system but also to analyse the organisation's activities and offer recommendations to improve the overall performance of the organisation. To emphasise the role of internal auditors in the control process, the IIA (2002) provided a new definition of internal auditing as:

... an independent, objective assurance and consulting activity, designed to 'add value' and improve an organisation's operation. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and the governance process.

This new definition of internal auditing has promoted an extension of the role of internal auditing from the traditional financial audit to a wider role which covers

the enhancement of risk management, control and governance. This extensive role of internal auditing has been highlighted in the Nolan Report (Committee on Standards in Public Life, 1995) and CIPFA (1995).

### *Changing Roles of Internal Auditing*

An examination of financial results focusing on financial and accounting issues was the conventional 'financial audit' oriented approach of internal audit (Abernethy, 1970). This gave an internal audit department the role of control, inspection and verification, which was similar to the work of the external auditor. The role of an internal audit function was to enable the management of an organisation to delegate to it some of its supervisory roles, in particular, with respect to the review of internal control (Buttery and Simpson, 1986). Staff within the organisation were assigned to undertake this particular internal audit function, which constituted a separate component of internal control, with the objective of determining whether other internal controls were well planned and were operating as planned (Buttery and Simpson, 1986). Internal auditors would also provide independent reviews to ensure the operations were effective and efficient. Thus, it can be said that internal auditing provided a value-added service to organisations.

Today, the value of internal audit lies in assisting management in achieving its objectives through the identification of business risks and helping management to act upon them (Haron, 2004). For this to be accomplished, internal auditors must

be competent in monitoring the extent to which internal controls are appropriately aligned with a diverse and complex field of corporate uncertainty. Thus, internal auditors no longer confine themselves to the routine review of internal control, but have also evolved with the complexity of business to expand into a consultancy role for management (HM Treasury, 2004). Internal auditors can act as an intermediary service to management in terms of reviewing operational efficiency, investigating outcomes of financial initiatives, providing knowledge of business activities, and identifying potential risks. Its mission is no longer limited to informing management about poor performance, but it is also required to submit recommendations to solve problems (Moeller, 2005).

Another task of the internal auditor is to help management in developing the organisation (Haron, 2004). Internal auditors have to identify problems that arise in an organisation and play an active role in identifying and managing risk. They need to assist in identifying, assessing and reporting risks and related exposures to the organisation. Haron (2004) suggests that internal auditors should: promote effective controls at a reasonable cost in order to mitigate the risks mentioned earlier; act as a catalyst for continuous improvement in controls and best practices; review the controls established by management to the achievement of goals and objectives; focus on those areas where the potential for improvement or risk of loss is greatest; and ensure controls exist to secure corporate assets.

In risk management, the internal audit function has a responsibility for internal control and for providing independent assurance concerning the risk management process. Internal audit forms an opinion about the soundness of internal controls to manage the agreed level of risk. Since risk management includes a system of internal control, the internal audit function should assist the board and management in identifying, evaluating and assessing significant organisational risks, and provide assurance as to the effectiveness of related internal controls (COSO, 2004).

Risk management is concerned with identifying risks, assessing their likelihood and scale, and developing appropriate responses in the context of the organisation's appetite for risk (CIMA Official Terminology, 2005). In addition, it is concerned with implementing and monitoring risk controls and reviewing their effectiveness. A well known and respected risk management approach has been developed by COSO. COSO (2004), Enterprise Risk Management – An Integrated Framework, which defines risk management as a:

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

Internal control is an integral part of risk management. This risk management framework encompasses internal control, forming a more robust conceptualisation and tool for management. The internal auditor has

responsibility for internal control and for providing independent assurance concerning the risk management process. The internal auditor forms an opinion about the soundness of internal controls to manage the agreed level of risk (CIMA, 2008). Internal auditors have a role in supporting the formal risk management control system via the establishment of a risk team, a specialist group that was created in recognition to the size, complexity and diversity of risks within local authorities (Woods, 2009). This was done through handling risk management on a day to day basis and internal audit also facilitates the preparation of a risk register which is coded based on different areas of services (Woods, 2010).

From the definition of internal auditing in the earlier section, it can be observed that the role of internal auditing has been expanded to include more job functions and with it increasing expectations. Generally, the roles of internal auditors can be divided into three: risk management, control, and governance (Haron, 2003). In the governance role, internal auditors must understand that they are an integral part of the governance process. They should evaluate and improve the governance process through which values and goals are established and communicated, the accomplishment of goals is monitored, accountability is ensured, and values are preserved (Haron, 2003). The changing role of the internal audit function is important as part of the corporate governance structure.

#### **1.4 External Auditing**

External audit is an essential element in the process of accountability for public money and makes an important contribution to the stewardship of public resources and the corporate governance of public services (Audit Commission, 2008). External auditors are appointed independently from the organisation being audited and the scope of their work includes not only reporting on the financial statements but also covers value for money audit and the conduct of public business. Financial statement audits determine whether an entity's financial statements are presented fairly. The process of auditing should be conducted in a manner where the established standards are adopted to ensure audit quality and the auditor's opinion or other judgement relating to the degree of correspondence with established criteria. The ultimate goal of auditing is to ensure accountability of public funds.

In the UK, the external auditors for local authorities are those auditors appointed by the Audit Commission. The duties and powers of the appointed auditors are set out in the Audit Commission Act 1998, the Local Government Act 1999 and the Commission's statutory Code of Audit Practice.

In Malaysia, the Audit Act 1957 is the main act that makes provisions for the audit of Malaysian public sector. It is the responsibility of the Auditor General to audit all local authorities in Malaysia. The Auditor General can delegate and

appoint any of the Auditor General's staff or anybody who is competent to audit the financial statement on the Auditor General's behalf.

The external audit structure in the public sector conventionally is characterized as either financial audits or performance audits. Government Auditing Standards (1972) divides each of these two types into two additional categories. Financial audit consists of financial statement audits and financial related audits. Performance audits often referred to as operational audits also consists of two types: economy and efficiency audits and program audits. CIPFA (1997) categorised external audit in the public sector (also known as public audit) into three types: financial audit, value for money audit and inspection. This audit structure is important to ensure the correctness and legality of transaction (financial audit). It is also important to ensure proper arrangements have been made for securing economy; efficiency and effectiveness in the use of resources (value for money audit) and to scrutinise records of bodies in receipt of public money in establishing that it has been spent for the purposes and in the ways intended (inspection).

### **1.5 Benefits of Co-operation between Internal and External Auditors**

Proper coordination and co-operation between internal and external auditors can lead to efficient and effective audits as there is no unnecessary duplication of efforts and auditors can focus on other tasks. With the increasing scandals and frauds, regulators are specifying newer requirements to increase the accuracy of

financial reports. In this environment, coordination between auditors is one of the methods by which organisations can improve their perceived trustworthiness. Moreover, since duplication of audit effort often disrupts the auditee's operations and staff members, the auditee may be resentful when audit activities are not coordinated, and in turn, may not be fully cooperative with either the internal or external auditors.

Co-operation between internal and external auditors can avoid unnecessarily duplicating audit procedures. It also can benefit external auditors because internal auditors have certain advantages over them. By the nature of their responsibilities, internal auditors spend a lot of time working for the same organisation. Consequently, the internal auditors generally have more knowledge about the organisation's procedures, policies, and its working environment than do the external auditors. This gives them a better understanding of the culture and working of the organisation. They may come across instances of good or poor practice which the external auditor is unable to see during his visits. The external auditors on the other hand have exposure to a wider variety of financial issues as they have multiple clients. External auditors may therefore discover and solve issues that internal auditors have not dealt with before. In other words it is possible that external auditors may carry out tests and procedures that the internal auditors have never considered doing.

Coordination increases efficiency. When the external audit is not properly coordinated, external auditors may duplicate work that has already been performed by the internal auditors. This redundancy causes higher external audit fees but does not necessarily increase the effectiveness of the audit. Similarly, internal auditors may duplicate external auditors' work, which results in wasted internal audit time. It is expected that elimination of redundant work will leave time and resources for better audit coverage and increases the probability that the information release is accurate.

In addition to the external auditors' reliance on internal auditing benefiting from the coordination between the two, the coordination can also aid the internal auditors in establishing their internal audit plan. So, just as external auditors use internal auditors' working papers and internal audit reports to guide them in their audits, internal auditors should use the results of external audit work to pinpoint areas that need their attention for future internal audit work. Co-operation would imply that the auditors communicate and consult with each other with regard to their plans and findings. This should lead to clearer understanding of respective audit roles and requirements and a better understanding of the work of each group of auditors. Research has indicated that perceived communication barriers between clients and the audit firm impacts the extent of reliance placed by external auditors on internal auditing (Brody et al., 1998). This implies that organisations wishing to promote internal audit reliance should take actions to

facilitate communication between the external auditors and organisation personnel, including the internal auditors.

Communication is a two way process. Internal and external auditors should have regular and open communication in order to ensure the success of co-operation. Formal communication through regular meetings not only can avoid duplication of work, but also can facilitate the process of identifying opportunities for co-operation and discuss methods for the sharing of audit findings and other relevant information. Both auditors should also be willing to communicate less formally when issues arise which are of a mutual interest.

## **1.6 Objectives of the Study**

The internal audit function is regarded as one of the four cornerstones or “legs” of corporate governance (Institute of Internal Auditors (IIA), 2003). External audit, internal management and audit committees are the other three cornerstones. This study focuses on how the internal audit function can contribute to corporate governance through its relationship with external audit. The internal auditor’s relationship with the external auditor has a long history (Thurston, 1949). The relationship between internal and external audit has taken on increased importance in the context of modern corporate governance requirements (Ratcliffe, 2003). In today’s environment, the roles of internal and external audit are aligned more closely, resulting in a deeper relationship between the two audit groups (Tapestry Networks, 2004).

One of the important corporate governance goals is to ensure quality reporting by management. The annual audit completed by external auditors is specifically directed towards that goal. Professional auditing standards are concerned with the resource role that the internal audit function can provide to external auditors in completing the annual external audit (ISA 610, SAS No. 65, AICPA 1991; AS 2, PCAOB, 2004). The internal auditors' work may affect the nature, timing, and extent of the annual external audit work, including the procedures the external auditor performs when obtaining an understanding of the entity's internal control systems, when assessing risk, and when gathering substantive evidence. In performing the audit, the external auditor may rely on work already performed by the internal auditors and/or request direct assistance from them (i.e., a specific request for the internal auditor to complete some aspect of the external auditor's work). Similarly, AS No. 2 (PCAOB, 2004) provides opportunities for the external auditor to rely on internal control work performed by the company's internal auditors.

In the public sector, although internal and external auditors have different and clearly defined roles, they do share the same broad purpose of serving government and the public by helping to ensure the highest standards of regularity and propriety for the use of public funds and resources and in promoting efficient, effective and economic public administration. Good co-operation maximises the benefits that can be gained from working together in areas where there is an overlap in the work to be done.

Hence, the objective of this study is to provide empirical evidence about the relationship between internal and external auditors, with particular emphasis on the co-operation between internal and external auditors, and the reliance of external auditors on the internal audit work in local authorities in both England and Malaysia.

The empirical evidence provided from this investigation will be tailored to answer the following four specific research questions:

1. What is the level of co-operation between internal and external auditors of the local authorities in England and Malaysia?
2. What are the factors influencing the level of co-operation between internal and external auditors of local authorities in England and Malaysia?
3. What are the factors influencing external auditors' reliance on internal auditors' work in local authorities in England and Malaysia?
4. Does the reliance by the external auditors on the internal auditors' work lead to a reduction in the external audit cost and external audit work?

### **1.7 - Background Information about the Location of the Research**

According to the International Federation of Accountants (IFAC), the public sector refers to national governments, regional governments (e.g., state, provincial and territorial), local governments (e.g., city and town) and related governmental entities (e.g., agencies, boards, commissions and enterprises) (IFAC, 2000). In the UK, the local authority system consists of county councils,

unitary councils, metropolitan councils, London boroughs, and district councils, a structure created under the Local Government Act 1972.

In Malaysia, the local authority system consists of city councils, municipal councils and district councils. Administration of the local authority is under the jurisdiction of each of the State Governments.<sup>2</sup> Article 95A of the Federal Constitution provides a National Council for Local Government, which is a forum for Federal, State and Local Government to co-ordinate policies and laws relating to Local Government.<sup>3</sup> The three main laws governing Local Government in peninsular Malaysia are the Local Government Act 1976 (Act 171), the Street, Drainage and Building Act 1973 (Act 133) and the Town and Country Planning Act 1979 (Act 172). The main activities of local authorities are maintaining and controlling cleanliness of the locality, health, petty traders, night markets, and enforcement of running of business practices. Other responsibilities include implementing a development project for businesses and maintaining a peaceful environment for local people. Further information on the structure of the local government in the UK and Malaysia is given in Chapter 2.

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<sup>2</sup> There are 13 states in Malaysia, namely Perlis, Kedah, Pulau Pinang, Perak, Selangor, Melaka, Negeri Sembilan, Kelantan, Pahang, Terengganu, Johor, Sabah and Sarawak. Legislative power for the State Government is listed in the Ninth Schedule of the Federal Constitution which comprises matters such as land, agriculture, forestry, local government, river fishing, Muslim law, etc.

<sup>3</sup> The Federal Constitution of Malaysia is the supreme law of the nation as it distributes the power of governance in accordance with the practice of Parliamentary Democracy through separation of powers among executive, judicial and legislative authorities.

## **1.8 Motivation for the Study**

There are several factors that are the motivation for conducting the current study, which are listed below.

Firstly, there is evidence of an increasing importance of the internal audit function in a governmental context. For example, CIPFA (1995) has included the internal audit function as one of its standards of corporate governance. An effective internal audit function as part of the internal control systems enables government organisations to operate in a more efficient, effective and publicly acceptable way (CIPFA, 1995). Internal audit is a statutory requirement in UK local governments (section 112 of the Local Government Finance Act 1988, as amended by regulation 5 of the Accounts and Audit Regulations, 1996). The role of the internal auditor is to ensure that local authorities are maintaining adequate and reliable systems of financial management and internal control. The internal auditor may work in conjunction with the external auditor and such liaisons follow the Audit Commission's policy (Bowerman and Hawksworth, 1999). The Audit Commission's good practice guide suggests that the external auditor is expected to place the maximum possible reliance on internal audit (Audit Commission, 1995).

Secondly, there is an absence of published work in a public sector or local government context about the relationship between internal and external auditors. Most of the prior research has focused on private sector organisations. To the

author's knowledge there is no prior research that has examined the relationship between internal and external auditors in local government. This study is intended to make a substantive contribution to the understanding of the roles of internal and external auditors in the public sector through an examination of the relationship between them in a local government setting.

Thirdly, the comparison of internal and external auditors' relationships in England and Malaysia provides an opportunity to establish new knowledge and understanding of the relationship between internal and external auditors of local authorities in two diverse economic environments. These are England, with its long- and well-established financial base, and the rapidly emerging economy of Malaysia. This study, therefore, represents an early attempt at a comparative study of the relationship between internal and external auditors in public sector organisations in these two countries. It also seeks to identify and explain the differences in the reliance decision by the external auditors on the internal auditors' work of local authorities in England and Malaysia. It is hoped that the study will contribute to an improved understanding of the relationship between internal and external auditors in both England and Malaysia.

Fourthly, this research is motivated by the researcher's prior professional interest in public sector accounting and auditing in Malaysia. The researcher will in the future extend the research in Malaysia, to include other organisations in the public sector such as the ministries and state governments. It is hoped that

conducting further research in Malaysia will contribute to the development of internal auditing in Malaysia.

Finally, this study may contribute to public policy development. This study offers ways for the regulator to improve the relationship between internal and external auditors of the Malaysian local authorities. Furthermore, the study can also show the regulator the importance of having regulations and guidelines to encourage the establishment of an internal audit function among the local authorities. By having proper regulations and guidelines, it is hoped that those local authorities without an internal audit function will establish internal audit, and those with an internal audit function will improve the quality of its service.

## **1.9 Organisation of the Thesis**

The thesis is divided into eight chapters. Chapter 2 discusses the background of auditing in local government in England and Malaysia. In addition, an overview of the current structure of English and Malaysian local government is provided. The second part of the chapter covers the rules, regulations and authorities responsible for internal and external auditing practices in the local governments of both countries.

The literature review in Chapter 3 is divided into two parts. Part One focuses on a review of the related professional standards and regulations. Part Two presents a review of prior academic literature relating to the present study. Chapter 4

provides the research questions and a discussion of the research models. This chapter also identifies the propositions/hypotheses that are tested later in the study. Chapter 5 describes the research methods, covering the methods of data collection and data analysis involving both a questionnaire survey and interviews.

Chapter 6 presents the results of the questionnaire survey in England and the results of testing the propositions/hypotheses formulated for the study. This chapter also provides the results from the interviews in England, which were used to clarify the issues raised from the results of the questionnaire survey. In Chapter 7, the results of the Malaysian questionnaire survey and interviews are presented, and a comparison with the results from England is discussed. This chapter focuses on the level of co-operation between internal and external auditors in the Malaysian local authorities and the factors affecting this co-operation. Finally, Chapter 8 concludes the study; it discusses its contributions and limitations, and provides suggestions for future research.

### **1.10 - Conclusion**

This chapter has provided a review of the concepts of corporate governance, internal control, internal auditing, and the relationship between them. The objectives and the motivation for the study and the organisation of the thesis were also highlighted. The next chapter reviews the structures of local authorities

and their internal and external auditing practices in the UK and Malaysia as a fundamental background of the context of study.

## **CHAPTER 2:**

### **AUDITING IN LOCAL AUTHORITIES**

#### **2.1 Introduction**

In Chapter 1, the concepts of corporate governance, internal control and internal auditing, and the relationship between them, were introduced. This chapter provides information about local authorities in the UK and Malaysia and their auditing practices. Sections 2.2 and 2.3 present an introduction of the local government systems in England and Malaysia respectively. Sections 2.4 and 2.5 of the chapter review the internal and external auditing practices in local authorities of England and Malaysia respectively. Section 2.6 provides conclusions to the chapter.

#### **2.2 Local Government System in England**

Local government in England consists of county councils, unitary councils, metropolitan councils, London boroughs, and district councils, as shown in Table 2.1. It is structured in two different ways. In some parts of England, a single-tier "all-purpose council" is responsible for all local authority services and functions (Unitary, Metropolitan or London Borough). The other parts of England have a two-tier system, in which responsibility for services is divided between district and county councils.<sup>4</sup>

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<sup>4</sup> In 2009/2010, there are 353 local authorities in England which consists of county councils (25), district council (203), metropolitan districts (36), English unitaries (56), and London boroughs (33) ( Local Government Association, 2010).

**Table 2.1: Local Authorities in England**

Structure	Authorities	Number
Single-tier authorities	Unitary Councils	47
	Metropolitan Councils	36
	London Boroughs	33
Two-tier authorities	District Councils	238
	County Councils	34
	Total	388

Source: Llewellyn (2006)

Table 2.2 provides a list of functions held by different types of local authorities in England. Metropolitan, unitary councils and London boroughs provide all local authority services to the population in their area, social services, education, environmental health, housing and others, making them all purpose authorities or single tier councils. In other areas (mostly rural), the system is split between the County Council and the District Councils with the county providing some services (education, social services, trading standards etc) and the district councils carrying out other services (housing, environmental health etc). There are joint authorities for public transport, police, fire, and waste disposal in metropolitan areas, whereas combined fire and police authorities operate in unitary authorities.

**Table 2.2: Functions of Local Authorities in England**

	Joint Authorities	Metro-politan Councils	London Boroughs	District Councils	Unitary Authorities	County Councils
Education		•	•		•	•
Housing		•	•	•	•	
Planning Applications		•	•	•	•	
Strategic Planning		•	•		•	•
Transport Planning		•			•	•
Passenger Transport	•				•	•
Highways		•	•		•	•
Fire	•				• (1)	•
Social Services		•	•		•	•
Libraries		•	•		•	•
Leisure & Recreation		•	•	•	•	
Waste Collection		•	•	•	•	
Waste Disposal	•				•	•
Environmental Health		•	•	•	•	
Revenue Collection		•	•	•	•	

Note: (1) Joint fire authorities operate in Counties with Unitary Authorities in them, known as combined fire authorities.

Source : Local Government Association (<http://www.lga.gov.uk/lga/aio/38679>)

Councillors are responsible for making decisions on behalf of their local community about local services such as land use, refuse collection and leisure facilities. They also agree the local authority budget and set the policy framework as well as appointing chief officers and making constitutional

decisions. Councillors are elected by local people for a four-year term. In England, there were 20,676 councillors in office in May 2008 (Local Government Association website <http://www.lga.gov.uk/lga/core/page.do?pageId=13940>).

The main statutes governing local government in the UK are the Local Government Acts (1972, 1985, 1999, 2000). The Local Government Act 2000 reformed local government in England and Wales. The Act requires councils to move to an executive-based system, either with the council leader and a cabinet acting as an executive authority, or with a directly elected mayor. A directly elected mayor was the most radical innovation in the Act. It can be either with a mayor and cabinet drawn from the councillors or a mayor and council manager. However, there is a small exception to this whereby smaller district councils (with a population of less than 85,000) can adopt a modified committee system. Most councils are using the council leader and cabinet option (<http://www.lga.gov.uk>). Where borough councils have not adopted a directly elected mayor, the chair of the council is the mayor. In cities the mayor is known as the Lord Mayor. Most Mayors in the UK are ceremonial figures whose function is to chair sessions of their Council.

### **2.3 Local Government System in Malaysia**

In Malaysia, local government comprises City Halls, City Councils, Municipal Councils and District Councils. City Halls, City Councils and Municipal

Councils are located in the urban and city centres or State Capitals, while the District Councils are located in rural areas (see Table 2.3 for local authority distribution).

**Table 2.3: Local Authorities in Malaysia**

State	City Hall	City Council	Municipal Council	District Council	Total
Perlis	-	-	1	-	1
Kedah	-	1	3	7	11
Pulau Pinang	-	-	2	-	2
Perak	-	1	4	10	15
Selangor	-	2	6	4	12
Melaka	-	1	2	-	3
Negeri Sembilan	-	-	3	5	8
Johor	-	1	6	8	15
Pahang	-	-	3	8	11
Terengganu	-	1	2	4	7
Kelantan	-	-	1	11	12
Sabah	1	-	2	18	21
Sarawak	1	2	2	20	25
Total	2	9	37	95	143

Source: Ministry of Housing and Local Government of Malaysia

Administration of local authorities is under the jurisdiction of each State Government. Article 95A of the Federal Constitution provides a National

Council for Local Government, which is a forum for Federal, States and Local Government to co-ordinate policies and laws relating to Local Government. Three main laws governing Local Government in peninsular Malaysia are: Local Government Act 1976 (Act 171), Street, Drainage and Building Act 1973 (Act 133), and Town and Country Planning Act 1979 (Act 172).

Local authorities are administered by a Chairman and nominated councillors. For the District Council, the Chairman is the District State Officer and is appointed by the State Authority (Section 10, Local Government Act 1976). The Chairmen of City Councils and Municipal Councils are also appointed by the State Authority, normally from members of the civil service.

With respect to the appointment of councillors, Section 10 of the Local Government Act 1976 provides guidance in selecting and appointing the councillors of local authorities. The Section states:

Councillors of the local authority shall be appointed from amongst persons, the majority of whom shall be persons ordinarily resident in the local authority areas, who in the opinion of the State Authority have wide experience in local government affairs or who have achieved distinction in any profession, commerce or industry, or are otherwise capable of representing the interests of their communities in the local authority area.

The appointment of each councillor is for up to three years (Section 10(3), Local Government Act 1976). This means that they may be re-appointed again as

councillors. Some will be re-appointed for another term, while others may not, depending on the relationship of councillors with their political party.

The main activities of local authorities are maintaining and controlling local cleanliness, health, trading standards, and night markets, and the enforcement of the running of business practices. Other responsibilities include implementing development projects for businesses and maintaining a peaceful environment for local people.

## **2.4 Auditing of Local Authorities in England**

### **2.4.1 External Auditing**

The Audit Commission is an independent body with statutory responsibilities to regulate the audit of local authorities in England. It was established under the Local Government Finance Act 1982 with responsibility for appointing the external auditors of all local authorities in England. The external auditors are appointed from the Audit Commission's own staff and from private audit firms. The Audit Commission provides advice and support to appointed auditors on technical matters and carefully monitors their performance through a quality review process. The appointed auditors need to carry out their statutory and other responsibilities, and to exercise their professional judgement, independently of the Commission.

The Audit Commission Act 1998 and Local Government Act 1999 are the main Acts which outline the statutory responsibilities and powers of the appointed auditors. Section 5 of the Audit Commission Act 1998 requires that:

- An auditor shall by examination of the accounts and otherwise satisfy himself
  - that the accounts are prepared in accordance with regulations ... and comply with the requirements of all other statutory provisions applicable to the accounts;
  - that proper practices have been observed in the compilation of the accounts;
  - that the body whose accounts are being audited has made proper arrangements for securing economy, efficiency and effectiveness in its use of resources; and
  - that the body, if it is required to publish performance information, has made arrangements for collecting, recording and publishing such information.
- The auditor shall comply with the code of audit practice.

In accomplishing these specific statutory responsibilities and powers, the appointed auditors are required to perform their work in accordance with the Code of Audit Practice (the Code) 2005. The Code, as a requirement under the Audit Commission Act 1998, provides guidance for the appointed external auditors in carrying out their functions under the Act. This represents the best

professional practice with respect to the standards, procedures and techniques to be adopted by appointed auditors.

In carrying out financial statement audits, appointed external auditors also need to comply with the current auditing standards as stated in paragraph 18 of the Code (p.12):

Auditors should comply with auditing standards currently in force, and as may be amended from time to time, and have regard to any other relevant guidance and advice issued by the Auditing Practices Board (APB), including that covering the work of auditors in relation to audited bodies' statements on internal control. Auditors should also comply with the APB's Ethical Standards currently in force, and as may be amended from time to time.

A list of appointed auditors for local authorities in England can be obtained through the Audit Commission website (<http://www.audit-commission.gov.uk>) and is amended from time to time according to any changes. The Audit Commission appoints auditors to each local authority in order to ensure that auditors are entirely independent and, are seen to be independent.

Under the Audit Commission Act 1998 (the Act), the Commission may appoint:

- an officer of the Commission (District Auditors from its audit practice)
- a firm
- an individual who is not an officer of the Commission

Officers of the Commission and any other individuals who are appointed must be appropriately qualified (as defined in the Act). The Commission may also appoint individuals to assist the appointed auditor.

The Commission normally appoints auditors for an initial period of five years, which can be extended. Continuity of appointment allows auditors to add significant value and insight, thus bringing benefits for audited bodies. However, it is also important to guard against too close a relationship between audited bodies and their external auditors. Hence, in accordance with the ethical standards for auditors issued by the independent Auditing Practices Board, the Commission requires a change of the engagement lead on every audit at least once every five years. The Commission also rotates auditors from time to time between one supplier and another to provide a fresh perspective, and to strengthen the audit. This is done not only to ensure independence but also to secure high quality, value for money audit.

#### **2.4.2 Internal Auditing**

Internal audit is a statutory requirement in UK local authorities. Section 151 of the Local Government Act 1972 requires that local authorities shall:

make arrangements for the proper administration of their financial affairs.

The Accounts and Audit Regulations 2003 (as amended), provides more specific requirements, in that a relevant body must:

maintain an adequate and effective system of internal audit of its accounting records and of its system of internal control in accordance with the proper practices in relation to internal control.

The proper practices in relation to internal control as mentioned in the above legislation refer to those practices contained within the Code of Practice for Internal Audit in Local Government in the United Kingdom, issued by CIPFA in 2003, also known as the CIPFA Code of Practice. This Code of Practice defines the way in which the internal audit service should undertake its function. Further discussion on the Code of Practice is provided in Chapter 3.

Based on statutory requirements, UK local authorities must establish their internal audit function whether provided by in-house audit teams or by external contractors. External contractors may provide either partial services in support of an in-house team or the whole internal audit service.

In addition to internal and external audit, CIPFA (2005) emphasises the importance of an audit committee being in place in all principal local authorities. Audit committees have a key role in the authority's governance framework as their functions include a number of control strategies such as risk management, the authority's governance and assurance statement, and anti-fraud and anti-corruption arrangements (CIPFA, 2005). Effective audit committees help raise the profile of internal control, risk management and issues regarding financial reporting within an organisation. They also provide a forum to discuss issues raised by internal and external auditors as well as enhancing public trust and

confidence in the financial governance of an authority. The establishment of an audit committee is also a requirement in the top score for risk management in the Comprehensive Performance Assessment (CPA) key performance indicators.

CPA measures how well councils are delivering services for local people and communities. Overall, the CPA framework comprise of four common components: corporate assessments; use of resources assessment; service assessments; and direction of travel assessments. Internal control, as one of the five themes under the use of resources assessments, which assesses whether a council has effective arrangements to ensure proper use of public funds and manage its risks. It is important for councils to ensure that the performance of their internal control is improved in order to get a higher score for the CPA. By trying to improve the CPA score, the CPA system encourages the improvement of internal controls in the local authorities. Thus, the CPA for internal control may result in better performance and use of resources in a local authority.

## **2.5 Auditing of Local Authorities in Malaysia**

### **2.5.1 External Auditing**

In Malaysia, the supreme law for auditing government organisations is the Audit Act 1957. The Act lays down the roles and responsibilities of government auditors. It also explains the nature of audit, audit process and the preparation of Audit Reports. The Auditor General is an independent body with statutory

responsibilities to regulate the audit of all government agencies in Malaysia.

Section 2 of the Audit Act 1957 states that:

This Act shall apply to the audit of the accounts of the Federation, of the States and of such other public authorities and specified bodies as are subject to audit by the Auditor General.

In accordance with Article 105 of the Federal Constitution, the Auditor General is appointed by the His Royal Highness (HRH), ruler of Malaysia, on the advice of the Prime Minister. The article also provides that he is eligible for re-appointment, but not for any other appointment in the service of Federal or State authorities. The Auditor General may at any time resign, but shall not be removed from the office except as decided by the Federal Court.

According to Article 106 of the Federal Constitution, the Auditor General has the powers and duties to audit and report on the accounts of the federal, state and public authorities. The Auditor General also performs such other duties in relation to the accounts of the federal, state and public authorities as specified by the HRH.

The Auditor General is an exclusive appointment which it is not subject to the Public Services Commission (Article 109, Federal Constitution). Its independence is also assured by the Constitution. The Auditor General can delegate and appoint any of the Auditor General's staff, or anybody who is competent, to exercise power on his behalf or to perform audit tasks (Section 7(3) Audit Act 1957).

The Auditor General is the head of the Malaysian National Audit Department. The staff of the National Audit Department have been delegated the authority to carry out the audit of government agencies on behalf of the Auditor General. There is a branch of the National Audit Department in each of the 13 States of Malaysia and each is known as the State National Audit Department. Each of the State National Audit Departments is headed by a Director and Assistant Director. The State National Audit Departments have the responsibility to audit local authorities' financial statements. This is due to the fact that all local authorities in Malaysia are controlled and influenced by their State governments. However, the annual audit report for local authorities is issued by the Auditor General.

### **2.5.2 Internal Auditing**

It is not a mandatory requirement for local authorities in Malaysia to establish an internal audit function due to the absence of a specific statutory requirement. The Treasury Circular No. 2 on the *Implementation of Internal Auditing in Federal Government Agencies* issued in 1979 provides a basic requirement for federal government entities to have an internal audit function. This circular was then abolished and replaced with Treasury Circular No. 4, issued in 2004, which includes not only federal government entities but also the state governments. Although the circular requires the implementation of an internal audit function within federal and state governments, it does not provide a specific requirement for establishing an internal audit function for local authorities.

To date, 28 local authorities have established their own internal audit function, as shown in Table 2.4.<sup>5</sup> The establishment of the internal audit function in these local authorities was due mainly to the awareness of the importance of the internal audit function by their management (Azham et al., 2004). In addition, there are States (e.g. Selangor and Pulau Pinang), that require the establishment of an internal audit function within city and municipal councils.

Although there are 143 local authorities in Malaysia, only 28 of them have an internal audit department. This may be due to the fact that there is no mandatory requirement for establishing internal audit within local authorities. A lack of awareness of the importance of the internal audit function by their management may also contribute to the small number of internal audit department established in local authorities. However, some of the local authorities may have an awareness of its importance, but they have limited financial resource, which means that they are unable to invest in internal audit. Table 2.4 shows it is found that the internal audit function has only been established in municipal and city councils. All the district councils have yet to establish an internal audit function presumably because they do not have the financial resources or infrastructure to invest in it. This is illustrated by their lower annual income and smaller size when compared to municipal and city councils. In addition, none of the local authorities in the state of Kedah and Perlis has an internal audit function because these two states are considered the poorest in Malaysia, with limited financial

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<sup>5</sup> The number of local authorities with internal audit function was obtained from the National Audit Department in 2008 and the author's previous research (see Azham et al., 2004).

resources. They appear to have to focus more on providing services to their tax payers rather than hiring internal audit staff.

As discussed above, the establishment of internal audit function is a statutory requirement in UK local authorities under Local Government Act 1972 and specific requirement is provided under the Accounts and Audit Regulations 2003. This statutory obligation is enhanced by the CIPFA Code of Practice for the proper practice of the internal audit function in UK local authorities.

This situation does not exist in Malaysia where there is no specific requirements, either statutory or non-statutory, currently to establish an internal audit department in Malaysian local authorities. Thus some local authorities initially voluntarily established an internal audit function based on their awareness of benefits of having an internal audit. Another setback for the non-establishment of an internal audit function in Malaysian local authorities is caused by the lack of involvement of the professional bodies, such as The Malaysian Institute of Accountants (MIA) and Malaysian Institute of Certified Public Accountants (MICPA), as compared to its UK counterparts. MIA and MICPA are the two main professional bodies in Malaysia. No significant contributions have so far been made, however, by these two professional bodies, or, significant interest expressed, in the development of local authority internal auditing. .

**Table 2.4: Malaysian Local Authorities with an Internal Audit Function**

	State	No. of internal audit functions	Local Authorities having an internal audit function
1	Perlis	0	-
2	Kedah	0	-
3	Pulau Pinang	2	Pulau Pinang Municipal Council Seberang Prai Municipal Council
4	Perak	3	Ipoh City Council Manjung Municipal Council Taiping Municipal Council
5	Selangor	9	Ampang Jaya Municipal Council Kajang Municipal Council Klang Municipal Council Kuala Langat Municipal Council Petaling Jaya Municipal Council Selayang Municipal Council Sepang Municipal Council Shah Alam City Council Subang Jaya Municipal Council
6	Melaka	2	Alor Gajah Municipal Council Melaka City Council
7	Negeri Sembilan	1	Port Dickson Municipal Council
8	Johor	1	Johor Bahru City Council
9	Pahang	3	Kuantan Municipal Council Raub Municipal Council Temerloh Municipal Council
10	Kelantan	1	Kota Bahru Municipal Council
11	Terengganu	2	Kemaman Municipal Council Kuala Terengganu Municipal Council
12	Sabah	2	Kota Kinabalu City Hall Tawau Municipal Council
13	Sarawak	2	Kuching Selatan City Council Kuching Utara City Hall
Total		28	

## **2.6 Conclusion**

This chapter has provided a review of the structures of local authorities and their internal and external auditing practices in the UK and Malaysia as a background of the context of study. The next chapter reviews professional standards and academic literature relevant to the study.

## **CHAPTER 3:**

### **LITERATURE REVIEW**

#### **3.1 Introduction**

In Chapter 2, some basic information about the structures of the local governments and their internal and external auditing practices, both in the UK and Malaysia, was discussed in order to provide an understanding of the contextual background of the study. This chapter moves on to provide a review of both professional standards and academic research which are related to this study. Section 3.2 provides a review of the professional standards regarding the relationship between internal and external audit. Section 3.3 discusses the extant research concerning the relationship between internal and external auditors. Section 3.4 provides concluding comments to this chapter.

#### **3.2 Professional Standards and Regulations**

##### **3.2.1 Auditing Standards that Apply to Internal Auditors**

Three sets of internal auditing standards that apply to internal auditors in the UK public sector have been published, namely:

1. International Standards for the Professional Practice of Internal Auditing (ISPPPIA) by the Institute of Internal Auditors (IIA), 2004;
2. Government Internal Audit Standards (GIAS) by HM Treasury, United Kingdom, 2001; and

3. Code of Practice for Internal Audit in Local Government in the United Kingdom, 2006, by the Chartered Institute of Public Finance and Accountancy (CIPFA).

In general, members of the Institute of Internal Auditors (IIA) are required to comply with the International Standards for the Professional Practice of Internal Auditing (ISPPIA). The requirements that guide the relationship with the external auditor are set out in:

- Performance Standard 2050: Co-ordination; and
- Practice Advisory 2050-1: Co-ordination.

Performance Standards are part of the ISPPIA, which describes the nature of internal audit activities and provides the quality criteria against which the performance of these services can be evaluated. Practice Advisories provide guidance on how the Standards might be applied. Both the Performance Standards and Practice Advisories are issued by the IIA. Pertaining to the relationship between the internal and external auditor, Performance Standard 2050 states:

The chief audit executive should share information and co-ordinate activities with other internal and external providers of relevant assurance and consulting services to ensure proper coverage and minimize duplication of efforts (p. 7).

Although the IIA is a US based body with largely a private sector focus, their statements and codes are suitable for the local authorities because it is the international internal audit profession's global voice and provides resources for

both newcomers to the profession of internal auditing as well as experienced practitioners who want to promote internal auditing and its role in the success of an organisation ([www.iaa.co.uk](http://www.iaa.co.uk)).

In the UK public sector, HM Treasury sets out the requirements for guiding the relationship between internal and external auditors through the Government Internal Audit Standards (GIAS). These standards define the way in which the internal audit service in the public sector should co-ordinate internal audit plans and activities with the external auditor to ensure that the most effective audit coverage is achieved and to minimise duplication of effort. Standard 4.4 - Relationships with External Auditors states:

The Head of Internal Audit should seek to meet regularly with the external auditor to consult on audit plans, discuss matters of mutual interest, discuss common understanding of audit techniques, methods and terminology, and to seek opportunities for co-operation in the conduct of audit work. In particular, Heads of Internal Audit should offer the external auditor the opportunity to rely on their work where appropriate, provided this does not prejudice Internal Audit's independence (HM Treasury, 2001: p. 20).

To provide further guidance for the relationship between internal and external auditors, a *Good Practice Guide – Co-operation between Internal and External Auditors* has been published jointly by the National Audit Office and HM Treasury (<http://www.hm-treasury.gov.uk/d/auditors-190105.pdf>). This guide offers good practice advice on the co-operation between internal and external auditors.

Also, in the UK, the first publication of CIPFA regarding the relationship between internal and external auditors, known as *Statements on Internal Audit Practice in the Public Sector*, issued in 1979, provides guidance for co-operation of both auditors. The statement on the internal audit function's relationship with the external auditor says:

The relationship with the external auditor should be based on an understanding of his role and on a degree of co-operation including the exchange of relevant information sufficient to maximise audit performance (CIPFA, 1979: p. 15).

CIPFA has published more specific standards for local government in the UK, known as the *Code of Practice for Internal Audit in Local Government in the United Kingdom* or CIPFA Code of Practice (CIPFA, 2003). This 2003 code was then updated in 2006 to reflect changes arising from the practice relating to corporate governance that further emphasised the importance of internal audit to an organisation's management (CIPFA, 2006). Standard 5 under the CIPFA Code of Practice, which provides overall principles of good relationships, states:

Internal audit is involved in a wide range of internal and external relationships. The quality of these relationships impacts on the effective delivery of the audit function, its reputation and independence. An important part of that task is to ensure that internal audit's plan and activities are co-ordinated with those of other parties to achieve the most effective audit coverage and to minimise duplication (CIPFA, 2006: p. 13).

The CIPFA Code of Practice further specifies the relationship between internal and external auditors and states that:

The aim of relationship between internal and external auditors should be to achieve mutual recognition and respect, leading to joint improvement in performance and to avoid duplication of

work. It should be possible for internal and external auditors to rely on each other's work, subject to the limits determined by their responsibilities, enabling them to evaluate, review and only re-perform where necessary. Consultations should be held and consideration given to whether any work of either auditor is adequate for the purpose of the other (CIPFA, 2006: p. 14).

In addition, the code also suggests that the internal auditor should hold regular meetings with the external auditor to consult on and co-ordinate their respective plans. In particular, this meeting provides an opportunity for internal and external auditors to discuss how work can be tailored to satisfy each other's responsibilities in areas of common interest. Such meetings also offer an opportunity for both of the auditors to discuss matters of mutual interest and to help build both parties' understanding of the organisation.

Overall, the three standards provide guidance on the relationship and co-operation between internal and external auditors from the standpoint of internal auditors, although the CIPFA Code of Practice (2006) is more specific for the internal auditors of UK local authorities. The GIAS is issued mainly to be used by internal auditors of the UK central government. In addition, all internal auditors who are members of the IIA should comply with the ISPPA. However, to date, there is no specific standard that has been issued for guiding internal audit practice in the Malaysian public sector.

### **3.2.2 Auditing Standards that Apply to External Auditors**

#### *Auditing Standards that Apply to External Auditors in the UK*

Two sets of external auditing standards that apply to external auditors in the UK public sector have been published. These are:

1. International Standards on Auditing (UK and Ireland), issued by the Auditing Practices Board (APB).
2. Code of Audit Practice 2005, issued by the Audit Commission, UK.

In the UK, external auditors are governed by the auditing standards established by Auditing Practices Board (APB). APB Standards apply to audits of financial statements in both the private and public sectors. These standards are known as International Standards on Auditing (UK and Ireland) (ISAs (UK and Ireland)). The relationship between internal and external auditors is clearly stated in ISA (UK and Ireland) 610 *Considering the Work of Internal Audit*, through statements on the roles and responsibilities of the internal and external auditors in carrying out their duties. The purpose of ISA (UK and Ireland) 610 is to provide guidance to external auditors in using the work of the internal auditors. In paragraph two, ISA (UK and Ireland) 610 states:

The external auditor should consider the activities of internal auditing and their effect, if any, on external audit procedures (p. 552).

External audit procedures may include examination of items already examined by internal auditing, examination of other similar items and observation of internal auditing procedures.

Further, paragraph fifteen states:

Liaison with internal auditing is more effective when meetings are held at appropriate intervals during the period. The external auditor would need to be advised of and have access to relevant internal auditing reports and be kept informed of any significant matters that come to the internal auditor's attention which may affect the work of the external auditor. Similarly, the external auditor would ordinarily inform the internal auditor of any significant matters which may affect internal auditing (p. 554).

Code of Audit Practice 2005 was first published in March 2005 by the Audit Commission for local authorities and the National Health Service in England. The code determines the nature, level and scope of local audit work that underpins all external audit activities. This code also suggests the nature of the relationship between internal and external auditors, as paragraph ten of the code states:

Auditors should carry out the audit economically, efficiently and effectively, and in as timely a way as possible. In framing an audit approach to meet the objectives of the audit, they should establish effective co-ordination arrangements with internal audit. Auditors should seek to place maximum reliance on the work of internal audit whenever possible (p. 9).

*Auditing Standard that Apply to External Auditors in Malaysia*

In Malaysia, external auditors in the public sector are regulated by the Auditing Standard 2005, issued by the National Audit Department. This standard acts as an official guide for the management and practice of the audit of government entities. The standard considers that auditors shall rely on the work of the other parties (internal auditors, other external auditors or experts) only if the

independence, competency and quality of work performed by the other parties are satisfactory.

Furthermore, to strengthen the relationship between internal and external auditors in the Malaysian public sector, the Office of the Auditor General issued the Auditor General Circular No.1/2002, *Guidelines for establishing co-operation between National Audit Department and internal audit unit*. The purpose of this circular is to provide guidelines for the external auditors in establishing co-operation with internal auditors in government organisations. According to this guideline, external auditors should co-operate with internal auditors in the areas related to preparing the annual audit plan, use of audit guide, internal control assessment and overall auditing and training.

In short, these internal and external audit standards support and provide guidelines for both internal and external auditors to enable co-operation and effective co-ordination of their work. Effective co-ordination and co-operation between internal and external auditors will help maximise the benefits not only to be gained for a particular organization, but also for both sets of auditors. Based on these standards, various ways of co-operation might be considered by the internal and external auditors (Moeller, 2005). These include:

- Exchange of audit documentation;
- Face-to-face sharing of information;
- Use of common methodology;

- Collaborative work assistance;
- Co-operation and collaboration in auditor training;
- Supportive follow-up of audit findings; and
- Joint audit project planning.

### **3.3 Academic Research**

#### **3.3.1 Co-operation between Internal and External Auditors**

To the author's knowledge, there has been only limited research examining internal auditors' perceptions of their relationship with external auditors. A study by Mautz (1984) on internal auditors' views revealed that the relationship with external auditors is the least appealing aspect of their job. Peacock and Pelfrey (1989) conducted a survey of internal audit directors and their staff members who worked directly with external auditors, using two separate questionnaires. Respondents were requested to evaluate the overall performance of their organization's external auditor and their perceived relationship with the external auditor. The results of this study indicate that directors of internal audit departments generally perceived a good relationship between internal and external auditors. They also felt that external auditors fully utilized internal audit expertise. In contrast, internal audit staff perceived that their expertise was not fully utilized by external auditors, and this is in line with Ward and Robertson (1980). In Saudi Arabia, Al-Twajjry et al.'s (2004) study showed that there was a lack of co-operation between internal and external auditors and that internal auditors had limited access to external auditors' working papers. Thus, the

findings from previous studies indicate that the relationship between internal and external auditors was generally limited, with a lack of co-operation and co-ordination in their work.

### **3.3.2 Quality of the Internal Audit Function**

Before external auditors can rely on internal auditors' work, they must assess the quality of the internal auditors. Much prior research has categorised the quality of the internal audit function into the areas of competence, objectivity and work performance.

#### *Competence*

Arens and Loebbecke (1991) defined competence as a member who accepts a professional engagement and implies that he has the necessary technical knowledge to complete the engagement. The Auditors' Code, Auditing Practices Board (APB, 2005) defines competence as:

Auditors act with professional skill, derived from their qualification, training and practical experience (p. 51).

A number of criteria have been used in evaluating internal auditors' competence. Clark et al. (1980) and Gibbs and Schroeder (1979) found that internal auditors' knowledge of company operations, processes and procedures was the most important criterion in evaluating competence. Brown (1983) found that competence evaluation was based on internal audit training programmes and professional certifications. Messier and Schneider's (1988) results indicated that external auditors deemed

internal auditors' experience to be the most important criterion for assessing competence. Based on a survey of Internal Audit Directors, Chief Financial Officers and Boards of Directors, Gramling and Myers (1997) reported that Certified Internal Auditor (CIA) designation was perceived as indicative of internal audit competence.

### *Objectivity*

Objectivity is a state of mind, a quality that lends value to a member's service. It is a distinguishing feature of the profession. The principle of objectivity imposes an obligation to be impartial, intellectually honest, and free of conflicts of interest (Carmichael et al., 1996). APB Ethical Standards (2005) defines objectivity as:

A state of mind that excludes bias, prejudice and compromise and that gives fair and impartial consideration to all matters that are relevant to the task in hand, disregarding those that are not (p. 53).

A number of studies found that internal auditors' independence was often assessed by external auditors as the most important criterion in evaluating the objectivity of internal auditors (Clark et al. 1980, 1981; Brown, 1983; Messier and Schneider, 1988). DeZoort et al. (2001) documented that the primary role of the internal audit function and its compensation structure were perceived by external auditors as affecting internal auditors' objectivity.

### *Work Performance*

Work performance refers to the nature and extent of internal auditing assignments performed (Margheim, 1986). A study by Clark et al. (1980) found that the primary criterion considered by external auditors in evaluating the quality of work performance was client management's overall support for the internal audit function. Brown (1983) found that the work performance evaluation was based on the external auditors' satisfaction with previous internal audit work, follow-up procedures performed by internal auditors, and supervision of internal auditors' work. Messier and Schneider (1988) reported that the scope of internal auditors' work was the most important criterion describing work performance.

### **3.3.3 Factors Affecting External Auditors' Reliance on Internal Auditors' Work**

Most prior studies have been conducted in the USA and have focused on factors suggested by Statement on Auditing Standards (SAS) No. 9, *The Effect of an Internal Audit Function on the Scope of the Independent Auditor's Examination* as the basis for their research questions (Brown, 1983; Margheim, 1986; Messier and Schneider, 1988; Schneider, 1984, 1985b; Abdel-khalik et al., 1983; Edge and Farley, 1991). Specifically, SAS No. 9 requires external auditors to evaluate internal auditors' competence, objectivity and work performance when making a reliance decision. These studies have focused largely on identifying the relative

importance that external auditors place on competence, objectivity and work performance in their assessment of the strength of the client's internal audit function.

An early study by Brown (1983) used experimental packages mailed to 101 external auditors across four "Big Eight" accounting firms that were geographically dispersed across the USA in an experimental setting to assess external auditors' evaluation of the internal audit function's strength. The study looked at the effect of the three factors mentioned in SAS No. 9 (competence, objectivity and work performance) on external auditors' evaluation in relation to the reliability of the internal audit function. The results indicate that objectivity and work performance were the primary factors that influenced auditors' judgment, regardless of their firm's affiliation or years of internal audit experience. The attributes that accounted for most of the variance in the external auditors' judgments about the reliability of the internal audit function were: (1) the work of the internal auditors during the previous audit; and (2) whether the internal audit departments reported at an organizational level that was high enough to ensure the independence of operations.

Abdel-khalik et al. (1983) employed an experimental study to investigate the effect of three Electronic Data Processing (EDP) techniques (Integrated Test Facility, Test Data, and Generalized Audit Software) and two organizational variables relating to internal auditors' independence and work performance

(namely, the level to which the internal audit department reports and the internal auditors' level of responsibility in reviewing changes in application programmes) on the judgments made by external auditors in planning audit programmes. The results of this study revealed that the internal auditors' independence (whether internal audit staff reports to the controller or to the corporate audit committee) was the most important of the five factors on the judgement of external auditors in planning audit programmes.

Schneider (1984) conducted a similar experimental study to identify descriptive models that were representative of the ways in which external auditors combine and weigh the three evaluation factors noted in SAS No. 9 (competence, objectivity, and work of the internal auditors) when assessing the strength of the internal audit function. The results of Schneider's (1984) study revealed that external auditors viewed work performance as the most important factor when evaluating the internal audit function, followed by competence and objectivity. Another experimental study conducted by Schneider (1985a) examined the degree of consensus among 18 external audit managers/supervisors in evaluating the internal audit function. The results indicate that work performance was viewed as the most important factor, followed by competence and then objectivity. Schneider (1985b) extended his prior study by investigating the extent to which external auditors would rely on the internal audit function, and the relationship between the reliance decisions and their evaluations of internal audit strength. The results of this experimental study indicate that the external

auditors generally depended on internal audit to reduce their external audit work, and that they achieved a high degree of consistency between the evaluation judgment and the reliance decision. The results also revealed that external auditors perceived competence and work performance factors as almost equally important, and objectivity to be a less important, but nevertheless significant, factor.

Margheim's (1986) study complements the studies undertaken by Schneider (1984, 1985b) by examining whether external auditors actually adjust the nature and the extent of audit procedures due to their reliance on internal audit, and whether any such reliance was related to the source of the reliability. In contrast to the previous studies (Abdel-khalik et al., 1983; Brown, 1983; Schneider, 1984, 1985b), Margheim (1986) employed an experimental design using a between subjects design with subjects receiving the case materials through the mail. The results of this study indicated that external auditors reduced planned audit hours if the internal auditors had a high level of competence (work performance), but they did not alter their tests in response to changes in the degree of internal audit objectivity. The results of Margheim's (1986) study are consistent with Schneider's (1984) study, suggesting that internal auditors' competence and work performance were ranked as equally important factors affecting the external auditors' judgments on the internal audit strength, but the objectivity factor and the interactions between competence, work performance and objectivity were not significant.

Messier and Schneider (1988) examined the relative importance of the attributes considered important by external auditors in evaluating the internal audit function. Their results indicated that external auditors consider competence as the most important factor, followed by objectivity and work performance. Maletta (1993) extended the research in this area by examining the effect of inherent risk on the relative importance that auditors place on the three internal audit factors in making decisions to rely on internal auditors' work. The results of this experimental study show that competence is the most important factor that external auditors consider in their reliance on internal audit work, followed by objectivity and work performed. These results are consistent with studies by Messier and Schneider (1988), who found that competence was the most important factor, and Abdel-khalik et al. (1983), who found that objectivity was more important than work performed.

Edge and Farley's (1991) study of external auditors in Australia attempted to replicate Brown's (1983) study, which was conducted in the USA. Edge and Farley's (1991) study was guided by the Australian Statement of Auditing Practice AUP2 *Using the Work of an Internal Auditor* (Australian Accounting Research Foundation, 1983). The two most significant factors identified as affecting external auditors' reliance on internal audit work were technical competence and "due professional care" (work performance). Previous audit work was considered the third dominant factor, with objectivity (or organizational status) being considered the least important among the factors

being tested. The study also found a high degree of consensus across the respondents with respect to the evaluations of the internal audit function, and a high degree of stability in their judgments.

Similarly, a study by Haron et al. (2004) used external auditors in Malaysia to investigate the criteria as specified by the Malaysian Approved Standards on Auditing AI 610 *Considering the Work of Internal Auditing* (MIA, 2001). The criteria examined were internal audit's organizational status, scope of function (work performance), technical competence (competence) and due professional care. A further objective of this study was to determine the consistency in external auditors' judgments. A structured questionnaire was used to collect the data and 64 external auditors participated in the study. The findings indicate that competence and work performance were the two most important criteria that external auditors consider in their reliance on internal audit work, and that there was also consistency in audit judgment. The results of this study are consistent with studies by Schneider (1985b) and Margheim (1986), who found competence and work performance were equally important factors affecting the external auditors' reliance on the internal auditors' work.

The experimental study by Krishnamoorthy (2002) in the USA indicated that the importance of the three factors varies with the type of evidence (convergent or conflicting) observed, and is dependent on the interrelationships among the three factors. Another major conclusion of this study was that to attempt a ranking of

the factors is in vain, because no single factor will dominate under all conditions. However, the study suggests the order in which evidence is evaluated may be important in enhancing audit efficiency. For instance, the analysis reveals that there is little value from the evidence relating to work performance if either objectivity or competence is negative. This outcome suggests that evidence relating to competence and objectivity should be evaluated prior to considering work performance. However, when either objectivity or competence is weak (but positive), or when both objectivity and competence are weak (but positive), the value of evidence from work performance is significant.

Al-Twajjry et al. (2004) used questionnaires and interviews to examine the level of co-operation and coordination between directors of internal audit departments and partners and managers of external audit firms in Saudi Arabia. The survey involved 78 directors of internal audit departments (a response rate of 58%) and 33 external auditors (a response rate of 85%). Further interviews were undertaken to enhance and supplement the information gained from the two matching questionnaires about internal audit in Saudi Arabia. Fifteen interviews were conducted with directors of internal audit departments and 13 interviews with external auditors (consisting of five partners and eight managers). The focus of the study was on the perceptions of internal and external auditors regarding the external auditors' decision to rely on internal audit work and whether such reliance led to a reduction in external audit fees.

The results of the study indicated that external auditors expressed concern about the independence, scope of work and size of internal audit departments. Internal auditors considered co-operation between internal and external auditors to be limited, but external auditors were more positive about the extent of co-operation with internal auditors, particularly when the quality of the internal audit department was high. Hence, the results of this study suggest that the external auditors' reliance on internal audit work varied with the quality of the internal audit department. The perception of most external auditors was that a significant proportion of Saudi Arabian companies had internal audit functions lacking in both professionalism and independence from management, which affected the value of work completed by internal auditors and reduced the potential for external auditors to rely on their work.

In summary, prior research has largely employed an experimental approach towards understanding factors affecting external auditors' judgment on internal audit work. Most of these studies focused on ranking the importance of the criteria recommended by the professional guidelines, such as, SAS No. 9, SAS No. 65, AUS 604 and ISA 610. Table 3.1 provides a ranking of the factors that were used by external auditors in evaluating the internal audit function.

**Table 3.1: Ranking of Factors Used by External Auditors in Evaluating the Internal Audit Function**

Study	Competence	Work Performance	Objectivity
Brown (1983)	3rd	1st	2nd
Abdel-khalik et al. (1983)	N/a	2nd	1st
Schneider (1984)	2nd	1st	3rd
Schneider (1985a)	2nd	1st	3rd
Schneider (1985b)	1st =	1st =	2nd
Margheim (1986)	1st =	1st =	2nd
Messier & Schneider (1988)	1st	3rd	2nd
Edge & Farley (1991)	1st	2nd	3rd
Maletta (1993)	1st	3rd	2nd
Haron et al. (2004)	1st =	1st =	3rd

Note:

1. Ranking: 1st indicates most important, and 3rd indicates least important
  2. Margheim's (1986) study combined competence and work performance
- Source: Adapted from Krishnamoorthy (2002)

From Table 3.1, the results of Abdel-khalik et al.'s (1983) study indicated that objectivity is the most significant factor in the assessment of the internal audit function. Other studies by Brown (1983) and Schneider (1984, 1985a,b), however, revealed that work performance is the most significant. In contrast, the studies by Edge and Farley (1991), Messier and Schneider (1988), and Maletta (1993) found that the external auditor considered competence as the most significant factor in evaluating the internal audit function. The results from

Haron et al. (2004), Margheim (1986), and Schneider (1985b) ranked competence and work performance as being equally important. Krishnamoorthy's (2002) study, however, indicates that the importance of the three factors varies with the type of evidence (convergent or conflicting) observed, and is contingent on the interrelationship between the three factors. The results of Al-Twaijry et al. (2004) concluded that the extent of reliance by the external auditor on the work of the internal auditor varied according to the perceived quality of the internal audit department.

In conclusion, while the results of prior studies appear mixed in terms of the ranking in importance of the three factors (competence, work performance and objectivity) as determinants of external auditors' reliance on internal auditors' work, it is clear that all three factors are relevant to external auditors' judgement. However, none of these prior studies were conducted in the public sector. Thus, this thesis attempts to investigate whether these three factors used in the previous private sector studies affect the external auditors' reliance on internal auditors' work in the public sector.

### **3.3.4 Extent to which Internal Audit Work is relied on by External Auditors**

Many of the studies of the external auditors' reliance on the internal audit function, discussed above, provide insights into the extent of the reliance on the work performed by the internal audit function. Abdel-khalik et al. (1983) noted

that the average percentage of budgeted external audit hours performed by the internal audit function ranged from 32.5% when the internal auditors reported to the controller, to 42% when the internal auditors reported to the audit committee. Similarly, Schneider (1985b) found that, on average, external auditors reduced budgeted external audit hours by approximately 38% as a result of relying on internal auditors' work (i.e., internal auditors performed 38% of the budgeted external audit hours). In this study, it was also noted that the average reduction for the lowest quality of internal audit profile was 14.4%, while for the highest quality of internal audit profile the average reduction was 50.6%.

In contrast, Margheim (1986) found that external auditors did not reduce total budgeted hours (i.e., no internal audit function reliance), relative to having no internal audit function, when the internal audit function was perceived to have low competence/work performance. However, for scenarios where the internal audit function was present, total budgeted external audit hours for the audit cycle being considered declined by 18.7% as internal audit function competence/work performance increased from a low level to a high level. Campbell (1993) uses a reliance scale ranging from 0 = least reliance to 100 = most reliance and found reliance levels varying from 37% to 49%, depending on the specific context. Margheim and Label's (1990) study assessed the extent of reliance information based on participants' responses on a 9-point Likert scale ranging from 1 = not at all to 9 = to a great extent. Across the various conditions examined they found that the extent of direct assistance to be substantial (mean response was

approximately 6), while the extent of reliance on the work of the internal audit function on its own to be minimal (mean response was approximately 2). Finally, Al-Twajry et al. (2004) asked respondents to indicate the level of reliance on the internal auditors' work with responses of: Little (1-30%), Reasonable (31-70%) and Much (71-100%). This study concluded that the extent of reliance on the internal auditors' work varied according to the perceived quality of the internal audit department.

### **3.3.5 External Auditors' Reliance on Internal Audit Work and Audit Fees**

To the author's knowledge, few studies have examined the relationship between the external auditors' reliance on internal audit work and audit fees. An early study by Elliot and Korpi (1978) reported that the percentage reduction of audit scope due to the reliance on internal audit work was significant in predicting audit fees. Wallace (1984) reported that internal audit assistance to the external auditors resulted in a 10% reduction in the audit fee. In contrast, Stein et al. (1994) found that internal audit assistance was not a significant determinant of external audit fees. A study by Carey et al. (2000) used a combination of measures of external auditors' reliance on the work of internal audit (i.e. both continuous and dichotomous measure) and examined their association with audit fees. The results from this study are consistent with the results from Stein et al. (1994), that the external auditors' reliance on internal auditors' work is not significantly related to external audit fees.

Felix et al. (2001) investigated whether the internal audit's contribution to the financial statement audit is a determinant of external audit fees, and examined factors that influence the contribution of the internal audit to the financial statement audit. The results revealed that the internal audit's contribution is a significant determinant of external audit fees. Al-Twajry et al.'s (2004) study in Saudi Arabia found that there was mixed evidence as to the impact of internal auditor reliance on external audit fees. It appears that a reduction in the external audit fee is only likely if the external auditors relied heavily on the internal auditors' work.

Further, professional standards (for example, see International Auditing Standards (ISA 610) *Considering the work of Internal Audit*) also suggest that the means for internal and external audit to achieve their respective objectives are often similar and there is the opportunity for a substitution of effort between internal and external audit to avoid unnecessary duplication of work. Accordingly, such substitution of effort should logically lead to a corresponding reduction in external audit fees. However, empirical results appear mixed and inconclusive. This type of research has important implications for external auditors and local authorities as both have a common goal to reduce the cost of audit, and one way to achieve this is through reliance by the external auditor on internal audit work.

The determination of external audit fees in the public sector may be different to the private sector. In the public sector, particularly local authorities, the Audit Commission Act 1998 requires the Commission to prescribe scales of fees in respect of the audit of accounts which are to be audited in accordance with the Act. The Commission has a statutory duty to consult with associations of local authorities (or Local Government Association) and the accountancy profession before prescribing any scale of fees.

The Commission sets scales on a 'fee for audit' approach, i.e. one that is outcome-focused rather than based on input costs. The scales allow external auditors to agree an audit fee with each audited body on the basis of delivering an agreed range of audit outputs to an agreed timetable. The Commission has determined that the scales of audit fees for each local authority comprises of a fixed element, for different types of local authority, and an element related to the gross expenditure of the local authority.

The Commission has the power to determine the fee above or below the scale fee where it considers that substantially more or less work is required than envisaged by the scale fee. The Commission may therefore charge a fee which is larger or smaller than the scale fee to reflect the actual work that needs to be carried out to meet the auditor's statutory responsibilities, on the basis of the external auditor's assessment of risk and the scale and complexity of the audit of a particular local authority. The Commission normally expects to vary the scale fee by no more

than 30 per cent (upwards or downwards) between years. This fee then becomes payable ([www.audit-commission.gov.uk](http://www.audit-commission.gov.uk)).

It is a matter for the external auditor to decide the work that is necessary to complete the audit and, subject to approval by the Commission, to seek to agree variation to the scale fee with the audited body (local authority). The Commission will normally approve a proposed variation to the scale fee where that is agreed by the auditor and the audited body.

### **3.4 Conclusion**

This chapter has reviewed the literature on the related concepts of the relationship between internal and external auditors. The discussion on the topic will be used as guidance for developing the hypothesis and theoretical framework for the current study.

Professional standards both in the UK and Malaysian public sector support the relationship between internal and external auditors. In the UK, the CIPFA Code of Practice (2006) guides internal auditors of local authorities on practice relating to corporate governance that further emphasises the importance of internal audit to the proper management of organisations, but no specific guideline has been issued for guiding internal audit practice in the Malaysian local authorities.

A review of the previous literature indicates that some work has been undertaken to determine the factors that affect external auditors' reliance on internal auditors' work. Most of the prior research has employed an experimental approach in investigating the factors affecting external auditors' reliance on internal audit work focusing on ranking the importance of the three factors (competence, objectivity and work performance) of internal audit quality. Furthermore, the results of prior studies appear mixed in terms of the importance of the three factors as determinants of external auditors' reliance on internal audit work.

Studies on the relationship between internal and external auditors, in term of their co-operation, and the impact of their relationship on the external audit fees, are still limited. Findings from previous studies indicate that the relationship between internal and external auditors was generally limited, with a lack of co-operation in their work.

In addition, all of the previous studies were carried out in the private sector, thus nothing is known about such relationships between internal and external auditors in the public sector. Thus, the aim of this study is to fill that gap by examining the relationship between internal auditors and external auditors, and the factors that affect external auditors' reliance on internal auditors' work in the UK and Malaysia.

The next chapter will discuss a research framework, based upon two models, which has been developed to study the relationship between internal and external auditors in the UK and Malaysian local authorities.

## **CHAPTER 4:**

### **RESEARCH FRAMEWORK**

#### **4.1 Introduction**

The purpose of this chapter is to describe the research framework developed for this study, which is based upon two models. As shown in Figure 4.1, Model 1 focuses on the relationship between eight constructs and the level of co-operation between internal and external auditors. Model 2 focuses on the relationship between four sets of independent constructs, namely competence, objectivity, work performance, and quality of the internal audit function, and external auditors' reliance on internal auditors' work.

The remainder of the chapter is organised in the following way. Section 4.2 provides the objectives of the research framework and the research questions of the study. Section 4.3 lists all the propositions and hypotheses for the two models of the study. Section 4.4 concludes the chapter.

#### **4.2 Objective of the Research Framework**

The objective of the research framework is to provide empirical evidence of the relationship between internal and external auditors, with particular emphasis on the co-operation between them, and the factors affecting the reliance of external auditors on the internal audit work in local authorities.

The empirical evidence provided from this investigation will be tailored to answer four specific research questions. These research questions emerged from discussion in Chapter 3, section 3.3.

As discussed in Chapter 3, findings from previous studies on the internal auditors' perceptions of their relationship with external auditors (e.g. Ward and Robertson, 1980; Mautz, 1984; Peacock and Pelfrey, 1989; and Al-Twaijry et al.'s, 2004) indicate that the relationship between internal and external auditors was generally limited, with a lack of co-operation and co-ordination in their work. However, previous study examining internal auditors' perceptions of their co-operation with external auditors are limited. Thus, the first research question is as follows:

- Research Question 1: What is the level of co-operation between internal and external auditors of the local authorities in England and Malaysia?

Professional accounting bodies representing both internal and external auditors have expressed interest in increasing the level of co-ordination between internal and external auditors (e.g. IIA, GIAS, CIPFA Code of Practice, ISA 610, Code of Audit Practice). These internal and external audit standards support and provide guidelines for both internal and external auditors to enable co-operation and effective co-ordination of their work. However, no study to date has examined the factors affecting the level of co-operation between internal and external

auditors as suggested by the professional standards and guidelines. Thus, the second research question is as follows:

- Research Question 2: What are the factors influencing the level of co-operation between internal and external auditors of local authorities in England and Malaysia?

Most prior studies have been conducted in the USA and have focused on factors suggested by Statement on Auditing Standards (SAS) as the basis for their research questions (Brown, 1983; Margheim, 1986; Messier and Schneider, 1988; Schneider, 1984, 1985b; Abdel-khalik et al., 1983; Edge and Farley, 1991). However, none of these prior studies were conducted in the public sector. Thus, this thesis attempts to investigate whether these three factors used in the previous private sector studies affect the external auditors' reliance on internal auditors' work in the public sector as identified in the third research question:

- Research Question 3: What are the factors influencing external auditors' reliance on internal auditors' work in local authorities in England and Malaysia?

Professional standards (for example, see International Auditing Standards (ISA 610) suggest that the means for internal and external audit to achieve their respective objectives are often similar and there is the opportunity for a substitution of effort between internal and external audit to avoid unnecessary duplication of work. CIPFA Code of Audit Practice (2006) stated that the aim

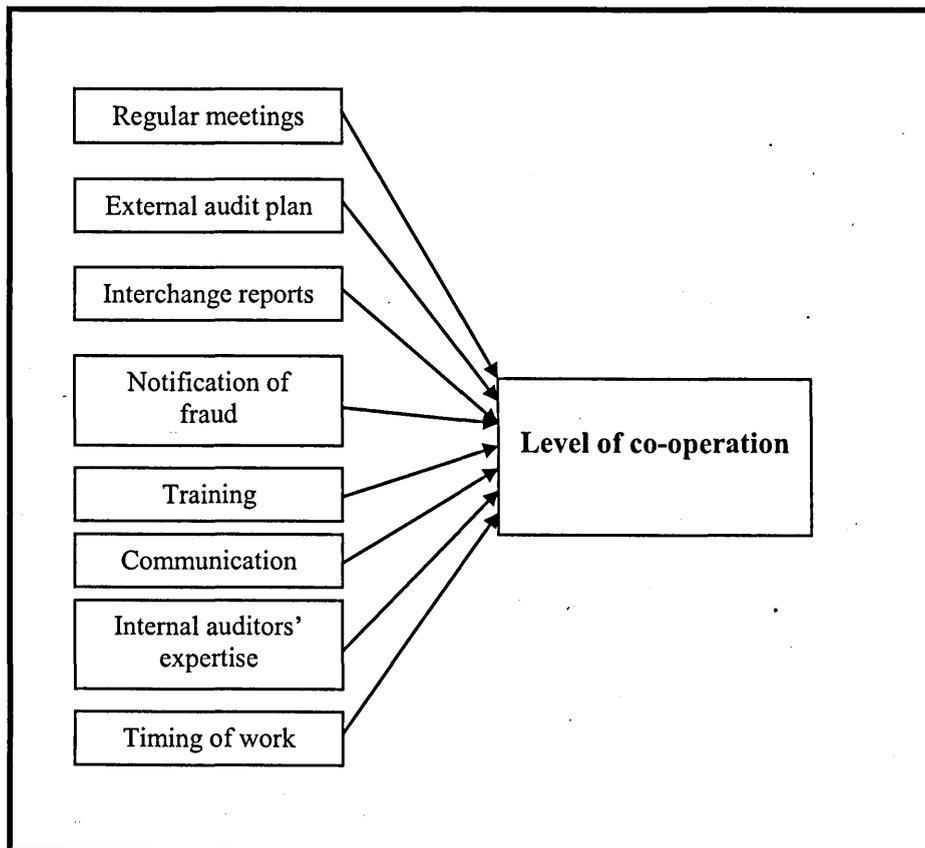
of the relationship between internal and external auditors is to avoid duplication of work. Accordingly, such substitution of effort with no duplication of work should logically lead to a corresponding reduction in external audit fees. However, empirical results examining the relationship between external auditors' reliance on internal audit work and reduced audit fees and audit work appear mixed and inconclusive. Several studies such as Felix et al. (2001) and Wallace (1984) support a negative relationship between external auditors' reliance and audit fees. However, Stein et al. (1994) and Carey et al. (2000) found that external auditors' reliance on internal auditors' work did not affect external audit fees. Thus the fourth research question is as follows:

- Research Question 4: Does the reliance by the external auditors on the internal auditors' work lead to a reduction in the external audit cost and external audit work?

This chapter considers in detail the two models, shown in Figures 4.1 and 4.2, which are related to two of the research questions. Model 1 focuses on Research Question 2 and Model 2 concerns Research Question 3. As shown in Figure 4.1, the factors influencing the level of co-operation between internal and external auditors' work used in Model 1 are based on professional standards as discussed in Chapter 3, section 3.2. 1. A *Good Practice Guide – Co-operation between Internal and External Auditors* published jointly by the National Audit Office and HM Treasury offers good practice advice on the co-operation between

internal and external auditors. This guide suggests internal and external auditors to *meet regularly; coordinate the preparation of external audit plans; interchange of reports; notify the discovery of fraud and other significant events; co-operate in the training; communicate their findings; use internal auditors' expertise; and coordinate the timing of internal and external auditors' work.* In addition, CIPFA Code of Practice and Government Internal Audit Standards (GIAS) suggest effective co-operation between internal and external auditors through regular meetings, coordinate their respective audit plan and rely on each other's work. These variables have not been tested in any other research and thus, make a useful contribution to the study.

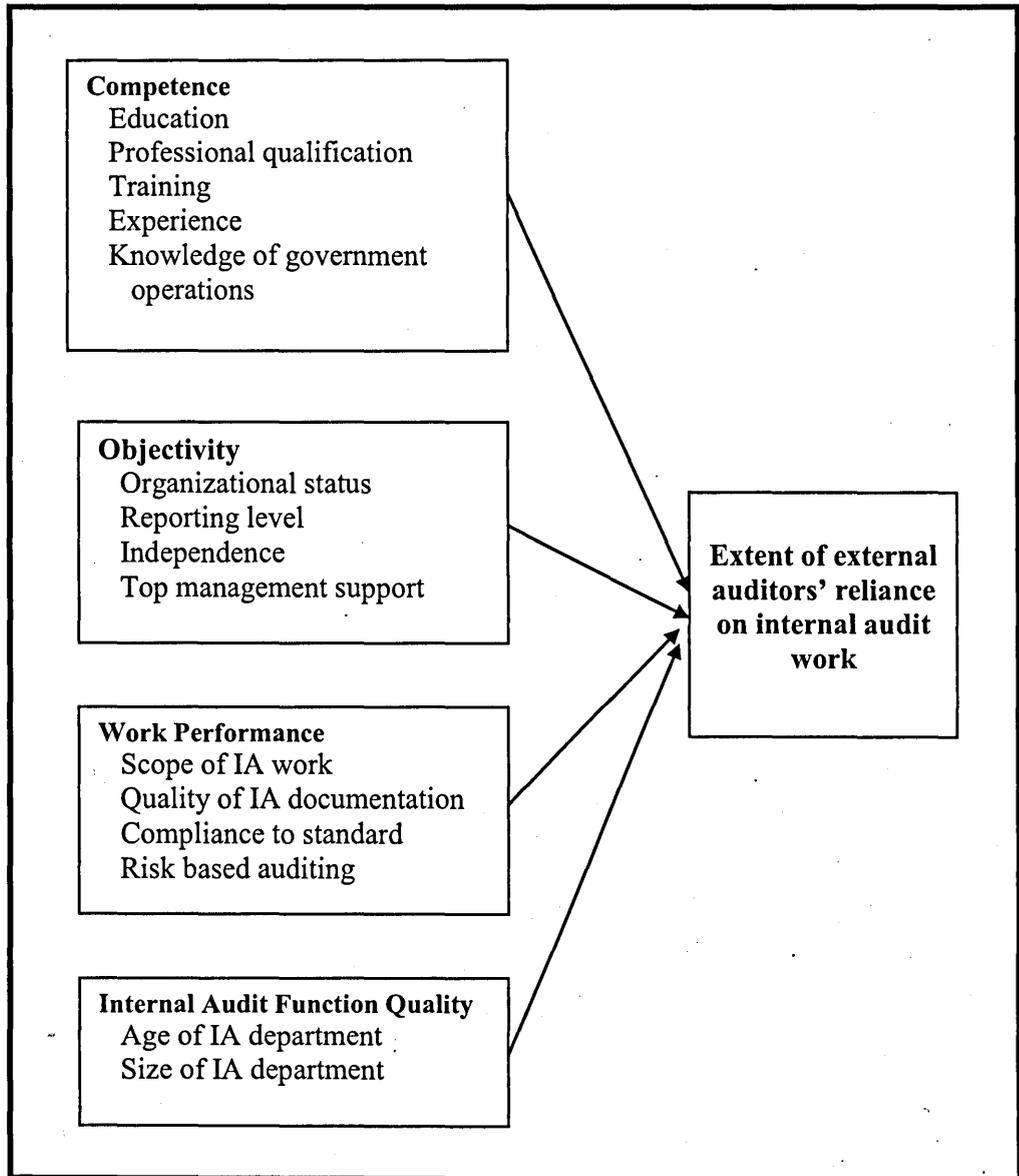
**Figure 4.1: The Conceptual Model for Model 1**



Model 2 as shown in Figure 4.2 focuses on the relationship between four sets of independent variables, namely competence, objectivity, work performance and quality of internal audit function, and external auditors' reliance on internal audit work. These independent variables are based on results of the previous studies as discussed in Chapter 3. In Model 2, fifteen variables categorised in four groups were used as a determinant of the external auditors' reliance on internal auditors' work as follows:

1. Competence: *education* (Schneider, 1984; Al-Twajjry et al, 2004), *professional qualification* (Brown, 1983; Al-Twajjry et al, 2004; Haron, 2004), *training* (Brown 1983; Schneider, 1984; Margheim, 1986; Haron, 2004), *experience* (Schneider, 1984; Schneider, 1985; Messier & Schneider, 1988; Maletta, 1993; Al-Twajjry et al, 2004), *knowledge of company operations* (Schneider, 1984; Clark et al.,1980; Gibbs and Schroeder, 1979).
2. Objectivity: *organisational status* (Schneider, 1984; Al-Twajjry et al, 2004), *reporting level* (Brown, 1983; Schneider, 1984; Schneider, 1985; Margheim, 1986; Maletta, 1993; Al-Twajjry et al, 2004 and Haron, 2004), *independence* ((Clark et al. 1980, 1981; Brown, 1983; Messier and Schneider, 1988), *top management support* (Schneider, 1984; Messier & Schneider, 1988).
3. Work performance: *scope of internal audit work* (Schneider, 1984; Schneider, 1985; Messier and Schneider, 1988; Al-Twajjry et al, 2004), *quality of internal audit documentation* (Schneider, 1984; Schneider, 1985; Schneider, 1985), *compliance with standards* (Al-Twajjry et al, 2004), *risk based auditing* (Messier and Schneider, 1988; Maletta, 1993).
4. Internal audit function quality: *age of internal audit department* (Al-Twajjry et al, 2004) and *size of internal audit department* (Al-Twajjry et al, 2004; Mazlina et al, 2006).

**Figure 4.2: The Conceptual Model for Model 2**



### 4.3 Research Propositions and Hypotheses

#### 4.3.1 Research propositions for Model 1 – Level of Co-operation

Eight constructs will be examined as possible influences on the level of co-operation between internal and external auditors. The possible influence of each of these constructs is discussed below. Model 1, as shown in Figure 4.1, is exploratory research and therefore a series of research propositions for each construct is presented, rather than a list of hypotheses. The propositions will be tested using Model 1 in the following equation.

Model 1:

$$\text{COOP} = b_0 + b_1\text{MEETING} + b_2\text{EAPLAN} + b_3\text{INTER} + b_4\text{NOTIFY} + b_5\text{TRAIN} \\ + b_6\text{COMM} + b_7\text{USEEXPERT} + b_8\text{TIMING} + e$$

Where:

- COOP = Level of co-operation between internal and external auditors
- MEETING = Regular meetings between internal and external auditors
- EAPLAN = Coordination in the preparation of external audit plans
- INTER = Interchange of reports by internal and external auditors
- NOTIFY = Notification of discovery of fraud and other significant events
- TRAIN = Co-operation in the training of internal and external auditors
- COMM = Communication of findings between internal and external auditors
- USEEXPERT = Use of internal auditors' expertise by external auditor
- TIMING = Coordination of the timing of internal and external auditors' work

$b_0 - b_8$  = Multiple regression coefficients

$e$  = Residual error term

The propositions relating to the relationship between each of the independent constructs in Model 1 and the level of co-operation between internal and external auditors are discussed below.

*1) Regular meetings between internal and external auditors*

Regular communication between internal and external auditors is likely to be essential for successful co-operation. Formal communication can include regular meetings, particularly to look at future plans and to identify opportunities for co-operation. It is believed that regular meetings can help to increase the level of co-operation between internal and external auditors. Through regular meetings, internal and external auditors may be able to share information and discuss issues relevant to their work. By having regular meetings, internal and external auditors may increase the two-way communication between them. Thus:

P1: If the internal and external auditors meet regularly, the level of co-operation between them increases.

*2) Coordination in the preparation of external audit plans*

When preparing their external audit plans, external auditors should coordinate their activities with internal auditors. This will enable the internal auditors to focus on important areas in the scope of their work and to avoid the duplication of work with external auditors. By coordinating the preparation of external audit

plans, it is likely that the internal auditors need to discuss their audit plan with the external auditors, which leads to an increase in their co-operation. Thus:

P2: If the internal and external auditors coordinate their activities when preparing the external audit plan, the level of co-operation between them increases.

### *3) Interchange of reports by internal and external auditors*

Internal audit reports should be distributed to the external auditors, as they constitute an important means of keeping external auditors informed of internal auditors' findings and activities. At the same time, external auditors should also provide their audit reports to the internal auditors. Exchanging reports between internal and external auditors not only keeps both the internal and external auditors informed of their findings and activities, but also promotes a closer relationship between them. It is likely that the exchange of internal and external audit reports leads to an increase the level of co-operation between them. Thus:

P3: If the internal and external auditors interchange their reports, the level of co-operation between them increases.

### *4) Notification of the discovery of fraud and other significant events*

Internal and external auditors both have an interest in the prevention and detection of fraud in an organisation. In this respect, internal auditors have a wider role than the external auditors (Moeller, 2005). Being inside the organisation, the internal auditors may have a better chance to detect fraud or

other significant events. The external auditors are concerned with assessing the risk that fraud may cause a material misstatement in the financial statements. It is believed that if the internal and external auditors inform each other about any findings of fraud or other significant events, they will co-operate more in implementing their work. Thus:

P4: If the internal and external auditors inform each other of the discovery of fraud and other significant events, the level of co-operation between them increases.

*5) Co-operation in the training of internal and external auditors*

Both the internal and external auditors have training capabilities that are useful for both parties. For instance, external auditors have a wider experience in terms of auditing different organisations, and may conduct different types of training relating to the audit of different types of organisations. On the other hand, internal auditors may conduct training sessions which are unique to their particular organisation. Through conducting joint training sessions, internal and external auditors may develop a closer relationship, which may lead to better co-operation between them. Thus:

P5: If there is co-operation in the training of internal and external auditors, the level of co-operation between them increases.

*6) Communication of findings between internal and external auditors*

Both internal and external auditors develop findings and recommendations relating to the organisation under review. Given this, they should be interested in each other's work. For instance, the internal auditors may discover some information about an item in the financial statements which may be important for the external auditors' work. In this case, it is likely that the level of co-operation between internal and external auditors increases if the internal and external auditors communicate the findings of their work to each other. Thus:

P6: If there is communication of findings between internal and external auditors, the level of co-operation between them increases.

*7) Use of internal auditors' expertise by the external auditor*

A previous study by Peacock and Pelfrey (1989) found that the directors of internal audit departments perceived that a good relationship existed between internal and external auditors when they felt that external auditors fully utilised internal audit expertise. Internal auditors are likely to have more specific and in-depth knowledge about their organisation than the external auditors. In reviewing the external audit work, external auditors may need help from the internal auditors on certain matters with which the external auditors are not familiar. It is likely that the level of co-operation between internal and external auditors increases if the external auditors use the internal auditors' expertise. Thus:

P7: If the external auditor uses the internal auditors' expertise, the level of co-operation between them increases.

8) *Coordination of the timing of internal and external auditors' work*

ISA 610 states that external auditors need to consider the internal auditors' tentative plan for the period and to discuss it as early as possible when planning to use the work of the internal auditors. The internal auditors' work will be a factor in determining the nature, timing and extent of the external auditors' procedures; both the internal and external auditors need to agree in advance the timing of such work and the extent of the audit coverage. Thus:

P8: If there is coordination of the timing of internal and external auditors' work, the level of co-operation between them increases.

**4.3.2 Research Hypotheses for Model 2 – External Auditors' Reliance on Internal Audit Work**

For the factors that affect external auditors' reliance on internal auditors' work, fifteen variables have been identified from prior research. These variables are summarised into four categories as shown in Model 2 in Figure 4.1, which are: competence (education, professional qualifications, training, experience, knowledge); objectivity (organisational status, reporting level, independence, top management support); work performance (scope of internal audit work, quality of internal audit documentation, compliance with standards, risk-based auditing); and internal audit function quality (age and size of internal audit department).

The hypotheses will be tested using Model 2 in an equation as follows:

Model 2:

$$\begin{aligned} \text{RELIANCE} = & b_0 + b_1\text{EDU} + b_2\text{PROQUA} + b_3\text{TRAIN} + b_4\text{IAEXP} + b_5\text{KNWLG} + \\ & b_6\text{STATUS} + b_7\text{REPORTL} + b_8\text{INDEP} + b_9\text{SUPPORT} + b_{10}\text{SCOPE} + \\ & b_{11}\text{QUALITY} + b_{12}\text{COMPLY} + b_{13}\text{RISKAPPRCH} + b_{14}\text{AGE} + b_{15}\text{SIZE} \\ & + e \end{aligned}$$

Where:

RELIANCE = Extent of external auditors' reliance on internal audit work

EDU = Level of internal auditors' education

PROQUA = Internal auditors' professional qualifications

TRAIN = Internal auditors' training

IAEXP = Internal auditors' experience

KNWLG = Internal auditors' knowledge of the local authority

STATUS = Organisational status of the internal audit department

REPORTL = Internal auditors' reporting level

INDEP = Independence of the internal auditors

SUPPORT = Top management support for the internal audit function

SCOPE = Scope of internal audit work

QUALITY = Quality of internal audit documentation

COMPLY = Compliance with internal auditing standards

RISKAPPRCH = Internal auditors' adopting a risk-based audit approach

AGE = Number of years internal audit function has been established

SIZE = Number of staff in the internal audit function

$b_0 - b_{15}$  = Multiple regression coefficients

$e$  = Residual error term

The remainder of this section discusses the fifteen hypotheses relating to the various constructs and the extent to which external auditors rely on the work of internal auditors.

*1) Competence*

The concepts referred to in the following hypotheses in measuring competence are based on previous studies. For example, Gibbs and Schroeder (1979) used educational background and knowledge of a company's operations in evaluating competence. Brown (1983) measured competence based on internal audit training programs and professional qualifications. Schneider (1984) used educational background, training, internal auditor's experience, and knowledge of company's operations in evaluating competence.

The continued education and the professionalism of internal auditors are essential in ensuring the effectiveness of the internal audit function (Ferrier, 1990). Schneider's (1984) study reveals that external auditors viewed education and training as important factors when evaluating the internal audit function. A study by Brown (1983) provides evidence that professional qualifications and training are important factors in the evaluation of the internal audit function. Empirical findings by Al-Twaijry et al. (2004) show that external auditors believe that educational level and professional qualifications are important factors affecting the reliance decision. Thus, the related hypotheses are as follows:

H1: There is a positive relationship between the perception of the internal auditors' education level and the external auditors' reliance on internal auditors' work.

H2: There is a positive relationship between the perception of the internal auditors' professional qualifications and the external auditors' reliance on internal auditors' work.

H3: There is a positive relationship between the perception of the internal auditors' training and the external auditors' reliance on internal auditors' work.

For hypotheses 1 and 2, educational background and professional qualifications are different constructs where educational background refers to formal education beginning from pre-school to university. Professional qualifications are generally awarded by professional bodies in line with their charters. Most, but not all, professional qualifications are 'Chartered' qualifications, and follow on from having completed a degree (or equivalent qualification). These two constructs are included based on previous studies by Brown (1983), Schneider (1984), Al-Twajry et al, (2004) and Haron (2004), as discussed in Chapter 3.

It is expected that an internal audit function with experienced staff will undertake duties more efficiently because they should be more competent and conversant in

discharging their responsibilities because of their work experience. Internal audit staff with prior experience and expertise in auditing are also expected to provide a more valuable input to improving the internal controls of the organisation (Brody et al., 1998). Al-Twajjry et al. (2004) reported that more than 50% of the external auditor respondents viewed the level of relevant experience of internal auditors to be a significant factor affecting their decision to rely on the internal auditors' work. Hence the fourth hypothesis is as follows:

H4: There is a positive relationship between the perception of the internal auditors' level of experience and the external auditors' reliance on internal auditors' work.

Schneider (1984) suggests that knowledge of a company's operations is an important factor affecting the external auditors' reliance on internal auditors' work. Knowledge of the company's activities and procedures is important for the internal auditors to assess the internal control and risk factors. Since this study is conducted in the local authority environment, internal auditors are expected to have more knowledge of their local authority than other staff of the local authority. Thus, a related hypothesis to be tested in this study is:

H5: There is a positive relationship between the perception of the internal auditors' knowledge of the local authority and the external auditors' reliance on internal auditors' work.

## 2) *Objectivity*

Various concepts stated in the hypotheses used to measure objectivity are based on previous research. Edge and Farley (1991) used internal auditors' organisational status in evaluating objectivity. Clark et al. (1980) and Messier and Schneider (1988) measured objectivity based on internal auditors' reporting level, internal auditors' independence, and top management support.

An internal audit function with a high profile in an organisation is one of the important factors that contribute to the success of internal auditing. Stocks et al. (1988) found that the ranking of all of the directors of internal audit departments is consistently one level below, equal to, or one level above the corporate controller. This shows that the internal audit function often has a high status in organisations. Empirical findings by Al-Twaijry et al. (2004) suggest that internal auditors' organisational status is an important factor affecting the external auditors' reliance on internal auditors' work. Thus, a related hypothesis to be tested in this study is:

H6: There is a positive relationship between the perception of the internal auditors' organisational status and the external auditors' reliance on internal auditors' work.

Brown (1983) examined the effect of competence, objectivity and work performance on external auditors' evaluation in relation to the reliability of the internal audit function. Brown's (1983) results indicate that the organisational

level to which internal auditors report was the primary factor that influences external auditors' judgement on the reliance on internal audit work. Furthermore, Abdel-khalik et al. (1983) suggest that the level to which the internal audit staff report is the most significant factor in determining the reliance by external auditors on the internal auditors. It is more likely that the higher the position of the internal audit function reports, the more influence internal auditors have in doing their work. Thus, a related hypothesis to be tested in this study is:

H7: There is a positive relationship between the perception of the internal auditors' reporting level and the external auditors' reliance on internal auditors' work.

The independence of the internal audit function has been identified by the Institute of Internal Auditors, the AICPA, and CIPFA as crucial to the viability of the internal audit function. Brown (1983) highlighted that independence is one of the most important factors judged by external auditors when evaluating the reliability of an internal audit function. Al-Twajjry et al. (2004), suggest that external auditors believe internal auditors' independence is an important factor affecting the reliance decision. Thus, a related hypothesis to be tested in this study is:

H8: There is a positive relationship between the perception of the internal auditors' independence and the external auditors' reliance on internal auditors' work.

Professional internal audit standards and academic observers emphasise that internal audit is a management tool intended to aid senior management. As such it is a tool of internal accountability. In order for the internal audit function to be effective, the support and active involvement of senior management is critical. The Canadian government's internal audit policies have long recognized the importance of strong senior management support for internal audit. A report by the Auditor General of Canada in 1993 stated that probably no single factor is more important for effective internal audit than the attitude and expectations of the heads of departments. Similarly, their study of best practices in other organisations stressed that strong support from senior management is an essential precondition to an effective internal audit function. Moreover, Goodwin (2004) suggests that internal audit needs a higher profile and greater management support than presently exists. Thus, a related hypothesis to be tested in this study is:

H9: There is a positive relationship between the perception of top management support in the local authorities for the internal audit function and the external auditors' reliance on internal auditors' work.

### 3) *Work performance*

Messier and Schneider (1988) measured work performance based on the scope of internal audit work, quality of internal audit documentation, and nature of internal audit techniques. Al-Twajjry et al. (2004) used the scope of internal audit

work, quality of internal audit documentation, and compliance with internal auditing standards in measuring work performance.

Schneider's (1985b) study on the extent to which the external auditors rely on the internal audit function provides evidence about the scope of internal audit work being an important factor in external auditors relying on internal auditors' work. Further, Al-Twaijry et al. (2004) also suggest that external auditors believe the scope of internal audit work is an important factor affecting the reliance decision. Thus, a related hypothesis to be tested in this study is:

H10: There is a positive relationship between the perception of the scope of internal audit work and the external auditors' reliance on internal auditors' work.

To be effective, internal auditors are expected to produce good-quality documentation or working papers (Ferrier, 1990). It is also necessary to meet the standards set by their profession, such as the Institute of Internal Auditors. Al-Twaijry et al. (2004) suggest that external auditors believe that the quality of internal audit documentation is an important factor affecting the reliance decision. Schneider (1985) found that the quality of internal audit documentation was an important factor in relying on internal auditors' work. Thus, a related hypothesis to be tested in this study is:

H11: There is a positive relationship between the perception of the quality of internal audit documentation and the external auditors' reliance on internal auditors' work.

Al-Twajry et al. (2004) suggest that external auditors perceived internal auditors' compliance with internal auditing standards is an important factor affecting the reliance decision. Thus, a related hypothesis to be tested in this study is:

H12: There is a positive relationship between the perception of the internal auditors' compliance with internal auditing standards and the external auditors' reliance on internal auditors' work.

SAS No. 65 indicates that audit risk factors should be considered by external auditors in determining the contribution of internal audit to the financial statement audit. Maletta and Kida (1993) and Maletta (1993) found that inherent risk affects internal audit reliance decisions by interacting with factors related to internal audit. Consistent with the effects of inherent risk found by Libby et al. (1985), the Maletta and Kida (1993) and Maletta (1993) studies indicate that as inherent risk increases, certain internal audit factors will increase in importance. These findings are consistent with the premise that the nature of an individual's decision process changes with the importance of the decision.

To date, there has been no research that examines the use of a risk-based approach by the internal auditors as a factor affecting the external auditors' reliance decision. It is suggested that internal auditors use a risk-based audit approach in implementing their audit work (CIPFA, 2006). A risk-based audit approach focuses on understanding an organisation's activities and processes which lead to achieving its goals and objectives (Low, 2004). The risk-based approach has become a valued auditing standard and has been adopted by most external auditors (Moeller, 2005). The reason for it becoming so popular is that this audit approach helps the internal auditor to evaluate the level of risk to a particular area of the audit (Moeller, 2005). It is expected that external auditors are willing to rely on the internal auditors' work if the internal auditors adopt the risk-based approach in their audit work. Thus, it is hypothesized that:

H13: There is a positive relationship between the perception of the internal auditors' adopting risk-based auditing and the external auditors' reliance on internal auditors' work.

#### *4) Internal audit function quality*

In addition to the three internal audit function quality factors as discussed above (competence, objectivity and work performance), age and size of the internal audit function are used as proxies for the quality of internal audit function (Mat Zain, 2005, Al-Twaijry et al., 2004). A well-resourced internal audit function is important in order to meet the demands of the audit process. For instance, in a larger internal audit function there will be more staff, and it can be expected that

the scope of internal audit work covered would be greater than in a smaller sized internal audit function. The result of Mat Zain's (2005) study suggests that the larger the size of the internal audit unit, the greater the internal auditors' perception of their contribution to the external audit. Al-Twajjry et al.'s (2004) study reveals that the external auditors perceived the age and size of the internal audit function as important indicators of its quality. Thus, the appropriate hypotheses to be tested are:

H14: There is a positive relationship between the age of the internal audit function and the external auditors' reliance on internal auditors' work.

H15: There is a positive relationship between the size of the internal audit department and the external auditors' reliance on internal auditors' work.

The measure of size is based on a previous study where size is measured by the number of internal audit staff (Wallace, 1984 and Al-Twajjry et al., 2004). Most studies also define size in terms of number of employees (Chenhall, 2003).

#### **4.4 Conclusion**

This chapter has provided two models that were developed to answer research questions 2 and 3 of this study. Eight propositions and fifteen hypotheses were developed for testing Model 1 and 2 respectively based on the survey questionnaires. Having developed the propositions and hypotheses, the next chapter outlines the research methods employed to test the propositions and hypotheses and obtain further data to answer the research questions.

## **CHAPTER 5:**

### **RESEARCH METHODS**

#### **5.1 Introduction**

In Chapter 4, a research framework based upon two models was developed to study the relationship between internal and external auditors in the UK and Malaysian local authorities. This chapter describes the research methods developed to investigate the relationship between internal and external auditors in UK and Malaysian local authorities. The remainder of the chapter is organised in the following way: Section 5.2 provides details of the methods of data collection undertaken for the study; Section 5.3 focuses on the survey questionnaires by providing a description of the questionnaires' development and sampling frame, and the surveys conducted in the UK and Malaysia; Section 5.4 explains the interview-based approach adopted in the study; Section 5.5 offers a description of the methods that are used for data analysis in the study; and Section 5.6 concludes the chapter.

#### **5.2 Methods of Data Collection**

A mixed-method approach, using both quantitative and qualitative methods, was adopted in this study. Specifically, the methods used included using a questionnaire survey and conducting face-to-face interviews. Creswell and Plano Clark (2007) defined mixed-method as research which involves collecting and analyzing both quantitative and qualitative data. By this definition, quantitative

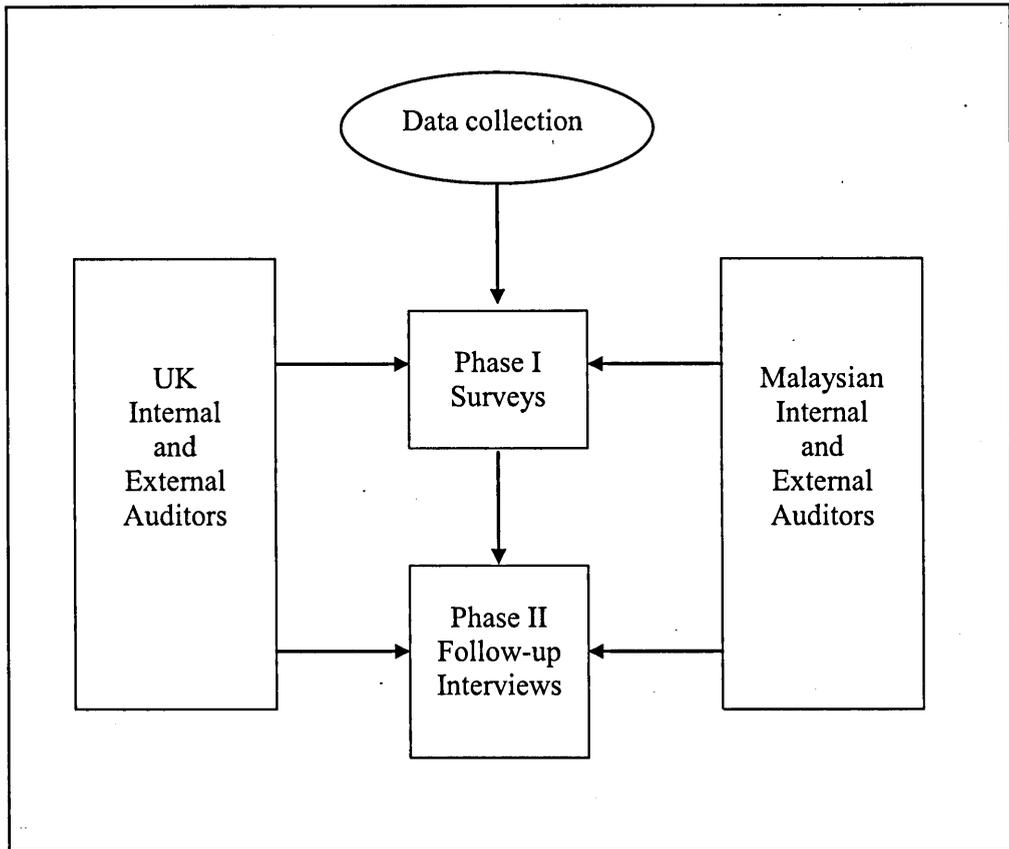
data includes close-ended information such as that found on attitude, behaviour, or performance instruments, and also information in documents such as census records or attendance records. The analysis of quantitative data consists of statistically analyzing scores collected on instruments, checklists, or public documents to answer research questions or to test hypotheses. Qualitative data consists of open-ended information that the researcher gathers through interviews with participants. The analysis of qualitative data typically follows the path of aggregating words into categories of information and presenting the diversity of ideas gathered during data collection.

Each type of data collection method has some biases associated with it. Qualitative methods have weaknesses such as the researcher unwittingly influencing the research subject, while quantitative methods - for example, the questionnaire survey - lack richness in the detail of the phenomenon being studied (Hoque and Hopper, 1997). The combination of both quantitative and qualitative approaches provides a better understanding of the research problems compared to adopting either approach alone. Mixed-method research has strengths that offset the weaknesses of both quantitative and qualitative methods (Creswell and Plano Clark, 2007). Collecting data through a mixed-method approach leads to greater rigour in the research findings (Sekaran, 2003). This mixed-method approach can avoid potential common variance biases and enhances the validity and reliability of the construct measures (Bisbe and Otley, 2004).

The rationale for the combination of these two methods is to obtain a quantitative result from the perceptions of internal and external auditors of English and Malaysian local authorities and then to follow this up with interviews with selected individual internal and external auditors to gain a fuller understanding of the questionnaire results.

Figure 5.1 summarises the methods of data collection employed in this study. In the first phase, quantitative research questions addressed the relationship between internal and external auditors from two different perspectives; that is, of the internal and external auditors. This phase examined the level of co-operation between internal and external auditors and the factors considered important for the external auditor to rely on internal audit work. In the second phase, qualitative interviews were used to follow up the results of the questionnaire surveys by asking why respondents gave particular responses to the survey questions. These interviewees were taken from those who had participated in the questionnaire surveys. Thus, the individuals in the second phase of data collection are a subset of the participants in the first phase. The purpose of the second phase is to help the analysis and understanding of the results of the first phase. The aim is also to provide an understanding of any significant factors affecting the relationship between internal and external auditors which may not be covered in the questionnaire surveys. The data collection method will be discussed in more detail in the next section.

**Figure 5.1: Method of Data Collection**



### **5.3 Phase I: Survey-based Approach**

#### **5.3.1 Survey Questionnaire**

The main objective of the questionnaire survey in this study was to obtain information regarding the relationship between internal and external auditors from the perspectives of both auditors. In order to achieve this, four versions of the questionnaire were used to gain responses from internal and external auditors of English and Malaysian local authorities.

### *English questionnaire*

Two versions of the questionnaire were designed to gain the perceptions of internal as well as external auditors. The first questionnaire was sent to the Heads of Internal Audit in English local authorities. They were asked to provide their views on the level of co-operation between internal and external auditors and the factors that they considered important for the external auditor to rely on their work. The second version of the questionnaire was distributed to the external auditors of English local authorities. This was designed to obtain their views on the level of co-operation between external and internal auditors and the factors that affected their reliance on internal audit work.

The development of the questionnaires involved a review of past literature with the objective of identifying and constructing appropriate questions to measure the constructs in the study described in Chapter 4. Both of the questionnaires were developed based on adaptations from the questionnaires used in Al-Twaijry et al. (2004), Haron et al. (2004), Felix et al. (2001), Margheim (1986) and Schneider (1985b) studies. The design of the questionnaire also involved a series of meetings and discussions between the researcher and her supervisors in order to clarify the questions asked.

The two versions of the questionnaire were pilot tested. The objective of the pilot test was to inform and enhance the design of the final questionnaire to be used in the survey. The pilot test took place between June and August 2007.

Questionnaires were sent to three internal auditors and to two external auditors of English local authorities in the Yorkshire and Humber region in June 2007. One internal auditor and one external auditor responded. Later, in July and August, the researcher conducted separate pilot interviews with these internal and external auditors. The results of the pilot test appeared to be somewhat satisfactory but minor changes were made to clarify the questions.

The first questionnaire (refer to Appendix 1) was designed for internal auditors and consisted of four sections, which are each described below. Section A of the questionnaire was concerned with assessing the internal audit quality with regard to competence, objectivity and work performance (Q1 – Q16). These questions required respondents to give their perceptions on education (Q1), professional qualifications (Q2, Q3, Q4), training (Q5), knowledge (Q15), organizational status (Q16), reporting level (Q6), independence (Q7), top management support (Q8, Q9, Q10), scope of internal audit work (Q13), quality of internal audit documentation (Q12), compliance to standards (Q11), and risk-based auditing (Q14).

Section B of the questionnaire was related to the respondents' perception of the level of co-operation between internal and external auditors (Q17 – Q32). Questions from Section C were related to the extent of reliance on internal audit work by external auditors (Q33, Q34). In this section, the respondents were also asked to give views about whether the external auditors' reliance on internal

audit work would reduce external audit fees (Q35, Q36), and external audit work (Q37, Q38).

Finally, Section D required respondents to provide general information about themselves and their local authority. For instance, the respondents were asked to provide information regarding the number of years since the establishment of the internal audit function (Q39) and the number of staff in that function (Q40). Further, the respondents were asked to give information regarding their work experience (Q41 – Q44), their highest education level (Q45) and their professional qualifications (Q46).

On the last page of the questionnaire, respondents were offered the opportunity to give comments regarding the relationship between internal and external auditors in local authorities. Respondents were also offered the option to tick boxes to indicate whether they were willing to take part in a face-to-face interview at the second stage of the study and wished to receive a complimentary copy of the research findings.

The second questionnaire (refer to Appendix 2) was designed for external auditors. This questionnaire also consisted of four sections. Questions in Section A were about the perceptions of respondents as to the level of co-operation between internal and external auditors (Q1 – Q16) and were similar to Section B of the questionnaire designed for internal auditors. Section B (Q17 – Q23) of this

questionnaire was similar to Section C of the internal auditors' questionnaire. Most of the questions in Section C (Q24 – Q44) of this questionnaire were the same as Section A in the internal auditors' questionnaire, which were related to the factors affecting the extent of reliance on internal auditors' work.

Section D required respondents to provide general information about themselves. In this section, respondents were asked to provide information about their work experience in local authorities (Q45), the number of years they had been working as an external auditor (Q46), any work experience as an internal auditor (Q47), their highest education level (Q48) and their professional qualifications (Q49). The last page of the questionnaire also offered respondents the opportunity to give comments regarding the relationship between internal and external auditors in local authorities and to indicate their willingness to take part in a face-to-face interview in the second stage of the study. An option to receive a complimentary copy of the research findings was also provided.

#### *Malaysian questionnaire*

Both of these questionnaires were used for the Malaysian study with some modifications. Modifications were made to suit the Malaysian environment relating to professional qualifications (Q2, Q3, Q46 in the internal audit questionnaire, and Q25 and Q49 in the external audit questionnaire), and the regulation of internal audit in local authorities (Q11 in the internal audit questionnaire and Q40 in the external audit questionnaire).

Before the questionnaires could be used on internal and external auditors in Malaysia, they were translated to Bahasa Malaysia (the Malaysian language). Although research in Malaysia can be conducted in English (Chan and Pearson, 2002; Lee and Koh, 2002), it was considered that translation to Bahasa Malaysia was beneficial because all government bodies use Bahasa Malaysia as a medium of communication and as the official language. For this purpose, the researcher translated the questionnaires that were prepared in English for the UK study into Bahasa Malaysia. The Bahasa Malaysia version was further checked by a university lecturer at University Utara Malaysia, who is competent in both languages, to ensure the Bahasa Malaysia version of the questionnaire was equivalent to the original English version. Both (internal and external) questionnaires used in the Malaysian study are provided in Appendices 3 and 4 respectively.

### **5.3.2 Population/Sample for the Study**

The subjects of this study consist of four groups of respondents, namely, internal auditors and external auditors in England and Malaysia.

#### *English Internal Auditors*

All local authorities in England form the population for this study. There are 388 local authorities in England divided into five categories: county councils; unitary councils; metropolitan councils; London boroughs; and district councils (see Chapter 2). A list of all local authorities in England is provided in Appendix 5.

### *Malaysian Internal Auditors*

As discussed in Chapter 2, there are 143 Malaysian local authorities, which can be divided into three categories: city councils, municipal councils; and district councils. However, only 28 of the total local authorities in Malaysia have an internal audit function. Therefore, the Heads of Internal Audit in these 28 Malaysian local authorities are the population for the Malaysian study. A list of the 28 local authorities that have an internal audit function is provided in Table 2.4, Chapter 2.

### *English External Auditors*

All external auditors of local authorities form the population of this study. District auditors are the independent statutory officers who take independent personal authority for the audit of the accounts of all local authorities (Henley et. al., 1989). Based on the Directory of Principal Audit Appointments 2007/08 Audit Year, England, issued by the Audit Commission via their website ([www.audit-commission.gov.uk](http://www.audit-commission.gov.uk)), there are 143 external auditors comprising of district auditors and private audit firms who act as appointed auditors for the local authorities. Therefore, a total of 143 appointed auditors for local authorities form the population for the study of external auditors in the UK: these are listed in Appendix 6.

### *Malaysian External Auditors*

In Malaysia, auditors from the National Audit Office are responsible for auditing local authorities' financial statements. All directors of the National Audit Office form the population of the Malaysian study. A list of external auditors for Malaysian local authorities is provided in Appendix 7.

### **5.3.3 English Data Collection**

Two different surveys of internal and external auditors on the perceptions of the relationship between internal and external auditors were carried out in early November 2007. A total of 387 of the first version of the questionnaire, including a covering letter and a reply-paid pre-addressed envelope, were mailed to the Heads of Internal Audit in each of the UK local authorities (excluding the one local authority used in the pilot test). Another 142 questionnaires were mailed to all the appointed external auditors of the local authorities (excluding the one external auditor used in the pilot test). The covering letter introduced the researcher, explained the objectives of the study, and stressed the confidentiality of their responses (refer to Appendices 8 and 9 respectively).

Follow-up letters or e-mails were used in order to achieve a high response rate. The follow-up letters to the Heads of Internal Audit were sent four weeks after sending out the questionnaire. Two follow-up letters were sent to the appointed auditors (external auditors) via e-mail because their e-mail addresses were

available via the Audit Commission's website. The first follow-up letters were sent two weeks after sending the questionnaires to the external auditors, and the second follow-up letters two weeks later. Survey data collection was completed in early January 2008 when the last questionnaire was received.

In order to test for potential non-response bias, a t-test analysis was conducted for all variables used for Model 1 and 2, to test for any differences between the first mailing and those received after the follow-up letter was sent. No significant differences were found ( $p > 0.05$ ) between early and late response, suggesting that non-response bias is not a problem.

#### *Response rate*

Table 5.1 depicts the description and response rate for the sample in both the internal and external audit survey. Out of the 387 questionnaires distributed to the Heads of Internal Audit in local authorities of England, a total of 177 questionnaires were returned, yielding a response rate of 45.7%. The analysis for the internal audit survey was based on the 170 useable questionnaires (useable response rate = 43.9%) returned by early January 2008. In total 69 questionnaires were returned from 142 questionnaires sent out to external auditors, yielding a response rate of 48.6%. After excluding five unusable questionnaires, 64 questionnaires were used for the analysis (useable response rate = 45.0%).

**Table 5.1: Sample Description and Response Rate**

INTERNAL AUDIT SURVEY	Sample	Usable Response Rate
Total number of questionnaires distributed	387	100.00%
Total number of questionnaires received from respondents	177	45.74%
Less:		
Local authorities that outsourced their IA function	(5)	
Head of IA had retired	(1)	
Unable to respond	(1)	
Total useable questionnaires	170	43.93%
EXTERNAL AUDIT SURVEY		
Total number of questionnaires distributed	142	100.00%
Total number of questionnaires received from respondents	69	48.59%
Less:		
External auditor retired	(1)	
No longer appointed as external auditor for local authority	(4)	
Total useable questionnaires	64	45.07%

#### 5.3.4 Malaysian Data Collection

Similarly, two different versions of the questionnaire were used for the Malaysian data collection, which was carried out in March 2008. A total of 28 questionnaires, including a covering letter (refer to Appendix 10) and a reply-paid pre-addressed envelope, was mailed to the Mayor (for City Halls and City Councils) and the Chairman (for Municipal Councils) of Malaysian local authorities. The purpose of the covering letter was to obtain the permission of this senior person to use the Head of the Internal Audit Department as a respondent to the study. If permission was granted, the Mayor or the Chairman

was requested to pass on the questionnaire and the reply-paid pre-addressed envelope to the Head of the Internal Audit. Another 11 sets of the questionnaire, including a covering letter (refer to Appendix 11) and a reply-paid pre-addressed envelope, were sent to the Directors of the National Audit Department (external auditors) of local authorities.

A week after sending out the questionnaires, the researcher made contact by telephone with all the Heads of Internal Audit. The contact details of the Heads of Internal Audit were obtained from the local authorities' websites. All Heads of Internal Audit were willing to co-operate and give full support in terms of getting materials and information to the researcher. All of the questionnaires were returned within 14 working days. The researcher also made contact by telephone with all the Directors of the National Audit Department in order to get cooperation from the external auditors.

#### *Response rate*

Twenty-eight questionnaires were distributed to local authorities in Malaysia with an internal audit function in March 2008 and all were returned, yielding a response rate of 100%. For the external auditors, 11 questionnaires were distributed and all of them were returned, yielding a response rate of 100%.

## **5.4 Phase II: Interview-based approach**

In the second stage, a series of semi-structured interviews was conducted with internal and external auditors. The advantage of a semi-structured interview, in comparison to a questionnaire survey, is that it is possible for the discussion to range more widely and in-depth in relation to different topics of interest. During this type of interview, there are opportunities to ask for clarification of views expressed and to increase the understanding of how interviewees conceptualise and prioritise related issues (Sekaran, 2003).

The semi-structured interview-based approach was conducted through face-to-face interviews. These follow-up interviews were carried out mainly to obtain clarification of the issues raised in the survey questionnaire. Creswell and Plano Clark (2007) recommend that in an Explanatory Design with follow-up interviews, the same individuals should be included in both sets of data collection. The intent of this design is to use qualitative data to provide a fuller understanding of the quantitative results. It also aims to select participants that can best provide this understanding. The Explanatory Design was only carried out in England, while a triangulation design was carried out in Malaysia.

### **5.4.1 English Interviews**

A sub-sample for the interview was chosen based upon those participants who had indicated in the questionnaire that they would be interested in participating in an interview. From the returned survey questionnaires in the UK study, 50 of the

internal auditors of the local authorities and 13 external auditors were willing to take part in a face-to-face interview. Owing to time and cost constraints, the sample for interviews was limited to a local regional area within a single day travel arrangements. Thirty internal auditors and ten external auditors were then contacted by e-mail to set up an appointment for an interview. Eight internal auditors and six external auditors agreed to be interviewed. The interviews took place between July and September 2009. They were conducted at the offices of the internal or external auditors and each interview lasted for approximately one to one-and-a-half hours. Each interview was taped-recorded and notes were also taken by the researcher. These interviews were organised a long time after the questionnaires were sent out; this allowed the interviews to be held after the questionnaires had been analysed, and hence an explanatory research design conducted.

#### **5.4.2 Malaysian Interviews**

One week after the Malaysian survey questionnaires were received, the researcher contacted each selected respondent by telephone asking if they would be interested in participating in a follow-up interview. Participants were selected based on a convenience sample. During the telephone conversation, the researcher explained that the objective of the research interview was to gain more information and understanding of the responses from the survey questionnaires. Seven of the internal auditors and four of the external auditors agreed to be interviewed.

Interviews were conducted in Bahasa Malaysia in order to provide freedom of expression and to develop active participation by the interviewees. All interviews were organised one week prior to the interview date. One day before the interview date, the researcher contacted the participants to confirm that the interviews would take place. There were two cases where the interviews were cancelled due to participants having other urgent meetings. The face-to-face interviews took place in April and May 2008. The interviews lasted for between one-and-a-half and two hours. All interviews were taped-recorded and notes were also taken by the researcher. As these interviews took place not long after the questionnaires had been sent out and before they had been analysed, the research design is a triangulation research design.

## **5.5 Methods of Data Analysis**

The data analysis for this study involved both quantitative data analysis and qualitative data analysis. In order to test the hypotheses developed in Chapter 4, quantitative data analysis was conducted using descriptive analysis, factor analysis, correlation analysis, multiple regression analysis and ordinal regression analysis. This was done for Model 1, which relates to the factors influencing the level of co-operation between internal and external auditors (research question two), and Model 2, which relates to the factors influencing the external auditors' reliance on internal audit work (research question three). Multiple regression analysis was used to identify the factors influencing the dependent variable in each model. The data analysis was done separately for the internal and external

auditors' questionnaire surveys because of the different phrasing used in similar questions in each of the questionnaires, and the fact that the two samples may not be independent, as there is a possibility that one of the external auditors sampled may conduct the audit of the local authority of one of the internal auditors sampled.

### ***Quantitative Data Analysis***

#### **5.5.1 Descriptive Analysis**

The aim of descriptive analysis is to present the distribution of the variables used in the models. This type of analysis is useful to support and to clarify the results of the multivariate analysis. A descriptive analysis was used to identify the level of co-operation between internal and external auditors of the local authorities in England and Malaysia (research question one). Descriptive statistics were obtained using the SPSS statistical package.

#### **5.5.2 Validity Tests**

Discriminant validity is used to test the construct validity. This refers to testing to confirm that two constructs are different. This can be confirmed when two constructs are shown to be uncorrelated, and can be established through factor analysis and correlation coefficients between constructs. Factor analysis and correlational analysis are discussed in more detail below.

### *Factor Analysis*

The purpose of factor analysis is to discover simple patterns in the relationships among the constructs. The basic assumption of factor analysis is that underlying dimensions or factors can be used to explain phenomena. The observed correlations between variables result from their sharing these factors. Tests of Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity are used to confirm the appropriateness of applying factor analysis, namely, when the KMO is 0.6 or above and Bartlett's Test of Sphericity value is significant ( $p < 0.05$ ) (Pallant, 2007). A factor analysis based on a principal components analysis with a varimax rotation is used to determine the discriminant validity of the two constructs that are measured by more than one item.<sup>6</sup> If the items being measured load on to a single factor, this means that these items are measuring the same construct.

For model 1, the two constructs that need to be tested for discriminant validity are the perceptions of communication (COMM) and training (TRAIN). COMM and TRAIN are measured by two and three items respectively.

### *Correlational Analysis*

Correlational analysis is used to explore the relationship between two constructs, in this case pairs of independent constructs, and an independent construct and the dependent construct in the research model. A low correlation coefficient between a pair of independent constructs is indicative of the fact that they measure distinct constructs. Correlation analysis is also used in multiple regression analysis to

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<sup>6</sup> A varimax rotation is used because the factors are assumed to be unrelated.

examine the relationship between independent variables in order to check for the existence of multicollinearity problems in multiple regression analysis. In addition, a relatively high correlation between an independent and a dependent construct in a research model is indicative of these two constructs being related.

### **5.5.3 Multiple Regression Analysis**

The objective of multiple regression analysis is to assess the influence of two or more independent constructs on a single dependent construct (Hair et al., 1998). Data analysis for testing the propositions for Model 1 and the hypotheses in Model 2 in this study is based on a multiple regression analysis, and the dependent construct in both models is scaled on a 5-point Likert scale. It is appropriate to apply parametric tests of multiple regression analysis because the Likert-scaled data can be treated as interval scaled data (Bohrstedt and Carter, 1971; Lyons (1971); Labovitz, 1967, 1970). However, there are some assumptions underlying the multiple regression model that need to be verified in order to check whether errors in predictions are caused by data characteristics that are not appropriate for multiple regression analysis. These assumptions are: that the residuals should be normally distributed; a linear relationship should exist between the dependent and independent constructs; a homoscedastic relationship should exist between the residuals; and there should be non-existence of multicollinearity and outliers. The underlying assumptions are discussed below in more detail.

(a) Normal distribution of residuals

The assumption of a normal distribution means that the residuals in the multiple regression model are a random normal distribution with a mean of zero. In this study, the normal probability plot is used to analyse normality of the residuals from the multiple regression analysis. Hair et al. (1998) believe that normal probability plot is a more reliable approach than histograms (a graphical display of frequencies shown as bars) in analysing the normality assumption. A straight line in the normal probability plot shows that the residuals from the multiple regression represent a normal distribution.

(b) Linearity

The assumption of linearity means that the relationship between the dependent variable and each of the independent variables in a multiple regression analysis lies along a straight line (Field, 2005). In determining linearity, the scatterplots between the dependent and independent constructs should resemble a linear relationship.

(c) Homoscedasticity

In regression analysis, homoscedasticity is an assumption that the residuals at each level of the predictor variable(s) have the same variance. The scatterplot of \*ZRESID (y-axis) against \*ZPRED (x-axis) is used to confirm the homoscedasticity of the data. \*ZRESID is the standardised residuals, or error where these values are the standardised differences between the observed data

and the values that the model predicts, and \*ZPRED refers to the standardised predicted values of the dependent variable based on the model (Field, 2005). Homoscedasticity is confirmed when there is no pattern in this scatterplot. According to Hair et al. (1998) this scatterplot is the most appropriate method to examine homoscedasticity.

#### (d) Multicollinearity

There should not be a perfect linear relationship between two or more of the independent variables in a multiple regression analysis. This means the independent variables should not be highly correlated. The violation of this assumption means that multicollinearity exists, which would make it difficult to estimate the effect of an independent variable on a dependent variable (Field, 2005). One way of identifying multicollinearity is to scan a correlation matrix of all of the independent variables and see if any of them are highly correlated. According to Pallant (2004), a high correlation (more than 0.90) means that multicollinearity is a problem, while Hair et al. (1998) suggest that the maximum value is 0.80. In addition, its existence can be tested by calculating the Variance Inflation Factors (VIFs) for each independent construct included in a multiple regression analysis. The VIFs indicate whether an independent variable has a strong linear relationship with the other independent variable(s). A VIF of 10 or more indicates serious multicollinearity.

#### (e) Outliers

A case which differs significantly from the main pattern of the data is an outlier (Field, 2005). Outliers may affect the values of the estimated regression coefficients causing the multiple regression results to be biased. In this study, outliers were detected from the scatterplot of the standardised residuals. Cases that have a standardised residual of more than 3.3 or less than -3.3 were identified as outliers (Tabachnick and Fidell, 2007). Outliers for the variables were also detected by examining the casewise diagnostics table. Cases were considered as outliers when the standardised residual values above 3.0 or below -3.0 presented in the casewise diagnostics table (Field, 2005). In addition, an examination of the Mahalanobis and Cook's distances were used to identify the existence of outliers.

#### **5.5.4 Ordinal Regression Analysis**

Ordinal regression analysis is an extension of the general linear model to ordinally coded data. In this study, the ordinal regression analysis was done because the dependent construct in the multiple regression analysis is scaled on a 5-point Likert scale which, it could be argued, may not approximate an interval scale (see Wilson, 1971). Consequently, the results of the multiple regressions need to be confirmed by ordinal regression analysis. Ordinal regression is a statistical technique that is used to predict behaviour of dependent variables with a set of independent variables (Norusis, 2004). In ordinal regression, the

dependent variable is the order response category variable and the independent variable may be a categorical, interval or ratio scaled variable.

The ordinal regression models for a dependent construct defined as the level of co-operation between internal and external auditors (model 1) and the extent of external auditors' reliance on internal auditors' work (model 2) are shown below.

*The ordinal regression for Model 1- level of co-operation between internal and external auditors*

$$\ln(\theta_j) = \alpha_j - \beta_1\text{MEETING} - \beta_2\text{EAPLANG} - \beta_3\text{INTER} - \beta_4\text{NOTIFY} - \beta_5\text{TRAIN} - \beta_6\text{COMM} - \beta_7\text{USEEXPERT} - \beta_8\text{TIMING} + e$$

Where:

$\ln(\theta_j)$  = The link function that connects the independent constructs of the linear model.

In this case, it is the natural logarithm of  $\theta_j$ , where  $j$  is the number of the link function.

$\theta_j$  = The odds of an event occurring, that is  $P_k/(1 - P_k)$ , where:

$P_k$  = The cumulative probability of an event or events occurring, and

$1 - P_k$  = the cumulative probability of that event or events not occurring.

$\alpha_j$  = A constant term for each of the link functions.

$\beta_{1-8}$  = The ordinal regression coefficients.

MEETING = Regular meetings between internal and external auditors

- EAPLAN = Coordination in the preparation of external audit plans
- INTER = Interchange of reports by internal and external auditors
- NOTIFY = Notification of discovery of frauds and other significant events
- TRAIN = Co-operation in the training of internal and external auditors
- COMM = Communication of findings between internal and external auditors
- USEEXPERT = Use of internal auditors' expertise by external auditor
- TIMING = Coordination of the timing of internal and external auditors' work
- e = Residual error term.

*The ordinal regression for Model 2 - Extent of external auditor's reliance on internal audit work*

$$\ln(\theta_j) = \alpha_j - \beta_1\text{EDU} - \beta_2\text{PROQUA} - \beta_3\text{TRAIN} - \beta_4\text{IAEXP} - \beta_5\text{KNWLG} - \beta_6\text{STATUS} - \beta_7\text{REPORTL} - \beta_8\text{INDEP} - \beta_9\text{SUPPORT} - \beta_{10}\text{SCOPE} - \beta_{11}\text{QUALITY} - \beta_{12}\text{COMPLY} - \beta_{13}\text{RISKAPPRCH} - \beta_{14}\text{AGE} - \beta_{15}\text{SIZE} + e$$

Where:

- $\beta_{1-15}$  = The ordinal regression coefficients.
- EDU = Level of internal auditors' education
- PROQUA = Internal auditors' professional qualifications
- TRAIN = Internal auditors' training
- IAEXP = Internal auditors' experience

KNWLG	=	Internal auditors' knowledge of the local authority
STATUS	=	Organisational status of the internal audit department
REPORTL	=	Internal auditors' reporting level
INDEP	=	Independence of the internal auditors
SUPPORT	=	Top management support for the internal audit function
SCOPE	=	Scope of internal audit work
QUALITY	=	Quality of internal audit documentation
COMPLY	=	Compliance with internal auditing standards
RISKAPPRCH	=	Internal auditors' adopting a risk-based audit approach
AGE	=	Number of years internal audit function has been established
SIZE	=	Number of staff in the internal audit function
e	=	Residual error term.

The model is written as subtracting the  $\beta$ s from the link function because of the form of the ordinal regression model. For example, in Model 2, although the level of internal auditors' education is assumed to be positively related to the extent of external auditors' reliance on internal audit work, the logit link is calculated so that it considers the log odds of reliance as very low (code = 1), low (code = 2), moderate (code = 3), high (code = 4) or very high (code = 5). As these are the smaller valued codes on the scale measuring the extent of reliance, the level of internal auditors' education would be expected to be related negatively to the log odds of each of these events occurring.

In applying the ordinal regression analysis, the model needs to satisfy two assumptions, namely, goodness-of-fit statistics and the test of parallel lines. If the numbers of empty cells are high, then the goodness-of-fit statistics for the ordinal regression equations are unreliable (Norusis, 2005). The number of empty cells between different values of the dependent construct and different values of the independent constructs, and the number of cells with small expected values on the points on the scales of each independent construct, need to be reduced in order to increase the reliability of these goodness-of-fit statistics. This can be achieved by rescaling the independent constructs to a smaller number of points on the scale (see e.g. Brierley, 2008a,b). Non-significant goodness-of-fit statistics indicate that the model provides a good fit of the data. The test of parallel lines is used to see if the two regression lines are parallel. This test compares the model assuming that the two lines are parallel with the model assuming separate lines. A non-significant chi-square statistic indicates that the two lines are parallel.

#### **5.5.5 Other Analysis**

Beside all the analyses mentioned above, analysis using a t-test and Mann-Whitney U test is also carried out in order to compare reliance decision for those who do or do not believe there is a reduction in fees or audit work with regards to the relationship between the extent of reliance and the external auditor reducing external audit fees and audit work (research question four).

## *Qualitative Data Analysis*

### **5.5.6 Content Analysis**

Based on previous studies such as Manning and Cullum-Swan (1998), Creswell (2003) and Creswell and Plano Clark (2007), the interview data were analysed using a procedure called content analysis. The process of content analysis is one of the formal procedures to clarify the meaning and interpret qualitative data using locating key themes, patterns and ideas within the data (Clark et al., 1998; Neuendorf, 2002). Statistical analysis was not conducted because the interview data obtained in this study were merely to clarify and further explain the survey responses. Furthermore, the small number of interview participants was insufficient to conduct statistical analysis.

### **5.6 Conclusion**

This chapter has explained the methods developed to investigate the relationship between internal and external auditors of English and of Malaysian local authorities. A questionnaire survey of English and Malaysian internal and external auditors in local authorities was designed and completed. A series of interviews with internal and external auditors was carried out in England and Malaysia. The survey data were analysed using statistical analysis through SPSS and interviews were analysed using content analysis. The findings from English and Malaysian surveys and interviews are discussed in Chapters 6 and 7.

## **CHAPTER 6:**

### **RESEARCH FINDINGS – ENGLAND**

#### **6.1 Introduction**

The objective of this chapter is to present the results of the questionnaire survey and the results of testing the propositions/hypotheses formulated for the study. This chapter also provides the results from the interviews which were used to clarify the issues raised from the results of the questionnaire survey. The data analysis is structured separately for the internal auditor and external auditor questionnaire surveys and interview findings. The chapter is divided into three parts. The chapter starts with the profile of the respondents used in the study. Part I then highlights the descriptive statistics which relate to all the variables involved in Model 1, the results of the analysis of the Pearson Product Moment Correlation statistics, and the results of the multiple regression and ordinal regression analysis for Model 1 (level of co-operation between internal and external auditors). In addition, the interview findings relating to the level of co-operation between internal and external auditors are reported. Part II presents the descriptive statistics which relate to all the variables involved in Model 2, results of the analysis of the Pearson Product Moment Correlation statistics, and the results of the multiple regression and binary logistic regression for Model 2 (reliance on internal auditors' work by external auditors). In addition, the interview findings relating to the reliance on the internal auditors' work are reported. Part III reports the results of t-tests, Mann-Whitney tests and Spearman

Rank Order Correlation statistics for the external auditors' reliance on internal audit's work, and reduction in external audit fees and external audit work. This is supplemented by the results of the interviews in relation to this issue. Finally the conclusions to the chapter are presented.

## **6.2 The Respondents' Background Statistics**

Background information relating to the internal and external auditors is shown in Tables 6.1 and 6.2 respectively. From Table 6.1, the majority of the internal audit functions in local authorities in England have been established for about 31 to 40 years (62.4%), and have less than six internal audit staff (65.3%). Respondents to the internal audit study may be characterised as mostly having less than 30 years' work experience (92.9%), with the highest education level of A-level or a Bachelor degree (86.3%). Ninety per cent of the internal auditors are members of a professional body and the majority of them (79.4%) are registered members of Chartered Institute of Public Finance and Accountancy (CIPFA) or the Institute of Internal Auditors (IIA).

Table 6.2 depicts the external auditors' background. The majority of the respondents (64.1%) hold a Bachelor's degree and 93.8% of them have been working for more than 10 years as external auditors. Sixty three out of 64 external auditors are members of a professional body, with the majority being registered members of CIPFA (60.9%).

**Table 6.1: Background Information of the Internal Auditors**

		Freq	%
Age of Internal Audit Function (useable n=170)	Up to 30 years	57	33.5
	31 to 40 years	106	62.4
	More than 40 years	7	4.1
	Total	170	100.0
No. of staff in internal audit function (useable n=167)	Up to 5	109	65.3
	6 to 10	27	16.2
	11 to 20	25	15.0
	More than 20	6	3.5
Total	167	100.0	
Education (useable n=167)	Doctoral degree	1	0.6
	Master degree	17	10.1
	Bachelor degree	69	41.3
	A-level or equiv	75	45.0
	GCSE or O-level	5	3.0
Total	167	100.0	
Work experience (useable n=169)	Up to 10 years	41	24.3
	11 to 20 years	70	41.4
	21 to 30 years	46	27.2
	More than 30 years	12	7.1
Total	169	100.0	
Professional membership (useable n=170)	Yes	155	90.0
	No	15	10.0
Total	170	100.0	
Type of professional body <sup>a</sup> (useable n=155)	ACCA	27	17.4
	CIMA	1	0.0
	CIPFA	75	47.6
	ICAEW	6	4.8
	ICAS	0	0.0
	IIA	46	31.8
	Others	0	0.0
Total	155	100.0	

Note: <sup>a</sup> ACCA = Association of Chartered Certified Accountants  
CIMA = Chartered Institute of Management Accountants  
CIPFA = Chartered Institute of Public Finance and Accountancy  
ICAEW = Institute of Chartered Accountants in England and Wales  
ICAS = Institute of Chartered Accountants of Scotland  
IIA = Institute of Internal Auditors

**Table 6.2: Background Information of the External Auditors**

		Freq	%
Education (useable n=64)	Doctoral degree	1	1.5
	Master degree	12	18.8
	Bachelor degree	41	64.1
	A-level or equiv	8	10.9
	GCSE or O-level	3	4.7
Total		64	100.0
Work experience (useable n=64)	Up to 10 years	4	6.2
	11 to 20 years	34	51.6
	21 to 30 years	18	28.1
	More than 30 years	9	14.1
Total		64	100.0
Professional membership (useable n=64)	Yes	63	98.5
	No	1	1.5
Total		64	100.0
Type of professional body <sup>a</sup> (useable n=64)	ACCA	12	18.8
	CIMA	0	0.0
	CIPFA	39	60.9
	ICAEW	13	20.3
	ICAS	0	0.0
	IIA	0	0.0
	Others	0	0.0
Total		64	100.0

Note: <sup>a</sup> ACCA = Association of Chartered Certified Accountants  
 CIMA = Chartered Institute of Management Accountants  
 CIPFA = Chartered Institute of Public Finance and Accountancy  
 ICAEW = Institute of Chartered Accountants in England and Wales  
 ICAS = Institute of Chartered Accountants of Scotland  
 IIA = Institute of Internal Auditors

## **PART 1 – Findings for Model 1**

### **6.3 Model Specification and Variables Measurement for Model 1 (Level of co-operation between internal and external auditors)**

Model 1 investigates the factors affecting co-operation between internal and external auditors. The model is used to test eight propositions as described in section 4.3, Chapter 4 and takes the following form:

$$\text{COOP} = b_0 + b_1\text{MEETING} + b_2\text{EAPLAN} + b_3\text{INTER} + b_4\text{NOTIFY} + b_5\text{TRAIN} \\ + b_6\text{COMM} + b_7\text{USEEXPERT} + b_8\text{TIMING} + e$$

Where:

COOP = Level of co-operation between internal and external auditors.

MEETING = Regular meetings between internal and external auditors.

EAPLAN = Coordination in the preparation of external audit plans.

INTER = Interchange of reports by internal and external auditors.

NOTIFY = Notification of the discovery of fraud and other significant events.

TRAIN = Co-operation in the training of internal and external auditors.

COMM = Communication of findings between internal and external auditors.

USEEXPERT = Use of internal auditors' expertise by external auditor.

TIMING = Coordination of the timing of internal and external auditors' work.

#### **6.4 Respondents to the study**

A total of 170 useable questionnaires was received from the internal audit survey and 64 useable questionnaires from the external audit survey. The number of useable questionnaires in this study is about the level that has been suggested by Coakes and Steed (2003) and Sekaran (2003) for conducting multiple regression analysis. According to Coakes and Steed (2003), in order to run a good multiple regression analysis, the number of respondents should be more than 20 times the number of variables in the study. They state that the minimum number of respondents should be five times the number of variables. Sekaran (2003) suggests that the number of respondents that is needed for regression analysis is 10 times the number of variables. In Model 1, eight independent variables are included in the model. In accordance with Sekaran's (2003) suggestion, the number of respondents should be at least 80 (8 independent variables x 10), while based on Coakes and Steed (2003) the number of respondents should be 160 (8 independent variables x 20) and minimum level of respondents is 40 (8 independent variables x 5). This means that the sample size for internal auditors (n = 170) in this study is enough and is suitable for regression analysis as suggested by Sekaran (2003) and Coakes and Steed (2003). For external auditors, the number of respondents (n = 64) is above the minimum level as highlighted by Coakes and Steed (2003), but below the level recommended by Sekaran (2003).

## **6.5 Descriptive Statistics for the Constructs in Model 1**

This section presents the descriptive statistics for each variable based on its mean, standard deviation, median, minimum and maximum for the total sample of 170 internal auditors and 64 external auditors for the dependent variable (COOP) and eight independent variables in Model 1.

Table 6.3 provides descriptive statistics of the variables used in Model 1 for the internal auditors. In relation to the dependent variable, the level of co-operation between internal and external auditors (COOP), the internal auditors report that their co-operation with the external auditors was more than the midpoint value of 3 on the five-point scale, with a mean of 3.610. A majority of the internal auditors agree that they communicate their findings to the external auditors, with a mean of 4.150. However, the mean of TRAIN was 1.998 and shows that, in general, the internal auditors do not provide training to external auditors and vice versa.

Table 6.4 provides descriptive statistics of the variables used in Model 1 for the external auditors. In relation to the dependent variable, the level of co-operation between external and internal auditors (COOP), the external auditors report that their co-operation with internal auditors is more than the midpoint value of 3 on the five-point scale, with a mean of 3.720. A majority of the external auditors agree that they meet regularly, they coordinate their audit plan with the internal auditors, they interchange their reports, and they notify the internal auditors of

the findings of significant events. However, the mean of TRAIN of 2.125 shows that the majority of the external auditors do not provide training to internal auditors, which is consistent with the results for the internal auditors shown in Table 6.3.

**Table 6.3: Descriptive Statistics for Internal Auditors**

Descriptive Statistics (n=170) <sup>a</sup>					
Variable	Mean	Standard Deviation	Median	Minimum Score	Maximum Score
COOP	3.610	0.815	4	2	5
MEETING	3.600	1.057	4	1	5
EAPLAN	3.480	1.142	4	1	5
INTER	3.340	1.142	4	1	5
NOTIFY	3.890	0.982	4	1	5
TIMING	3.630	1.014	4	1	5
EACOMM	3.180	1.143	3	1	5
IACOMM	4.150	0.767	4	1	5
USEEXPERT	3.730	0.978	4	1	5
TRAIN	1.998	0.879	2	1	4

<sup>a</sup> All constructs are scored on a 5-point Likert scale from a minimum possible score of 1 to a maximum score of 5.

**Table 6.4: Descriptive Statistics for External Auditors**

Descriptive Statistics (n=64) <sup>a</sup>					
Variable	Mean	Standard Deviation	Median	Minimum Score	Maximum Score
COOP	3.720	0.654	4	1	5
MEETING	4.050	0.825	4	2	5
EAPLAN	4.160	0.859	4	1	5
INTER	4.080	0.841	4	1	5
NOTIFY	4.060	0.906	4	2	5
TIMING	3.830	0.725	4	2	5
EACOMM	3.670	0.993	4	1	5
IACOMM	3.950	0.722	4	2	5
USEEXPERT	3.390	0.847	3	1	5
TRAIN	2.125	0.694	2	1	4

<sup>a</sup> All constructs are scored on a 5-point Likert scale from a minimum possible score of 1 to a maximum score of 5.

In addition to the descriptive statistics, a parametric test of an independent-samples t-test was used to compare the mean scores between internal and external auditors' perception on the variables in Table 6.3 and Table 6.4. The results of the t-test for the perceptions of COOP, MEETING, EAPLAN, INTER, NOTIFY, TIMING, EACOMM, IACOMM, USEEXPERT AND TRAIN between internal and external auditors are shown in Table 6.5.

**Table 6.5: T-test for Internal and External Auditors**

Variable		n	Mean	Sig. (2-tailed)
COOP	Internal auditor	170	3.61	.300
	External auditor	64	3.72	
MEETING	Internal auditor	170	3.60	.001
	External auditor	64	4.05	
EAPLAN	Internal auditor	170	3.48	.000
	External auditor	64	4.16	
INTER	Internal auditor	170	3.3.4	.000
	External auditor	64	4.08	
NOTIFY	Internal auditor	170	3.89	.218
	External auditor	64	4.06	
TIMING	Internal auditor	170	3.63	.153
	External auditor	64	3.83	
EACOMM	Internal auditor	170	3.18	.001
	External auditor	64	3.67	
IACOMM	Internal auditor	170	4.15	.081
	External auditor	64	3.95	
USEEXPERT	Internal auditor	170	3.73	.015
	External auditor	64	3.39	
TRAIN	Internal auditor	170	1.99	.250
	External auditor	64	2,12	

As the p value for MEETING, EAPLAN, INTER AND EACOMM is below the required cut-off of 0.05, it can be concluded that there are statistically significant difference in the mean internal auditors' and external auditors' perception of these four variables. This shows that external auditors agree more strongly than the external auditors that they meet regularly, they coordinate their audit plans, they interchange their reports, and they communicate their findings to the internal auditors.

#### 6.6 Co-operation between Internal and External Auditors

Table 6.6 shows the spread of the responses for the level of co-operation between internal and external auditors. It shows that the majority of internal auditors (78.8%) perceived the co-operation between them as moderate or high, while the majority of external auditors (67.2%) perceived the co-operation between them as high. All of the internal auditors observed that there was some co-operation between both auditors. Only one (1.6%) of the external auditors perceived that there was no co-operation with internal auditors.

**Table 6.6: Level of Co-operation between Internal and External Auditors**

	Internal Auditors (n=170)		External Auditors (n=64)	
	Freq	%	Freq	%
None	0	0.0	1	1.6
Low	14	8.2	2	3.1
Moderate	60	35.3	15	23.4
High	74	43.5	43	67.2
Very High	22	13.0	3	4.7
Total	170	100.0	64	100.0

## 6.7 Validity Tests

### 6.7.1 Factor Analysis

For Model 1, there are two constructs that need to be tested for their discriminant validity using factor analysis because they are measured by more than one item. These constructs are the perceptions of communication (COMM) and training (TRAIN), which are measured by two and three items respectively. The results of the factor analysis conducted using a principal components analysis with a varimax rotation and identifying significant factors as those with factor scores of greater than 0.4 and eigenvalues greater than 1.<sup>7</sup> Table 6.7 for internal auditors and Table 6.8 for external auditors reveal that all the items measures for training load on to a single factor, with 69.8% and 67.7% of the variance being explained respectively, while the two items measuring communication (COMM) load on to separate factors. Therefore, COMM is divided into two separate constructs, namely IACOMM (internal auditors communicate their findings to external auditors) and EACOMM (external auditors communicate their findings to internal auditors).

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<sup>7</sup> Tests of Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity are used to confirm the appropriateness of applying factor analysis. A value of KMO = 0.753 for internal auditors and KMO = 0.744 for external auditors means that the number of items in the construct (which is above 0.7) are reasonable and adequate. For the identity matrix test, Bartlett's Test of Sphericity is used whereby it examines whether the population correlation matrix resembles an identity matrix (i.e. all correlation coefficients are zero). The result shows that the two constructs for both internal and external auditors pass the identity matrix test with a significance level of  $p = 0.000$  ( $X^2 = 245.408$  for internal auditors and  $X^2 = 58.058$  for external auditors).

**Table 6.7: Rotated Component Matrix<sup>a</sup> for Internal Auditor<sup>b</sup>**

	TRAIN	IACOMM	EACOMM
Internal and external auditors co-operate in the training of internal audit staff.	0.882	0.166	0.166
Internal and external auditors co-operate in the training of external audit staff.	0.854	0.073	0.073
Internal and external auditors co-operate in the training of other staff in the local authority.	0.810	0.199	0.199
Internal auditors communicate their findings to external auditors.	0.389	0.487	0.389
External auditors communicate their findings to internal auditors.	0.027	0.027	0.929

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

<sup>a</sup> Rotation converged in 3 iterations.

<sup>b</sup> All significant factor loadings are greater than 0.400.

**Table 6.8: Rotated Component Matrix<sup>a</sup> for External Auditor<sup>b</sup>**

	TRAIN	IACOMM	EACOMM
External and internal auditors co-operate in the training of internal audit staff.	0.853	-0.027	-0.027
External and internal auditors co-operate in the training of external audit staff.	0.853	0.004	0.004
External and internal auditors co-operate in the training of other staff in the local authority.	0.824	0.207	0.207
Internal auditors communicate their findings to external auditors.	0.268	0.782	0.268
External auditors communicate their findings to internal auditors.	-0.116	-0.116	0.846

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

<sup>a</sup> Rotation converged in 3 iterations.

<sup>b</sup> All other factor loadings are greater than 0.400.

To assess the reliability of the TRAIN construct that is measured by these items, the internal consistency measure Cronbach's alpha is applied to the TRAIN construct. This shows a high alpha score of 0.824 for internal auditors and 0.778 for external auditors and it can be concluded that the scale is reliable and

consistent, since the Alpha scores are more than 0.70 (Coakes and Steed, 2003).

This test was done only for the constructs measured by two or more items.

### **6.7.2 Correlation Analysis**

Correlation analysis was used to examine the relationship between each of the independent constructs and the dependent construct, and between all of the independent constructs, in order to check for the existence of possible relationships with the dependent construct and for multicollinearity in the multiple regression analysis respectively. Tables 6.9 and 6.10 present the Pearson Product Moment Correlation Coefficient between the independent variables and the dependent variable in Model 1 for the internal and external auditors respectively. For the internal auditors, Table 6.9 highlights that all the independent constructs have a positive relationship as expected, and a significant correlation ( $p < 0.01$ ) with the level of co-operation. This indicates the possibility that all of the independent constructs could be related to the dependent construct in the multiple regression analysis. Table 6.10 presents the correlation coefficients between the independent variables and dependent variable for the external auditors. The table highlights that most of the independent constructs (MEETING, EAPLAN, NOTIFY, TIMING, EACOMM, IACOMM, and USEEXPERT) have a positive relationship, as expected, and significant correlation with the level of co-operation. This indicates that these constructs may be significantly related to the level of co-operation in the multiple regression analysis. The highest correlation coefficient between the

independent constructs for internal auditors is 0.646 between EAPLAN and TIMING. For external auditors, the highest correlation coefficient between the independent constructs is 0.620 between EAPLAN and EACOMM. There is no sign of multicollinearity because following Hair et al. (1998), all of the correlation coefficients between the independent constructs are less than 0.8. This confirms the discriminant validity of the independent constructs, in that all of the constructs appear to be independent.

## **6.8 The Propositions/Hypotheses Testing**

In order to test the propositions/hypotheses developed in Chapter 4, two types of regression analysis are used for both the internal and external auditors' data. First, standard multiple regression analysis is used to test the relationship simultaneously and second, ordinal regression analysis is used to confirm the robustness of the multiple regression results. That is, non-parametric ordinal regression analysis is used to confirm the results of the parametric multiple regression analysis because the dependent variables in Models 1 and 2 are measured on a five-point Likert scale, which could be regarded as being on an ordinal scale rather than on an interval scale, as is required in multiple regression analysis.

**Table 6.9: The Pearson Product Moment Correlation Matrix for Internal Auditors (n = 170)**

	Variables	1	2	3	4	5	6	7	8	9	10
1	COOP	1									
2	MEETING	.540***	1								
3	EAPLAN	.514**	.553**	1							
4	INTER	.518**	.560**	.540**	1						
5	NOTIFY	.448**	.481**	.386**	.409**	1					
6	TIMING	.605***	.435**	.646**	.468**	.374**	1				
7	EACOMM	.518**	.500**	.429**	.525**	.419**	.450**	1			
8	IACOMM	.262**	.190*	.223**	.172*	.329**	.177*	.180*	1		
9	USEEXPERT	.513**	.301**	.356**	.322**	.400**	.436**	.419**	.338**	1	
10	TRAIN	.392**	.371**	.347**	.347**	.336**	.340**	.366**	.232**	.385**	1

\*\*\*Correlation is significant at the 0.001 level (2-tailed test)

\*\* Correlation is significant at the 0.01 level (2-tailed test)

\* Correlation is significant at the 0.05 level (2-tailed test)

**Table 6.10: The Pearson Product Moment Correlation Matrix for External Auditors (n = 64)**

	Variables	1	2	3	4	5	6	7	8	9	10
1	COOP	1									
2	MEETING	.584**	1								
3	EAPLAN	.475***	.617**	1							
4	INTER	.242	.566**	.598**	1						
5	NOTIFY	.244**	.293*	.232*	.368**	1					
6	TIMING	.399**	.412**	.477**	.152	.162	1				
7	EACOMM	.442***	.562**	.620**	.563**	.376**	.450**	1			
8	IACOMM	.442**	.483**	.370**	.215*	.368**	.409**	.355**	1		
9	USEEXPERT	.459**	.473**	.482**	.424*	-.012	.421**	.325	.316*	1	
10	TRAIN	.137	.258	.286	.246	.130	.170	.268*	.001	.096	1

\*\*\*Correlation is significant at the 0.001 level (2-tailed test)

\*\* Correlation is significant at the 0.01 level (2-tailed test)

\* Correlation is significant at the 0.05 level (2-tailed test)

### **6.8.1 The Multiple Regression Analysis**

According to Hair et al. (1998) and Pallant (2004), an important part of the regression analysis is to check whether or not the basic assumptions of normality, linearity, homoscedasticity and multicollinearity are met. For the multiple regression analysis for the internal auditors, a straight line in the normal probability plot shows that the residuals from the multiple regression run represent a normal distribution. A review of the scatterplot between the dependent and independent constructs shows that there is an approximate linear relationship between the dependent and independent constructs, which is consistent with the assumption of linearity. The scatterplot of \*ZRESID against \*ZPRED shows a fairly constant spread of residuals and this confirms the homoscedasticity of the data. Therefore, heteroscedasticity is not a problem in this study for the internal auditors' sample. The results of the regression analysis as provided under Table 6.11 indicate that the VIF is below 10 for all of the independent constructs. This result suggests that multicollinearity is not a problem.

### **6.8.2 The Results of the Multiple Regression Analysis for the Internal Auditors**

The adjusted  $R^2$  indicates that 51.9% of the variance in the level of co-operation in Model 1 is explained by the independent variables, which is statistically significant ( $F = 21.299$ ,  $p < 0.001$ ). Table 6.11 also shows that, among the independent variables, regular meetings (MEETING), coordination of the timing

of internal and external auditors' work (TIMING) and using internal audit expertise (USEEXPERT) are the only significant constructs.

**Table 6.11: A Summary of Standard Multiple Regression Analysis for Internal Auditors**

Constructs	Unstandardised Regression Coefficients		Standardised Regression Coefficients	t-value	p-value	VIF
	B	Std. Error				
Constant	0.674	0.280		2.406	0.017*	
MEETING	0.145	0.057	0.188	2.556	0.012*	1.908
EAPLAN	-0.002	0.056	-0.003	-0.044	0.965	2.155
INTER	0.082	0.052	0.114	1.582	0.116	1.830
NOTIFY	0.041	0.055	0.049	0.741	0.460	1.561
TRAIN	0.039	0.057	0.042	0.680	0.498	1.344
EACOMM	0.075	0.050	0.105	1.515	0.132	1.704
IACOMM	0.046	0.062	0.044	0.746	0.457	1.205
USEEXPERT	0.163	0.055	0.196	2.968	0.003**	1.534
TIMING	0.240	0.060	0.299	4.001	0.000***	1.961

Notes:

R Square 0.545

Adjusted R Square 0.519

F-Ratio 21.299

Significance F 0.0001

n 170

\* indicates statistically significant at  $p < 0.05$

\*\* indicates statistically significant at  $p < 0.01$

\*\*\* indicates statistically significant at  $p < 0.001$

Further, as shown in Table 6.11, the coefficient for MEETING is significant at the 5% level of significance ( $p=0.012$ ), thus supporting proposition 1 (see Chapter 4, section 4.3.1) and the direction is positive as predicted. This suggests that the level of co-operation between internal and external auditors increases when they meet regularly. Similarly, proposition 7 is also supported, as the coefficient for USEEXPERT is significant at the 1% level of significance ( $p=0.003$ ). The results indicate a strong positive relationship between the use of internal auditors' expertise by the external auditors and the level of co-operation between them. Proposition 8 is also supported, with the coefficient for TIMING significant at the 0.1% level of significance ( $p=0.000$ ). This indicates that when there is coordination in the timing of internal and external auditors' work, the level of co-operation between them increases. Other variables, EAPLAN, INTER, NOTIFY, EACOMM, IACOMM and TRAIN, were found not to be statistically significant in affecting the level of co-operation between the internal and external auditors.

However, the robustness of these results was not confirmed using ordinal regression analysis because the test of parallel lines was significant, which means that the two ordinal regression lines were not parallel. To overcome this problem a binary logistic regression analysis was carried out by recoding the dependent variable into a binary construct. The scores for the level of co-operation for the dependent construct was recoded to 1 = low/moderate level of co-operation and 2 = high/very high level of co-operation. Table 6.12 also shows that among the

independent variables, TIMING AND USEEXPERT were the only significant constructs. However, these results are different from the multiple regression results where MEETING is not a significant factor affecting the level of cooperation between internal and external auditors. Thus, the results of the non-parametric binary logistic regression only partly confirm the parametric multiple regression results for Model 1, and this is a limitation of the multiple regression results.

**Table 6.12: Logistic Regression Analysis for Internal Auditors**

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>P value</b>
MEETING	0.320	0.279	1.312	1	0.252
EAPLAN	0.053	0.262	0.041	1	0.840
INTER	0.224	0.246	0.833	1	0.361
NOTIFY	0.367	0.283	1.683	1	0.195
TRAIN	-0.237	0.284	0.692	1	0.406
EACOMM	0.413	0.242	2.921	1	0.087
IACOMM	0.369	0.322	1.315	1	0.252
USEEXPERT	0.671	0.270	6.192	1	0.013*
TIMING	0.989	0.312	10.052	1	0.002**
Constant	-11.599	2.039	32.354	1	0.000

Notes:

n 170

\* indicates statistically significant at  $p < 0.05$

\*\* indicates statistically significant at  $p < 0.01$

### **6.8.3 The Results of the Ordinal Regression Analysis for the External**

#### **Auditor**

The analysis for Model 1 of the external auditors was conducted using ordinal regression. This is because there is a violation of the multiple regression assumption where the problem of non-normality of the residuals and heterocedasticity. An attempt was made to remove these problems by applying  $\log_n$ , square root and inverse transformations to the dependent construct, but these did not remove these problems. The results of ordinal regression analysis showed that 80% of the cells between the dependent variables and independent variables were empty. The large number of empty cells means that the chi-square goodness of fit statistics were not appropriate and were unreliable (Agresti, 1990 and Norusis, 2005).

The numbers of empty cells between the dependent and independent constructs were reduced in order to increase the reliability of the goodness of fit statistics. This was done by recoding all the independent constructs into three-point ordinal scales as used in Brierley (2008a,b). Table 6.13 shows the recoding of all of the independent constructs used in this model. Except for IACOMM and TRAIN, the responses to all the other independent constructs were recoded more evenly. For IACOMM and TRAIN, the scores were recoded differently because the scores for IACOMM ranged from 2 to 5, while the scores for TRAIN ranged from 1 to 4.

**Table 6.13: Recoding of Responses Scores**

Variables	Original Actual Scores	Recoded Actual Scores
IACOMM	Ranging from 2=disagree to 5=strongly agree	2 and 3 = 1 4 = 2 5 = 3
TRAIN	Ranging from 1=strongly disagree to 4=agree	1 to 2 = 1 Greater than 2 to 3 = 2 Greater than 3 to 4 = 3
All other independent variables	Ranging from 1=strongly disagree to 5=strongly agree	1 and 2 = 1 3 = 2 4 and 5 = 3

Model 1 for the external auditors fits the assumptions of ordinal regression. The result of the test for parallel lines is chi-square = 15.538,  $p = 0.961$ . The non-significant chi-square indicates that the two regression lines are parallel. The result of the model-fitting test shows that the Pearson chi-square = 225.701,  $p = 0.657$  and Deviance chi-square = 84.114,  $p = 1.000$ . The non-significant goodness-of-fit statistics indicates that the model provides a good fit of the data.

Table 6.14 shows the result of the ordinal regression and, given that the sample size is only 64, a significant effect is identified at the  $p < 0.10$  level in order to increase statistical power and, hence, reduce Type II error. The results reveal that among the independent variables, MEETING and USEEXPERT are the only significant constructs. As shown in Table 6.14, the coefficient for MEETING is significant at the 5% level of significance ( $p = 0.010$ ), thus supporting proposition 1, and the direction is positive as predicted. This suggests that the level of cooperation between external and internal auditors increases when they meet regularly. Further, proposition 7 is also supported, with the coefficient for

USEEXPERT significant at the 10% level of significance ( $p=0.054$ ). The result indicates a positive relationship between the use of internal auditors' expertise by the external auditors and the level of co-operation between them. These two propositions are also supported by the internal auditors' survey. Other variables, EAPLAN, INTER, NOTIFY, TIMING, EACOMM, IACOMM and TRAIN were found not to be statistically significant in affecting the level of co-operation between the internal and external auditors.

**Table 6.14: Ordinal Regression Analysis for External Auditors**

	Regression coefficient	Standard error	Wald statistic	df	p
CONSTANT <sub>1</sub>	4.492	2.422	3.440	1	0.064*
CONSTANT <sub>2</sub>	6.490	2.343	7.673	1	0.006***
MEETING	1.545	0.600	6.641	1	0.010**
EAPLAN	0.048	0.527	0.008	1	0.927
INTER	-0.880	0.560	2.469	1	0.116
NOTIFY	0.461	0.397	1.344	1	0.246
TIMING	0.421	0.548	0.590	1	0.442
EACOMM	0.297	0.435	0.465	1	0.495
IACOMM	0.262	0.511	0.264	1	0.608
USEEXPERT	0.928	0.482	3.705	1	0.054*
TRAIN	-0.133	0.487	0.074	1	0.785

\* indicates statistically significant at  $p<0.10$

\*\* indicates statistically significant at  $p<0.05$

\*\*\* indicates statistically significant at  $p<0.01$

#### **6.8.4 Discussion on the Factors Affecting the Level of Co-operation between Internal and External Auditors**

Eight propositions for Model 1 which related to the factors affecting the level of co-operation were developed in Chapter 4. A discussion of each of these is provided below.

$P_1$  states "*If the internal and external auditors meet regularly, the level of co-operation between them increases*". Proposition 1 predicts that the level of co-operation between internal and external auditors increases when they have more frequent meetings. The results of the study support this proposition for both the internal and external auditor samples. This suggests that regular meetings between internal and external auditors lead to an increase in the level of co-operation between them. This finding supports professional guidance of CIPFA and the National Audit Office (NAO). CIPFA (2005) suggests that the head of internal audit should meet regularly with the external auditors to discuss matters of mutual interest and how work can be tailored to satisfy each party's responsibilities in areas of common interest. Furthermore, such meetings provide an opportunity to help develop both parties' understanding of the auditee organisation and of the approach that each adopts in their respective audits. NAO (2000) suggests internal and external auditors to have regular meetings to look at future plan in identifying opportunities for co-operation, to avoid duplication of effort and to agree on methods for the sharing of audit findings and other information.

P<sub>2</sub> states *“If the internal and external auditors coordinate in preparing the external audit plan, the level of co-operation between them increases”*. This proposition predicts that the internal and external auditors could improve their level of co-operation if they coordinated their activities in the preparation of the external audit plan. The results in this study, for both the internal and external auditors, however, show no significant relationship between coordinating the external audit plan and co-operation between internal and external auditors. This indicates that coordination in preparing the external audit plan does not increase the co-operation between internal and external auditors. This appears to be because the external auditors developed their audit plan in advance of the audit year prior to meeting with the internal auditors and the internal auditors have little chance to suggest amendments to the external audit plan.

P<sub>3</sub> states *“If the internal and external auditors interchange their reports, the level of co-operation between them increases”*. This proposition predicts that the level of co-operation between internal and external auditors increases when they interchange their reports. The results in this study, however, for both the internal and external auditors, show no significant relationship between the interchange of audit reports and co-operation between internal and external auditors. This implies that whether or not the internal and external auditors interchange their reports does not increase their level of co-operation. This might be because the internal auditors are not interested in the external auditor’s report unless a significant issue is reported within it, while external auditors are not interested in

the internal auditor's report other than those areas on which they wish to rely upon internal audit work. This also might be because the internal and external auditors interchange their reports regardless of any co-operation between them, and hence any co-operation that may exist is over and above the interchange of reports.

P<sub>4</sub> states "*If the internal and external auditors inform each other of the discovery of fraud and other significant events, the level of co-operation between them increases*". This proposition predicts that the level of co-operation between internal and external auditors increases when they inform each other of the discovery of fraud and other significant events. The results in this study, however, for both the internal and external auditors, show no significant relationship between notification of discovery of fraud and other significant events and co-operation between internal and external auditors. This suggests that notification of discovery of fraud and other significant events between internal and external auditors does not increase their level of co-operation. It is not immediately apparent why this relationship is not significant. It may indicate that the discovery of fraud and other significant events by one set of auditors, without the knowledge of the other, are rare occurrences and do not often impact on the need for co-operation between them. This is probably because the co-operation between them is something that is over and above the notification to each other of the discovery of fraud.

P<sub>5</sub> states *“If there is co-operation in training of internal and external auditors, the level of co-operation between them increases”*. This proposition predicts that the level of co-operation between internal and external auditors increases when they co-operate in training each other. The results in this study, however, for both the internal and external auditors, show no significant relationship between co-operation in training and co-operation between internal and external auditors. This suggests that co-operation in training between internal and external auditors do not increase their level of co-operation. It became apparent from the study that this is because internal and external auditors have their own separate training programmes and they do not train each other.

P<sub>6</sub> states *“If there is a communication of findings between internal and external auditors, the level of co-operation between them increases”*. This proposition predicts that the level of co-operation between internal and external auditors increases when they communicate their findings to each other. The results in this study, however, for both the internal and external auditors, show no significant relationship between communication of findings and co-operation between internal and external auditors. This indicates that the communication of findings does not increase the level of co-operation between the internal and external auditors. This implies that the internal and external auditors’ findings are primarily for their own purposes and do not influence the level of co-operation between them.

P<sub>7</sub> states *"If the external auditors use the internal auditors' expertise, the level of co-operation between them increases"*. This proposition predicts that the level of co-operation between internal and external auditors increases when external auditors use the internal auditors' expertise. The results of the study support this proposition for both the internal and external auditors respectively. This means that the external auditors' use of internal auditors' expertise leads to increase in the level of co-operation between them. This finding supports the recommendation of professional bodies that external auditors should seek to place reliance on internal audit work. It suggests that the external auditors may benefit through co-operation with the internal auditors in order to gain more knowledge about their specific local authority client in order to carry out external audits.

P<sub>8</sub> states *"If there is coordination of the timing of internal and external auditors' work, the level of co-operation between them increases"*. This proposition predicts that the level of co-operation between internal and external auditors increases when internal and external auditors coordinate the timing of their work. The results of the study support this proposition for the internal auditors' survey only. This means that the coordination of the timing of internal and external auditors' work leads to increases in the level of co-operation between them. However, for the external auditors, no significant relationship was found between coordination of the timing of internal and external auditors' work and co-operation between them. Internal and external auditors would co-ordinate the

timing of their work in order to avoid doing the same work at the same time. This may be because the internal auditors have more time and are able to adjust their audit work in order to suit the external auditors' work schedule, but the external auditors have a tight schedule and have to do their audit work according to their own plan. Usually the internal auditors will give priority to the external auditors to do their work according to the external audit plan. In other words, the internal auditors have to be flexible in the scheduling of their work and fitting it in with the timing of the external auditor's work.

## **6.9 Interviews findings**

Interviews were conducted with eight Heads of Internal Audit and six external auditors of English local authorities, as discussed in Chapter 5, section 5.4.1. Findings from the interviews show that both internal and external auditors perceived regular meetings as important as a way of communication and as essential in making sure that each of them understands what they are intending to do, the audit planning processes, and on what types of internal auditors' work the external auditors might be able to place reliance. Typically, internal and external auditors meet quarterly, more frequently when the audit has more issues or matters to discuss. In addition, internal and external auditors have frequent informal meetings to discuss their working plans and issues relating to their daily work. This can be done because the external auditors are often given a specific room to carry out their audit work in the council offices. Any informal meetings can be carried out when needed in the room occupied by the external auditors.

The internal auditors perceived that the external auditors use their expertise, as noted by internal auditor IA3:

Under the international auditing standards (IAS), the external auditors have to understand all of the systems in a very short period of time, so they rely on the internal auditors to pass on that understanding of the system. We know the people, we know the systems and they do need our expertise here.

External auditors tend to agree that they use the internal auditors' expertise in terms of their capacity and ability to do the work. The capacity and ability of the internal auditors helped external auditors in understanding more about the nature of their work. Internal auditors as insiders may provide information needed by the external auditors in planning their work.

The interview findings show that internal auditors perceive the coordination of the timing of internal and external auditors' work as an important factor that can affect the co-operation between internal and external auditors. Internal auditors usually ensure that their work fits the external auditors' timescale for carrying out the external audit work. As noted by IA2:

The external auditors have no choice as far as we are concerned about when they do their work. But we do, we make sure that our work fits into their timescale as best as we can.

The coordination of the timing of internal and external auditors' work is important because it can affect the staff of other departments when the internal and external auditors turn up at other department offices at the same time. Staff of the other departments of the auditee might feel frustrated if the internal and

external auditors do the same work, at the same place and at about the same time. The internal auditors felt that the coordination of the timing of internal and external auditors' work is important because, if they end up at the same place together, internal auditors usually will cease their work and will return to the department at another time. This may explain why the external auditors felt that the coordination of the timing of internal and external auditors' work is less important to co-operation, because it is not necessary for them to check with the internal auditors if they can go to a department to carry out their external audit work. They just go to a particular department and the internal auditors will cease their work in that department.

#### **6.10 Conclusions – Model 1**

Model 1 used in this study is considered as a unique model because it has never been tested previously and therefore the findings cannot be compared to prior research. From the analysis, it is found that both internal and external auditors of local authorities in England perceive that there is a high level of co-operation between them. This finding is different to Al-Twajjry et al. (2004), who found a lack of co-operation between internal and external auditors in Saudi Arabia. Regular meetings and use of internal auditors' expertise by the external auditors were the factors perceived by both sets of auditors as affecting the level of co-operation between internal and external auditors. In addition, only internal auditors perceived coordination in the timing of internal and external auditors'

work was also a factor affecting the level of co-operation between them. These results were also supported by the findings from the interviews.

## **PART II – Findings for Model 2**

### **6.11 Model Specification and Variables Measurement for Model 2 (External auditors' reliance on internal audit work)**

Model 2 investigates the factors affecting external auditors' reliance on internal audit work. The model is used to test fifteen hypotheses as described in Chapter 4, section 4.4 and takes the following form:

$$\begin{aligned} \text{RELIANCE} = & b_0 + b_1\text{EDU} + b_2\text{PROQUA} + b_3\text{TRAIN} + b_4\text{IAEXP} + b_5\text{KNWLG} + \\ & b_6\text{STATUS} + b_7\text{REPORTL} + b_8\text{INDEP} + b_9\text{SUPPORT} + b_{10}\text{SCOPE} + \\ & b_{11}\text{QUALITY} + b_{12}\text{COMPLY} + b_{13}\text{RISKAPPRCH} + b_{14}\text{AGE} + b_{15}\text{SIZE} \\ & + e \end{aligned}$$

Where:

RELIANCE	=	Extent of external auditors reliance on internal audit work
EDU	=	Level of internal auditors' education
PROQUA	=	Internal auditors' professional qualifications
TRAIN	=	Internal auditors' training
IAEXP	=	Internal auditors' experience
KNWLG	=	Internal auditors' knowledge of the local authority
STATUS	=	Organisational status of the internal audit department
REPORTL	=	Internal auditors' reporting level
INDEP	=	Independence of the internal auditors
SUPPORT	=	Top management support for the internal audit function

SCOPE	=	Scope of internal audit work
QUALITY	=	Quality of internal audit documentation
COMPLY	=	Compliance with internal auditing standards
RISKAPPRCH	=	Internal auditors' adopting a risk-based audit approach
AGE	=	Number of years internal audit function has been established
SIZE	=	Number of staff in the internal audit function
$b_0 - b_{15}$	=	Multiple regression coefficients
$e$	=	Residual error term

## 6.12 Descriptive Statistics for the Constructs in Model 2

This analysis presents the descriptive statistics for each construct based on its mean, standard deviation, median, minimum and maximum for the total sample of 170 internal auditors and 64 external auditors for the dependent variable (RELIANCE) and the fifteen independent variables in Model 2.

Table 6.15 provides descriptive statistics of the variables used in Model 2 for the internal auditors. In relation to the dependent variable, the level of external auditors' reliance on internal audit work (RELIANCE), the internal auditors perceived that the external auditors' reliance on their work was relatively high, i.e. more than the midpoint value of 3 on the five-point scale with a mean of 3.85. A majority of the internal auditors perceived that they have freedom to investigate areas they considered to be important (mean INDEP of 4.67). Most of them also agree that they complied with CIPFA code of practice for internal audit in local government (mean COMPLY of 4.65). However, the mean of EDU was

2.22, which shows that most of the internal audit staff do not have a university degree.

**Table 6.15: Descriptive Statistics for Internal Auditors**

Descriptive Statistics (n=170)					
Construct	Mean	Standard Deviation	Median	Minimum Score	Maximum Score
RELIANCE	3.85	1.018	4	1	5
EDU <sup>a</sup>	2.22	1.157	2	1	5
PROQUA <sup>a</sup>	2.78	1.216	3	1	5
TRAIN <sup>a</sup>	3.78	0.979	4	1	5
REPORTL <sup>a</sup>	4.58	0.667	5	2	5
INDEP <sup>a</sup>	4.67	0.623	5	2	5
SUPPORT <sup>a</sup>	4.33	0.742	4	2	5
COMPLY <sup>a</sup>	4.65	0.556	5	2	5
QUALITY <sup>a</sup>	4.07	0.699	4	2	5
SCOPE <sup>a</sup>	4.40	0.619	4	2	5
RISKAPRCH <sup>a</sup>	4.40	0.716	5	2	5
KNWLG <sup>a</sup>	4.35	0.654	4	2	5
STATUS <sup>a</sup>	3.86	0.807	4	1	5
AGE	28.86	13.249	33	1	100
SIZE	7.218	6.749	4.1	1	42
IAEXP	21.51	10.618	23	1	42

<sup>a</sup> Scored on a 5-point Likert scale from a minimum possible score of 1 to a maximum score of 5.

Table 6.16 provides descriptive statistics of the variables used in Model 2 for the external auditors. In relation to the dependent variable, the level of external auditors' reliance on internal audit work (RELIANCE), the external auditors

perceived that their reliance on internal audit work was relatively low, that is, less than the midpoint value of 3 on the five-point scale, with a mean of 2.88. External auditors perceived that the independence of the internal audit function to investigate areas they consider to be important is an important factor affecting their reliance on internal audit work. However, the mean of EDU was 2.11, showing that whether or not internal audit staff hold university degrees is not an important factor affecting external auditors' reliance on internal audit work, which is consistent with the results for the internal auditors shown in Table 6.15.

### **6.13 Correlation Analysis**

Table 6.17 and 6.18 present the Pearson Product Moment Correlation Coefficient between the independent variables and the dependent variable in Model 2 for the internal and external auditors respectively. Table 6.17 presents the correlation coefficients between the independent variables and dependent variable for the internal auditors. The table highlights that most of the independent constructs (SUPPORT, COMPLY, RISKAPRCH, KNWLG, STATUS and SIZE) have a positive relationship, as expected, and significant correlation with the level of reliance. This indicates that these constructs may be significantly related to the level of reliance in the multiple regression analysis. The highest correlation coefficient between the independent constructs for internal auditors is 0.646 between INDEP and PROQUA.

**Table 6.16: Descriptive Statistics for External Auditors**

Descriptive Statistics (n=64) <sup>a</sup>					
Variable	Mean	Standard Deviation	Median	Minimum Score	Maximum Score
RELIANCE	2.88	1.256	3	1	5
EDU	2.11	1.147	2	1	5
PROQUA	3.89	1.048	4	1	5
TRAIN	4.06	0.998	4	1	5
REPORTL	4.38	1.031	5	1	5
INDEP	4.61	0.953	5	1	5
SUPPORT	4.39	1.002	5	1	5
COMPLY	4.48	0.976	5	1	5
QUALITY	4.50	0.943	5	1	5
SCOPE	4.56	0.941	5	1	5
RISKAPRCH	4.36	0.982	5	1	5
KNWLG	4.43	0.984	5	1	5
STATUS	4.33	1.009	5	1	5
AGE	2.66	1.130	3	1	5
SIZE	3.55	1.097	4	1	5
IAEXP	4.22	0.944	4	1	5

<sup>a</sup> Scored on a 5-point Likert scale from a minimum possible score of 1 to a maximum score of 5.

For the external auditors, Table 6.18 highlights that as expected all the independent constructs except EDU and AGE have a positive relationship and a significant correlation with the level of reliance. This indicates the possibility that, except for these two constructs, all of the other independent constructs could be related to the dependent construct in the multiple regression analysis. For the external auditors, the highest correlation coefficient between the

independent constructs is 0.872 between STATUS and REPORTL. According to Bryman and Cramer (2005), independent variables that have a relationship at or over 0.80 may have a multicollinearity problem and may not be treated as different constructs. This is because two constructs that are highly correlated might be measuring the same item. However, the high correlation of these two constructs, STATUS and REPORTL possibly arises because they are both in the objectivity subgroup (see Chapter 4).<sup>8</sup>

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<sup>8</sup> All the independent variables for Model 2 can be classified into four major groups, namely competence, objectivity, work performance, and quality of internal audit function.

**Table 6.17: The Pearson Product Moment Correlation Matrix for Internal Auditors (n = 170)**

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 RELIANCE	1															
2 EDU	.099	1														
3 PROQUA	.006	.403***	1													
4 TRAIN	.103	.126	.540**	1												
5 REPORTL	.071	.481**	.386**	.409**	1											
6 INDEP	.012	.435**	.646**	.468**	.331***	1										
7 SUPPORT	.168*	.500**	.429**	.525**	.419**	.450**	1									
8 COMPLY	.156*	.190*	.223**	.172*	.329**	.177*	.180*	1								
9 QUALITY	.189*	.301**	.356**	.289***	.400**	.436**	.419**	.338**	1							
10 SCOPE	.135	.371**	.347**	.347**	.336**	.340**	.366**	.232**	.385**	1						
11 RISKAPRCH	.182*	.040	.002	.184*	.181*	.171*	.193*	.366***	.389**	.533**	1					
12 KNWLG	.274***	-.001	.127	.246**	.196*	.183*	.214**	.232**	.307**	.323**	.241**	1				
13 STATUS	.182*	.103	.076	.170*	.329**	.386**	.539**	.219**	.320**	.314**	.231**	.438**	1			
14 AGE	.056	.011	-.017	-.028	-.056	-.004	.029	-.125	-.076	-.091	-.057	.095	-.016	1		
15 SIZE	.154*	-.050	-.091	.143	-.018	.116	.113	.019	-.062	.132	.073	.007	.049	.248**	1	
16 IAEXP	.017	-.228**	-.128	-.122	-.091	.067	-.024	-.035	-.008	.157*	.001	.119	.122	.104	.012	1

\*\*\* Correlation is significant at the 0.001 level (2-tailed test)

\*\* Correlation is significant at the 0.01 level (2-tailed test)

\* Correlation is significant at the 0.05 level (2-tailed test)

**Table 6.18: The Pearson Product Moment Correlation Matrix for External Auditors (n= 64)**

	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	RELIANCE	1															
2	EDU	.096	1														
3	PROQUA	.287*	.465***	1													
4	TRAIN	.330**	.349**	.529***	1												
5	REPORTL	.474***	.358**	.574***	.728**	1											
6	INDEP	.406**	.410**	.682***	.751**	.846**	1										
7	SUPPORT	.465***	.381**	.623***	.700**	.839**	.844**	1									
8	COMPLY	.384**	.284*	.651***	.711**	.668**	.821**	.664**	1								
9	QUALITY	.346**	.293*	.660***	.600**	.637**	.786**	.697**	.820**	1							
10	SCOPE	.326**	.229	.572***	.629**	.663**	.798**	.673**	.771**	.895**	1						
11	RISKAPRCH	.458***	.293*	.554***	.717**	.727**	.797**	.678**	.826**	.763**	.757**	1					
12	KNWLG	.435***	.415**	.607***	.736**	.792**	.784**	.744**	.690**	.655**	.679**	.659**	1				
13	STATUS	.418**	.411**	.566***	.682**	.872**	.829**	.814**	.675**	.676**	.689**	.680**	.734**	1			
14	AGE	.180	.428***	.285*	.391**	.453**	.478**	.373**	.427**	.372**	.409**	.356**	.487**	.518**	1		
15	SIZE	.347**	.374**	.503***	.628**	.615**	.693**	.539**	.579**	.545**	.635**	.566**	.545**	.696**	.538**	1	
16	IAEXP	.444***	.325**	.593***	.716**	.832**	.776**	.786**	.683**	.632**	.672**	.706**	.791**	.761**	.408**	.534**	1

\*\*\* Correlation is significant at the 0.001 level (2-tailed test)

\*\* Correlation is significant at the 0.01 level (2-tailed test)

\* Correlation is significant at the 0.05 level (2-tailed test)

#### **6.14 The Multiple Regression Analysis**

In Model 2, fifteen independent variables are included in the model. In accordance with Sekaran's (2003) suggestion, the number of respondents should be at least 150 (15 independent variables x 10), while based on Coakes and Steed (2003) minimum level of respondents is 75 (15 independent variables x 5). This means that the sample size for internal auditors (n = 170) in this study is suitable for regression analysis as suggested by Sekaran (2003) and Coakes and Steed (2003). However, the sample size for external auditors (n = 64) is below the minimum level as highlighted by both Coakes and Steed (2003) and Sekaran (2003).

In the regression analysis, it is important to check whether or not the basic assumptions of normality, linearity, homoscedasticity and multicollinearity are met. The normal probability plot of the regression standardised residuals shows a reasonably straight diagonal line from bottom left to top right suggesting no major deviations from normality. A review of the scatterplot between the dependent and independent constructs showed that there is an approximate linear relationship between the dependent and independent constructs, which is consistent with the assumption of linearity. The scatterplot of \*ZRESID against \*ZPRED shows a fairly constant spread of residuals and this confirms the homoscedasticity of the data. Therefore, heteroscedasticity is not a problem in this study for the internal auditors' sample. The results of the regression analysis as provided under Table 6.19 indicate that the VIF is below 10 for all of the

independent constructs. This result suggests that multicollinearity is not a problem.

#### **6.14.1 The Results of the Multiple Regression Analysis for the Internal Auditor (Model 2)**

The adjusted  $R^2$  indicates that 11.3% of the variance in the level of external auditors' reliance on internal auditors' work in Model 2 for the internal auditors is explained by the independent variables, which is statistically significant ( $F = 2.292, p < 0.005$ ). Table 6.19 also shows that among the independent variables KNWLG (knowledge) and SIZE are the only significant constructs.

The coefficient for KNWLG is significant ( $p = 0.029$ ), thus supporting hypothesis 5, and the direction is positive as predicted. This suggests that the level of external auditors' reliance on internal auditors' work increases if the internal auditors have more knowledge than staff of the other departments of their local authority. Hypothesis 15 is also supported, as the coefficient for SIZE is significant ( $p = 0.025$ ). The results indicate a strong positive relationship between the size of the internal audit department and the level of external auditors' reliance on internal auditors' work. Other variables - EDU, PROQUA, TRAIN, IAEXP, REPORTL, STATUS, SUPPORT, INDEP, SCOPE QUALITY, COMPLY, RISKAPRCH and AGE respectively - were found not to be statistically significant in affecting the level of external auditors' reliance on internal auditors' work.

**Table 6.19: A Summary of Standard Multiple Regression Analysis for Internal Auditors (n = 163)**

Variables	Unstandardised Regression Coefficients		Standardised Regression Coefficients	t-value	p-value	VIF
	b	Std. Error				
Constant	2.019	0.756		2.670	0.008	
EDU	-0.048	0.080	-0.049	-0.597	0.551	1.231
PROQUA	0.043	0.046	0.073	0.945	0.346	1.098
TRAIN	-0.029	0.061	-0.040	-0.479	0.633	1.265
IAEXP	-0.107	0.059	-0.155	1.814	0.072	1.329
KNWLG	0.214	0.097	0.198	2.203	0.029*	1.471
STATUS	0.113	0.090	0.128	1.258	0.210	1.882
REPORTL	0.090	0.093	0.083	0.965	0.336	1.345
INDEP	-0.022	0.099	-0.019	-0.221	0.825	1.395
SUPPORT	0.016	0.104	0.016	0.155	0.877	1.881
SCOPE	-0.069	0.125	-0.059	-0.548	0.584	2.147
QUALITY	0.108	0.096	0.106	1.124	0.263	1.615
COMPLY	-0.029	0.126	-0.021	-0.232	0.817	1.524
RISKAPRCH	0.157	0.093	0.152	1.680	0.095	1.492
AGE	-0.025	0.052	-0.038	-0.479	0.633	1.141
SIZE	0.117	0.052	0.186	2.259	0.025*	1.240

Notes:

R Square 0.201

Adjusted R Square 0.113

F-Ratio 2.292

Significance F 0.005

\* indicates statistically significant at  $p < 0.01$

However, the robustness of this result was not confirmed using ordinal regression analysis because the test of parallel lines was significant, which means that the two ordinal regression lines were not parallel. To overcome this problem a binary logistic regression analysis was carried out by recoding the dependent variable into a binary construct. The score for the level of external auditors' reliance on internal audit work as the dependent construct was recoded to 1 = low/medium level of reliance and 2 = high/very high level of reliance. Table 6.20 shows that among the independent variables, only RISKAPRCH was a significant construct. However, these results are different from the multiple regression results where RISKAPRCH is not a significant factor that can affect the level of external auditors' reliance on internal audit work. This is a limitation of the study because the robustness of the multiple regression results was not confirmed.

#### **6.14.2 The Results of the Multiple Regression Analysis for the External Auditors (Model 2)**

Given the high correlation between STATUS and REPORTL, three versions of the model were run: (1) Model 2 including STATUS and REPORTL, (2) Model 2 minus STATUS, and (3) Model 2 minus REPORTL. The F-statistic (for Model 2 minus STATUS) suggests that the result of dropping STATUS was not significantly different to the Model 2 result (including STATUS and REPORTL) as the explanatory power only dropped from 0.389 to 0.382. The F-statistic (for Model 2 minus REPORTL) suggests that dropping REPORTL did not add any explanatory power which was reduced from 0.389 to 0.378. Therefore, it is

worthwhile retaining both the variables STATUS and REPORTL in the model rather than dropping one of them as it will lower the explanatory power.

**Table 6.20: Logistic Regression Analysis for Internal Auditors**

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>P value</b>
EDU	0.322	0.230	1.960	1	0.161
PROQUA	0.155	0.209	0.548	1	0.459
TRAIN	-0.054	0.233	0.054	1	0.815
IAEXP	-0.004	0.024	0.030	1	0.863
KNWLG	0.529	0.376	1.976	1	0.160
STATUS	0.522	0.345	2.294	1	0.130
REPORTL	0.151	0.327	0.212	1	0.645
INDEP	-0.448	0.402	1.244	1	0.265
SUPPORT	-0.451	0.438	1.061	1	0.303
SCOPE	0.001	0.470	0.000	1	0.998
QUALITY	0.017	0.384	0.002	1	0.966
COMPLY	-0.290	0.533	0.295	1	0.587
RISKAPRCH	0.867	0.366	5.601	1	0.018*
AGE	0.014	0.019	0.575	1	0.448
SIZE	0.035	0.039	0.815	1	0.367
Constant	-7.111	2.731	6.778	1	0.009

Notes:

n = 165 (after excluding 6 respondents that do not rely on the internal auditors' work).

\* indicates statistically significant at  $p < 0.05$

The adjusted  $R^2$  indicates that 16.16% of the variance in the level of external auditors' reliance on internal auditors' work in Model 2 is explained by the independent variables, which is statistically significant ( $F = 1.729$ ,  $p=0.071$ ), at  $p < 0.01$ . Table 6.21 shows the result of the multiple regression, and, given that the sample size is only 64, a significant effect is identified at the  $p < 0.10$  level in order to increase statistical power and so reduce Type II error. The result reveals that among the independent variables, SUPPORT (top management support) and SIZE are the only significant constructs.

As shown in Table 6.21, the coefficient for SUPPORT is significant at the 10% level of significance ( $p=0.057$ ), thus supporting hypothesis 9, and the direction is positive as predicted. This suggests that the level of external auditors' reliance on internal auditors' work increases when the top management in the local authority support the internal auditors' work. Further, hypothesis 15 is also supported, as the coefficient for SIZE is significant at the 10% level of significance ( $p=0.094$ ). The results indicate a strong positive relationship between the size of the internal audit department and the level of external auditors' reliance on internal auditors' work. This indicates that the higher the number of internal audit staff, the greater the level of external auditors' reliance on internal auditors' work. This hypothesis is also supported by the internal auditors' survey. Other variables, namely EDU, PROQUA, TRAIN, IAEXP, REPORTL, STATUS, KNWLDG, INDEP, SCOPE, QUALITY, COMPLY, RISKAPRCH and AGE, were not statistically significant in affecting the level of external auditors' reliance on internal auditors' work.

**Table 6.21: A Summary of Standard Multiple Regression Analysis for External Auditors (n = 64)**

Variables	Unstandardised Regression Coefficients		Standardised Regression Coefficients	t-value	p-value	VIF
	B	Std. Error				
Constant	0.086	0.783		0.110	0.913	
EDU	-0.127	0.165	-0.115	-0.770	0.445	1.903
PROQUA	-0.063	0.227	-0.052	-0.276	0.784	1.908
TRAIN	-0.414	0.279	-0.326	-1.485	0.144	2.155
IAEXP	0.086	0.330	0.064	0.261	0.795	1.830
KNWLG	0.413	0.306	0.323	1.351	0.183	1.561
STATUS	-0.122	0.377	-0.098	-0.325	0.747	1.961
REPORTL	0.396	0.430	0.322	0.920	0.362	1.704
INDEP	-0.379	0.473	-0.285	-0.801	0.427	1.205
SUPPORT	0.732	0.375	0.579	1.952	0.057*	1.534
SCOPE	-0.354	0.438	-0.263	-0.809	0.423	1.344
QUALITY	0.044	0.445	0.033	0.100	0.921	1.908
COMPLY	0.144	0.362	0.111	0.398	0.692	2.155
RISKAPRCH	0.484	0.319	0.375	1.516	0.136	1.830
AGE	-0.020	0.180	-0.018	-0.111	0.912	1.561
SIZE	0.393	0.230	0.341	1.710	0.094*	1.563

Notes:

R Square 0.390

Adjusted R Square 0.164

F-Ratio 1.729

Significance F 0.071

\* indicates statistically significant at  $p < 0.10$

The robustness of these results was not confirmed using ordinal regression analysis because the test of parallel lines was significant, which means that the two ordinal regression lines were not parallel.<sup>9</sup> To overcome this problem a binary logistic regression analysis was carried out by recoding the dependent variable into a binary construct. The score for the level of external auditors' reliance on internal audit work as the dependent construct was recoded to 1 = low/medium level of reliance and 2 = high/very high level of reliance. Table 6.22 shows that among the independent variables, SIZE and STATUS were the only significant constructs. This result was the same with the multiple regression results in term of SIZE, but was different where STATUS is not a significant factor that can affect the level of external auditors' reliance on internal audit work. Thus, the results of the binary logistic regression partly confirm the multiple regression results for Model 2 for SIZE, but not for the significant effect of SUPPORT.

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<sup>9</sup> The dependent variable had been recoded on a 3 point scale.

**Table 6.22: Logistic Regression Analysis for External Auditors**

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>P value</b>
EDU	0.614	0.449	1.874	1	0.171
PROQUA	0.035	0.610	0.003	1	0.954
TRAIN	-0.049	0.695	0.005	1	0.944
IAEXP	-0.182	0.873	0.043	1	0.835
KNWLG	0.196	0.716	0.075	1	0.784
STATUS	-2.609	1.069	5.952	1	0.015*
REPORTL	1.501	1.171	1.643	1	0.200
INDEPNC	-0.959	1.285	0.556	1	0.456
SUPPORT	1.874	1.240	2.285	1	0.131
SCOPE	0.454	1.090	0.174	1	0.677
QUALITY	0.945	1.120	0.712	1	0.399
COMPLY	-1.242	0.937	1.755	1	0.185
RISKAPPRCH	0.336	0.910	0.136	1	0.712
AGE	0.024	0.465	0.003	1	0.959
SIZE	1.506	0.676	4.961	1	0.026*
Constant	-5.043	6.673	0.571	1	0.450

N=56 (after excluding 8 respondents that do not rely on the internal auditors' work).

\* indicates statistically significant at  $p < 0.05$

### **6.14.3 Discussion of the Factors Affecting the Level of External Auditors'**

#### **Reliance on Internal Auditors' Work**

Model 2 relates to the factors affecting the level of external auditors' reliance on internal auditors' work, and tested a total of fifteen hypotheses, of which three

were supported. The fifteen hypotheses are categorised into four groups, which are discussed below.

*1) Competence*

Hypothesis 1 predicts that the higher the internal auditors' education level, the higher external auditors' reliance on internal auditors' work. Hypothesis 2 predicts that external auditors' reliance on internal auditors' work is higher when the internal auditors possess a professional qualification. Hypothesis 3 predicts that the more the internal auditors' involvement in training, the higher external auditors' reliance on internal auditors' work. Hypothesis 4 predicts that the higher the internal auditors' level of experience, the higher external auditors' reliance on internal auditors' work. The results of the study, for both the internal and external auditors' surveys, indicate non-significant relationships between the education level, professional qualification, training, and the level of internal auditors' experience, and the external auditors' reliance on internal auditors' work, thus hypotheses 1, 2, 3 and 4 are not supported. The result of hypothesis 2 (professional qualifications) is consistent with the findings by Haron (2004), that professional certification of internal auditors is not a significant factor affecting the judgement of external auditors in their reliance decisions, but is inconsistent with the findings by Brown (1983) and Al-Twajry et al. (2004). The results of hypotheses 1 (education level), 3 (internal auditor's training) and 4 (internal auditor's experience) are inconsistent with previous studies (Brown, 1983; Schneider, 1984; Ferrier, 1990; Brody et al., 1998; Al-Twajry et al., 2004).

Under competence, hypothesis 5 predicts that the level of external auditors' reliance on internal auditors' work is higher when the internal auditors have knowledge of the local authority. The results of the study, for the internal auditors' survey, indicates a significant positive relationship between the internal auditors' knowledge of the local authority and the external auditors' reliance on internal auditors' work, thus supporting hypothesis 5. This suggests that internal auditors in the local authorities are expected to have more knowledge of their local authority than other staff. This is likely to be because knowledge of the local authorities' activities and procedures is important for the internal auditors to assess internal control and risk factors. This result is consistent with the finding by Schneider (1984) that knowledge of a company's operations is an important factor affecting the external auditors' reliance on internal auditors' work.

## *2) Objectivity*

Hypothesis 6 predicts that the higher the organisational status of the internal audit department, the higher the level of external auditors' reliance on internal auditors' work. Hypothesis 7 predicts that external auditors' reliance on internal auditors' work is higher when the internal auditors report to higher organisational levels. Hypothesis 8 predicts that the higher the internal auditors' independence, the higher the external auditors' reliance on internal auditors' work. The results of the study, for both the internal and external auditors' surveys, indicate a non-significant relationship between organisational status, reporting level and internal auditors' independence, and the external auditors' reliance on internal auditors'

work. Thus hypotheses 6, 7 and 8 are not supported. The result of hypothesis 7 (reporting level) is consistent with the findings by Haron (2004) that reporting level is not a significant factor affecting external auditor's reliance on internal auditor's work, but is inconsistent with the findings by Abdel-khalik et al. (1983) and Brown (1983). The results of hypotheses 6 (organisational status) and 8 (internal auditors' independence) are inconsistent with previous studies (Brown, 1983; Stocks et al., 1988; Al-Twajjry et al., 2004).

Under objectivity, hypothesis 9 predicts that the more the top management support the internal audit function, the more external auditors are expected to rely upon internal auditors' work. The results of the study, for the external auditors' survey, indicate a significant positive relationship between top management support of the internal audit function and the external auditors' reliance on internal auditors' work, thus supporting hypothesis 9. This suggests that internal audit functions receiving support from senior management may perform better than those without such support, and that this encourages reliance on internal audit work by external auditors. The result of this study is consistent with Schneider's (1984) study, that top management support of the internal audit department is a significant factor in making a decision about the extent of reliance on the work of internal auditors. This result is also consistent with the findings by the Auditor General of Canada's (1993) study, that strong support from senior management is an essential precondition to an effective internal audit

function. The results of Goodwin's (2004) study also suggest that internal audit needs a higher profile and greater management support than presently exists.

### *3) Work performance*

Hypothesis 10 predicts that the greater the scope of the internal auditors' work, the higher external auditors' reliance on internal auditors' work. Hypothesis 11 predicts that the better the quality of internal audit documentation, the higher external auditors' reliance on internal auditors' work. Hypothesis 12 predicts that the higher the internal auditors' compliance with CIPFA standards, the higher external auditors' reliance on internal auditors' work. Hypothesis 13 predicts that external auditors' reliance on internal auditors' work is higher when the internal auditors adopt a risk-based approach to auditing in their audit work. The results of the study, for both the internal and external auditors' survey, indicate a non-significant relationship between the scope of internal audit work, quality of internal audit documentation, internal auditors' compliance with CIPFA standards, and adopting a risk-based auditing, and external auditors' reliance on internal auditors' work, thus hypotheses 10, 11, 12, and 13 are not supported. Thus, the results of this study are inconsistent with a number of prior studies that relate external auditors' reliance on internal auditors' work to work performance factors (Brown, 1983; Schneider, 1984; Schneider, 1985b; Messier and Schneider, 1988; Ferrier, 1990; Maletta and Kida, 1993; Maletta, 1993; Al-Twajry et al., 2004).

#### *4) Quality of internal audit function*

Hypothesis 14 predicts that the older the age of the internal audit function, the higher external auditors' reliance on internal auditors' work. The results of the study, for both the internal and external auditors' surveys, indicate a non-significant relationship between the age of the internal audit function and the external auditors' reliance on internal auditors' work, thus hypothesis 14 is not supported. The results of this study are aligned with the findings of Al-Twaijry et al. (2004), that the age of the internal audit department was a relatively less important factor affecting the reliance decision.

Hypothesis 15 predicted that the larger the size of the internal audit department, the higher the level of external auditors' reliance on internal auditors' work. The results of the study, for both internal and external auditors, indicate a significant positive relationship between the size of the internal audit function and the external auditors' reliance on internal auditors' work, thus supporting hypothesis 15. This suggests that larger internal audit departments tend to be better resourced, and such departments are also likely to be involved in a wider scope of internal audit work. The results of this study are consistent with a number of prior studies that relate external auditors' reliance on internal auditors' work to the size of the department (DeAngelo, 1981; Wallace, 1984; Al-Twaijry et al., 2004; Hay & Davis, 2004). For instance, Wallace's (1984) study found that the extent of external auditors' reliance on internal auditors' work was positively related with the size of the internal audit function. Consistent with Wallace

(1984), the results of Al-Twajjry et al.'s (2004) study also suggest that the extent of external auditors reliance on internal auditors' work varied positively with their views of internal audit quality, and the larger the internal audit function, the higher the quality of the internal audit function was perceived to be by the external auditor.

### **6.15 Interview Findings**

As in the preceding multiple regression analysis, the findings from the interviews show that both internal and external auditors perceive the size of the internal audit function as an important factor affecting the reliance decision. An adequate number of internal audit staff is essential in order to perform the internal audit work, as their work was based on audit working days.<sup>10</sup> From the interviews, it is found that, in general, internal audit function has 200 audit working days to complete annual internal audit work. In order to achieve the required audit working days and meet the internal audit objectives, the internal audit function must have an adequate number of staff. An adequate number of internal audit staff is important to ensure that internal audit work is covered as planned. However, one internal auditor disagreed that the size of internal audit function is an important determinant of the external auditors' reliance on internal audit work. He argued that the size of the internal audit function is not necessarily important because the internal auditors could reduce their audit plan in order to suit their limited resources and adopt a risk-based audit approach in performing

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<sup>10</sup> Audit working days are the measurement of how long the internal audit work should take to complete within the given time frame.

their internal audit work. Perhaps his response was different from others because he has few staff in the internal audit department. He felt that their internal audit function performed effectively regardless of the small number of internal audit staff.

Another internal auditor felt that the use of the risk-based audit approach is not necessarily an important factor that affects the external auditors' reliance on internal audit work as long as the internal auditor does all the key financial systems work as suggested by the external auditors, such as payroll, creditors, debtors and grant claims. This is because the major area of internal audit work that external auditors would rely on is the key financial systems. As one of the external auditors noted:

The work that the internal auditors do and we rely on is the key financial system. There is no point of them doing the risk-based audit if they don't do what we are looking for. We definitely can't rely on their work if they don't do what we need them to do. (EA2)

Internal auditors agreed that they received support from the top management of their local authorities. Some of the internal auditors felt that they got support from the Head of Finance. External auditors were more concerned with the output or the outcome from the internal auditors than with various input factors. This means that external auditors were more interested to see the quality of internal audit work, for example, the quality of internal audit documentation, the higher standard of internal audit work and the internal auditors' ability to provide good services to their local authorities. However, quality is a subjective matter

and therefore is subject to debate. One of the external auditors felt that he can rely on the work of the internal auditors if the internal auditors produce quality audit work, regardless of whether there are deficiencies in the internal audit function. This interview finding shows a different result to the regression results by suggesting that quality of internal audit work (*work performance*)<sup>11</sup> is an important factor affecting the external auditors' reliance on internal auditors' work, while the regression analysis showed a non-significant result. This demonstrates that non-significant regression results should not necessarily be ignored and that the use of a mixed method research design may be able to explain the different results arising from the questionnaire analysis.

## 6.16 Conclusions – Model 2

The findings from the survey indicate that the *competence* and *objectivity* of internal auditors were significant factors affecting the level of external auditors' reliance on internal auditors' work. Internal auditors' knowledge of the local authority was a significant factor as a proxy for *competence* and top management support of the internal auditors' work was a significant factor as a proxy for *objectivity*. Other internal audit function quality, i.e. size of the internal audit department, was also a significant factor affecting the level of external auditors' reliance on internal auditors' work. Based on the survey findings, *work performance* was found as not significant in external auditor's reliance decision, but findings from the interviews revealed that quality of internal audit work

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<sup>11</sup> All the independent variables in Model 2 are categorised in four groups: 1) Competence, 2) Objectivity, 3) Work performance and 4) Quality of internal audit function.

*(work performance)* is an important factor affecting the external auditors' reliance on internal auditors' work. This could be due to the fact that the external auditors perceived the quality of internal audit work (*work performance*) as an important factor affecting their reliance decision, but those factors were not statistically significant for Model 2.

Most of the findings in Model 2 contradict with the findings of prior studies. These contradictory findings may be due to the context of the study, as previous studies focused on the private sector and the current study focuses on the public sector. The findings may also differ due to the research methods used. Most of the previous studies employed experimental case study, while the current study employed surveys and interviews for the research methods.

Model 2 for the internal auditors was able to explain about 11.3% of the variance in the level of external auditors' reliance on internal auditors' work. There could be other factors that affect the level of external auditors' reliance on internal auditors' work, such as the human factor. For example, the external auditors may be more willing to rely on the internal auditor's work if they have trust in the internal auditors.

## **PART III – Audit Fees and Audit Work**

### **6.17 External Auditors' Reliance on Internal Auditors' Work and Reduced External Audit Fees and External Audit Work**

#### **6.17.1 Survey Results**

This section focuses on research question 4: Does the reliance by external auditors on internal auditors' work lead to a reduction in the external audit cost (fees) and external audit work? From the perceptions of internal auditors, a parametric test of an independent-samples t-test was used to compare: (1) the mean scores between those that have reduced external audit fees and those that have not, and (2) the mean scores between those that have reduced external audit work and those that have not, as a result of the external auditors' reliance on internal audit work. For the perceptions of external auditors, a non-parametric Mann-Whitney test was used to compare: (1) whether those that have reduced external audit fees and those that have not, and (2) whether those that have reduced external audit work and those that have not, differ in terms of the level of external auditors' reliance on internal audit work. This test is the non-parametric alternative to the t-test for independent samples. A non-parametric statistic is used because the data violated the parametric assumption of normally distributed data.

In addition to the t-test and Mann-Whitney tests, Spearman's Rank Order Correlations are used to examine the correlation between the level of external auditors' reliance on internal audit work for those that have reduced external

audit fees and external audit work. The non-parametric Spearman's Rank Order Correlations was used rather than the parametric Pearson Product Moment Correlations, because the reduced audit fees and reduced audit work constructs were each coded on an ordinal scale. For those that have reduced external audit fees and external audit work, Spearman's Rank Order Correlations were used to examine the relationship between: (1) the level of external auditors' reliance on internal audit work and the amount of reduced external audit fees, and (2) the level of external auditors' reliance on internal audit work and the amount of reduced external audit work.

#### *Internal Auditors' Perspective*

From the perceptions of the internal auditors, an independent-samples t-test was conducted to compare the level of external auditors' reliance on internal audit work mean scores for those that have reduced external audit fees and those that have not. The results of the t-test showed that there was no significant difference in mean scores for reliance for those that have reduced external audit fees (Mean = 4.06, n = 70) and those that have not reduced external audit fees (Mean = 3.96, n = 69), ( $t = 0.804$ ,  $p = 0.423$ ). As this value is above the required cut-off of 0.05, it can be concluded that there is not a statistically significant difference in the mean external auditors' reliance on internal audit work scores for those that have reduced external audit fees and those that have not.

However, the results of the t-test for the perceptions of the internal auditors on reduced external audit work due to external auditors' reliance on internal audit work showed that there was a significant difference in mean scores for those that have reduced external audit work (Mean = 4.09, n = 117) and those that have not reduced external audit work (Mean = 3.76, n = 29), ( $t = 2.191$ ,  $p = 0.030$ ). As this value is below the required cut-off of 0.05, it can be concluded that there is a statistically significant difference in the mean external auditors' reliance on internal audit work scores for those that have reduced external audit work and those that have not.

Overall, the results from the t-tests show that internal auditors perceived that the external auditors' reliance on internal audit work has no effect on the external audit fees but has reduced the external audit work. This may be because of the number of samples size differs greatly between those that have reduced external audit work and those that have not reduced external audit work.

Results of the Spearman's Rank Order Correlation for the relationship between the level of external auditors' reliance on internal audit work and the amount of reduced external audit fees revealed a moderate, negative, but not statistically significant, correlation between the two variables ( $r = -0.36$ ,  $n = 70$ ,  $p = 0.768$ ). The relationship between the level of external auditors' reliance on internal audit work and the amount of reduced external audit work showed a strong, negative, but not statistically significant correlation between the two variables ( $r = -0.60$ ,  $n$

= 117,  $p = 0.521$ ). However, there was a strong, positive correlation between the amount of reduced external audit fees and the amount of reduced external audit work ( $r = 0.692$ ,  $n = 67$ ,  $p = 0.000$ ), with a higher percentage of reduced external audit fees associated with a higher percentage of reduced external audit work.

#### External Auditors' Perspective

A Mann-Whitney test for the effect of external auditors' reliance on internal audit work on external audit fees revealed no statistically significant difference in the reliance level scores of the reduced external audit fees (Median = 3.00,  $n = 45$ ) and non-reduced external audit fees (Median = 3.00,  $n = 10$ ),  $z = -0.376$ ,  $p = 0.707$ .

Similarly, the results of the Mann-Whitney test on reduced external audit work due to external auditors' reliance on internal audit work showed that there was no statistically significant difference in the reliance level scores of the reduced external audit work (Median = 3.00,  $n = 48$ ) and non-reduced external audit work ( $M = 3.00$ ,  $n = 8$ ),  $z = -1.291$ ,  $p = 0.197$ . Overall, the results show that external auditors felt the external auditors' reliance on internal audit work has no effect on the external audit fees as well as on the external audit work. This result is similar to the internal audit survey, in that the internal auditors perceived the external auditors' reliance on internal audit work has no effect on the external audit fees. On the other hand, the result is different where the internal auditors perceived the

external auditors' reliance on internal audit work has reduced the external audit work. Further clarification of these results is discussed in the following section

Results of the Spearman's Rank Order Correlation for the relationship between the level of external auditors' reliance on internal audit work and the amount of reduced external audit fees revealed a small, positive, but not statistically significant correlation between the two variables,  $r = 0.256$ ,  $n = 45$ ,  $p = 0.090$ . Similarly, the relationship between the level of external auditors' reliance on internal audit work and the amount of reduced external audit work showed the same pattern, with  $r = 0.216$ ,  $n = 48$ ,  $p = 0.088$ . However, there was a strong, positive correlation between the amount of reduced external audit fees and the amount of reduced external audit work,  $r = 0.678$ ,  $n = 44$ ,  $p = 0.000$ , with a higher percentage of reduced external audit fees associated with a higher percentage of reduced external audit work.

In summary, the findings of this study revealed that external auditors' reliance on internal audit work has no effect on external audit fees. These findings are consistent with Stein et al. (1994), Carey et al. (2000) and Mat Zain (2005), but inconsistent with Wallace (1984) and Felix et al. (2001). In addition, findings from internal auditors show that the external auditors' reliance on internal audit work has reduced the external audit work. These finding are consistent with Elliot and Korpi (1978), who reported that there was a reduction of external audit work due to the reliance on internal audit work.

### **6.17.2 Interview Findings**

#### **Internal Auditors' Perspective**

All eight internal auditors believed that the external audit fees had not been reduced due to the reliance placed on internal audit work, and this finding is consistent with the statistical results discussed above. As IA8 stated:

What I know is that the audit fees go up every year. We saw a reduction for work we did on the Housing Benefit grant claim, but I've never seen anything else go down because they place reliance on us.

While findings from the interviews suggest that the external audit fees have not been reduced as a result of external auditors' reliance on internal audit work, the external audit fee might be increased if the external auditors did not rely on internal audit work. As stated by IA4:

The fee is still the same from last year to this year. I think the negative side of it is that if they [the external auditors] could not place reliance on our work, then they have to do more work. So, you can see an increase rather than see a decrease. So, I think the fact that if they [the audit fees] stay the same is positive.

The interviewees perceived that the external audit fees were not reduced but they have been held constant and have not increased. External auditors have charged the council at a scale fee level determined by the Audit Commission. The Commission sets scales on a 'fee for audit' approach, i.e. one that is outcome-focused rather than based on input costs. The scales allow auditors to agree an audit fee with each audited body on the basis of delivering an agreed range of audit outputs to an agreed timetable.

The Commission ([www.audit-commission.gov.uk/](http://www.audit-commission.gov.uk/)) has determined that the scales of audit fees for individual bodies will comprise:

- a fixed element, for different types of audited bodies, for example county councils, police authorities or primary care trusts;
- an element related to gross expenditure of the audited body; and
- a regional premium for audits in London and the South East.

The external audit fees might increase if the internal auditors did not do the work expected by the external auditors. As noted by IA2:

The fee is not reduced, but it helps so that it's not been increased. External auditors charge us at a scale fee level. The implicit threat is that if we don't do the work up to their standard, they would charge us more.

Only one of the internal auditors perceived that the external audit fees have been reduced as a result of external auditors' reliance on internal audit work. He mentioned that the reason he felt the audit fees have been reduced is because the phrase "...reduced external audit fees as a result of external auditors' reliance on internal audit work" is printed in the council's earlier annual audit letter.

In relation to the reduction in external audit work, all of the eight interviewees agreed that external audit work had been reduced due to the reliance placed on internal audit work. The internal auditors perceived that they had done a lot of the work, such as reviewing the main accounting system. As noted by IA4:

I do think we deliver what they want, therefore they don't have to do much.

Another interviewee, IA 5, noted that:

The external auditor would come back and just ask one or two questions for evidence because we only gave the document, and not the evidence. We have the evidence in the hard file. So she asked us one or two questions about the evidence and we showed them the evidence and that was it. That's all she did.

Overall, the results from the interviews show that internal auditors perceived the external auditors' reliance on internal audit work has not reduced the external audit fees but has reduced the external audit work. This finding is consistent with the statistical results of the internal auditors' survey, that internal auditors perceived the external auditors' reliance on internal audit work has no effect on external audit fees but has reduced external audit work.

#### *External Auditors' Perspective*

The results from the interviews show that external auditors felt that their reliance on internal audit work has not reduced external audit fees or external audit work. In local authorities, the extent to which external auditors can reduce the fee by virtue of relying on internal audit work is very small. This is because the external auditors have to do the bulk of the work themselves. This includes reviewing the significant journal entries, confirming the ledger balances, and making sure that the amounts from the ledgers have been transferred into the accounts properly. Internal audit is one part of the control environment which reduces risk. This means that the fees are not as high as they would have been if the internal audit function was poor, but there is no direct link between them if the internal auditors do their work properly. This means that the external auditors do not have to do

additional work on top of the work that has been carried out by the internal auditors, and consequently this maintains the fees to a certain level below what they would have been if the internal audit function was poor. As EA4 commented:

I don't think that if internal auditors were to do more, we would do a lot less. I think it's more about getting the maximum output from your investment in audit to getting the better value from what you spend on audit in terms of good reports, good recommendations, good relationship, rather than saying that if internal auditors did this, you can stop doing that. It doesn't work like that.

Results from the interviews also show that external auditors' reliance on internal audit work does not reduce the audit fees, but it may help to avoid higher fees. For example, if the internal auditors do not meet the CIPFA standards, or if they do not complete their programme of work, or if they do not cover all the main financial systems, then the external audit fee would be higher. Even if the external auditors rely on the internal audit work, this does not reduce the external audit work, but it may help to avoid greater external audit work. This is because the external auditors adopt a different approach to the internal auditors. For example, external auditors still have to do the substantive test of balances in the accounts to make sure that all the balances are correct and free from misstatements.

In conclusion, it appears that the external auditors' reliance on internal audit work does not have a significant effect on reducing the external audit fees and external audit work. This is because the fees have been set in a way that is

suitable for local authorities. Overall, the fees would be set higher than the scale fees if there were deficiencies in local authority management. If those deficiencies were rectified, then the fee would come down, but not below the scale fees. In well-managed local authorities, there is very little opportunity to reduce the cost of the external audit fees with regards to whatever internal auditors do. In poorly-managed local authorities, where the external auditors might have to do a lot more work, then the audit risk is higher and therefore the audit fees might be higher.

#### **6.18 Conclusion**

The findings from the survey and interviews reveal that internal and external auditors generally have a good working relationship. A majority of external auditors thought that they co-operate more with the internal auditors than the internal auditors do, because they were getting more information from the internal auditors in terms of working papers and reports. The majority of internal auditors thought that they co-operate moderately because it was a one-way communication and the internal auditors need to provide services to meet the external auditors' requirement. Regular meetings and the use of internal auditors' expertise by the external auditors were the factors perceived by both sets of auditors as affecting the level of co-operation between internal and external auditors. In addition, internal auditors perceived that coordination in the timing of internal and external auditors' work was also a significant factor affecting the level of co-operation between them.

The size of the internal audit function was a significant factor affecting the external auditors' reliance on internal audit work. External auditors viewed the quality of internal audit work as a factor that can affect their decision whether or not to rely on internal audit work. It is difficult to make a link between the work internal auditors carry out and the impact this will have on external audit fees. This is more about the quality of the output rather than direct cost saving. If the internal audit were inefficient, the external audit fee would be higher because the external auditors would rate the audit risk as being high. With regards to the control environment, if the control environment is good, the external auditor should be able to rely on the controls within the systems. If there were deficiencies in the control environment, the external auditor could not rely on the controls and would need to perform more substantive tests. Consequently, the quantity of external audit work and the external audit fees would be higher. To conclude, the reliance on internal audit work in the local authorities in England does not have much impact on reducing external audit fees and external audit work. However, it does help to minimise increases in external audit fees.

## **CHAPTER 7:**

# **RESEARCH FINDINGS IN MALAYSIA AND COMPARISON WITH ENGLAND**

### **7.1 Introduction**

The objective of this chapter is to present the results of the Malaysian questionnaire survey and interviews, and to compare these results with England. This chapter focuses on Model 1, that is, the level of co-operation between internal and external auditors in Malaysian local authorities and the factors affecting this co-operation. For the Malaysian study, analyses of the reliance on internal auditors' work by external auditors (Model 2), and the effect of external auditors' reliance on internal auditors' work on reductions in external audit fees and external audit work have not been made because it was discovered that external auditors of Malaysian local authorities did not rely on the internal auditors' work. Results from the interviews are used to provide information additional to that gathered from the questionnaire survey. There were only 28 internal auditor respondents and eleven external auditor respondents for the Malaysian survey. Although there are 143 local authorities in Malaysia, as described in Chapter 2, section 2.3, only 28 of them had established an internal audit function.<sup>12</sup> These local authorities are distributed across the eleven states in Malaysia, as indicated in Chapter 2, section 2.5.2.

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<sup>12</sup> Based on information from the National Audit Department of Malaysia.

The remainder of this chapter is organised in the following way. Section 7.2 highlights the background of the respondents. Section 7.3 provides the results of the study which covers descriptive statistics for and correlations between the constructs in Model 1. Section 7.4 provides the findings of the interviews and section 7.5 draws conclusions based on the findings.

## **7.2 The Respondents' Background Statistics**

Background information relating to the internal and external auditors is shown in Tables 7.1 and Table 7.2 respectively. Table 7.1 shows that the majority of the internal audit functions in local authorities in Malaysia were relatively new, being established for up to 10 years (64.3%), and have up to five internal audit staff (67.8%). Respondents to the internal audit study may be characterised as mostly having up to ten years of work experience (82.1%) with the highest education level of Bachelor degree or Diploma (92.7%). Only 35.7% of the internal auditors are members of a professional body and all of them are registered members of the IIA.

The background of the respondents is similar to England in that both Malaysia and England have less than six internal audit staff and most of the internal auditors have a Bachelor degree or an A-level (equivalent to a Diploma in Malaysia). The background of the respondents is different from England in terms of the age of the internal audit function, the internal auditors' working experience, and their professional membership. While the majority of the internal

audit units have been established for less than eleven years in Malaysia, the majority of the internal audit units in the UK have been established for more than 30 years. Most of the internal auditors in Malaysia have less than eleven years' work experience, whereas most of the internal auditors in England have more than eleven years' work experience. Ninety per cent of the internal auditors in the UK are members of a professional body compared to around 35.0% in Malaysia.

Table 7.2 depicts the external auditors' background. The majority of the respondents (82.0%) hold a Bachelor's or Master's degree as their highest level of educational achievement, and 54.5% of them have been working for 21 to 30 years as external auditors. Five of the respondents are members of a professional body, with all of them being registered members of the Malaysian Institute of Accountants (MIA).

The background of external auditors in Malaysia is similar to that in England, where the majority of the external auditors hold a Bachelor's degree and have been working for more than ten years as external auditors. However, only five out of eleven external auditors in Malaysia are members of a professional body as compared to 64 out of 65 external auditors in England.

**Table 7.1: Background Information of Internal Auditors in Malaysia  
(N = 28)**

		Freq	%
Age of Internal Audit Function	Up to 10 years	18	64.3
	11 to 20 years	8	28.6
	More than 20 years	2	7.1
	Total	28	100.0
No. of staff in internal audit function	Up to 5	19	67.8
	6 to 10	8	28.6
	More than 10	1	3.6
	Total	28	100.0
Education	Doctoral degree	0	0.0
	Master degree	2	7.1
	Bachelor degree	14	50.0
	Diploma	12	42.9
	HSC or equivalent	0	0.0
	Total	28	100.0
Work experience	Up to 10 years	23	82.1
	11 to 20 years	4	14.3
	More than 20 years	1	3.6
	Total	28	100.0
Professional membership	Yes	10	35.7
	No	18	64.3
	Total	28	100.0
Type of professional body <sup>a</sup> (n=10)	ACCA	0	
	CIMA	0	
	MIA	4*	
	MICPA	0	
	IIA	10	
	Others	0	

\* These respondents are also members of the IIA.

Note: <sup>a</sup> ACCA = Association of Chartered Certified Accountants

CIMA = Chartered Institute of Management Accountants

MIA = Malaysian Institute of Accountants

MICPA = Malaysian Institute of Certified Public Accountants

IIA = Institute of Internal Auditors

**Table 7.2: Background Information of External Auditors in Malaysia  
(N = 11)**

		Freq	%
Education	Doctoral degree	0	0.0
	Master degree	4	36.4
	Bachelor degree	5	45.6
	Diploma	1	9.0
	HSC or equivalent	1	9.0
Total		11	100.0
Work experience	Up to 10 years	3	27.3
	11 to 20 years	2	18.2
	21 to 30 years	6	54.5
	More than 30 years	0	0.0
Total		11	100.0
Professional membership	Yes	5	45.5
	No	6	54.5
Total		11	100.0
Type of professional body <sup>a</sup> (n=5)	ACCA	0	
	CIMA	0	
	MIA	5	
	MICPA	0	
	IIA	0	
	Others	0	

Note: <sup>a</sup> ACCA = Association of Chartered Certified Accountants  
 CIMA = Chartered Institute of Management Accountants  
 MIA = Malaysian Institute of Accountants  
 MICPA = Malaysian Institute of Certified Public Accountants  
 IIA = Institute of Internal Auditors

## 7.3 - RESULTS

### 7.3.1 Descriptive Statistics for the Constructs in Model 1

This analysis presents the descriptive statistics for each construct in the model based on median, minimum and maximum scores for the total sample of 28 internal auditors and eleven external auditors for the dependent variable, the level

of co-operation between internal and external auditors (COOP), and eight independent variables in Model 1, as discussed in Chapter 4, section 4.3.1.<sup>13</sup>

Table 7.3 provides descriptive statistics of the variables used in Model 1 for the internal auditors. In relation to the dependent variable, the level of co-operation between internal and external auditors (COOP), the majority of the internal auditors view their co-operation with the external auditors as low to moderate. Most of the internal auditors disagree that they have regular meetings (MEETING) with the external auditors. A majority of the internal auditors disagree that they coordinate the timing of their work (TIMING) effectively in order to maximise co-operation and reliance. Internal auditors generally disagree that they communicate their findings to external auditors (IACOMM) and vice versa (EACOMM). Generally, internal auditors also disagree that they co-operate in training the internal auditors (IATRRAIN), external auditors (EATRRAIN) and the staff of other departments in the local authority (OSTRAIN). A majority of the internal auditors also disagree that they coordinate their work in preparing the external audit plan (EAPLAN); they interchange reports with external auditors (INTER); they notify findings of frauds and other significant events (NOTIFY) and that the external auditors use their expertise (USEEXPERT).

In comparison to England, it is found that all the constructs (except IATRRAIN, EATRRAIN and OSTRRAIN) in the Malaysian study have a lower median score

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<sup>13</sup> The parametric mean and standard deviation statistics are not calculated in the descriptive statistics for Model 1. This is because with the small sample sizes, the results of the parametric tests are likely to be unreliable.

than England. For example, the median for the level of co-operation between internal and external auditors (COOP) in Malaysia is 3.00 while the median is 4.00 in England. In Malaysia, the median for regular meetings (MEETING) is 2.00 compared to 4.00 in England. However, the medians of 2.00 for IATRAN, EATRAN and OSTRAN are the same with the median for TRAIN in England.

**Table 7.3: Descriptive Statistics for Internal Auditors in Malaysia**

Descriptive Statistics (N=28) <sup>a</sup>						
Construct	Median	Score = 1	Score = 2	Score = 3	Score = 4	Score = 5
COOP <sup>b</sup>	3.00	4	7	11	4	2
MEETING	2.00	-	17	2	9	-
EAPLAN	3.00	-	11	11	4	2
INTER	2.00	2	14	3	9	-
NOTIFY	2.00	2	13	6	7	-
TIMING	2.00	4	16	4	2	2
EACOMM	2.50	-	14	5	9	-
IACOMM	2.50	2	12	5	9	-
USEEXPERT	2.00	2	15	4	7	-
IATRAN	2.00	5	11	2	8	2
EATRAN	2.00	10	13	3	2	-
OSTRAN	2.00	11	11	2	4	-

<sup>a</sup> All constructs, except for COOP, are scored on a 5 point Likert scale with a minimum score of 1 = strongly disagree and a maximum score of 5 = strongly agree.

<sup>b</sup> Construct COOP is scored on 1 = none, 2 = low, 3 = moderate, 4 = high and 5 = very high.

Table 7.4 provides descriptive statistics of the variables used in Model 1 for the external auditors. In relation to the dependent variable, the level of co-operation

between external and internal auditors (COOP), ten out of eleven external auditors report that they co-operate moderately with the internal auditors. The majority of the external auditors agree that they have regular meetings (MEETING) with the internal auditors and they coordinate with internal auditors in preparing their external audit plans (EAPLAN). External auditors generally gave a midpoint response of 3 on the five-point scale for whether they notify the internal auditors of the findings of any significant event (NOTIFY), whether they coordinate the timing of internal and external audit work (TIMING), and whether they interchange reports with the internal auditors (INTER). Most of the external auditors also agree that they co-operate with the internal auditors in training the internal audit staff (IATRRAIN) and the staff of other departments in the local authority (OSTRAIN). However, the external auditors generally disagree that they co-operate with the internal auditors in the training of external audit staff (EATRRAIN). A majority of the external auditors strongly disagree that they use the internal auditors' expertise (USEEXPERT) and the internal auditors communicate their findings to them (IACOMM), but they gave a midpoint response of 3 on the five-point scale for whether they communicate their findings to the internal auditors (EACOMM).

In comparison to England, the medians for MEETING and EAPLAN are the same as Malaysia at 4.00. The median for co-operation in the training of external auditors (EATRRAIN) in Malaysia is found to be the same as the median for the co-operation in the training of internal and external auditors (TRAIN) in England

at 2.00. However, the median for co-operation in training the internal audit staff (IATRAN) and the staff of other departments in the local authority (OSTRAIN) in Malaysia is higher at 4.00 than the median of 2.00 in England. Similar to the internal auditors' study, the level of co-operation between internal and external auditors (COOP) in Malaysia is 3.00, lower than the median of 4.00 in England. All the other constructs for the Malaysia study have a lower median than in England.

**Table 7.4: Descriptive Statistics for External Auditors in Malaysia**

Descriptive Statistics (N=11) <sup>a</sup>						
Construct	Median	Score = 1	Score = 2	Score = 3	Score = 4	Score = 5
COOP <sup>b</sup>	3.00	-	1	10	-	-
MEETING	4.00	1	2	1	6	1
EAPLAN	4.00	2	-	2	6	1
INTER	3.00	1	2	4	4	-
NOTIFY	3.00	1	2	5	1	2
TIMING	3.00	1	2	8	-	-
EACOMM	3.00	3	1	4	-	3
IACOMM	2.00	5	1	2	3	-
USEEXPERT	2.00	5	3	-	3	-
IATRAN	4.00	-	-	1	9	1
EATRAN	2.00	4	5	2	-	-
OSTRAIN	4.00	1	-	3	6	1

<sup>a</sup> All constructs, except for COOP, are scored on a 5 point Likert scale with a minimum score of 1 = strongly disagree and a maximum score of 5 = strongly agree.

<sup>b</sup> Construct COOP is scored on 1 = none, 2 = low, 3 = moderate, 4 = high and 5 = very high.

### 7.3.2 Correlation Analysis

Correlation analysis is used to investigate whether there is a relationship between the level of co-operation between internal and external auditors and the factors discussed in Model 1. A non-parametric test of Spearman's Rho correlation is used rather than a parametric test of the Pearson Product Moment correlation and multiple regression analysis as used in Chapter 6. This is due to the small sample size of the Malaysian study. It is not appropriate in this case to use the parametric test because of the difficulties of trying to satisfy the assumptions necessary to use parametric correlations and multiple regression analysis.

Tables 7.5 and 7.6 present the Spearman's Rho correlations between the independent variables and the dependent variable in Model 1 for the internal and external auditors respectively. For the internal auditors, Table 7.5 highlights that most of the independent constructs such as regular meetings (MEETING), coordination in preparing the external audit plan (EAPLAN), interchange of reports (INTER), notification of frauds and other significant events (NOTIFY), using internal audit expertise (USEEXPERT), co-operation in training external audit staff (EATRAIN) and co-operation in training staff of other departments in the local authority (OSTRAIN) have a positive relationship as expected, and a significant correlation ( $p < 0.05$ ) with the level of co-operation.

**Table 7.5: The Spearman's Rho Correlation Matrix for Internal Auditors in Malaysia (N = 28)**

	Variables	1	2	3	4	5	6	7	8	9	10	11	12
1	COOP	1.000											
2	MEETING	.613**	1.000										
3	EAPLAN	.593**	.526**	1.000									
4	INTER	.592**	.711***	.251	1.000								
5	NOTIFY	.555**	.639***	.144	.952***	1.000							
6	TIMING	.329	.284	.351	.362	.291	1.000						
7	EACOMM	.271	.526**	.204	.611**	.528**	.417*	1.000					
8	IACOMM	.211	.390*	.092	.621***	.596**	.400*	.911***	1.000				
9	USEEXPERT	.780***	.500**	.164	.727***	.707***	.310	.618***	.551**	1.000			
10	IATRAN	.325	.724***	.395*	.583**	.481**	.713***	.682***	.620***	.341	1.000		
11.	EATRAN	.408*	.290	.236	.626***	.524**	.413*	.375*	.352	.530**	.389*	1.000	
12.	OSTRAIN	.390*	.236	.303	.477*	.420*	.585**	.156	.135	.382*	.356	.865***	1.000

\*\*\*Correlation is significant at the 0.001 level (2-tailed test)

\*\* Correlation is significant at the 0.01 level (2-tailed test)

\* Correlation is significant at the 0.05 level (2-tailed test)

The table also shows that there is no significant correlation ( $p > 0.05$ ) between COOP and the independent constructs such as coordination of the timing of internal and external auditors' work (TIMING), external auditors' communication of their findings with internal auditors (EACOMM), internal auditors' communication of their findings with external auditors (IACOMM) and co-operation in training internal audit staff (IATRRAIN).

Table 7.5 also shows that the correlations are generally less than 0.800, hence the independent constructs are measuring different constructs. However, the correlation between NOTIFY and INTER is greater than 0.800 ( $r = 0.952$ ), which indicates that they may not be measuring distinct constructs. This did not occur in the English study and may be a consequence of the low sample size, and is a limitation of these research results. In addition, there was a high correlation between EACOMM and IACOMM ( $r = 0.911$ ) and between EATRRAIN and OSTRRAIN ( $r = 0.865$ ). An attempt was made to combine these four constructs into two constructs, communication of findings between internal and external auditors (COMM) and co-operation in training external audit staff and other local authority staff (EAOSTRAIN). The result of Spearman's Rho correlations of the dependent construct (COOP) with the combined constructs shows similar results with the results without combining these constructs.<sup>14</sup>

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<sup>14</sup> The result of Spearman's Rho correlations for COMM, 0.275, is not significant as with EACOMM and IACOM; that for EOSTRRAIN, 0.391, is significant at  $p = 0.05$  as with EATRRAIN and OSTRRAIN.

Spearman's Rho correlation coefficients for Malaysia and England are used in order to make a comparison between the two countries. For England, the result of the Spearman's Rho correlation is similar to the results of the Pearson Product Moment correlation shown in Table 6.5, Chapter 6 (the Spearman's Rho table of correlation coefficients for England is shown in Appendix 12). It is found that in England, all the independent constructs have a positive relationship as expected, and a significant correlation with the level of co-operation. In Malaysia, most of the independent constructs, such as regular meetings (MEETING), coordination in preparing the external audit plan (EAPLAN), interchange of reports (INTER), notification of frauds and other significant events (NOTIFY), using internal audit expertise (USEEXPERT), co-operation in training external audit staff (EATRAIN) and co-operation in training staff of other departments in the local authority (OSTRAIN), have a positive relationship as expected, and a significant correlation with the level of co-operation (COOP). Therefore, these independent constructs are found to have a significant correlation with the level of co-operation for both Malaysia and England. Unlike England, the other independent constructs TIMING, EACOMM, IACOMM and IATRRAIN did not have a significant correlation with the level of co-operation.

Table 7.6 presents the correlation coefficients between the independent variables and dependent variable for the external auditors in Malaysia. The table highlights that only two of the independent constructs (TIMING and IATRRAIN)

have a positive relationship, as expected, and significant correlation ( $p < 0.05$ ) with the level of co-operation. This result shows that external auditors perceived their level of co-operation with internal auditors is increased when both of them co-ordinate the timing of their work effectively in order to maximise co-operation and reliance. External auditors also perceived that the level of co-operation is increased when they co-operate in the training of internal audit staff.

The result however shows no significant statistical correlation ( $\text{sig.} > 0.05$ ) between these independent constructs (MEETING, EAPLAN, INTER, NOTIFY, USEEXPERT, EACOMM, IACOMM, EATRRAIN and OSTRRAIN) and the dependent construct COOP. Table 7.6 also shows that a number of correlations between the independent constructs are greater than 0.800, which indicates that they may not be measuring distinct constructs, (that is between TIMING and MEETING, TIMING and NOTIFY, EATRRAIN and MEETING, OSTRRAIN and MEETING). This did not occur in the English study for both internal and external auditors and for the internal auditors' study in Malaysia. This may be a consequence of the low sample size and is a limitation of these research results. In addition, there was a high correlation between EATRRAIN and OSTRRAIN ( $r = 0.904$ ) and an attempt was made to combine these two constructs into one construct, co-operation in training external audit staff and other local authority staff (EAOSTRAIN). The result of Spearman's Rho

correlations between COOP and the combined constructs shows similar results with the results without combining constructs<sup>15</sup>.

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<sup>15</sup> The result of Spearman's Rho correlations for EAOSTRAIN with COOP is 0.522 and is not significant, as with EATRIN and OSTRIN.

**Table 7.6: The Spearman's Rho Correlation Matrix for External Auditors in Malaysia (N = 11)**

	Variables	1	2	3	4	5	6	7	8	9	10	11	12
1	COOP	1.000											
2	MEETING	.547	1.000										
3	EAPLAN	.493	.725*	1.000									
4	INTER	.526	.136	.448	1.000								
5	NOTIFY	.527	.707*	.420	.499	1.000							
6	TIMING	.638*	.857**	.690*	.458	.826**	1.000						
7	EACOMM	.417	.558	.726*	.723*	.780**	.799**	1.000					
8	IACOMM	.319	.670*	.339	-.188	.214	.610*	.096	1.000				
9	USEEXPERT	.321	.043	-.064	-.506	-.380	-.255	-.574	.145	1.000			
10	IATRAN	.742**	.737**	.702*	.106	.355	.559	.317	.501	.505	1.000		
11.	EATRAN	.361	-.897**	.714*	-.017	.533	.691*	.457	.488	.120	.591	1.000	
12.	OSTRAIN	.551	.992***	.687*	.095	.676*	.800**	.479	.644*	.118	.743**	.904**	1.000

\*\*\*Correlation is significant at the 0.001 level (2-tailed test)

\*\* Correlation is significant at the 0.01 level (2-tailed test)

\* Correlation is significant at the 0.05 level (2-tailed test)

In order to compare Malaysia and England, the results of the Spearman's Rho correlation for the English study, which is similar in the form of their significance level to the results of the Pearson Product Moment correlation shown in Table 6.6 and the Spearman's Rho table of correlation coefficients for England shown in Appendix 13, is compared with the result of the Spearman's Rho correlation for the Malaysian study. The results of the English study show that most of the independent constructs (MEETING, EAPLAN, NOTIFY, TIMING, EACOMM, IACOMM, and IAEXPT) have a positive relationship, as expected, and a significant correlation with the level of co-operation. In contrast, for the Malaysia study, only two of the independent constructs (TIMING and IATRAN) have a positive relationship as expected, and significant correlation with the level of co-operation. Therefore, TIMING is the only independent construct that is found to have a significant correlation with the level of co-operation for both Malaysia and England. The difference in the results may be due to the small sample size in Malaysia.

### **7.3.3 Discussion of the Factors Affecting the Level of Co-operation between Internal and External Auditors**

Eight propositions for Model 1 which relate to the factors affecting the level of co-operation were developed in Chapter 4. The results of these for Malaysia are shown below.

P<sub>1</sub> states *"If the internal and external auditors meet regularly, the level of co-operation between them increases."* The results of the study support this proposition for the internal auditors' survey only. This means that regular meetings between internal and external auditors are thought by the internal auditors to lead to increases in the level of co-operation between them. The result of the external auditors' sample, however, shows no significant relationship between regular meetings and co-operation between internal and external auditors. In contrast, the results of the English study support this proposition for the both the internal and external auditors' survey.

P<sub>2</sub> states *"If the internal and external auditors coordinate in preparing the external audit plan, the level of co-operation between them increases."* The results of the study support this proposition for the internal auditors' survey only. This means that coordination in preparing the external audit plan is thought by the internal auditors to lead to increases in the level of co-operation between them. However, the external auditors' survey indicated that no significant relationship between coordinating external audit plans and co-operation between internal and external auditors. In contrast, the results of the English study support this proposition for the both the internal and external auditors.

P<sub>3</sub> states *"If the internal and external auditors interchange their reports, the level of co-operation between them increases."* The results of the study support this proposition for the internal auditors' survey only. This indicates that the

interchanging of internal and external auditors' reports is thought by the internal auditors to lead to increases in the level of co-operation between them. The results for the external auditors' study, however, show no significant relationship between the interchange of audit reports and the co-operation between internal and external auditors. These results are similar to both the internal and external auditors' studies in England.

P<sub>4</sub> states *"If the internal and external auditors inform each other of the discovery of frauds and other significant events, the level of co-operation between them increases."* The results of the study support this proposition for the internal auditors' survey only. This suggests that the notification of the discovery of frauds and other significant events between internal and external auditors is thought by the internal auditors to lead to increases in the level of co-operation between them. The result of the external auditors' sample, however, shows no significant relationship between the notification of the discovery of frauds and other significant events and co-operation between internal and external auditors. In contrast, the results of the English study support this proposition for the both the internal and external auditors.

P<sub>5</sub> states *"If there is co-operation in the training of internal and external auditors, the level of co-operation between them increases."* This proposition is then divided into three sub-propositions. P<sub>5a</sub> predicts that the level of co-operation between internal and external auditors increases when they co-operate

in training the internal audit staff. The results of the study support this proposition for external auditors only. This suggests that co-operation in training the internal audit staff is thought by the external auditors to lead to increases in the level of co-operation between internal and external auditors. The results for internal auditors, however, show no significant relationship between co-operation in training the internal audit staff and the level of co-operation between internal and external auditors.

P<sub>5b</sub> predicts that the level of co-operation between internal and external auditors increases when they co-operate in training the external audit staff. The results of the study support this proposition for the internal auditors' survey only. This suggests that co-operation in training the external audit staff is thought by the internal auditors to lead to increases in the level of co-operation between internal and external auditors. The results for external auditors, however, show no significant relationship between co-operation in training the external audit staff and the level of co-operation between internal and external auditors.

P<sub>5c</sub> predicts that the level of co-operation between internal and external auditors increases when they co-operate in training staff of other departments in local authorities. The results of the study support this proposition for the internal auditors' survey only. This suggests that co-operation in training staff of other departments in local authorities is thought by the internal auditors to lead to increases in the level of co-operation between internal and external auditors. In

contrast, the results for the external auditors' sample show no significant relationship between co-operation in training the staff of other departments in local authorities and the level of co-operation between internal and external auditors.

The results of the English study support proposition 5 for the internal auditors' survey only. This suggests that the level of co-operation between internal and external auditors is thought by the internal auditors to increase when they co-operate in training each other. The results for the external auditors' sample, however, show no significant relationship between co-operation in training the internal and external auditors and the level of co-operation between them.

P<sub>6</sub> states "*If there is communication of findings between internal and external auditors, the level of co-operation between them increases.*" The results in this study, for both the internal and external auditors, show no significant relationship between the communication of findings and co-operation between internal and external auditors. In contrast, the results of the English study support this proposition for both the internal and external auditors' surveys. This indicates that the communication of findings is a factor that affects the level of co-operation between internal and external auditors in England, but not in Malaysia.

P<sub>7</sub> states "*If the external auditors use the internal auditors' expertise, the level of co-operation between them increases.*" The results of the study support this

proposition for the internal auditors' survey only. This means that the external auditors' use of the internal auditors' expertise is thought by the internal auditors to lead to increases in the level of co-operation between them. However, for the external auditors' survey there was no significant relationship between the use of internal auditors' expertise and the level of co-operation between them. In contrast, the results of the English study support this proposition for the both the internal and external auditors.

P<sub>8</sub> states *"If there is coordination in the timing of internal and external auditors' work, the level of co-operation between them increases."* The results of the study support this proposition for the external auditors' survey only. This means that the coordination of the timing of internal and external auditors' work is thought by the external auditors to lead to increases in the level of co-operation between them. However, the opposite result was found for the internal auditors' survey, where there was no significant relationship between the coordination in the timing of internal and external auditors' work and co-operation. In contrast, the results of the English study support this proposition for the both the internal and external auditors' surveys.

From the above discussion, it is found that there are different findings for proposition 6 between Malaysia and England. For both the internal and external auditors' survey, the English study supports proposition 6, but it is not supported in the Malaysian study. This suggests that both the internal and external auditors

of the English local authorities perceived that the communication of findings is a factor that affects the level of co-operation between them. In contrast, both the internal and external auditors of the Malaysian local authorities perceived that the communication of findings is not a factor that affects the level of co-operation between them. This may be because the internal and external auditors in England communicate their audit findings to each other, but internal and external auditors in Malaysia do not do this. The descriptive analysis shows that internal auditors in Malaysia generally do not communicate their findings to the external auditors and vice versa.

#### **7.4 Interviews Findings for Malaysia**

Eleven interviews were conducted in Malaysia in April and May 2008. Interviews were conducted with seven Heads of Internal Audit of the Malaysian local authorities and four external auditors, as discussed in Chapter 5, section 5.4.2. The overall aim of the interviews was to shed further light on the relationship between internal and external auditors in Malaysia. Each interview lasted for between one and one-and-a-half hours. The interviews in Malaysia were conducted as a triangulation design as described in Chapter 5, section 5.6.2 rather than as an embedded design as used in the English study. This is because the interviews in Malaysia were done immediately after the survey, and hence before the data analysis had been carried out. In contrast, in the UK, the interviews were done after data had been analysed and the interview questions had been developed in order to support the results of the analysis.

The results of the survey in Malaysia show that the majority of the internal auditors (64.3%) perceived their co-operation with the external auditors as low to moderate, while the majority of the external auditors (91%) perceived that they co-operate moderately with the internal auditors. In the English study, the majority of the internal auditors (78.8%) perceived their co-operation with the external auditors as moderate to high while the majority of the external auditors (67.2%) perceived their co-operation with the internal auditors as high. The findings from the interviews in Malaysia show that both internal and external auditors co-operate to some extent in performing their audit work. Interviewees were asked about their relationship, in general, with their counterparts (internal or external auditors) and their suggestions on how their co-operation could be improved.

The interviews revealed that the internal and external auditors generally perceive that they have a good relationship with each other. Internal and external auditors in Malaysia perceive that they have a good relationship when they have no problems between them. However, in terms of co-operation in doing their audit work, three of the seven internal auditors interviewed mentioned that they do not co-operate much. The other four mentioned that they co-operate only when it is necessary, for example when there are issues of fraud or any other significant findings such as a significant amount of claims for housing benefits. Internal auditors thought that they co-operate moderately when they shared their annual

audit plans with the external auditors and sought advice on some particular audit work from them when necessary.

The reason why the internal auditors felt that there was low co-operation was because they do not meet with the external auditors regularly and they do their own work by themselves. As commented by Internal Auditor Number 7 (IA7):

I think we co-operate at a low level because we spend our time doing our own work and we don't care about what they are doing. We don't meet them often, perhaps formally we meet only once a year before they start their audit work, but we do meet them informally.

In addition, IA2 commented:

I am sure the low co-operation is inevitable. External auditors have limited resources and deadlines to meet. I gather external auditors are more inclined to complete their projects on time. Thus, they have no time to build a sustaining relationship with internal auditors.

The interview findings are consistent with the survey findings, where most of the internal auditors disagree that they have regular meetings with the external auditors and disagree that they coordinate the timing of their work effectively in order to maximise co-operation.

One of the internal auditors felt that his co-operation with the external auditors was moderate for several reasons. Firstly, he thought that he met with the external auditors only when necessary and on an informal basis. Secondly, he was not sure whether the external auditors have used their internal audit work or not, and, finally, because the external audit work has been privatised. One of the

external auditors claimed that the privatisation of the external audit work was due to the limited resources of the National Audit Office. As discussed in Chapter 2, section 2.5.1, the National Audit Office is responsible for the audit of all public sector organisations. As there are various types of organisation in the public sector, the National Audit Office does not have enough resources and time to cover a large amount of audit work. Therefore, based on the interview findings, most of the external audit work for the local authorities has been privatised, but the responsibility for the external audit report of the local authorities remains with the National Audit Office.

One of the internal auditors believed that the abilities of the internal audit function in the local authorities were at an unsatisfactory level. This is due to the lack of knowledge and exposure to the systematic techniques and approaches to auditing among internal audit staff. Training courses provided by the external auditors were more likely to focus on the scope of external auditing rather than internal auditing. The interviewee believed that internal and external audit should have a complementary role where internal auditors take action on any deficiencies identified by the external auditors.

One of the internal auditors felt that they did not have any form of co-operation with the external auditors. IA5 said that:

I am not sure whether we co-operate with them [*external auditors*] or not because we hardly meet them. I suppose we do not have any problem with them but we also do not have any co-operation with them in any way.

As mentioned by one of the interviewees, if necessary, external auditors might seek advice or information regarding financial matters from the accounting department, rather than from the internal auditors.

The findings from the English interviews were different, where four out of the eight internal auditors being interviewed perceived their co-operation with the external auditors as high, while the other four perceived their level of co-operation as very high. Internal auditors in England perceived their co-operation with the external auditors as high because they have regular and formal meetings four times a year and other informal meetings when necessary. This does not happen in Malaysia, where the internal auditors typically have only one formal meeting each year. Usually internal auditors in Malaysia meet the external auditors at the end of the audit period to discuss and to agree on the external auditors' findings (called the "*Exit Conference*"), before the external audit report is issued. In some other cases, the internal auditors meet with the external auditors at the beginning of the audit period, when the external auditors may ask the internal auditors about the scope of audit work that the internal auditors wish to cover. Other than this, there is no formal meeting between the internal and external auditors in Malaysia.

In addition, internal auditors in England perceived they co-operate highly with the external auditors because they provide services that meet the external auditors' requirements, such as performing the financial systems audit. This is

different in Malaysia where the internal auditors did not perform any financial systems audits. This may be because the financial systems in the Malaysian local authorities are not part of an integrated computerised financial system. Currently, local authorities in Malaysia adopt various types of financial systems which are not fully computerised. The external auditors audit the financial statements manually, as opposed to the computerised auditing techniques used in England.

Internal auditors in England perceived that they co-operate very highly with the external auditors because they believe co-operation is a two way process. The co-operation can be higher if there is a changing environment depending on what is happening in the organisation and the challenges facing the organisation. Internal auditors in England perceived that they co-operate very highly with the external auditors because there is a strong working arrangement known as the "*Joint Audit Protocol*".<sup>16</sup> This protocol is a document that clarifies respective responsibilities of internal and external auditors and enhances arrangements for co-operation in the planning, conducting and reporting of audits. In the Malaysian local authorities, the level of co-operation between internal and external auditors was low to moderate because of limited guidance and a lack of enforcement of the existing guidance. One of the internal auditors, IA4 commented:

I know there is an Auditor General circular regarding the relationship but nobody takes any action about it. I think it has not been put in practice and that's why we don't really co-operate with the external auditors.

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<sup>16</sup> As explained by one of the interviewees, the joint audit protocol is a document that sets out the basis for the joint working arrangements between internal and external auditors. This document takes into account the requirements of the revised Code of Audit Practice (2005).

It is possible that, in the future, the Malaysian authorities might produce some sort of guidelines for better co-operation between their internal and external auditors.

From the perspective of the external auditors, the survey findings show that ten out of eleven external auditors co-operate moderately with the internal auditors. The four external auditors who were interviewed believed that they co-operate with the internal auditors in terms of providing training and short courses for the internal auditors. The training and short courses are generally related to the implementation of new regulatory requirements, such as accounting and auditing standards. In addition, external auditors also provide training notes and reading materials as guidance for the internal auditors' work. This is consistent with the survey findings, where most of the external auditors agree that they co-operate with the internal auditors in training the internal audit staff. Co-operation in the training of internal audit staff (IATRAN) was found to have a significant correlation with the level of co-operation. External auditors also believed that they co-operate with the internal auditors by providing advice on general auditing work required by the internal auditors. It can be concluded that having a good relationship between internal and external auditors does not mean that they are highly co-operative. This is because they perceive that they have no problems with each other, but they do not really work together. For example, EA4 said:

In general we have a good relationship with the internal auditors; however, we do not co-operate much. They do their work and we do ours.

In England, five out of six external auditors interviewed perceived a high level of co-operation with the internal auditors. This is because they meet regularly, they know what the internal auditors are doing, and they attend the same audit committee meetings. In addition, the external auditors co-operate with the internal auditors by planning their work together. External auditors also believed that they have a high level of co-operation with the internal auditors because external auditors understand the internal auditors' audit program and they have access to each other's audit reports.

The level of co-operation between internal and external auditors in Malaysia could be improved in the future for the benefit of both internal and external auditors. The findings from the interviews suggest that this can be done by providing a comprehensive internal audit manual to be implemented by internal audit departments in local authorities in Malaysia. At the moment there is no specific guideline or manual that can be used by the internal auditors in local authorities in Malaysia. Most of the internal auditors adopt the external auditors' audit manual in doing their audit work. For example, one of the internal auditors used three different guidelines: 1) the guideline for auditing local authorities issued by the National Audit Office, 2) the guideline for financial management audit issued by the National Audit Office and 3) the guideline for establishing the internal audit function issued by the Treasury of Malaysia. He then combined all these guidelines, made amendments where necessary to suit the local authority, and named it "Guideline for Financial Management Audit for the Internal Audit

of XYZ Local Authority". Detailed guidelines could be included in the audit manual in order to provide a basis and support for co-operation with external auditors. It is also suggested that the internal and external auditors should meet regularly to discuss issues related to their audit work. By having regular meetings, internal auditors might be able to gain more information on what the external auditors expect of them. Thus, external auditors may be more willing to rely on the internal audit work in the future.

Regarding the perceptions on the reliance on internal auditors' work, it was found from the survey that ten out of eleven external auditors did not rely on the internal auditors' work. This was supported by all four of the external auditors who were interviewed. There are various reasons as to why the external auditors did not rely on the internal auditors' work. One of the reasons is related to internal audit quality. For example, one external auditor commented on the lack of competency and training. EA1 said:

We cannot rely on their work because we believe they are not competent. They need more training and knowledge in auditing. Most of them are fresh graduates and they do not have work experience.

Most of the internal auditors who were interviewed also felt that the external auditors did not rely on their work due to the nature of their work. For example,

IA1 said:

We do not do financial statements audit and I think all the other internal audit functions in the local authorities also do not do that as well.

This was confirmed by the external auditors, who said they could not rely on the internal auditors' work as the internal auditors were not involved in the financial statements audit. One external auditor, EA3 said:

We are unable to rely on the internal auditors' work because they do not perform the financial statement audit. This is due to the lack of resources in their department. Some of the internal audit functions are still lacking in competencies.

The scope of internal audit work was limited due to available resources. Based on the survey, internal audit departments have an average of only three audit staff and, as a result, they are unable to cover the financial statement audit. It was suggested by one of the external auditors in the interview that the structure of the internal audit function might be improved by increasing the number of staff, based on the size and operations of the local authority.

Another reason why the internal auditors were not involved in the financial statements audit appeared to be that the financial statements were prepared very late in the financial year. For example, IA6 commented:

I have no chance to audit the financial statements or even sometimes to have a look at them because when they are ready, the external auditors are already here to do the auditing.

In contrast to the majority of respondents, one internal auditor, IA2, felt that the external auditor relied on their work, commenting:

When the external auditors come for an audit, they will find me first. Before they prepare their audit plan, they will discuss with us the areas that we have covered and view our audit report. They also will refer to me if they need more information.

This internal auditor may have provided this response because he had experience as an external auditor and had worked in the private sector. Having this experience enabled him to work more closely with the external auditor and to adopt a more systematic approach, which also covered the financial statements audit. This shows that external auditors might feel able to rely on the work of internal auditors when the internal auditors possess appropriate qualities, such as being well trained, professionally qualified and experienced.

In contrast to the Malaysian interviews, findings from the English interviews show that five out of six external auditors place reliance on the internal auditors' work. This is because they thought that the internal auditors had done satisfactory work related to the financial systems audit and that the key financial systems had been covered in their audit work. External auditors also perceived that placing reliance on internal auditors' work was an effective use of scarce resources.

Based on the Malaysian Treasury Circular no 9/2004 (described in Chapter 2, section 2.3.4), internal auditors are required to produce their annual internal audit plan by 31 January each year and an annual internal audit report by 31 March on the following year. Internal auditors should discuss their annual internal audit plan with the external auditors in the process of preparing it. As EA1 commented:

Internal auditors should contact the external auditors and discuss on what areas have been covered by the external auditors. They should look at the external auditors' previous findings and make plans based on last year's

findings. Our annual external audit plan was prepared by the headquarters and was given to all the states' National Audit Offices.

From the interviews in Malaysia, it was found that five of the internal auditors had discussed their annual internal audit plan with the external auditors prior to implementing their internal audit work. Only two of the internal auditors felt that they had not discussed their annual internal audit plan with the external auditors.

IA7 said:

I never see their annual audit plan and they never see ours. We don't discuss it with the external auditors. The external auditors never ask for our annual internal audit plan. We do what we want to do and what is required by our chairman.

The Malaysian Treasury Circular no 9/2004 also requires internal auditors to submit their annual internal audit report to their chairman or mayor not later than 31 March every year. From the interviews, only three out of seven internal auditors had produced an annual internal audit report, although not on time. The other four internal auditors claimed that they prepared some sort of report, but not an annual report. As IA3 commented:

We don't have an annual internal audit report but we do have reports based on certain topics. Normally we present our report in the meeting and then keep the report in our file.

IA6 added:

We give our report to the chairman only when he asks for it. Usually the chairman doesn't want to read all the report, but prefers me to brief him on the findings. It is not a proper, formal report though.

The requirement to be a member of the Malaysian Institute of Internal Auditors (IIA) is also stated in Treasury Circular no 9/2004. Internal auditors are required to be members of IIA Malaysia, with the annual subscription fees being paid by the government. Ten out of 28 internal auditors of Malaysian local authorities were members of the IIA. One of the internal auditors interviewed mentioned that he had tried to apply for membership but the local authority made a decision to include the chairman as a member of the IIA. He felt that this decision seemed not to support his application. However, this policy might be of benefit to the internal audit function when the chairman or mayor involved has knowledge of internal auditing. The newspaper Utusan Malaysia, dated 25 April 2008, urged the chairman or the mayor to be responsible for guiding the internal audit function in order to increase the integrity and accountability of financial management of local authorities.

## **7.5 Conclusion**

Based on the survey in Malaysia, it can be concluded that both internal and external auditors in Malaysian local authorities generally perceived a moderate level of co-operation between them compared to England, where the level of co-operation is generally high. Statistical results from the internal auditors' survey shows that regular meetings (MEETING), coordination in preparing the external audit plan (EAPLAN), interchange of reports (INTER), notification of frauds and other significant events (NOTIFY), using internal audit expertise (USEEXPERT), co-operation in training external audit staff (EATRRAIN) and

co-operation in training staff of other departments in the local authority (OSTRAIN) are the factors that correlate significantly with the level of co-operation between internal and external auditors. These results are similar to England. Thus, MEETING, EAPLAN, INTER, NOTIFY, USEEXPERT, EATRRAIN and OSTRRAIN are factors affecting the level of co-operation between internal and external auditors in both Malaysia and England.

From the external auditors' survey, the timing of internal and external auditors' work (TIMING) and co-operation in training internal audit staff (IATRRAIN) were found to have a significant correlation with the level of co-operation. TIMING was also found to have a significant correlation with the level of co-operation in England. Thus, TIMING is the only factor affecting the level of co-operation between internal and external auditors for both Malaysia and England.

The findings from the interviews in Malaysia show that both the internal and external auditors believe that they have a good relationship and they co-operate in certain ways. However, the external auditors being interviewed were reluctant to rely on the internal auditors' work due to internal auditors' lack of competence and the nature of their internal audit work, which does not cover financial statement audit. In contrast, the findings from the interviews in England show that both the internal and external auditors believed that their co-operation was moderate to high. The external auditors in the UK were able to place reliance on

the internal audit work because the internal auditors performed what they expect them to do.

## **CHAPTER 8:**

### **CONCLUSIONS**

#### **8.1 Introduction**

This final chapter summarises the key stages and findings of the study, discusses its contributions and limitations, and provides suggestions for future research. The chapter is organised in the following way. The second section is devoted to a summary of the key stages and findings of the study, and the third section focuses on the research contributions. An explanation of the limitations of the study is provided in the fourth section, and the fifth section focuses on possible future research opportunities in this area. The conclusions to the thesis are presented in the final section.

#### **8.2 Summary of the Key Stages and Findings of the Study**

Chapter 3 identified that there have been a number of research studies of the reliance of external auditors on the work of internal auditors (e.g. Brody et al., 1998; Lampe and Sutton, 1994; Stein et al., 1994; Carey et al., 2000; Felix et al., 2001), but these have generally been from the perspective of the external auditors. Studies of external auditors' reliance on the work of internal auditors from the perspective of internal and external auditors have focused on companies in the private sector rather than the public sector (Al-Twaijry et al., 2004). The current study breaks new ground by exploring internal auditors' interaction with external auditors from the perspective of both the internal and external auditors

in a public sector setting, specifically in local authorities in England and Malaysia. This study was also motivated by the increasing emphasis on the role of internal audit as a corporate governance mechanism in the public sector (Goodwin, 2004) (see Chapter 1).

This study applies the results of prior research in the private sector to form an exploratory study to secure evidence in understanding more about the relationship between internal and external auditors, with a particular emphasis on the co-operation between them, and the extent of reliance of external auditors on internal audit work undertaken in local authorities in England and Malaysia. The following questions are addressed:

1. What is the level of co-operation between internal and external auditors of the local authorities in England and Malaysia?
2. What are the factors influencing the level of co-operation between internal and external auditors of local authorities in England and Malaysia?
3. What are the factors influencing external auditors' reliance on internal auditors' work in local authorities in England and Malaysia?
4. Does the reliance by the external auditors on the internal auditors' work lead to a reduction in the external audit cost and external audit work?

A questionnaire and related face-to-face interviews were used to provide empirical data. Respondents in the study were four samples consisting of the heads of internal audit departments and the external auditors of English and

Malaysian local authorities. This study employs a sequential explanatory mixed method design in order to collect the data by using a questionnaire survey and following this up with face-to-face interviews with English local authorities. Due to time constraints, for the Malaysian local authorities, a triangulation research design was used to collect the data using a questionnaire survey and face-to-face interviews. Descriptive statistics are reported and parametric correlation and multiple regression analyses are performed on the English data to gain answers to the research questions. In contrast, because of the limited sample size, descriptive statistics and non-parametric correlation analysis using Spearman's Rho was used for the Malaysian data.

The findings of this study revealed that:

- The internal and external auditors in Malaysia perceived that they have a moderate level of co-operation between them, while the internal and external auditors in England perceived their level of co-operation as high.
  
- Results of the multiple regression analysis in England shows that regular meetings and the use of internal auditors' expertise by the external auditors were the factors perceived by the internal and external auditors as affecting the level of co-operation between them. In addition, the internal auditors in England perceived that coordination in the timing of internal and external auditors' work was also a factor affecting the level of co-operation between them.

- A comparison between Malaysia and England through non-parametric correlation analysis using Spearman's Rho shows that internal auditors in both countries perceived regular meetings, coordination in preparing the external audit plan, interchange of reports, notification of frauds and other significant events, using internal audit expertise, co-operation in training external audit staff, and co-operation in training staff of other departments in the local authority affected the level of co-operation between them. However, from the external auditors' perspective, the coordination of the timing of internal and external auditors' work is the only factor affecting the level of co-operation between internal and external auditors for both Malaysia and England.
  
- The external auditors in the England study were able to place reliance on the internal audit work because the internal auditors performed what the external auditors expected of them. In contrast, in Malaysia, there was no reliance on internal auditors' work by the external auditors because the internal auditors did not perform work relevant to financial statement audits.
  
- Both internal and external auditors of local authorities in England perceived the size of the internal audit department as a significant factor affecting the level of external auditors' reliance on internal auditors' work. The internal auditors' knowledge of the local authority was also a significant factor perceived by the internal auditors as affecting the level of external auditors'

reliance on internal auditors' work. Only external auditors perceived top management support of the internal auditors' work as a significant factor affecting the level of external auditors' reliance on their work.

- The external auditors in England perceived that their reliance on internal audit work has no effect on the external audit fees nor on the external audit work. Internal auditors in England perceived the external auditors' reliance on their work has no effect on the external audit fees but has reduced the extent of the external audit work.

### **8.3 Implication and Contributions of the Study**

This study has two major implications. First, in the UK, reliance on internal audit work in local authorities in England does not have much impact on reducing external audit fees, but it does help to minimise increases in external audit fees. The finding suggests that the external audit fees would be higher if the internal audits were inefficient and deficiencies exist in the control environment. Therefore, the internal auditors should ensure that their functions are efficient and the control environment is sufficiently good to minimise any possible increase in external audit fees.

Second, the findings show that there is reliance on internal audit work in the England, but none in Malaysia. In England the external auditors could rely on the internal audit work because the internal auditors performed work that the external

auditors expected of them. On the contrary, in Malaysia, there was no reliance on internal auditors' work by the external auditors because the internal auditors did not perform work relevant to financial statement audits. This finding suggests that the scope of the internal audit work in England and Malaysian local authorities is different. This might be due to the fact that there is no specific guideline that can be used by the internal auditors in planning their audit work.

In order to enhance the relationship between internal and external auditors of local authorities, particularly in Malaysia, the following are recommended:

- 1) Internal auditors in Malaysian local authorities should improve their competency in terms of knowledge and exposure to the systematic techniques and approaches to auditing. This can be achieved through training courses provided by the Malaysian Institute of Internal Auditors or the external auditors themselves.
- 2) The level of co-operation between internal and external auditors in Malaysia should be improved in the future for the benefit of both internal and external auditors. Those who have the authority regarding the local government in Malaysia should provide strong support and guidance in relation to internal audit practice to the internal auditors as has been practiced in the UK. This can be done by providing a comprehensive internal audit manual to be implemented by internal audit departments in local authorities in Malaysia. Detailed guidelines could be included in the audit manual in order to provide a basis and support for co-operation with external auditors.

- 3) The factors identified as being related to the increase in the level of co-operation could be used as a basis in improving the relationship between internal and external auditors. For example, internal and external auditors should meet regularly to discuss issues related to their audit work, particularly to identify opportunities for co-operation, to avoid duplication of work and to agree methods for the sharing of audit findings and other information. By having regular meetings, internal auditors might be able to gain more information on what the external auditors expect of them. Internal auditors also should improve their expertise in terms of their knowledge of the local authority's activities and procedures in order to increase the level of co-operation with the external auditors.
- 4) Internal auditors in the Malaysian local government should be able to identify their scope of audit work based on specific guidelines (e.g. from IIA) rather than following instructions from the Mayor. Internal auditors should be able to prepare a proper annual internal audit plan and identify their scope of internal audit work. They should also be able to include financial audit in their audit plan and meet the external auditors' expectation. By doing this, the external auditors could place reliance on the internal auditors' work.
- 5) Top management of the local authorities should be more supportive to the internal audit function in order for them to perform better and this encourages the external auditors to place reliance on their work.
- 6) Internal audit department should have better resources with more staff to perform a wider scope of internal audit work. This would enable the internal

auditors to satisfy the external auditors on the quality and scope of their work and, in turn, the external auditors will be more willing to place reliance on the internal audit work.

The findings of this study make contributions to the area of internal auditing in the public sector literature. The contribution can be divided into research development and practice.

### **8.3.1 Contribution to Research Development**

The findings of this study make several contributions to theory. This study adds to the body of knowledge in the area of internal auditing in the public sector. This study is considered to be the first to investigate the relationship between internal and external auditors in the public sector (with an emphasis on the co-operation between internal and external auditors and the external auditors' reliance on internal audit work in local authorities).

There has been a number of research on external audit reliance on the work of internal audit (e.g. Brody et al., 1998; Lampe and Sutton, 1994; Stein et al., 1994; Carey et al., 2000; Felix et al., 2001), but this has generally been from the point of view of the external auditors, while other studies of external auditors' reliance (from the perspective of internal and external auditors) have mainly focused on limited companies (e.g., Al-Twajjry et al 2004). This study contributes by exploring internal auditors' interaction with external auditors from the

perspective of both the internal and external auditor in a public sector setting, specifically in local authorities.

This study also contributes to the extant literature by providing evidence using primary data from English and Malaysian local authorities, and making a comparison between a developed and a developing country. Model 1 of the study is a new model and has not been tested in any previous study and it is suggested that further research could be done using a similar or improved model.

The contribution of this study to the theory or model of reliance decision is the modification to the variable knowledge of the company's operation. Previous studies by Gibbs and Schroeder (1979), Clark et al. (1980) and Schneider (1984) used knowledge of the company's operations as one of the criteria to measure competence. In this study, knowledge of the local authority is used and was found to be a significant factor perceived by the internal auditors as affecting the level of external auditors' reliance on internal audit work.

The size of the internal audit department is identified as a significant factor affecting the external auditors' reliance on internal audit work. This finding shows that external auditors may not only assess the internal auditors' characteristics such as competence, objectivity and work performance as suggested by professional standards ISA 610, SAS 65 and Aus604, but also

considered the feature of the internal audit department (i.e. the size of the internal audit department).

This study also contributes to the methodological perspective by employing both a survey questionnaire and face-to-face interviews to collect data. This mixed method approach can avoid potential common variance biases and enhances the validity and reliability of the construct measures (Bisbe and Otley, 2004). Most of the previous studies employ questionnaire survey, interview or case study in isolation rather than a mixed method approach, with the exception of Al-Twaijry et al., (2004).

### **8.3.2 Contribution to Practice**

From a practical perspective this study could provide feedback to the relevant government departments and audit bodies (e.g. Treasury of Malaysia, Malaysian National Audit Office, the Audit Commission and HM Treasury in the UK) on the need for policies that support and enhance the relationship between internal and external auditors. This could be done by disseminating the research findings through published papers, conferences, and seminars, or by sending the summary of the research findings to those related bodies. In particular, at the moment, there is no specific guidance for internal auditors in Malaysian local authorities comparable to the UK's CIPFA Code of Practice, 2006. It may be appropriate for those who have the authority in Malaysia to develop guidance to promote and support internal auditors in Malaysian local authorities. The CIPFA Code of

Practice could be used as a basis for such guidance, with appropriate adjustments to suit the Malaysian environment.

Furthermore, the National Audit Academy that is owned by the Malaysian National Audit Office could provide more training for the internal auditors to assist them to support the external auditors of the local authority. This was suggested by internal and external auditors in the interviews. Training courses and workshops may assist internal auditors to improve their auditing skills and to be up-to-date with current developments. Having more training will extend the internal auditors' experience and role in performing their work.

The appropriate resourcing of the internal audit function is important in improving internal audit participation in the financial reporting process, and increasing the reliance of external auditors on internal audit work. Most of the internal audit departments in Malaysian local authorities have three or fewer internal audit staff. It appears that the limited resources of internal audit departments leave them unable to widen the scope of their audit work to perform audit work on the financial statements. This finding may assist those who have the authority, such as the Treasury of Malaysia, the Ministry of Housing and Local Government, or the government of individual states, to initiate discussions and make recommendations concerning the resourcing of internal audit departments.

The findings from this study may also benefit internal and external auditors. In order to build a good co-operative relationship with the external auditors, the internal auditors may be motivated to improve further the quality of their internal audit function. In turn, this may improve the external auditors' assessment of their reliance on internal auditors' work. Professional standards (IIA Standard 2050, ISA 610) require external auditors to evaluate the quality of the internal audit function before making a decision about whether or not to rely on the internal auditors' work. Accordingly, if the quality of the internal audit function is improved, the external auditors may be more willing to rely on the internal auditors' work. The quality of the internal audit function could be improved through better training and active professional membership in order to ensure internal auditors are up-to-date with their knowledge of internal audit issues. Internal auditors might consider establishing an association specifically for all internal auditors of Malaysian local authorities as a platform for sharing ideas, disseminating new knowledge and discussing challenges arising in their daily work.

The findings from this study could be valuable to the UK Audit Commission and local authorities because it confirms some of the benefits of liaison between internal and external auditors.

#### **8.4 Limitations of the Study**

A number of limitations in the study are recognised. The sample frame is based solely on local authorities and is cross-sectional in nature. Hence, it is not possible to undertake a direct comparison of the results with other sectors. By using a cross-sectional research design, the research did not examine changes in the level of co-operation between internal and external auditors over a period of time or the extent to which the level of external auditors' reliance on internal audit work may change over time.

The availability of data for 28 internal auditors and eleven external auditors in Malaysian local authorities was not adequate to run more powerful statistical analyses such as the parametric tests for correlation and the multiple regression and, hence, the results are restricted to using less powerful non-parametric statistical tests. However, it should be noted that the samples covered all local authorities in Malaysia that operate an internal audit function and respondents from all eleven of the external auditors in the respective states.

This study used a five-point Likert scale to measure the respondents' agreement about statements concerning the level of co-operation between internal and external auditors, including factors affecting that co-operation, the level of external auditors' reliance on internal audit work, and factors affecting that reliance. The use of the Likert scale, as pointed out by Brown (1990), may result in the possibility of patterned responses – a tendency for respondents to respond

automatically to questions without paying careful attention to what the question asks. This problem arises from the interpretations which different people put on different numbers attached to the scale. Even though the survey attempted to define these numbers, it was not practicable to check whether all respondents interpreted the score definitions consistently.

The dependent construct in the multiple regression models may not approximate to an interval scale and this is a limitation of the study. A multi-item construct may have overcome this problem because having, for example, three questions for a construct increases the number on scales from 1 to 5, to 3 to 15. This is important because the robustness of the multiple regression results were not confirmed by either ordinal regression or binary logistic regression, and this is a limitation of the research. In addition, most of the constructs were measured by a single item for which it was not possible to measure the reliability of the measure of the construct.

The sample was targeted at the Heads of internal audit departments and those external auditors in higher positions. Consequently, this study has not addressed perceptions of all staff in internal audit departments or all external audit staff involved in auditing the local authorities. The views of these people might be inconsistent with their superiors (Heads of internal auditors) and the results could be biased.

Finally, this study only compares the results between England and Malaysia based upon questionnaires and interviews without looking into the cultural difference between the two countries and the extent to which such differences may explain variations in the questionnaire responses.

### **8.5 Suggestions for Future Research**

Future research in the area of the study could be extended in a number of directions. Since this is the first study examining local government in England and Malaysia, future research could be conducted to include other organisations in the public sector. For example, in Malaysia, the ministries, statutory bodies and state governments all have internal audit departments, and therefore, a comparison of the relationship between internal and external auditors of these organisations could be done to compare with these results at local government level. Future research also could be conducted by carrying out comparative studies between the public sector in Malaysia and other countries in the region such as Indonesia, Thailand, or Singapore, or in other western countries such as the USA or Australia. These comparative studies also provide an opportunity to study cultural differences among these countries by examining several dimensions of culture, as suggested by Hofstede (1980).

The research design adopted in this study in investigating the relationship between internal and external auditors is cross-sectional in nature. In order to examine the effect of the changes in the relationship between the internal and

external auditors, a longitudinal study could be carried out in the future by sending questionnaires to respondents or keeping in touch with the interviewees over a two- to three-year period.

The measurements used in measuring most of the constructs, particularly the level of co-operation between internal and external auditors and the extent of external auditors' reliance on internal auditors' work, may not be sensitive enough to capture all the constructs being measured. It is suggested that in future research an alternative measure such as a continuous construct based on a percentage scale or a seven-point Likert scale may be used in order to capture this information more sensitively. A seven-point Likert scale might be able to provide more variation to capture opinion and perceptions, as suggested by Jaeschke et al. (1990). It is also suggested that the constructs included in models 1 and 2 could be measured using multi-item measures to enhance their validity and reliability.

The perceptions of all staff in internal audit departments and external audit staff involved in the audit of local authorities could be explored in future research. It would be interesting to study the perceptions of these groups to see whether or not their perceptions differ from their superiors, as they are involved directly in doing the internal and external auditing work. As this study only used questionnaire- and interview-based approaches to collect data, future research

could extend the framework by using case study methods in order to provide a deeper understanding of the relationship between internal and external auditors.

## **8.6 Conclusion**

This thesis has presented a description of the factors affecting the level of co-operation between internal and external auditors and the extent of external auditors' reliance on internal auditors' work. This study attempts to facilitate an understanding of the relationship between the internal and external auditors in English and Malaysian local authorities and at the same time provides evidence of the effect of the external auditors' reliance decisions on reduced external audit fees and external audit work. Regular meetings between the internal and external auditors and the coordination of the timing of internal and external auditors' work are deemed as important factors in improving the level of co-operation between them. Although the size of the internal audit department was found to be a significant factor affecting the level of external auditors' reliance on internal auditors' work, the quality of internal auditors' work is also important in order for the external auditors to rely on such work.

This research concludes that there is much room for improvement in the relationship between internal and external auditors in the Malaysian local authorities. The Malaysian local authorities should learn from England how to improve the relationship in terms of providing guidelines for systematic internal audit work. The internal audit function in Malaysia needs to be supported to

improve its competency through training and professional support. This may encourage external auditors to place reliance on internal audit work.

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Local Government Act 1999, UK.

Local Government Act 2000, UK.

Local Government Finance Act 1988, UK.



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**Appendix 1**  
**Internal Auditor Survey Questionnaire -**  
**England**

**A Survey of Internal Auditors**

**The Relationship between Internal and External Auditors  
of Local Authorities in England**

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- The purpose of this questionnaire is to obtain perceptions from internal auditors on their relationship with external auditors in local authorities. The questionnaire consists of four sections and will take approximately 10 - 15 minutes to answer.
- Please complete the questionnaire based on your personal experience as an internal auditor.
- Please read each question carefully and select the answer that best describes your opinion. If you do not find an exact answer that best describes your opinion, select the one that comes closest to it.
- Please be assured that any information you provide in this questionnaire will be **STRICTLY CONFIDENTIAL** and will only be used for the purpose of this study. The number in the top right hand corner is used to identify who has returned the questionnaire and is for administrative purpose only.
- If you have any queries or concerns about the study, please contact me at the address below.

I would be grateful if you would return the completed questionnaire using the self-addressed envelope provided. I would like to thank you in advance for completing the questionnaire.

Siti Zabedah Saidin

Management School  
University of Sheffield  
9 Mappin Street  
Sheffield  
S1 4DT  
Tel: 07982721071  
E-mail: [ecp06szs@sheffield.ac.uk](mailto:ecp06szs@sheffield.ac.uk)

## SECTION A: INTERNAL AUDIT QUALITY

From your experience of conducting internal audit in your local authority, to what extent do you agree or disagree with the following statements? Please indicate the extent of your agreement with each statement by circling from 5 - 1, based on the following scale:

"5"	=	Strongly agree
"4"	=	Agree
"3"	=	Neither agree nor disagree
"2"	=	Disagree
"1"	=	Strongly disagree

	Strongly agree	4	Neither agree nor disagree	2	Strongly disagree
1. Most of the internal audit staff have a university degree.	5	4	3	2	1
2. Most of the internal audit staff have a professional level accounting qualification (e.g. ACCA, CIMA, CIPFA, ICAEW, ICAS).	5	4	3	2	1
3. Most of the internal audit staff have a technical level accounting qualification (e.g. AAT).	5	4	3	2	1
4. Most of the internal audit staff are members of the Institute of Internal Auditors (IIA).	5	4	3	2	1
5. The internal audit function has a training program, which includes coverage of the local authority's activities, policies and procedures.	5	4	3	2	1
6. The internal audit function reports to higher organizational levels in order to ensure the independence of its operations.	5	4	3	2	1
7. The internal audit function has freedom to investigate areas they consider to be important.	5	4	3	2	1
8. The senior officers of the local authority support the work of the internal audit function.	5	4	3	2	1
9. The elected councillors of the local authority support the work of the internal audit function.	5	4	3	2	1

	<i>Strongly agree</i>		<i>Neither agree nor disagree</i>		<i>Strongly disagree</i>
10. The local authority takes action as a result of internal audit recommendations.	5	4	3	2	1
11. The internal audit function complies with CIPFA Code of Practice for Internal Audit in Local Government.	5	4	3	2	1
12. The quality of internal audit documentation is excellent.	5	4	3	2	1
13. The scope of the work performed by the internal audit function is sufficient to meet internal audit objectives.	5	4	3	2	1
14. The internal audit function adopts a risk-based approach to internal audit work.	5	4	3	2	1
15. The internal audit staff have excellent knowledge of local authority's activities and procedures.	5	4	3	2	1
16. The internal audit function has a very high status in the local authority.	5	4	3	2	1

## SECTION B: LEVEL OF CO-OPERATION BETWEEN INTERNAL AND EXTERNAL AUDITORS

From your experience of conducting internal audit of local authorities, to what extent do you agree or disagree with the following statements? Please indicate the extent of your agreement with each statement by circling from 5 - 1, based on the following scale:

"5" = Strongly agree  
 "4" = Agree  
 "3" = Neither agree nor disagree  
 "2" = Disagree  
 "1" = Strongly disagree

	<i>Strongly agree</i>		<i>Neither agree nor disagree</i>		<i>Strongly disagree</i>
17. Internal and external auditors meet on a regular basis to give feedback, discuss progress and resolve problems.	5	4	3	2	1
18. There is co-ordination in the preparation of the external audit plan in order to avoid the unnecessary duplication of work.	5	4	3	2	1
19. There is an interchange of reports issued by both internal and external auditors.	5	4	3	2	1
20. There is notification between internal and external auditors of the discovery of fraud and other serious events.	5	4	3	2	1
21. Internal and external auditors co-operate in the training of internal audit staff.	5	4	3	2	1
22. Internal and external auditors co-operate in the training of external audit staff.	5	4	3	2	1
23. Internal and external auditors co-operate in the training of other staff in the local authority.	5	4	3	2	1
24. Further areas for potential co-operation between internal and external auditors are regularly explored.	5	4	3	2	1

	<i>Strongly agree</i>		<i>Neither agree nor disagree</i>		<i>Strongly disagree</i>
25. Internal and external auditors co-ordinate the timing of their work effectively in order to maximise co-operation and reliance.	5	4	3	2	1
26. There are few problems acting as a barrier to co-operation between internal and external auditors.	5	4	3	2	1
27. Internal and external auditors co-operate on specific projects to enable skills' transference between them.	5	4	3	2	1
28. External auditors communicate their findings to internal auditors.	5	4	3	2	1
29. Internal auditors communicate their findings to external auditors.	5	4	3	2	1
30. External auditors make full use of the internal auditors' expertise.	5	4	3	2	1
31. Internal auditors have an excellent relationship with the external auditors.	5	4	3	2	1

Based on your experience of internal auditing in your local authority, please tick (/) the appropriate box.

32. How would you describe the level of co-operation between the internal and external auditors in the last financial statement audit of your local authority?

- Very high     
 High     
 Moderate     
 Low     
 None

**SECTION C: THE EXTENT OF RELIANCE ON INTERNAL AUDIT WORK BY EXTERNAL AUDITORS**

Based on your experience, please give your opinion about the reliance on your work by the external auditors. Please tick (/) the appropriate box.

33. In the last financial statement audit, did the external auditor rely on the work of the internal audit function in your local authority?
- Yes..... please go to Question 34 below  
 No ..... please go to Question 39 in Section D on page 7  
 Do not know..... please go to Question 39 in Section D on page 7
34. If your answer is "YES" to Question 33, please indicate the level of reliance on internal audit work.
- Very high       High       Medium       Low       Very low
35. Do you think that the external audit fee has been reduced due to the reliance placed on internal audit work?
- Yes..... please go to Question 36 below  
 No ..... please go to Question 37 below  
 Do not know..... please go to Question 37 below
36. By what percentage was the external audit fee reduced?
- Up to 5.0%       5.1% to 10.0%       10.1% to 15.0%  
 More than 15.0%       Do not know
37. Do you think that the level of external audit work performed by the external auditors has been reduced due to the reliance placed on the work of the internal auditors?
- Yes..... please go to Question 38 below  
 No ..... please go to Question 39 in Section D on page 7  
 Do not know..... please go to Question 39 in Section D on page 7
38. By what percentage was the level of external audit work reduced?
- Up to 5.0%       5.1% to 10.0%       10.1% to 15.0%  
 More than 15.0%       Do not know

## SECTION D: BACKGROUND INFORMATION

This section is concerned with background information. Please fill in the blank or tick (/) where appropriate.

39. Approximately, how many complete years is it since the formation of the internal audit function in your local authority?  
\_\_\_\_\_complete years
40. How many full-time equivalent staff works in the internal audit function in your local authority?  
\_\_\_\_\_full-time equivalent staff
41. How many complete years have you been working in local authorities?  
\_\_\_\_\_complete years
42. How many complete years have you been working with your current local authority?  
\_\_\_\_\_complete years
43. How many complete years have you been working as an internal auditor?  
\_\_\_\_\_complete years
44. Prior to working as an internal auditor, did you have any work experience as an external auditor?
- Yes  No
45. What is your highest education level?
- Doctoral  
 Master degree  
 Bachelor degree  
 A-level or equivalent  
 GCSE or O-level or equivalent
46. Are you a member of any professional accounting/auditing body?
- Yes  No

If your answer is "yes", please tick all that apply.

- Association of Chartered Certified Accountants (ACCA)  
 Chartered Institute of Management Accountants (CIMA)  
 Chartered Institute of Public Finance and Accountancy (CIPFA)  
 Institute of Chartered Accountants in England and Wales (ICAEW)  
 Institute of Chartered Accountants of Scotland (ICAS)  
 Institute of Internal Auditors (IIA)  
 Others (*please specify*) \_\_\_\_\_  
\_\_\_\_\_

## COMMENTS

- Please state any comments that you may have regarding the relationship between internal and external auditors in UK local authorities.

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- If you are willing to take part in a face-to-face interview at a later stage of the study, please tick the box and provide your contact details. Your response will be treated as strictly confidential and solely for the purpose of the study. (Leave blank if you do not wish to be interviewed)

Name : \_\_\_\_\_

Telephone : \_\_\_\_\_

E-mail address: \_\_\_\_\_

- If you want to receive a complimentary copy of the research findings, please tick the box and provide your name and e-mail address.

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Your contribution to this study is highly appreciated.



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**Appendix 2**  
**External Auditor Survey Questionnaire -**  
**England**

**A Survey of External Auditors**

**The Relationship between External and Internal Auditors  
of Local Authorities in England**

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- The purpose of this questionnaire is to obtain perceptions from external auditors on their relationship with internal auditors in local authorities. The questionnaire consists of four sections and will take approximately 10 - 15 minutes to answer.
- Please complete the questionnaire based on your personal experience as an external auditor.
- Please read each question carefully and select the answer that best describes your opinion. If you do not find an exact answer that best describes your opinion, select the one that comes closest to it.
- Please be assured that any information you provide in this questionnaire will be **STRICTLY CONFIDENTIAL** and will only be used for the purpose of this study. The number in the top right hand corner is used to identify who has returned the questionnaire and is for administrative purpose only.
- If you have any queries or concerns about the study, please contact me at the address below.

I would be grateful if you would return the completed questionnaire using the self-addressed envelope provided. I would like to thank you in advance for completing the questionnaire.

Siti Zabedah Saidin

Management School  
University of Sheffield  
9 Mappin Street  
Sheffield  
S1 4DT  
Tel: 07982721071  
E-mail: [ecp06szs@sheffield.ac.uk](mailto:ecp06szs@sheffield.ac.uk)

## SECTION A: LEVEL OF CO-OPERATION BETWEEN EXTERNAL AND INTERNAL AUDITORS

From your experience of conducting external audits of local authorities, to what extent do you agree or disagree with the following statements? Please indicate the extent of your agreement with each statement by circling from 5 - 1, based on the following scale:

"5" = Strongly agree  
 "4" = Agree  
 "3" = Neither agree nor disagree  
 "2" = Disagree  
 "1" = Strongly disagree

	<i>Strongly agree</i>	<i>4</i>	<i>Neither agree nor disagree</i>	<i>2</i>	<i>Strongly disagree</i>
1. External and internal auditors meet on a regular basis to give feedback, discuss progress and resolve problems.	5	4	3	2	1
2. There is co-ordination in the preparation of the external audit plan in order to avoid the unnecessary duplication of work.	5	4	3	2	1
3. There is an interchange of reports issued by both external and internal auditors.	5	4	3	2	1
4. There is notification between external and internal auditors of the discovery of fraud and other serious events.	5	4	3	2	1
5. External and internal auditors co-operate in the training of internal audit staff.	5	4	3	2	1
6. External and internal auditors co-operate in the training of external audit staff.	5	4	3	2	1
7. External and internal auditors co-operate in the training of other staff in the local authority.	5	4	3	2	1
8. Further areas for potential co-operation between external and internal auditors are regularly explored.	5	4	3	2	1

	<i>Strongly agree</i>		<i>Neither agree nor disagree</i>		<i>Strongly disagree</i>
9. External and internal auditors co-ordinate the timing of their work effectively in order to maximise co-operation and reliance.	5	4	3	2	1
10. There are few problems acting as a barrier to co-operation between external and internal auditors.	5	4	3	2	1
11. External and internal auditors co-operate on specific projects to enable skills' transference between them.	5	4	3	2	1
12. External auditors communicate their findings to internal auditors.	5	4	3	2	1
13. Internal auditors communicate their findings to external auditors.	5	4	3	2	1
14. External auditors make full use of the internal auditors' expertise.	5	4	3	2	1
15. External auditors have an excellent relationship with the internal auditors.	5	4	3	2	1

Based on your experience conducting external audits of local authorities, please tick (/) the appropriate box.

16. How would you describe the level of co-operation between the external and internal auditors in the last financial statement audit of the local authorities you have audited?

- Very high                       High                       Moderate                       Low                       None

**SECTION B: THE EXTENT OF RELIANCE ON INTERNAL AUDIT WORK BY EXTERNAL AUDITORS**

Based on your experience, please give your opinion about your reliance on the work of the internal auditors in the local authorities. Please tick (/) the appropriate box.

17. Do you rely on the work of internal audit in your last financial statement audit of local authorities?
- Yes, typically we do rely..... please go to Question 19 below  
 No, typically we do not rely..... please go to Question 18 below
18. If your answer is "NO, TYPICALLY WE DO NOT RELY" to Question 17, would you be prepared to rely on the work of internal audit of local authorities in the future?
- Yes..... please go to Question 24 in Section C on page 5  
 No..... please go to Question 45 in Section D on page 7
19. If your answer is "YES, TYPICALLY WE DO RELY" to Question 17, please indicate the level of reliance on internal audit work.
- Very high       High       Medium       Low       Very low
20. Do you think that the external audit fee has been reduced typically due to the reliance placed on internal audit work?
- Yes..... please go to Question 21 below  
 No..... please go to Question 22 below  
 Do not know..... please go to Question 22 below
21. Typically, by what percentage was the external audit fee reduced?
- Up to 5.0%       5.1% to 10.0%       10.1% to 15.0%  
 More than 15.0%       Do not know
22. Do you think that the level of your external audit work has been reduced typically due to the reliance placed on the work of the internal auditors?
- Yes..... please go to Question 23 below  
 No..... please go to Question 24 in Section C on page 5  
 Do not know..... please go to Question 24 in Section C on page 5
23. Typically, by what percentage was the level of external audit work reduced?
- Up to 5.0%       5.1% to 10.0%       10.1% to 15.0%  
 More than 15.0%       Do not know

**SECTION C: FACTORS AFFECTING THE EXTENT OF RELIANCE ON INTERNAL AUDITOR'S WORK**

The following statements relate to factors which may affect the extent of your reliance on the work of the internal auditors in local authorities. Based on your experience of external auditing, please indicate the importance of each factor by circling from 5 - 1, using the following scale:

<p> <b>"5" = Very important</b>  <b>"4" = Important</b>  <b>"3" = Neither important nor unimportant</b>  <b>"2" = Unimportant</b>  <b>"1" = Not at all important</b> </p>
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	<i>Very important</i>		<i>Neither important nor unimportant</i>		<i>Not at all important</i>
24. Whether university degrees are held by internal audit staff.	5	4	3	2	1
25. Whether accounting or auditing qualifications are held by internal audit staff, namely					
a) a professional level accounting qualification (e.g. ACCA, CIMA, CIPFA, ICAEW, ICAS).	5	4	3	2	1
b) a technical level accounting qualification (e.g. AAT).	5	4	3	2	1
c) the Institute of Internal Auditors (IIA) qualification.	5	4	3	2	1
26. The internal audit function has a training program, which includes coverage of the local authority's activities, policies and procedures.	5	4	3	2	1
27. The level of any type of auditing experience of senior internal audit staff.	5	4	3	2	1
28. The level of internal auditing experience of senior internal audit staff.	5	4	3	2	1
29. The extent to which the internal auditors know the local authority's activities and procedures.	5	4	3	2	1
30. The number of internal audit staff who are members of the Institute of Internal Auditors (IIA).	5	4	3	2	1

	<i>Very important</i>	<i>Neither important nor unimportant</i>	<i>Not at all important</i>		
31. The number of internal audit staff who are professionally qualified accountants.	5	4	3	2	1
32. The number of years since the establishment of the internal audit function.	5	4	3	2	1
33. The number of staff in the internal audit function.	5	4	3	2	1
34. The status of the internal audit function within the local authority.	5	4	3	2	1
35. The organisational level to which the senior internal audit staff report.	5	4	3	2	1
36. The independence of the internal audit function to investigate areas they consider to be important.	5	4	3	2	1
37. The level of support for the work of the internal audit function by the senior officers of the local authority.	5	4	3	2	1
38. The level of support for the work of the internal audit function by the elected councillors of the local authority.	5	4	3	2	1
39. Whether the local authority takes action as a result of internal audit recommendations.	5	4	3	2	1
40. The level of compliance of the work of the internal audit function with CIPFA Code of Practice for Internal Audit in Local Government.	5	4	3	2	1
41. The quality of internal audit documentation.	5	4	3	2	1
42. The scope of the work performed by the internal audit function.	5	4	3	2	1
43. The extent to which the internal auditors adopt a risk-based approach to their internal audit work.	5	4	3	2	1

Based on your experience conducting external audits of local authorities, please tick (/) the appropriate box.

44. Is there any difference between the reliance by the external auditor on in-house and outsourced (contracted out) internal audit function?

Yes

No

Do not know

## SECTION D: BACKGROUND INFORMATION

This section is concerned with background information. Please fill in the blank or tick (/) where appropriate.

45. How many complete years have you personally been involved in external audits of local authorities?  
\_\_\_\_\_complete years

46. How many complete years have you personally been working as an external auditor?  
\_\_\_\_\_complete years

47. Have you had any work experience as an internal auditor?

Yes

No

48. What is your highest education level?

- Doctoral degree
- Master degree
- Bachelor degree
- A-level or equivalent
- GCSE or O-level or equivalent

49. Are you a member of any professional accounting/auditing body?

Yes

No

If your answer is "yes", please tick all that apply.

- Association of Chartered Certified Accountants (ACCA)
- Chartered Institute of Management Accountants (CIMA)
- Chartered Institute of Public Finance and Accountancy (CIPFA)
- Institute of Chartered Accountants in England and Wales (ICAEW)
- Institute of Chartered Accountants of Scotland (ICAS)
- Institute of Internal Auditors (IIA)
- Others (*please specify*) \_\_\_\_\_

## COMMENTS

- Please state any comments that you may have regarding the relationship between external and internal auditors in UK local authorities.

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- If you are willing to take part in a face-to-face interview at a later stage of the study, please tick the box and provide your contact details. Your response will be treated as strictly confidential and solely for the purpose of the study. (Leave blank if you do not wish to be interviewed)

Name : \_\_\_\_\_

Telephone : \_\_\_\_\_

E-mail address: \_\_\_\_\_

- If you want to receive a complimentary copy of the research findings, please tick the box and provide your name and e-mail address.

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**Your contribution to this study is highly appreciated.**



**Hubungan antara Juruaudit Dalam dan Juruaudit  
Luar di Pihak Berkuasa Tempatan di Malaysia:  
Kajian terhadap Juruaudit Dalam**

*The Relationship between Internal and External Auditors of Local Authorities in Malaysia:  
A Survey of Internal Auditors*

- Soalselidik ini bertujuan untuk mendapatkan maklumbalas daripada juruaudit dalam berkenaan dengan hubungannya dengan juruaudit luar (Audit Negara) di pihak berkuasa tempatan. Soalselidik ini mengandungi empat bahagian dan mengambil masa antara 10 hingga 15 minit untuk dilengkapkan.  
*The purpose of this questionnaire is to obtain perceptions from internal auditors on their relationship with external auditors (Auditor General) in local authorities. The questionnaire consists of four sections and will take approximately 10 - 15 minutes to answer.*
- Anda diminta untuk melengkapkan soalselidik ini berdasarkan pengalaman anda sebagai juruaudit dalam.  
*Please complete the questionnaire based on your personal experience as an internal auditor.*
- Anda diminta untuk membaca setiap soalan dengan teliti dan memilih jawapan yang terbaik bagi menggambarkan pendapat anda. Jika anda tidak menemui jawapan yang tepat bagi menggambarkan pendapat anda, sila pilih jawapan yang paling hampir dengannya.  
*Please read each question carefully and select the answer that best describes your opinion. If you do not find an exact answer that best describes your opinion, select the one that comes closest to it.*
- Segala maklumat yang anda berikan dalam soalselidik ini adalah dianggap sebagai **SULIT** dan hanya digunakan untuk tujuan penyelidikan ini sahaja.  
*Please be assured that any information you provide in this questionnaire will be **STRICTLY CONFIDENTIAL** and will only be used for the purpose of this study.*
- Jika anda mempunyai sebarang pertanyaan mengenai kajian ini, sila hubungi saya di alamat seperti yang tertera di bawah  
*If you have any queries or concerns about the study, please contact me at the address below.*

Saya amat berbesar hati jika sekiranya anda dapat mengembalikan soalselidik yang telah dilengkapkan dengan menggunakan sampul surat beralamat sendiri dan bersetem yang telah disediakan. Kerjasama anda dalam melengkapkan soalselidik ini didahului dengan ucapan terima kasih.

*I would be grateful if you would return the completed questionnaire using the self-addressed envelope provided. I would like to thank you in advance for completing the questionnaire.*

Siti Zabedah Saidin  
Kolej Perniagaan  
Bangunan Fakulti Perakaunan  
Universiti Utara Malaysia  
06010 Sintok  
Kedah Darulaman  
Tel: 019-4708632  
E-mail: zabedah@uum.edu.my

**BAHAGIAN A : KUALITI AUDIT DALAMAN**  
**SECTION A: INTERNAL AUDIT QUALITY**

Berdasarkan pengalaman anda menjalankan audit dalaman di pihak berkuasa tempatan, sejauhmanakah anda bersetuju atau tidak bersetuju dengan pernyataan-pernyataan di bawah? Sila tandakan tahap persetujuan anda terhadap setiap pernyataan dengan membulatkan dari 5 - 1, berdasarkan skala berikut:

*From your experience of conducting internal audit in your local authority, to what extent do you agree or disagree with the following statements? Please indicate the extent of your agreement with each statement by circling from 5 - 1, based on the following scale:*

"5" = Sangat bersetuju *Strongly agree*  
 "4" = Bersetuju *Agree*  
 "3" = Berkecuali *Neither agree nor disagree*  
 "2" = Tidak bersetuju *Disagree*  
 "1" = Sangat tidak bersetuju *Strongly disagree*

		<i>Sangat bersetuju Strongly agree</i>	<i>Berkecuali Neither agree nor disagree</i>	<i>Sangat tidak bersetuju Strongly disagree</i>		
1.	Kebanyakan staf audit dalam mempunyai ijazah sarjana muda. <i>Most of the internal audit staff have a university degree.</i>	5	4	3	2	1
2.	Kebanyakan staf audit dalam memiliki kelayakan perakaunan peringkat professional. <i>Most of the internal audit staff have a professional level accounting qualification (e.g. ACCA, CIMA, MICPA)</i>	5	4	3	2	1
3.	Kebanyakan staf audit dalam adalah ahli "Institute of Internal Auditors" (IIA). <i>Most of the internal audit staff are members of the Institute of Internal Auditors (IIA).</i>	5	4	3	2	1
4.	Fungsi audit dalam mempunyai program latihan yang meliputi aktiviti, polisi and prosedur berkaitan pihak berkuasa tempatan. <i>The internal audit function has a training program, which includes coverage of the local authority's activities, policies and procedures.</i>	5	4	3	2	1
5.	Fungsi audit dalam melaporkan kepada tahap pengurusan yang lebih tinggi bagi memastikan kebebasan dalam menjalankan operasinya. <i>The internal audit function reports to higher organizational levels in order to ensure the independence of its operations.</i>	5	4	3	2	1
6.	Fungsi audit dalam mempunyai kebebasan untuk menyasat perkara-perkara yang dianggap penting. <i>The internal audit function has freedom to investigate areas they consider to be important.</i>	5	4	3	2	1

	Sangat bersetuju Strongly agree	4	Berkecuali Neither agree nor disagree	3	2	Sangat tidak bersetuju Strongly disagree	1
7. Pegawai-pegawai kanan pihak berkuasa tempatan menyokong kerja fungsi audit dalam. <i>The senior officers of the local authority support the work of the internal audit function.</i>	5	4	3	2	1		
8. Ahli-ahli majlis pihak berkuasa tempatan menyokong kerja fungsi audit dalam. <i>The elected councillors of the local authority support the work of the internal audit function.</i>	5	4	3	2	1		
9. Pihak berkuasa tempatan mengambil tindakan hasil daripada cadangan audit dalam. <i>The local authority takes action as a result of internal audit recommendations.</i>	5	4	3	2	1		
10. Fungsi audit dalam mematuhi Pekeliling Perbendaharaan Bil. 9 Tahun 2004. <i>The internal audit function complies with the Treasury Circular No. 9 Year 2004.</i>	5	4	3	2	1		
11. Kualiti dokumentasi audit dalam adalah cemerlang. <i>The quality of internal audit documentation is excellent.</i>	5	4	3	2	1		
12. Skop kerja yang dilaksanakan oleh fungsi audit dalam adalah mencukupi bagi mencapai objektif audit dalam. <i>The scope of the work performed by the internal audit function is sufficient to meet internal audit objectives.</i>	5	4	3	2	1		
13. Fungsi audit dalam menggunakan pendekatan berasaskan risiko terhadap kerja audit dalam. <i>The internal audit function adopts a risk-based approach to internal audit work.</i>	5	4	3	2	1		
14. Staf audit dalam mempunyai pengetahuan yang tinggi dalam aktiviti dan prosedur pihak berkuasa tempatan. <i>The internal audit staff have excellent knowledge of local authority's activities and procedures.</i>	5	4	3	2	1		
15. Fungsi audit dalam mempunyai kedudukan/status yang tinggi dalam pihak berkuasa tempatan. <i>The internal audit function has a very high status in the local authority.</i>	5	4	3	2	1		

**BAHAGIAN B : TAHAP KERJASAMA ANTARA JURUAUDIT DALAM DAN JURUAUDIT LUAR  
(AUDIT NEGARA)**

**SECTION B: LEVEL OF CO-OPERATION BETWEEN INTERNAL AND EXTERNAL AUDITORS (AUDITOR GENERAL)**

Sila tandakan tahap persetujuan anda terhadap setiap pernyataan dengan membulatkan dari 5 - 1, berdasarkan skala berikut:

Please indicate the extent of your agreement with each statement by circling from 5 - 1, based on the following scale:

"5"	=	Sangat bersetuju	<i>Strongly agree</i>
"4"	=	Bersetuju	<i>Agree</i>
"3"	=	Berkecuali	<i>Neither agree nor disagree</i>
"2"	=	Tidak bersetuju	<i>Disagree</i>
"1"	=	Sangat tidak bersetuju	<i>Strongly disagree</i>

	Sangat bersetuju <i>Strongly agree</i>	Berkecuali <i>Neither agree nor disagree</i>	Sangat tidak bersetuju <i>Strongly disagree</i>		
16. Juruaudit dalam dan juruaudit luar kerap bertemu untuk memberi maklumbalas, membincang perkembangan kerja dan menyelesaikan masalah. <i>Internal and external auditors meet on a regular basis to give feedback, discuss progress and resolve problems.</i>	5	4	3	2	1
17. Terdapat koordinasi dalam penyediaan perancangan kerja audit luar bagi mengelakkan pertindihan kerja. <i>There is co-ordination in the preparation of the external audit plan in order to avoid the unnecessary duplication of work.</i>	5	4	3	2	1
18. Juruaudit dalam dan juruaudit luar saling bertukar laporan yang dikeluarkan. <i>There is an interchange of reports issued by both internal and external auditors.</i>	5	4	3	2	1
19. Juruaudit dalam dan juruaudit luar saling memaklumkan tentang penemuan frod dan lain-lain perkara penting. <i>There is notification between internal and external auditors of the discovery of fraud and other serious events.</i>	5	4	3	2	1
20. Juruaudit dalam dan juruaudit luar bekerjasama dalam memberi latihan kepada staf audit dalam. <i>Internal and external auditors co-operate in the training of internal audit staff.</i>	5	4	3	2	1
21. Juruaudit dalam dan juruaudit luar bekerjasama dalam memberi latihan kepada staf audit luar. <i>Internal and external auditors co-operate in the training of external audit staff.</i>	5	4	3	2	1
22. Juruaudit dalam dan juruaudit luar bekerjasama dalam memberi latihan kepada staf-staf lain dalam Majlis ini. <i>Internal and external auditors co-operate in the training of other staff in the local authority.</i>	5	4	3	2	1

	Sangat bersetuju Strongly agree	4	Berkecuali Neither agree nor disagree	3	2	Sangat tidak bersetuju Strongly disagree	1
23. Juruaudit dalam dan juruaudit luar sentiasa meneroka bidang-bidang baru yang berpotensi untuk bekerjasama. <i>Further areas for potential co-operation between internal and external auditors are regularly explored.</i>	5	4	3	2	1		
24. Juruaudit dalam dan juruaudit luar mengkoordinasikan pemasaan kerja mereka dengan berkesan dalam memaksimumkan kerjasama antara mereka dan kesedaran terhadap kerja audit dalam. <i>Internal and external auditors co-ordinate the timing of their work effectively in order to maximise co-operation and reliance.</i>	5	4	3	2	1		
25. Terdapat beberapa masalah yang menghalang kerjasama antara juruaudit dalam dan juruaudit luar. <i>There are few problems acting as a barrier to co-operation between internal and external auditors.</i>	5	4	3	2	1		
26. Juruaudit dalam dan juruaudit luar bekerjasama dalam projek-projek tertentu bagi membolehkan pertukaran kemahiran antara mereka. <i>Internal and external auditors co-operate on specific projects to enable skills' transference between them.</i>	5	4	3	2	1		
27. Juruaudit luar mengkomunikasikan penemuan audit kepada juruaudit dalam. <i>External auditors communicate their findings to internal auditors.</i>	5	4	3	2	1		
28. Juruaudit dalam mengkomunikasikan penemuan audit kepada juruaudit luar. <i>Internal auditors communicate their findings to external auditors.</i>	5	4	3	2	1		
29. Juruaudit luar menggunakan sepenuhnya kepakaran juruaudit dalam. <i>External auditors make full use of the internal auditors' expertise.</i>	5	4	3	2	1		
30. Juruaudit dalam mempunyai hubungan yang sangat baik dengan juruaudit luar. <i>Internal auditors have an excellent relationship with the external auditors.</i>	5	4	3	2	1		

31. Bagaimana dapat anda jelaskan tahap kerjasama antara juruaudit dalam dan juruaudit luar (Audit Negara) dalam auditan penyata kewangan pihak berkuasa tempatan yang lepas?  
*How would you describe the level of co-operation between the internal and external auditors in the last financial statement audit of your local authority?*

- Sangat Tinggi  
Very high
  Tinggi  
High
  Sederhana  
Moderate
  Rendah  
Low
  Tiada  
None

**BAHAGIAN C : TAHAP KESANDARAN JURUAUDIT LUAR TERHADAP KERJA AUDIT DALAM**  
**SECTION C: THE EXTENT OF RELIANCE ON INTERNAL AUDIT WORK BY EXTERNAL AUDITORS**

32. Dalam auditan penyata kewangan yang lepas, adakah juruaudit luar (Audit Negara) bersandar terhadap kerja fungsi audit dalam di pihak berkuasa tempatan?  
*In the last financial statement audit, did the external auditor rely on the work of the internal audit function in your local authority?*

- Ya *Yes* ..... terus ke Soalan 33 *go to Question 33*  
 Tidak *No* ..... terus ke Soalan 38 *go to Question 38*  
 Tidak tahu *Do not know*..... terus ke Soalan 38 *go to Question 38*

33. Jika jawapan anda adalah "YA" untuk soalan 32, sila tandakan tahap kesandaran terhadap kerja audit dalam.  
*If your answer is "YES" to Question 32, please indicate the level of reliance on internal audit work.*

- Sangat tinggi *Very high*     Tinggi *High*     Sederhana *Medium*     Rendah *Low*     Sangat rendah *Very low*

34. Adakah anda berpendapat bahawa yuran audit luar telah dikurangkan hasil daripada kesandaran terhadap kerja audit dalam?  
*Do you think that the external audit fee has been reduced due to the reliance placed on internal audit work?*

- Ya *Yes* ..... terus ke Soalan 35 *go to Question 35*  
 Tidak *No* ..... terus ke Soalan 36 *go to Question 36*  
 Tidak tahu *Do not know*..... terus ke Soalan 36 *go to Question 36*

35. Berapakah peratusan yuran audit luar dikurangkan?  
*By what percentage was the external audit fee reduced?*

- Sehingga *Up to 5.0%*     5.1% hingga *to 10.0%*     10.1% hingga *to 15.0%*  
 Melebihi *More than 15.0%*     Tidak tahu *Do not know*

36. Adakah anda berpendapat bahawa kerja yang dijalankan oleh juruaudit luar telah berkurangan hasil daripada kesandaran terhadap kerja audit dalam?  
*Do you think that the level of external audit work performed by the external auditors has been reduced due to the reliance placed on the work of the internal auditors?*

- Ya *Yes* ..... terus ke Soalan 37 *go to Question 37*  
 Tidak *No* ..... terus ke Soalan 38 *go to Question 38*  
 Tidak tahu *Do not know*..... terus ke Soalan 38 *go to Question 38*

37. Berapakah peratusan tahap kerja audit luar yang telah dikurangkan?  
*By what percentage was the level of external audit work reduced?*

- Sehingga *Up to 5.0%*     5.1% hingga *to 10.0%*     10.1% hingga *to 15.0%*  
 Melebihi *More than 15.0%*     Tidak tahu *Do not know*

**BAHAGIAN D: MAKLUMAT LATARBELAKANG**  
**SECTION D: BACKGROUND INFORMATION**

38. Berapa tahunkah fungsi audit dalam telah diwujudkan dalam pihak berkuasa tempatan ini?  
*How many complete years is it since the formation of the internal audit function in your local authority?*  
\_\_\_\_\_ tahun years
39. Berapa orangkah staf dalam fungsi audit dalam di pihak berkuasa tempatan ini?  
*How many staff work in the internal audit function in your local authority?*  
\_\_\_\_\_ orang staf staff
40. Bilangan tahun anda bekerja di pihak berkuasa tempatan : \_\_\_\_\_ tahun years  
*Number of years you have been working in local authorities :*
41. Bilangan tahun anda bekerja di Majlis ini : \_\_\_\_\_ tahun years  
*Number of years you have been working with your current local authority :*
42. Bilangan tahun anda bekerja sebagai juruaudit dalam : \_\_\_\_\_ tahun years  
*Number of years you have been working as an internal auditor :*
43. Sebelum bekerja sebagai juruaudit dalam, adakah anda mempunyai pengalaman sebagai juruaudit luar? *Prior to working as an internal auditor, did you have any work experience as an external auditor?*
- Ya Yes  Tidak No
44. Tahap pendidikan tertinggi anda :  
*Your highest education level :*
- Ijazah Doktor Falsafah *Doctoral degree*  
 Ijazah Sarjana *Master degree*  
 Ijazah Sarjana muda *Bachelor degree*  
 Diploma *Diploma*  
 STPM atau setaraf *HSE or equivalent*
45. Adakah anda ahli mana-mana badan professional?  
*Are you a member of any professional accounting/auditing body?*
- Ya Yes  Tidak No

Jika "ya", sila tandakan semua yang berkenaan. *If "yes", please tick all that apply.*

- Association of Chartered Certified Accountants (ACCA)  
 Chartered Institute of Management Accountants (CIMA)  
 Malaysian Institute of Accountants (MIA)  
 Malaysian Institute of Certified Public Accountants (MICPA)  
 Institute of Internal Auditors (IIA)  
 Lain-lain (sila nyatakan) *Others (please specify)* \_\_\_\_\_  
\_\_\_\_\_





**Hubungan antara Juruaudit Luar dan Juruaudit  
Dalam di Pihak Berkuasa Tempatan di Malaysia:  
Kajian terhadap Juruaudit Luar**

- Soalselidik ini bertujuan untuk mendapatkan maklumbalas daripada juruaudit luar berkenaan dengan hubungannya dengan juruaudit dalam di Pihak Berkuasa Tempatan (PBT). Soalselidik ini mengandungi empat bahagian dan mengambil masa antara 10 hingga 15 minit untuk dilengkapkan.
- Anda diminta untuk melengkapkan soalselidik ini berdasarkan pengalaman anda sebagai juruaudit luar.
- Anda diminta untuk membaca setiap soalan dengan teliti dan memilih jawapan yang terbaik bagi menggambarkan pendapat anda. Jika anda tidak menemui jawapan yang tepat bagi menggambarkan pendapat anda, sila pilih jawapan yang paling hampir dengannya.
- Segala maklumat yang anda berikan dalam soalselidik ini adalah dianggap sebagai **SULIT** dan hanya digunakan untuk tujuan penyelidikan ini sahaja.
- Jika anda mempunyai sebarang pertanyaan mengenai kajian ini, sila hubungi saya di alamat seperti yang tertera di bawah

Saya amat berbesar hati jika sekiranya anda dapat mengembalikan soalselidik yang telah dilengkapkan dengan menggunakan sampul surat berselem dan beralamat sendiri yang telah disediakan. Kerjasama anda dalam melengkapkan soalselidik ini didahului dengan ucapan terima kasih.

Siti Zabedah Saidin

Kolej Perniagaan  
Bangunan Fakulti Perakaunan  
Universiti Utara Malaysia  
06010 Sintok  
Kedah Darulaman  
Tel: 019-4708632  
E-mail: zabedah@uum.edu.my

**BAHAGIAN A : TAHAP KERJASAMA ANTARA JURUAUDIT LUAR DAN JURUAUDIT  
DALAMAN PIHAK BERKUASA TEMPATAN**

Sila tandakan tahap persetujuan anda terhadap setiap pernyataan di bawah dengan membulatkan dari 5 - 1, berdasarkan skala berikut:

“5” = Sangat bersetuju  
 “4” = Bersetuju  
 “3” = Berkecuali  
 “2” = Tidak bersetuju  
 “1” = Sangat tidak bersetuju

	<i>Sangat bersetuju</i>	<i>Berkecuali</i>	<i>Sangat tidak bersetuju</i>		
1. Juruaudit luar dan juruaudit dalam kerap bertemu untuk memberi maklumbalas, membincang perkembangan kerja dan menyelesaikan masalah.	5	4	3	2	1
2. Terdapat koordinasi dalam penyediaan perancangan kerja audit luar bagi mengelakkan pertindihan kerja.	5	4	3	2	1
3. Juruaudit luar dan juruaudit dalam saling bertukar laporan yang dikeluarkan.	5	4	3	2	1
4. Juruaudit luar dan juruaudit dalam saling memaklumkan tentang penemuan frod dan lain-lain perkara penting.	5	4	3	2	1
5. Juruaudit luar dan juruaudit dalam bekerjasama dalam memberi latihan kepada staf audit dalam.	5	4	3	2	1
6. Juruaudit luar dan juruaudit dalam bekerjasama dalam memberi latihan kepada staf audit luar.	5	4	3	2	1
7. Juruaudit luar dan juruaudit dalam bekerjasama dalam memberi latihan kepada staf-staf lain dalam Pihak Berkuasa Tempatan.	5	4	3	2	1
8. Juruaudit luar dan juruaudit dalam sentiasa meneroka bidang-bidang baru yang berpotensi untuk bekerjasama.	5	4	3	2	1
9. Juruaudit luar dan juruaudit dalam mengkoordinasikan pemasaan (timing) kerja mereka dengan berkesan dalam memaksimumkan kerjasama antara mereka dan kesedaran terhadap kerja audit dalam.	5	4	3	2	1
10. Terdapat beberapa masalah yang menghalang kerjasama antara juruaudit luar dan juruaudit dalam.	5	4	3	2	1

	<i>Sangat bersetuju</i>		<i>Berkecuali</i>		<i>Sangat tidak bersetuju</i>
8. Juruaudit luar dan juruaudit dalam sentiasa meneroka bidang-bidang baru yang berpotensi untuk bekerjasama.	5	4	3	2	1
9. Juruaudit luar dan juruaudit dalam mengkoordinasikan pemasaan (timing) kerja mereka dengan berkesan dalam memaksimumkan kerjasama antara mereka dan kesedaran terhadap kerja audit dalam.	5	4	3	2	1
10. Terdapat beberapa masalah yang menghalang kerjasama antara juruaudit luar dan juruaudit dalam.	5	4	3	2	1
11. Juruaudit luar dan juruaudit dalam bekerjasama dalam projek-projek tertentu bagi membolehkan pertukaran kemahiran antara mereka.	5	4	3	2	1
12. Juruaudit luar mengkomunikasikan penemuan audit kepada juruaudit dalam.	5	4	3	2	1
13. Juruaudit dalam mengkomunikasikan penemuan audit kepada juruaudit luar.	5	4	3	2	1
14. Juruaudit luar menggunakan sepenuhnya kepakaran juruaudit dalam.	5	4	3	2	1
15. Juruaudit luar mempunyai hubungan yang sangat baik dengan juruaudit dalam.	5	4	3	2	1

16. Bagaimana dapat anda jelaskan tahap kerjasama antara juruaudit luar (Audit Negara) dan juruaudit dalaman dalam auditan penyata kewangan pihak berkuasa tempatan yang lepas?

- Sangat Tinggi   
 Tinggi   
 Sederhana   
 Rendah   
 Tiada

**BAHAGIAN B : TAHAP KESANDARAN (RELIANCE) JURUAUDIT LUAR TERHADAP KERJA AUDIT DALAM DI PIHAK BERKUASA TEMPATAN**

17. Dalam auditan penyata kewangan yang lepas, adakah juruaudit luar (Audit Negara) bersandar (rely) terhadap kerja audit dalaman di pihak berkuasa tempatan?
- YA, biasanya kami bersandar terhadap kerja audit dalaman PBT ..... terus ke Soalan 19
- TIDAK, biasanya kami tidak bersandar terhadap kerja audit dalaman PBT ..... terus ke Soalan 18
18. Jika anda menjawab “TIDAK” untuk Soalan 17, adakah anda bersedia untuk bersandar terhadap kerja audit dalaman PBT di masa akan datang?
- Ya ..... terus ke Soalan 24
- Tidak ..... terus ke Soalan 45
19. Jika jawapan anda adalah “YA” untuk soalan 17, sila tandakan tahap kesedaran terhadap kerja audit dalam.
- Sangat tinggi     Tinggi             Sederhana     Rendah     Sangat rendah
20. Adakah anda berpendapat bahawa yuran audit luar telah dikurangkan hasil daripada kesedaran terhadap kerja audit dalam?
- Ya ..... terus ke Soalan 21
- Tidak ..... terus ke Soalan 22
- Tidak tahu ..... terus ke Soalan 22
21. Pada kebiasaannya, berapakah peratusan yuran audit luar dikurangkan?
- Sehingga 5.0%                     5.1% hingga 10.0%             10.1% hingga 15.0%
- Melebihi 15.0%                     Tidak tahu
22. Adakah anda berpendapat bahawa kerja yang dijalankan oleh juruaudit luar telah berkurangan hasil daripada kesedaran terhadap kerja audit dalam?
- Ya ..... terus ke Soalan 23
- Tidak ..... terus ke Soalan 24
- Tidak tahu ..... terus ke Soalan 24
23. Pada kebiasaannya, berapakah peratusan tahap kerja audit luar yang telah dikurangkan?
- Sehingga 5.0%                     5.1% hingga 10.0%             10.1% hingga 15.0%
- Melebihi 15.0%                     Tidak tahu

**BAHAGIAN C: FAKTOR-FAKTOR YANG MEMPENGARUHI TAHAP KESANDARAN (RELIANCE) TERHADAP KERJA JURUAUDIT DALAMAN DI PIHAK BERKUASA TEMPATAN**

Berikut adalah faktor-faktor yang mungkin boleh mempengaruhi tahap kesedaran anda terhadap kerja juruaudit dalaman PBT. Berdasarkan pengalaman anda sebagai juruaudit luar, sila tandakan tahap kepentingan setiap faktor berikut dengan membulatkan dari 5 - 1, berpandukan skala berikut:

"5" = Sangat penting  
 "4" = Penting  
 "3" = Berkecuali  
 "2" = Tidak penting  
 "1" = Sangat tidak penting

	<i>Sangat penting</i>		<i>Berkecuali</i>		<i>Sangat tidak penting</i>
24. Sama ada staf audit dalaman di PBT mempunyai pendidikan di tahap ijazah sarjana muda.	5	4	3	2	1
25. Sama ada staf audit dalaman di PBT mempunyai kelayakan perakaunan atau pengauditan, iaitu					
a) kelayakan perakaunan peringkat profesional (contoh: ACCA, CIMA, MIA, MICPA).	5	4	3	2	1
b) kelayakan daripada "Institute of Internal Auditors" (IIA).	5	4	3	2	1
26. Fungsi audit dalam mempunyai program latihan yang meliputi aktiviti, polisi and prosedur berkaitan pihak berkuasa tempatan.	5	4	3	2	1
27. Tahap pengalaman dalam bidang pengauditan secara umum yang dimiliki oleh juruaudit dalaman PBT.	5	4	3	2	1
28. Tahap pengalaman dalam bidang pengauditan dalaman yang dimiliki oleh juruaudit dalaman PBT.	5	4	3	2	1
29. Tahap pengetahuan juruaudit dalaman tentang aktiviti dan prosedur pihak berkuasa tempatan.	5	4	3	2	1
30. Bilangan staf audit dalam yang menjadi ahli "Institute of Internal Auditors (IIA)".	5	4	3	2	1

	<i>Sangat penting</i>		<i>Berkecuali</i>		<i>Sangat tidak penting</i>
31. Bilangan staf audit dalam PBT yang mempunyai kelayakan perakaunan peringkat professional.	5	4	3	2	1
32. Jangkamasa (jumlah tahun) unit audit dalam telah ditubuhkan di PBT.	5	4	3	2	1
33. Jumlah staf di bahagian audit dalam di PBT.	5	4	3	2	1
34. Kedudukan/status unit audit dalam di PBT.	5	4	3	2	1
35. Tahap pengurusan di mana ketua unit audit dalam melapor.	5	4	3	2	1
36. Kebebasan fungsi audit dalam untuk menyiasat perkara-perkara yang dianggap penting.	5	4	3	2	1
37. Tahap sokongan terhadap kerja audit dalam oleh pegawai-pegawai kanan di PBT.	5	4	3	2	1
38. Tahap sokongan terhadap kerja audit dalam oleh Ahli-ahli Majlis di PBT.	5	4	3	2	1
39. Sama ada Pihak Berkuasa Tempatan mengambil tindakan hasil daripada cadangan audit dalam.	5	4	3	2	1
40. Tahap pematuhan audit dalaman terhadap Pekeliling Perbendaharaan Bil. 9 Tahun 2004.	5	4	3	2	1
41. Kualiti dokumentasi audit dalam.	5	4	3	2	1
42. Skop kerja yang dilaksanakan oleh fungsi audit dalam.	5	4	3	2	1
43. Sejauhmana juruaudit dalaman menggunakan pendekatan berasaskan risiko terhadap kerja audit dalam di PBT.	5	4	3	2	1

## BAHAGIAN D: MAKLUMAT LATARBELAKANG

45. Bilangan tahun anda terlibat sebagai juruaudit luar bagi Pihak Berkuasa Tempatan: \_\_\_\_\_ tahun

46. Bilangan tahun anda telah berkhidmat sebagai juruaudit luar: \_\_\_\_\_ tahun

47. Adakah anda mempunyai pengalaman sebagai juruaudit dalaman?

Ya

Tidak

48. Tahap pendidikan tertinggi anda :

- Ijazah Doktor Falsafah
- Ijazah Sarjana
- Ijazah Sarjana muda
- Diploma
- STPM atau setaraf

49. Adakah anda ahli mana-mana badan professional?

Ya

Tidak

Jika "ya", sila tandakan semua yang berkenaan.

- Association of Chartered Certified Accountants (ACCA)
- Chartered Institute of Management Accountants (CIMA)
- Malaysian Institute of Accountants (MIA)
- Malaysian Institute of Certified Public Accountants (MICPA)
- Institute of Internal Auditors (IIA)
- Lain-lain (sila nyatakan) \_\_\_\_\_



## Appendix 5

### List of Local Authorities in England (Source: [www/direct.gov.uk/](http://www.direct.gov.uk/))

	Local Authority		Local Authority
1	Bedford Borough Council	48	South Norfolk Council
2	Bedfordshire County Council	49	Babergh District Council
3	Luton Borough Council	50	Forest Heath District Council
4	Mid Bedfordshire District Council	51	Ipswich Borough Council
5	South Bedfordshire District Council	52	Mid Suffolk District Council
6	Cambridge City Council	53	St Edmundsbury Borough Council
7	Cambridgeshire County Council	54	Suffolk Coastal District Council
8	East Cambridgeshire District Council	55	Suffolk County Council
9	Fenland District Council	56	Waveney District Council
10	Huntingdonshire District Council	57	Chester-le-Street District Council
11	Peterborough City Council	58	Derwentside District Council
12	South Cambridgeshire District Council	59	Durham City Council
13	Basildon District Council	60	Durham County Council
14	Braintree District Council	61	Easington District Council
15	Brentwood Borough Council	62	Sedgefield Borough Council
16	Castle Point Borough Council	63	Teesdale District Council
17	Chelmsford Borough Council	64	Wear Valley District Council
18	Colchester Borough Council	65	Alnwick District Council
19	Epping Forest District Council	66	Berwick-upon-Tweed Borough Council
20	Essex County Council	67	Blyth Valley Borough Council
21	Harlow District Council	68	Castle Morpeth Borough Council
22	Maldon District Council	69	Northumberland County Council
23	Rochford District Council	70	Tynedale Council
24	Southend on Sea Borough Council	71	Wansbeck District Council
25	Tendring District Council	72	Darlington Borough Council
26	Thurrock Council	73	Hartlepool Borough Council
27	Uttlesford District Council	74	Middlesbrough Council
28	Broxbourne Borough Council	75	Redcar and Cleveland Borough Council
29	Dacorum Borough Council	76	Stockton-on-Tees Borough Council
30	East Hertfordshire District Council	77	Gateshead Metropolitan Borough Council
31	Hertfordshire County Council	78	Newcastle upon Tyne City Council
32	Hertsmere Borough Council	79	North Tyneside Metropolitan Borough Council
33	North Hertfordshire District Council	80	South Tyneside Metropolitan Borough Council
34	St Albans District Council	81	Sunderland City Council
35	Stevenage Borough Council	82	Bracknell Forest Borough Council
36	Three Rivers District Council	83	Reading Borough Council
37	Watford Borough Council	84	Slough Borough Council
38	Welwyn Hatfield District Council	85	Weat Berkshire Council
39	Breckland District Council	86	Windsor and Maidenhead Royal Borough Council
40	Broadland District Council	87	Wokingham District Council
41	Great Yarmouth Borough Council	88	Aylesbury Vale District Council
42	King's Lynn and West Norfolk Borough Council	89	Buckinghamshire County Council
43	Norfolk County Council	90	Chiltern District Council
44	North Norfolk District Council	91	Milton Keynes Council
45	Norwich City Council	92	South Bucks District Council
46	Wycombe District Council	93	Mole Valley District Council
47	Brighton & Hove City Council	94	Reigate and Banstead Borough Council

	Local Authority		Local Authority
95	East Sussex County Council	145	Runnymede Borough Council
96	Eastbourne Borough Council	146	Spelthorne Borough Council
97	Hastings Borough Council	147	Surrey County Council
98	Lewes District Council	148	Surrey Heath Borough Council
99	Rother District Council	149	Tandridge District Council
100	Wealden District Council	150	Waverley Borough Council
101	Basingstoke and Deane Borough Council	151	Woking Borough Council
102	East Hampshire District Council	152	Adur District Council
103	Eastleigh Borough Council	153	Arun District Council
104	Fareham Borough Council	154	Chichester District Council
105	Gosport Borough Council	155	Crawley Borough Council
106	Hampshire County Council	156	Horsham District Council
107	Hart District Council	157	Mid Sussex District Council
108	Havant Borough Council	158	West Sussex County Council
109	New Forest District Council	159	Worthing Borough Council
110	Portsmouth City Council	160	Herefordshire County Council
111	Rushmoor Borough Council	161	Bridgnorth District Council
112	Southampton City Council	162	North Shropshire District Council
113	Test Valley Borough Council	163	Oswestry Borough Council
114	Winchester City Council	164	Shewsbury and Atcham Borough Council
115	Isle of Wight Council	165	Shropshire County Council
116	Ashford Borough Council	166	South Shropshire District Council
117	Canterbury City Council	167	Telford and Wrekin Borough Council
118	Dartford Borough Council	168	Cannock Chase District Council
119	Dover District Council	169	East Staffordshire Borough Council
120	Gravesham Borough Council	170	Lichfield District Council
121	Kent County Council	171	Newcastle under Lyme Borough Council
122	Maidstone Borough Council	172	South Staffordshire Council
123	Medway Council	173	Stafford Borough Council
124	Sevenoaks District Council	174	Staffordshire County Council
125	Shepway District Council	175	Staffordshire Moorlands District Council
126	Swale Borough Council	176	Stoke on Trent City Council
127	Thanet District Council	177	Tamworth Borough Council
128	Tonbridge and Malling Borough Council	178	North Warwickshire Borough Council
129	Tunbridge and Wells Borough Council	179	Nineaton and Bedworth Borough Council
130	Cherwell District Council	180	Rugby Borough Council
131	Oxford City Council	181	Stratford on Avon District Council
132	Oxfordshire County Council	182	Warwick District Council
133	South Oxfordshire District Council	183	Warwickshire County Council
134	Vale of White Horse District Council	184	Birmingham City Council
135	West Oxfordshire District Council	185	Coventry City Council
136	Elmbridge Borough Council	186	Dudley Metropolitan Borough Council
137	Epsom and Ewell Borough Council	187	Sandwell Metropolitan Borough Council
138	Guildford Borough Council	188	Solihull Metropolitan Borough Council
139	Walsall Metropolitan Borough Council	189	Broxtowe Borough Council
140	Wolverhampton City Council	190	Gedling Borough Council
141	Bromsgrove District Council	191	Mansfield District Council
142	Malvern Hills District Council	192	Newark and Sherwood District Council
143	Redditch Borough Council	193	Nottingham City Council
144	Worcester City Council	194	Nottinghamshire County Council

	Local Authority		Local Authority
195	Worcestershire County Council	244	Rushcliffe Borough Council
196	Wychavon District Council	245	Rutland County Council
197	Wyre Forest District Council	246	Greater London Authority
198	Amber Valley Borough Council	247	Barking and Dagenham London Borough Council
199	Bolsover District Council	248	Barnet London Borough Council
200	Chesterfield Borough Council	249	Bexley London Borough Council
201	Derby City Council	250	Brent London Borough Council
202	Derbyshire County Council	251	Bromley London Borough Council
203	Derbyshire Dales District Council	252	Camden London Borough Council
204	Erewash Borough Council	253	Croydon London Borough Council
205	High Peak Borough Council	254	Ealing London Borough Council
206	North East Derbyshire District Council	255	Enfield London Borough Council
207	South Derbyshire District Council	256	Greenwich London Borough Council
208	Blaby District Council	257	Hackney London Borough Council
209	Charnwood Borough Council	258	Hammersmith and Fulham London Borough Council
210	Harborough District Council	259	Haringey London Borough Council
211	Hinckley and Bosworth Borough Council	260	Harrow London Borough Council
212	Leicester City Council	261	Havering London Borough Council
213	Leicestershire County Council	262	Hillingdon London Borough Council
214	Melton Borough Council	263	Hounslow London Borough Council
215	North West Leicestershire District Council	264	Islington London Borough Council
216	Oadby and Wigston Borough Council	265	Kensington and Chelsea Royal Borough Council
217	Boston Borough Council	266	Lambeth London Borough Council
218	East Lindsey District Council	267	Lewisham London Borough Council
219	Lincoln City Council	268	Merton London Borough Council
220	Lincolnshire County Council	269	Newham London Borough Council
221	North Kesteven District Council	270	Redbridge London Borough Council
222	South Holland District Council	271	Richmond upon Thames London Borough Council
223	South Kesteven District Council	272	Royal Borough of Kingston upon Thames
224	West Lindsey District Council	273	Southwark London Borough Council
225	Corby Borough Council	274	Sutton London Borough Council
226	Daventry District Council	275	Tower Hamlets London Borough Council
227	East Northamptonshire District Council	276	Waltham Forest London Borough
228	Kettering Borough Council	277	Wandsworth Borough Council
229	Northampton Borough Council	278	Westminster City Council
230	Northamptonshire County Council	279	Cheshire County Council
231	South Northamptonshire Council	280	Chester City Council
232	Wellingborough Borough Council	281	Congleton Borough Council
233	Ashfield District Council	282	Crewe and Nantwich Borough Council
234	Bassetlaw District Council	283	Ellesmere Port and Neston Borough Council
235	Halton Borough Council	284	North Cornwall District Council
236	Macclesfield Borough Council	285	Penwith District Council
237	Vale Royal Borough Council	286	Restormel Borough Council
238	Warrington Borough Council	287	Devon County Council
239	Allerdale Borough Council	288	East Devon District Council
240	Copeland Borough Council	289	Exeter City Council
241	Barrow in Furness Borough Council	290	Mid Devon District Council
242	Carlisle City Council	291	North Devon District Council
243	Cumbria County Council	292	Plymouth City Council

	Local Authority		Local Authority
293	Eden District Council	341	South Hams District Council
294	South Lakeland District Council	342	Teignbridge District Council
295	Bolton Metropolitan Borough Council	343	Torbay Council
296	Bury Metropolitan Borough Council	344	Torrige District Council
297	Manchester City Council	345	West Devon Borough Council
298	Oldham Metropolitan Borough Council	346	Borough of Poole
299	Rochdale Metropolitan Borough Council	347	Bournemouth Borough Council
300	Salford City Council	348	Christchurch Borough Council
301	Stockport Metropolitan Borough Council	349	Dorset County Council
302	Tameside Metropolitan Borough Council	350	East Dorset District Council
303	Trafford Metropolitan Borough	351	North Dorset District Council
304	Wigan Metropolitan Borough Council	352	Purbeck District Council
305	Blackburn with Darwen Borough Council	353	West Dorset District Council
306	Blackpool Borough Council	354	Weymouth and Portland Borough Council
307	Burnley Borough Council	355	Cheltenham Borough Council
308	Chorley Borough Council	356	Cotswold District Council
309	Fylde Borough Council	357	Forest of Dean District Council
310	Hyndburn Borough Council	358	Gloucester City Council
311	Lancashire County Council	359	Gloucestershire County Council
312	Lancaster City Council	360	South Gloucestershire Council
313	Pendle Borough Council	361	Stroud District Council
314	Preston City Council	362	Tewkesbury Borough Council
315	Ribble Valley Borough Council	363	Isle of Scilly Council
316	Rossendale Borough Council	364	Bath and North East Somerset Council
317	South Ribble Borough Council	365	Mendip District Council
318	West Lancashire District Council	366	North Somerset District Council
319	Wyre Borough Council	367	Sedgemoor District Council
320	Knowsley Metropolitan Borough Council	368	Somerset County Council
321	Liverpool City Council	369	South Somerset District Council
322	Sefton Council	370	Taunton Deane District Council
323	St Helens Metropolitan Borough Council	371	West Somerset District Council
324	Wirral Metropolitan Borough Council	372	Kennet District Council
325	Bristol City Council	373	North Wiltshire District Council
326	Caradon District Council	374	Salisbury District Council
327	Carrick District Council	375	Swindon Borough Council
328	Cornwall County Council	376	West Wiltshire District Council
329	Kerrier District Council	377	Wiltshire County Council
330	East Riding of Yorkshire Council	378	Selby District Council
331	Kingston upon Hull City Council	379	York City Council
332	North East Lincolnshire Council	380	Barnsley Metropolitan Borough Council
333	North Lincolnshire Council	381	Doncaster Metropolitan Borough Council
334	Craven District Council	382	Rotherham Metropolitan Borough Council
335	Hambleton District Council	383	Sheffield City Council
336	Harrogate Borough Council	384	Calderdale Metropolitan Borough Council
337	North Yorkshire County Council	385	City of Bradford Metropolitan District Council
338	Richmondshire District Council	386	City of Wakefield Metropolitan District Council
339	Ryedale District Council	387	Kirklees Council
340	Scarborough Borough Council	388	Leeds City Council

## Appendix 6

### List of External Auditors in England (Source: [www.audit-commission.gov.uk/](http://www.audit-commission.gov.uk/))

	<b>COMPANY</b>	<b>NUMBER OF EXTERNAL AUDITORS</b>
1	Audit Commission	69
2	Baker Tilly	4
3	Deloitte	12
4	KPMG LLP	15
5	Mazars	5
6	PKF (UK) LLP	5
7	PricewaterhouseCoopers	24
8	Grant Thornton UK LLP	9
	Total	143

**List of External Auditors of Malaysian Local Authorities**

1. Director of National Audit Department  
State of Perlis
2. Director of National Audit Department  
State of Kedah
3. Director of National Audit Department  
State of Pulau Pinang
4. Director of National Audit Department  
State of Perak
5. Director of National Audit Department  
State of Selangor
6. Director of National Audit Department  
State of Melaka
7. Director of National Audit Department  
State of Negeri Sembilan
8. Director of National Audit Department  
State of Johor
9. Director of National Audit Department  
State of Pahang
10. Director of National Audit Department  
State of Kelantan
11. Director of National Audit Department  
State of Terengganu
12. Director of National Audit Department  
State of Sabah
13. Director of National Audit Department  
State of Sarawak

The Head of Internal Auditor Covering Letter - England

Date:

Address:

Dear Sir/Madam

**RESEARCH ON THE RELATIONSHIP BETWEEN INTERNAL AND EXTERNAL AUDITORS**

I am on a Malaysian government scholarship pursuing a PhD in accounting at the Management School, University of Sheffield, Sheffield.

My research focuses on the relationship between the internal and external auditors of local authorities in England. This involves the perceptions of the internal and external auditors on the level of co-operation between them. More specifically, this study aims to identify factors affecting the extent of reliance on internal auditors' work by the external auditors.

I appreciate that your time is valuable. Your assistance to the successful completion of the questionnaire is both invaluable and fundamental. All information provided will be treated as private and confidential. It will be solely used for the purpose of my doctoral thesis. I shall not disclose the names of individuals or organisations who have provided me with any particular information. All data will be analyzed in a collective manner.

I would be most grateful if you would complete the enclosed questionnaire and forward it to me in the attached self-addressed envelope.

Thank you in advance for your time and co-operation.

Yours faithfully,

Siti Zabedah Saidin  
Research Student  
Management School  
The University of Sheffield  
9 Mappin Street  
Sheffield S1 4DT

Supervisor:  
Professor Ron Hodges  
Professor of Public Sector Accounting  
Management School  
The University of Sheffield  
9 Mappin Street  
Sheffield S1 4DT

External Auditor Covering Letter - England

Date:

Address:

Dear Sir/Madam

**RESEARCH ON THE RELATIONSHIP BETWEEN EXTERNAL AND INTERNAL AUDITORS**

I am on a Malaysian government scholarship pursuing a PhD in accounting at the Management School, University of Sheffield, Sheffield.

My research focuses on the relationship between the external and internal auditors of local authorities in England. This involves the perceptions of the external and internal auditors on the level of co-operation between them. More specifically, this study aims to identify factors affecting the extent of reliance on internal auditors' work by the external auditors.

I appreciate that your time is valuable. Your assistance to the successful completion of the questionnaire is both invaluable and fundamental. All information provided will be treated as private and confidential. It will be solely used for the purpose of my doctoral thesis. I shall not disclose the names of individuals or organisations who have provided me with any particular information. All data will be analyzed in a collective manner.

I would be most grateful if you would complete the enclosed questionnaire and forward it to me in the attached self-addressed envelope.

Thank you in advance for your time and co-operation.

Yours faithfully,

Siti Zabedah Saidin  
Research Student  
Management School  
The University of Sheffield  
9 Mappin Street  
Sheffield S1 4DT

Supervisor:  
Professor Ron Hodges  
Professor of Public Sector Accounting  
Management School  
The University of Sheffield  
9 Mappin Street  
Sheffield S1 4DT

**The Head of Internal Auditor Covering Letter - Malaysia**

Tarikh:

Yang DiPertua  
Pihakberkuasa Tempatan

Tuan

**KAJIAN BERKENAAN HUBUNGAN ANTARA JURUAUDIT DALAMAN DAN JURUAUDIT LUAR DI PIHAK BERKUASA TEMPATAN (PBT) DI MALAYSIA**

Dengan segala hormatnya perkara di atas adalah dirujuk.

Saya adalah merupakan pensyarah perakaunan di Kolej Perniagaan, Universiti Utara Malaysia (UUM) dan sedang melanjutkan pengajian di peringkat PhD di University of Sheffield, United Kingdom (UK).

Fokus kajian saya adalah untuk melihat hubungan antara Juruaudit Dalaman dan Juruaudit Luar di PBT di Malaysia. Kajian ini melibatkan persepsi Juruaudit Dalaman terhadap tahap kerjasama dengan Juruaudit Luar dan faktor-faktor yang mempengaruhi kesedaran (*reliance*) Juruaudit Luar terhadap kerja Juruaudit Dalaman di PBT.

Untuk tujuan ini saya memerlukan pendapat Juruaudit Dalaman di Majlis tuan dengan melengkapkan soal selidik yang berkenaan dan mengembalikan kepada saya dengan menggunakan sampul surat beralamat sendiri dan berstem yang disertakan. Saya memohon jasa baik tuan untuk memanjangkan soal selidik ini kepada Ketua Audit Dalam/Juruaudit Dalaman di Majlis tuan.

Bersama-sama ini disertakan soalselidik berkenaan, sampul jawapan beralamat sendiri dan berstem serta surat daripada penyelia saya.

Kerjasama dan perhatian daripada pihak tuan saya dahului dengan ucapan terima kasih.

Yang benar

Siti Zabedah Saidin  
Pensyarah Perakaunan  
Kolej Perniagaan  
Universiti Utara Malaysia  
06010 Sintok  
Kedah Darulaman  
Tel: 019-4708632  
E-mail: [zabedah@uum.edu.my](mailto:zabedah@uum.edu.my)

Penyelia:  
Professor Ron Hodges  
Management School  
The University of Sheffield  
9 Mappin Street  
Sheffield S1 4DT  
United Kingdom

External Auditor Covering Letter - Malaysia

Tarikh:

Pengarah Audit Negeri

Tuan

**KAJIAN BERKENAAN HUBUNGAN ANTARA JURUAUDIT LUAR (AUDIT NEGARA)  
DAN JURUAUDIT DALAMAN DI PIHAK BERKUASA TEMPATAN (PBT) DI  
MALAYSIA**

Dengan segala hormatnya perkara di atas adalah dirujuk.

Saya adalah merupakan pensyarah perakaunan di Kolej Perniagaan, Universiti Utara Malaysia dan sedang melanjutkan pengajian di peringkat PhD di University of Sheffield, United Kingdom.

Fokus kajian saya adalah untuk melihat hubungan antara Juruaudit Luar dan Juruaudit Dalaman di PBT di Malaysia. Kajian ini melibatkan persepsi Juruaudit Luar terhadap tahap kerjasama dengan Juruaudit Dalaman PBT dan faktor-faktor yang mempengaruhi kesandaran (*reliance*) Juruaudit Luar terhadap kerja Juruaudit Dalaman di PBT.

Pendapat Juruaudit Luar ini adalah penting bagi kajian saya dan seterusnya menyiapkan tesis PhD ini. Oleh yang demikian, saya memohon jasa baik tuan untuk melengkapkan soalselidik ini dan mengembalikan kepada saya menggunakan sampul surat beralamat sendiri dan bersetem yang disertakan.

Bersama-sama ini disertakan soalselidik berkenaan, sampul jawapan beralamat sendiri dan bersetem serta surat daripada penyelia saya.

Segala kerjasama dan perhatian daripada pihak tuan amatlah saya hargai. Kesudian tuan untuk membantu dalam kajian ini didahului dengan ucapan terima kasih.

Sekian.

**“ILMU BUDI BAKTI”**

Yang benar

(Siti Zabedah Saidin)  
Pensyarah Perakaunan  
Kolej Perniagaan  
Universiti Utara Malaysia  
06010 Sintok  
Kedah Darulaman  
Tel: 019-4708632  
E-mail: [zabedah@uum.edu.my](mailto:zabedah@uum.edu.my)

Penyelia:  
Professor Ron Hodges  
Management School  
The University of Sheffield  
9 Mappin Street  
Sheffield S1 4DT  
United Kingdom

Appendix 12

**The Spearman's Rho Correlation Matrix for Internal Auditors in England (n=170)**

	Variables	1	2	3	4	5	6	7	8	9	10
1	COOP	1									
2	MEETING	.538**	1								
3	EAPLAN	.521**	.545**	1							
4	INTER	.516**	.537**	.511**	1						
5	NOTIFY	.460**	.472**	.385**	.398**	1					
6	TIMING	.642**	.448**	.650**	.453**	.389**	1				
7	EACOMM	.517**	.506**	.429**	.522**	.393**	.461**	1			
8	IACOMM	.287**	.209**	.209**	.180*	.372**	.196*	.222**	1		
9	USEEXPERT	.510**	.303**	.352**	.306**	.403**	.445**	.410**	.366**	1	
10	TRAIN1	.366**	.368**	.327**	.326**	.304**	.341**	.355**	.215**	.377**	1

\*\*\*Correlation is significant at the 0.001 level (2-tailed test)

\*\* Correlation is significant at the 0.01 level (2-tailed test)

\* Correlation is significant at the 0.05 level (2-tailed test)

Appendix 13

The Spearman's Rho Correlation Matrix for External Auditors in England (n=64)

	Variables	1	2	3	4	5	6	7	8	9	10
1	COOP	1									
2	MEETING	.484**	1								
3	EAPLAN	.348**	.531**	1							
4	INTER	.217	.525**	.471**	1						
5	NOTIFY	.272*	.253**	.262*	.377**	1					
6	TIMING	.379**	.295*	.363**	.076	.153	1				
7	EACOMM	.365**	.543**	.523**	.525**	.349**	.413**	1			
8	IACOMM	.415**	.486**	.431**	.295*	.343**	.375**	.487**	1		
9	USEEXPERT	.427**	.408**	.327**	.317*	-.003	.352**	.226	.269*	1	
10	TRAIN1	.161	.214	.211	.174	.114	.189	.298*	-.008	.055	1

\*\*\*Correlation is significant at the 0.001 level (2-tailed test)

\*\* Correlation is significant at the 0.01 level (2-tailed test)

\* Correlation is significant at the 0.05 level (2-tailed test)